

DISTRICT HEALTH BAROMETER

D

H

B



2015/16



HEALTH SYSTEMS TRUST

District Health Barometer

2015/16

Naomi Massyn, Nazia Peer, René English, Ashnie Padarath, Peter Barron, Candy Day
Health Systems Trust

Published by



**HEALTH
SYSTEMS
TRUST**

34 Essex Terrace
Westville
3630
South Africa

Tel: +27 (0)31 266 9090
Fax: +27 (0)31 266 9199
Email: hst@hst.org.za
Web: <http://www.hst.org.za>

ISBN Number: 978-1-919839-86-8

October 2016

The District Health Barometer 2015/16 was funded by the
National Department of Health.

Suggested citation:

Massyn N, Peer N, English R, Padarath A, Barron P, Day C, editors. District Health Barometer 2015/16.
Durban: Health Systems Trust; 2016.

District Health Barometer 2015/16 Project Team

Project Manager: Naomi Massyn
Editors: Naomi Massyn, Nazia Peer, René English,
Ashnie Padarath, Peter Barron, Candy Day
Technical production, data editing: Candy Day
Maps: Noluthando Ndlovu
Layout and design: Lynda Campbell
Language editing, proofreading: Julia Casciola

Acknowledgements

The *District Health Barometer* (DHB) is a collective effort. This report could not have been prepared without the generous contribution of numerous individuals and groups who have been instrumental in the realisation of this publication.

The National Department of Health (NDoH) is acknowledged for the use of data obtained from the District Health Information Software and the electronic TB registers (ETR.Net and EDRWeb).

The health expenditure data were obtained from the National Treasury, and the PCR data were obtained from the National Health Laboratory Service.

Our thanks go also to the members of the DHB advisory group for their input and advice. The members for the 2015/16 edition include:

Jimmy Ledwaba (Limpopo Department of Health)
Lesley Shand (Western Cape Department of Health)
Darlene de Vos (Sarah Baartman District, Eastern Cape Province)
Nozipo Sondiyazi (Mangaung Metro, Free State Province)
Eshetu Worku (Northern Cape Department of Health)
Nazia Peer (Health Systems Trust)
Candy Day (Health Systems Trust)
Stiaan Byleveld (Health Systems Trust)
Annibale Cois (Health Systems Trust)
Naomi Massyn (Health Systems Trust)
National Department of Health Programme Managers

The information contained in this publication may be freely distributed and reproduced as long as the source is acknowledged and the information is used for non-commercial purposes.

Authors and affiliations

Author	Organisation
Ahmad Haeri Mazanderani	National Institute for Communicable Diseases
Annibale Cois	School of Public Health and Family Medicine, University of Cape Town and Health Systems Trust
Aparna Kollipara	National Treasury
Candy Day	Heath Systems Trust
Debbie Bradshaw	South African Medical Research Council
Dudzile F. Nsibande	South African Medical Research Council
Gayle Sherman	National Institute for Communicable Diseases
James Michael Burnett	Heath Systems Trust
Joan Dippenaar	Heath Systems Trust
Jonatan Davén	National Treasury
Lesley Bamford	National Department of Health
Lieve Vanleeuw	South African Medical Research Council
Linda Mureithi	Heath Systems Trust
Marian Loveday	South African Medical Research Council
Mark Blecher	National Treasury
Muchiri Wandai	Heath Systems Trust
Nandipha Jacobs	Heath Systems Trust
Naomi Massyn	Heath Systems Trust
Nazia Peer	Heath Systems Trust
Nobubelo K. Ngandu	South African Medical Research Council
Noluthando Ndlovu	Heath Systems Trust
Pamela Groenewald	South African Medical Research Council
Ronel Steinhobel	National Department of Health
Samukelisiwe Mahlawe	Heath Systems Trust
Tamlyn Seunanden	Heath Systems Trust
Trisha Ramraj	South African Medical Research Council
Vuyolwethu Magasana	South African Medical Research Council
Witness Chirinda	South African Medical Research Council
Yages Singh	South African Medical Research Council
Yasteel Maharaj	National Treasury

Table of Contents

Abbreviations	i
Foreword	ii
Introduction and Overview	iii
Section A: Indicator Comparisons per programme	1
1 Finance	1
1.1 Provincial and local government district health services expenditure per capita (uninsured population)	3
1.2 Provincial and local government primary health care expenditure per capita (uninsured population)	8
1.3 Provincial and local government expenditure per primary health care headcount	13
2 Management PHC	25
2.1 Percentage Ideal Clinics	28
2.2 Percentage of assessed PHC facilities with patients that have access to a medical practitioner	31
3 Management inpatients	34
3.1 Inpatient bed utilisation rate (district hospitals)	34
3.2 Average length of stay (district hospitals)	38
3.3 Expenditure per patient day equivalent (district hospitals)	43
3.4 OPD new client not referred rate	48
3.5 Inpatient crude death rate	52
4 Delivery	56
4.1 Delivery in facility under 18 years rate	56
4.2 Delivery by Caesarean section rate (district hospitals)	61
4.3 Institutional maternal mortality ratio	68
4.4 Stillbirth in facility rate	73
4.5 Inpatient early neonatal death rate	78
4.6 Mother postnatal visit within 6 days rate	84
5 PMTCT indicators	90
5.1 Antenatal 1st visit before 20 weeks rate	90
5.2 Antenatal client initiated on ART rate	97
5.3 HIV PCR birth testing coverage	104
5.4 HIV intrauterine transmission rate	106
6 Child health	111
6.1 Vitamin A coverage 12–59 months	111
6.2 Child under 5 years diarrhoea case fatality rate	119
6.3 Child under 5 years pneumonia case fatality rate	124
6.4 Child under 5 years severe acute malnutrition case fatality rate	132
6.5 Inpatient death under 5 years rate	139
6.6 School Grade 1 screening coverage	145

7	Immunisation	154
7.1	Immunisation coverage under 1 year	154
7.2	Measles 2nd dose coverage	161
8	Reproductive health	166
8.1	Couple year protection rate	166
8.2	Cervical screening coverage	174
9	Tuberculosis	180
9.1	Incidence of TB (all types)	181
9.2	TB successful treatment rate (all TB)	189
9.3	TB death rate (all TB)	194
9.4	TB cure rate (new pulmonary smear-positive)	197
9.5	TB loss to follow up rate (new pulmonary smear-positive)	201
9.6	TB rifampicin resistance confirmed client rate	203
9.7	MDR-TB treatment success rate	206
10	HIV	209
10.1	Male condom distribution coverage	209
10.2	HIV testing coverage (including antenatal care)	215
10.3	Percentage of TB cases with known HIV status	220
10.4	TB/HIV co-infected client on ART	225
11	Non-communicable diseases	231
11.1	Prevalence of hypertension in the general population	232
11.2	Hypertension incidence	238
11.3	Diabetes incidence	243
12	Burden of disease	249
Section B: National, Provincial and District Profiles		275
13	South Africa	277
14	Eastern Cape Province	293
15	Free State Province	341
16	Gauteng Province	371
17	KwaZulu-Natal Province	401
18	Limpopo Province	467
19	Mpumalanga Province	497
20	Northern Cape Province	515
21	North West Province	545
22	Western Cape Province	569
Definitions and sources		605

List of Abbreviations and Acronyms

AIDS	Acquired immune deficiency syndrome	IMCI	Integrated Management of Childhood Illness
ALOS	Average length of stay	iMMR	Institutional maternal mortality ratio
ANC	Antenatal care	ISHP	Integrated School Health Programme
APP	Annual performance plan	IUCD	Intra-uterine copper device
ART	Antiretroviral therapy	KZN	KwaZulu-Natal
BAS	Basic accounting system	LG	Local government
BCG	Bacille Calmette-Guérin (vaccine)	LMSS	Local Mortality Surveillance System
BUR	Bed utilisation rate	LP	Limpopo Province
CCMDD	Central chronic medicine dispensing and distribution	MDG	Millennium Development Goal
CD	Compact disk	MDR-TB	Multidrug-resistant tuberculosis
CD4	Cluster of differentiation 4	MMR	Maternal mortality ratio
CDC	Community day centre	MNCWH	Maternal, newborn, child and women's health
CFR	Case fatality rate	MP	Mpumalanga Province
CHC	Community health centre	MUAC	Mid-upper arm circumference
Child PIP	Child Healthcare Problem Identification Programme	MTCT	Mother-to-child transmission
CMS	Council for Medical Schemes	NBD	National burden of disease
Comm/Mat/Peri/Nutr	Communicable diseases together with perinatal, maternal and nutritional conditions	NC	Northern Cape
CommServe	Community Service	NCCEMD	National Committee for Confidential Enquiries into Maternal Deaths
COPD	Chronic obstructive pulmonary disease	NCDs	Non-communicable diseases
CPIX	Consumer price index (excluding interest rates on mortgage bonds)	NDoH	National Department of Health
C-section	Caesarean section	NHI	National Health Insurance
CYPR	Couple year protection rate	NHLS	National Health Laboratory Service
DBE	Department of Basic Education	NIDS	National Indicator Data Set
DHB	District Health Barometer	NIDS	National Income Dynamics Study
DHIS	District Health Information Software	NW	North West
DHS	District health services	OPD	Outpatient department
DI	Deprivation index	OPV	Oral polio vaccine
DoH	Department of Health	PASOP	Prevent, Avoid, Stop, Overcome and Protect
DR-TB	Drug-resistant TB	PCR	Polymerase chain reaction
DTaP-IPV-Hib	Diphtheria, tetanus, acellular pertussis, inactivated polio vaccine and Haemophilus influenzae type B combined vaccine	PCV	Pneumococcal conjugated vaccine
DTaP-IPV-Hib-HBV	Diphtheria, tetanus, acellular pertussis + Inactivated polio vaccine + Haemophilus influenzae type B + Hepatitis B combined vaccine	PDE	Patient day equivalent
DTP3	Diphtheria-tetanus-pertussis 3rd dose	PHC	Primary health care
EC	Eastern Cape	PIPP	Perinatal Problem Identification Programme
EDRWeb	Electronic Drug-resistant Tuberculosis Register	PMTCT	Prevention of mother-to-child transmission
EID	Early infant diagnosis	PPTICRM	Perfect Permanent Teams for Ideal Clinic Realisation and Maintenance
EMTCT	Elimination of mother-to-child transmission	RtHB	Road to Health Book
ENDR	Early neonatal death rate	RV	Rotavirus
EPI	Expanded Programme on Immunisation	SA	South Africa
ETR.Net	Electronic Tuberculosis Register	SADHS	South Africa Demographic and Health Survey
FP	Family planning	SAIMD	South African Index of Multiple Deprivation
FS	Free State	SAM	Severe acute malnutrition
FY	Financial year	SANHANES	South African National Health and Nutrition Examination Survey
GAPPD	Global Action Plan for Diarrhoea and Pneumonia	SBR	Stillbirth rate
GAVI	Global Vaccine Alliance	SDG	Sustainable Development Goal
GHS	General Household Survey	SEQ	Socio-economic quintile
GP	Gauteng Province	StatsSA	Statistics South Africa
HCT	HIV counselling and testing	TB	Tuberculosis
HepB	Hepatitis B	Td	Tetanus and reduced-strength diphtheria vaccine
HIV	Human immunodeficiency virus	UNICEF	United Nations Children's Emergency Fund
HPV	Human papillomavirus	VAD	Vitamin A deficiency
HRH	Human Resources for Health	VIA	Visual inspections with acetic acid
HST	Health Systems Trust	XDR-TB	Extreme drug-resistant TB
ICD-10	International Statistical Classification of Diseases and Related Health Problems	WBOTs	Ward-based outreach teams
ICHW	National Integrated Child Health Weeks	WC	Western Cape
ICDR	Inpatient crude death rate	WHO	World Health Organization
ICRM	Ideal Clinic Realisation and Maintenance	YLLs	Years of life lost

Foreword

This annual publication provides an overview of the performance of public health services in South Africa and has become an important planning and management resource for health service providers, managers, researchers and policy makers in the country.

The current 11th edition of the *District Health Barometer* (DHB) covers 52 districts and includes a total of 47 financial and health indicators, nine of which are new indicators. The publication informs district, provincial and national strategic plans as it measures similar indicators at the different levels. This edition paints a mixed picture, showing significant gains in some areas while highlighting areas that need further attention.

The use of information to monitor quality of care, health outcomes and data quality is critical at all levels of the health system. We urge health service providers, managers, researchers and policy makers to make use of this valuable information to improve services provided to the South African population.

As always, we welcome commentary and feedback on this edition of the DHB which will enable us to improve future versions of this publication.

Ronel Visser
Acting Chief Executive Officer
Health Systems Trust

Introduction and Overview

Background

The 2015/16 *District Health Barometer* (DHB) provides an overview of the delivery of primary health care (PHC) in the public health sector across the provinces and districts of South Africa. The DHB has been issued every year since 2005, and draws data from the District Health Information Software (DHIS), the Ideal Clinic Realisation and Maintenance system, Statistics South Africa (StatsSA), the National Treasury Basic Accounting System (BAS), the National Health Laboratory Service (NHLS), the National Income Dynamics Study (NiDS), the national Electronic Tuberculosis (TB) Register (ETR.Net) and the Electronic Drug-resistant Tuberculosis Register (EDRWeb). The publication seeks to highlight inequities in health outcomes, health-resource allocation and delivery, and to track the efficiency of health processes across all provinces and districts.

Compilation of the DHB is guided by an advisory committee made up of managers from the National Department of Health (NDoH), as well as public health experts.

Timely publication of the DHB is inextricably linked to availability of the data sources from which it draws, and the launch of the DHB is intended to coincide with the NDoH annual planning cycle.

The DHB is available on the Health Systems Trust website at <http://www.hst.org.za> and on CD upon request.

Methodology and data sources

Indicators used in the 2015/16 DHB

The indicators^a in this DHB have been approved by the NDoH. The chosen indicators are those linked to measuring the NDoH's Annual Performance Plan (APP), the provincial APPs, the District Health Plans of the health districts, and those indicators that measure important aspects of the burden of disease. All the indicators in this publication are categorised according to the 2013 National Indicator Data Set (NIDS); where applicable, the indicator names are also replicated from the NIDS.

This year, nine new indicators have been added. These are:

- ◆ Inpatient death under 5 years rate
- ◆ Percentage ideal clinics
- ◆ Percentage of fixed PHC facilities with patients who have access to a medical practitioner
- ◆ TB MDR treatment success rate
- ◆ Diabetes incidence
- ◆ Percentage PCR tests positive within 6 days (replaced Infant 1st PCR test positive around 6 weeks rate)
- ◆ HIV PCR birth testing coverage (replaced Infant 1st PCR test around 6 weeks uptake rate).

The following indicators reported on in previous years have been dropped, namely:

- ◆ PHC supervisor visit rate
- ◆ Mental health admission rate
- ◆ PHC professional nurse clinical workload
- ◆ PHC doctor clinical workload.

The burden of disease chapter is included again.

Most of the indicators in this report, excluding the socio-economic, financial, non-communicable disease (NCD) and TB indicators, were updated from the DHIS data files at facility level (NDoH5) for the financial years ending March, up to 2015/16, which was received in June 2016. Data for the selected indicators were exported into a single MySQL database to facilitate uniform coding of districts and trend analysis for the last 10 years. As in previous reports, data for selected indicators are given for **district hospitals only**. These are: Average length of stay, Bed utilisation rate, Delivery by Caesarean section rate, OPD new client not referred rate, and Expenditure per patient day equivalent.

a A table with definitions, references and terms for each indicator used in this report is available in Appendix 1.

District health expenditure indicators

Provincial health expenditure up to 2015/16 was extracted from the National Treasury BAS database. Expenditure allocated to specific health facilities (under the 'Responsibility level' code) was in turn coded to the latest DHIS facility information. All other expenditure that could not be clearly allocated to a specific district was allocated to each district in proportion to the population share of the areas involved. For example, provincial-level expenditure was allocated to each of the districts in the province.

Provincial expenditure was coded according to the programmes and sub-programmes published by the National Treasury. Expenditure from sub-programmes 2.2–2.7 (community health clinics, community health centres, community-based services, other community services, and HIV and nutrition) constitutes the non-hospital PHC expenditure under District Health Services. Total District Health Services expenditure includes all sub-programmes under Programme 2: District Health Services, except sub-programme 2.8 (Coroner services).

Additional data sources used include:

- ◆ Data on local government expenditure on PHC from the National Treasury. Net expenditure was used, i.e. expenditure less revenue (which includes transfers from provinces to local government).
- ◆ Factors for inflation adjustments based on CPIX (StatsSA) were used to convert expenditure for all years to real 2015/16 prices.
- ◆ Medical scheme coverage from the StatsSA General Household Surveys (GHS) was used to calculate the uninsured population. The GHS is the only source of district-level estimates of medical scheme coverage, but these estimates were available for 2005–2007 only, and there were some anomalies in the data during that period. Thus reliable extrapolation of coverage at district level has become difficult over time, exacerbated by adjustment for the change in boundaries. Looking retrospectively to 2001, it is clear that overall the GHS and the Council for Medical Schemes (CMS) data correlate, although in some years the GHS data deviate substantially. Overall, the level has also remained remarkably static at around 16% ± 1%. Therefore, for the purpose of this analysis, it was considered adequate to apply a single-year estimate of medical scheme coverage to the time series population, since the variation in coverage *between* districts is more relevant than changes in coverage over time. The year 2009 was chosen as the most recent year when the overall rate in the GHS was comparable with the CMS and historical trends. This estimate uses the pooled 2005–2007 district-level estimates, adjusted according to the change in provincial coverage between the two periods (for example, where Gauteng Province (GP) and the Western Cape (WC) were clearly under-reported from 2005 to 2007). Estimates for districts affected by boundary changes were made by distributing beneficiaries within each province according to expected patterns for metro/non-metro districts and the socio-economic quintile of the districts and constituent local municipalities. This year, the 2015 GHS published updated medical scheme coverage for the eight metros, but the sample size does not allow for estimates to be made for the remaining districts. This DHB is therefore using the 2015 estimates for the metros and the existing estimates circa 2009 for all other districts in order to estimate the uninsured population per district.
- ◆ Data on health facilities, population, patient day equivalents and PHC headcount from the DHIS.

Per capita expenditure indicators use public sector expenditure divided by the uninsured population. However, the GHS and other sources indicate that the uninsured population makes significant use of private sector services, and the insured population also make some use of public sector services. As such, it is acknowledged that there is a wide range of uncertainty surrounding the true size of the population that is dependent on public sector services, which affects the accuracy of the per capita expenditure indicators.

The net local government expenditure on health services was added to provincial expenditure on district health services (see the Finance chapter).

All the figures have been adjusted to take the effect of inflation into account and are presented in real 2015/16 prices. This means that increases in expenditure over time reflect greater availability of resources rather than merely increases to cover the increasing cost of health care due to inflation.

Population data

Indicators requiring population denominators were assigned mid-year population estimates for the relevant year, as available at the time of calculation. The district population estimates (five-year age groups) developed by StatsSA for 2002–2018 (based on the best available information from Census 2011 and other sources of demographic information) were modified by the NDoH to single-year age groups. These are the same population estimates currently included in the DHIS. Data for population-denominated indicators were therefore updated retrospectively from the latest data file back to 2011/12 in most cases; denominators for immunisation coverage were revised according to the new population estimates for all the years presented in this DHB.

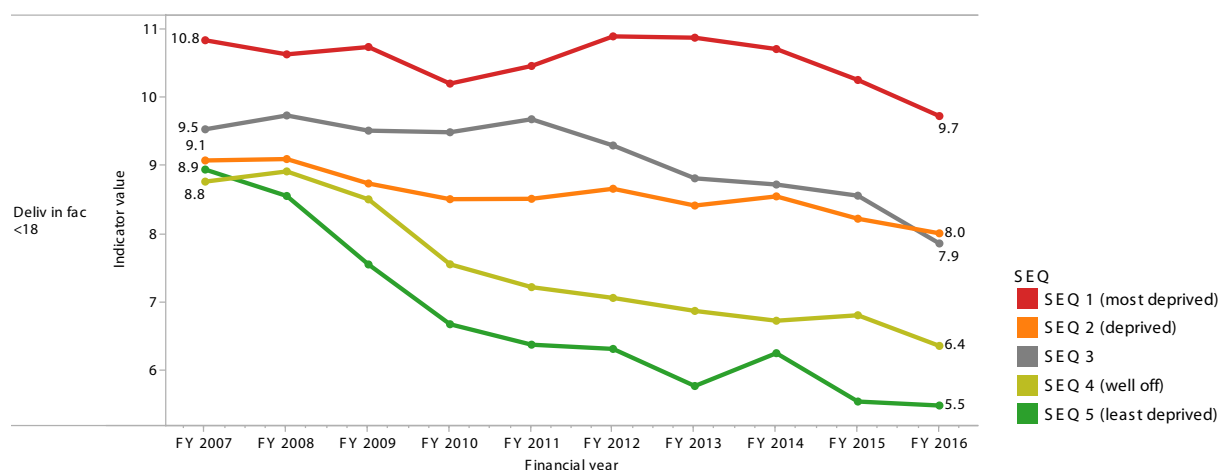
Deprivation index and socio-economic quintiles

The composite indicator of deprivation was replaced in the 2013/14 year with a new index of multiple deprivation developed by Noble et al.,^b based on a basket of variables from Census 2011. This South African Index of Multiple Deprivation (SAIMD) includes indicators from four domains: income and material deprivation, employment deprivation, education deprivation, and living environment deprivation, measured at either the individual or household level according to the indicator. The overall SAIMD combines these individual domains of deprivation using equal weights. The results were produced at ward level, with the most deprived ward given a rank of 1 and the least deprived a rank of 4 277. The population-weighted average rank of the wards was then calculated at local municipality, district municipality and provincial levels.

The SAIMD therefore provides a measure of relative deprivation across districts within South Africa. Each district was ranked according to level of deprivation and categorised into a socio-economic quintile (SEQ). Districts that fall into Quintile 1 (lowest quintile) are the most deprived districts. Those that fall into Quintile 5 are the least deprived (best-off). Since the SAIMD has not been calculated for any other censuses or community surveys according to the current boundaries and deprivation index methodology, the 2011 deprivation ranks have been assumed to remain constant over the time period included in the DHB. Although not ideal, comparison between the latest findings and findings from the previous analyses suggests that although there have been reductions in the *level* of deprivation, there has been little change in the *relative* amount of deprivation (i.e. the spatial distribution of deprivation has remained quite similar).

The DHB indicators have been calculated by SEQ (at district level) to assess trends in inequities. The values have been calculated as the weighted average of all data within each SEQ (Figure 1).^c

Figure 1: Example of indicator by socioeconomic quintile trends



TB indicators

TB indicators based on the ETR.Net and EDRWeb were calculated from the individual records in the registers after coding all the facilities to the current districts by mapping the ETR facility names to DHIS facility names. In the case of EDRWeb, a substantial number of records (N = 1 315) reflected 'unknown district', and a further 506 had 'unknown province'. In instances where the treatment facility was missing, the drug-resistance unit was used to assign the patient records to districts where possible.

The indicator TB rifampicin resistance confirmed client rate, which gives an indication of what proportion of TB cases are drug resistant, was calculated from NHLS data on GeneXpert tests. The data were coded to districts where the facility names could be linked to DHIS organisational units, although several apparent discrepancies were noted in the district assignments in the NHLS data. These data do not represent all tests for drug susceptibility, although the scale-up of this diagnostic tool has been rapid and probably represents the majority of testing, with 245 918 TB cases identified based on 2.6 million GeneXpert tests in 2015.

District boundaries and maps

Geographical information from the Municipal Demarcation Board was used to define district and provincial boundaries; the same boundaries are used in the DHIS. Sub-district boundaries, which aggregate selected local municipalities in the Eastern Cape (EC) and break some of the metros into smaller management units, are used in the DHIS and were obtained from the NDoH. Indicators in this DHB have been aggregated and presented according to the boundaries that came into effect in May 2011.

^b Noble M, Zembe W, Wright G, Avenell D. Multiple Deprivation and Income Poverty at Small Area Level in South Africa in 2011. Cape Town: Southern African Social Policy Research Institute and Southern African Social Policy Research Insights (SASPRI); 2013.

^c In previous editions of the DHB the values were calculated as the median of the district values within each SEQ.

Averages

All averages (provincial and national) are **weighted averages**, based on the total numerator and denominator for all the sub-areas included, and are, therefore, not averages of *the district indicator values*. These averages may appear 'skewed' for any indicator in any province where there are districts of very different sizes or workloads, and where a bigger district has a very different value from the other smaller districts in a province.

Data display

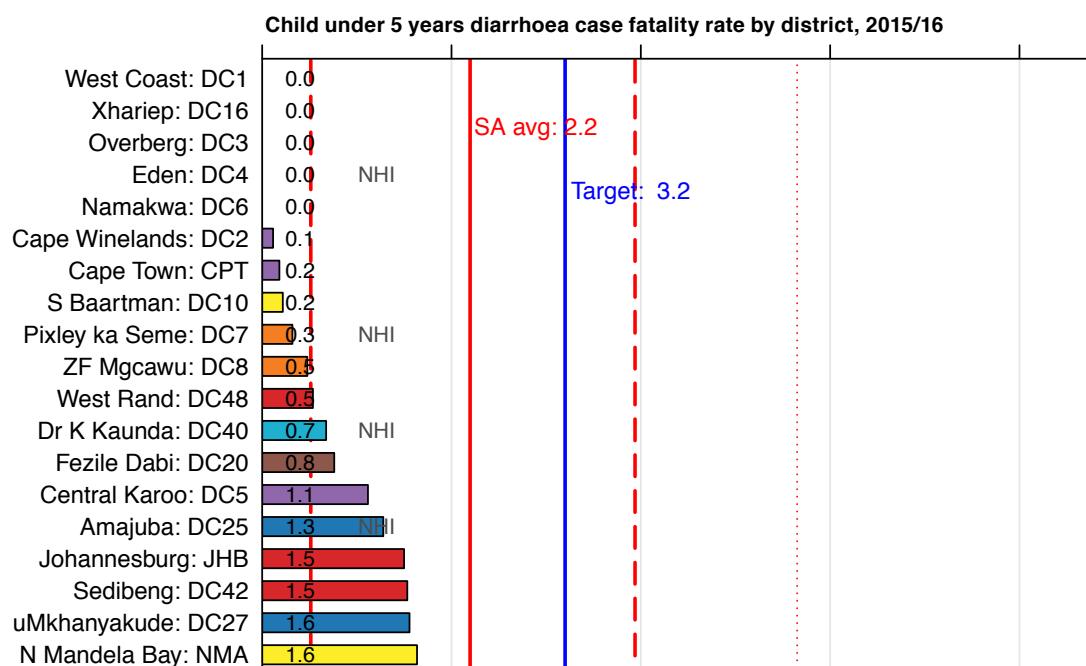
Financial year and calendar year

Indicators from the DHIS and the BAS financial system cover the 12 months from April to March, which is the financial year of the NDoH. Indicators for financial years are annotated as 2015/16 or FY 2016. Other sources, such as the TB data from ETR.Net, and the burden of disease (death) data cover a calendar year. Data from the StatsSA surveys and the NiDS correspond with the period of the survey. In the Excel file produced with the DHB, the single year indicated for summary purposes is the one including the majority of the data.

Indicator ranking – is first always best?

The districts are ranked from 1 to 52 (for the various indicators in the league table graphs where number 1 represents the best performance and number 52 the worst performance). However, with some indicators such as Caesarean section rate, Average length of stay, and expenditure, an indicator in the number 1 position does not mean best performance; 'best' is usually in the middle range close to the South African average. For these indicators, order from top to bottom should therefore not necessarily be considered as best to worst. Individual indicators are therefore ranked as either ascending (low values are best, for example Maternal mortality ratios), descending (high values are best, for example Immunisation coverage), or central (neither low nor high values are good and the optimal values are approximately central, approximated by the South African average for the indicator). On the league graphs the national weighted average is shown as a solid red line, while the ranges of district values falling within one and two standard deviations of the mean of all 52 district values are shown by the dashed and dotted red lines respectively (Figure 2).

Figure 2: Example of graph showing an indicator by district



In the DHB data file, the indicator ranks for all districts are coloured from green to orange to red. It must be noted that this is only a crude indication of performance and is based on the position of a district *relative* to the other 51 districts and not based on a target or fixed standard. Therefore, it is possible that an indicator may improve in a district, but it could drop in rank (i.e. go from green to red) if other districts have improved to a greater extent.

ArcView was used to generate the thematic or choropleth maps of indicator values by district and sub-district. Most of the maps were created using 'natural breaks',^d with five categories as the default. In some cases the distribution was heavily skewed at the sub-district level and manual breaks were chosen to better illustrate areas of public health importance. For all indicators, low indicator values are represented by light shades and high indicator values by darker shades, regardless

^d This is the default classification method in ArcView, using the Jenks Optimisation algorithm to group values within a class, resulting in classes of similar values separated by breakpoints. This method works well with data that are not evenly distributed and not heavily skewed towards one end of the distribution.

of whether high values are 'best' or 'worst'. Therefore, dark shades are not always best, and each indicator map should be interpreted in terms of the desired target range for that indicator.

Indicators by level of care

Some of the hospital indicators included in the DHB are filtered for district hospitals only, since inclusion of higher-level hospitals (which provide services to a wider catchment area) may distort assessment of availability of services at district level. However, to interpret the district-hospital values of the indicator, it may be necessary to consider the context (availability of services at other levels) within the district and province. Figures 3 and 4 summarise the indicator value for each level of care. The right-hand column (% of denominator) shows the relative split of services by level (in the case of Caesarean section rate, this is the % of deliveries in facility). In the district-level graph, the middle column shows the numerical size of the denominator (in this case, number of deliveries). This is relevant because an extreme indicator value is of more importance if the numbers are large.

Figure 3: Example of graph showing indicator by level of care by province

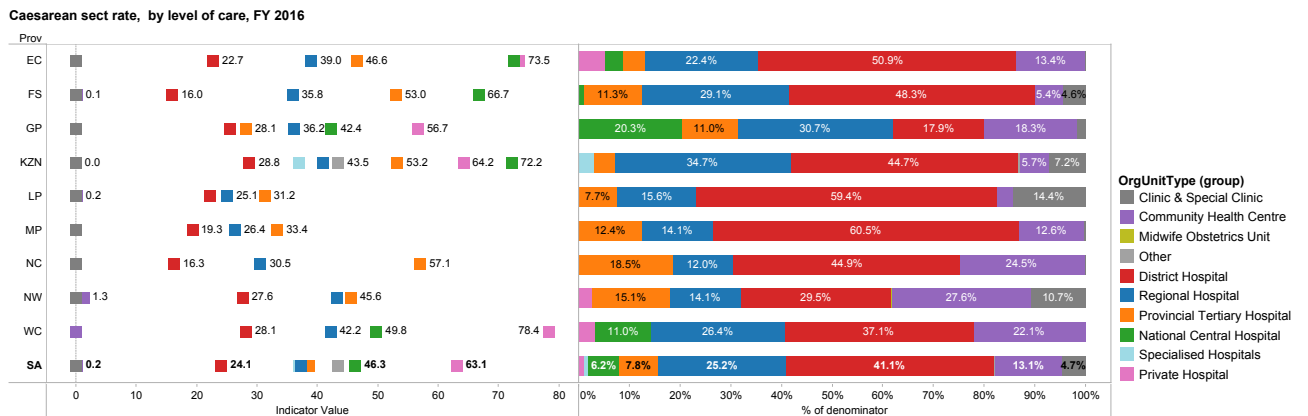
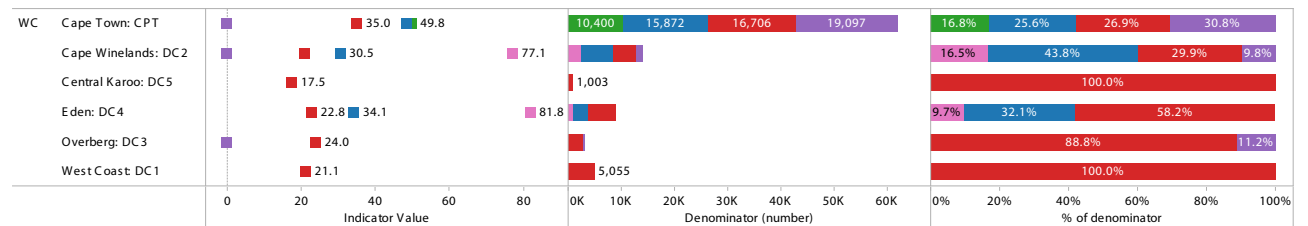


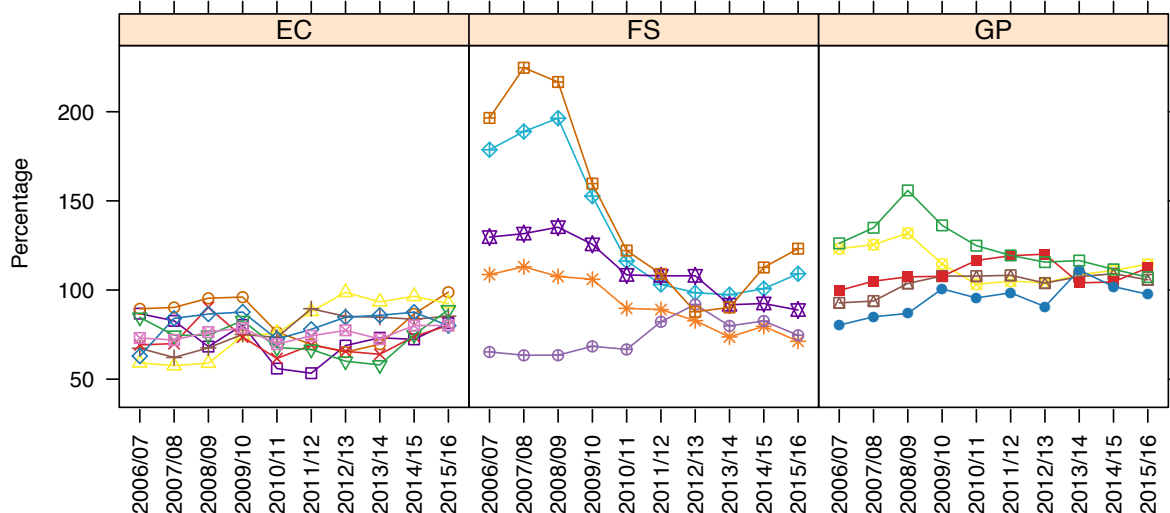
Figure 4: Example of graph showing indicator by level of care by district



Trends

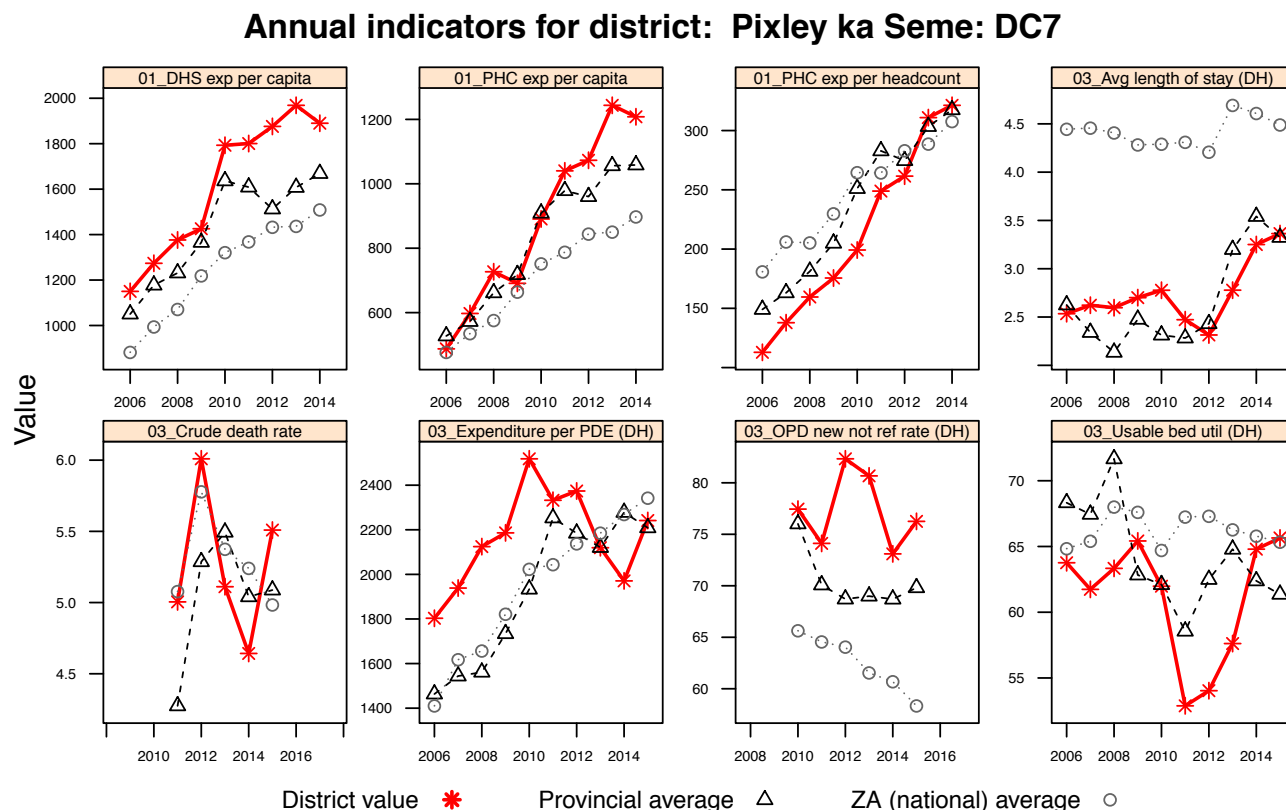
Annual indicator trends (district and provincial) are included in some chapters in Section A (Figure 5). Indicator comparisons by district help the reader to explore how an indicator varies over a number of years across districts and provinces. As the scale of the y-axis is the same for all the graphs, one can notice differences easily. Annual trends also reveal variation and change within the districts in a particular province over time.

Figure 5: Example of annual indicator trends over a number of years across districts and provinces



In Section B, composite graphs show annual trends for all districts for all the indicators included in the DHB. The district indicator value (IndValue) is shown together with the relevant provincial averages (Prov_av) and national averages (ZA_av) (Figure 6).

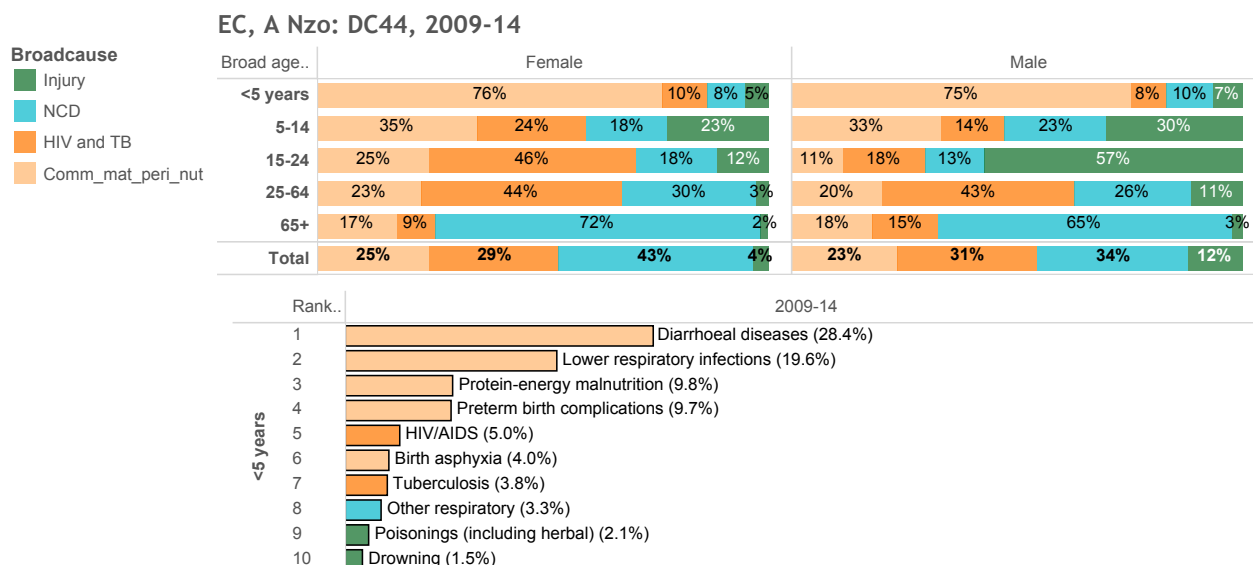
Figure 6: Example of annual indicator trends for districts



Burden of disease profiles

Graphs have been adapted this year to provide a snapshot of each district's burden of disease profile (Figure 7). In order to make the disaggregated results more robust, data were consolidated for the 2009–2014 period (six years) as in some smaller districts there were limited deaths by single cause in certain age groups.

Figure 7: Example of burden of disease profile by district



Section A:

Indicator Comparisons per programme

1 Finance

Jonatan Davén, Candy Day, Yasteel Maharaj, Mark Blecher and Aparna Kollipara

Financial resources are an important input in the provision of healthcare services, and an analysis of the distribution of financial resources over time can give an indication of priorities and spending pressures in the health sector. This chapter focuses on the distribution of financial resources using three key indicators as a lens, namely: (1) provincial and local government district health services (DHS) expenditure per capita (uninsured population); (2) provincial and local government primary health care (PHC) expenditure per capita (uninsured population); and (3) provincial and local government PHC expenditure per PHC headcount.

The methodology used to calculate these indicators is described in detail in the introductory chapter of this publication. In summary, provincial health expenditure up to 2015/16 was extracted from the National Treasury's Basic Accounting System (BAS) database. Expenditure allocated to specific health facilities under the 'Responsibility level' dimension was coded to the latest District Health Information Software (DHIS) facility information in order to identify the district where the expenditure was incurred. All other expenditure was coded by district where possible using other information in the BAS database. The remaining expenditure at provincial level or that could not be clearly allocated to a specific district was allocated to each district proportionate to its population. Unless otherwise stated, historical expenditure in this chapter has been adjusted for inflation and presented in real 2015/16 terms. Local government expenditure on health provided by the National Treasury was added to the expenditure retrieved from the BAS database.

As shown in Table 1, provincial departments of health spent R153.8 billion in 2015/16. District health services was by far the largest budget programme, making up 45.4% of total expenditure. This percentage has increased gradually from 43.3% in 2012/13, due largely to rapidly growing HIV budgets, which form part of DHS. Other programmes, such as Provincial Hospital Services and Central Hospital Services have remained relatively stable as a percentage of the total, while the Health Facilities Management proportion has decreased, largely due to baseline reductions to infrastructure budgets as a result of budget constraints. In addition to the spending by provincial departments of health, local governments also use their own revenue to fund health services, including those rendered by clinics owned and operated by municipalities. Own revenue spent by local government on DHS was R3.7 billion in 2015/16, a real increase from R2.9 billion in 2012/13.

Table 1: Provincial expenditure by budget programme, 2012/13–2015/16 (nominal R million)^a

R million	2012/13		2013/14		2014/15		2015/16	
	Audited outcome	Percentage of total	Audited outcome	Percentage of total	Audited outcome	Percentage of total	Audited outcome	Percentage of total
Administration	3 653	2.6%	3 910	2.7%	3 760	2.6%	4 308	2.8%
District Health Services	60 521	43.3%	62 810	44.0%	66 676	45.3%	69 788	45.4%
Emergency Medical Services	5 763	4.1%	5 839	4.1%	5 806	3.9%	6 025	3.9%
Provincial Hospital Services	25 712	18.4%	26 693	18.7%	27 888	18.9%	29 628	19.3%
Central Hospital Services	27 694	19.8%	28 272	19.8%	29 433	20.0%	29 513	19.2%
Health Sciences And Training	4 252	3.0%	4 413	3.1%	4 435	3.0%	4 521	2.9%
Health Care Support Services	2 012	1.4%	2 105	1.5%	1 382	0.9%	1 465	1.0%
Health Facilities Management	10 231	7.3%	8 656	6.1%	7 828	5.3%	8 513	5.5%
Total	139 839	100.0%	142 697	100.0%	147 207	100.0%	153 762	100.0%

Source: National Treasury.

The nine sub-programmes of the DHS programme are described briefly in Box 1, while expenditure is shown in Table 2. 'District hospitals' was the largest sub-programme, with R25.3 billion spent in 2015/16, followed by 'Community health clinics' at R14.1 billion and 'HIV and AIDS' at R13.9 billion. As a result of the rapidly expanding antiretroviral treatment

^a Amounts may differ from those in other sections in the table as expenditure in Tables 1 and 2 derive from the annual financial statements of provincial departments, while in other sections expenditure derives from BAS. The reason for this is that the annual financial statements do not break down expenditure by district.

(ART) coverage, reaching an additional 400 000 patients annually, HIV and AIDS was the fastest growing sub-programme, increasing by an average of 14.4% per year since 2012/13.

Government expenditure is generally classified into compensation of employees, goods and services, transfers and subsidies, and payment for capital assets. Compensation of employees made up 64.5% of provincial DHS expenditure. This percentage has increased gradually as a result of public sector wage increases and an increased number of employees working in the district health system. Expenditure on medicines increased from R6.7 billion in 2012/13 to R9.1 billion due to the increased volumes of antiretroviral drugs and increased import prices due to the weakened Rand exchange rate. An amount of R2.9 million was spent on transfers and subsidies in 2015/16, mainly to non-profit organisations and municipalities. As most infrastructure investments for DHS fall under the Health Facilities Management programme, only 0.9% of the DHS programme was spent on capital assets in 2015/16.^b

Box 1: District health services, sub-programme objectives

District management: Planning and administration of services; managing personnel and financial administration; co-ordination and management of the day hospital organisation and community health services rendered by local authorities and non-governmental organisations within the metro; determining work methods and procedures; and exercising district control.

Community health clinics: Rendering a nurse-driven primary health care service at clinic level, including visiting points, mobile clinics and local authority clinics.

Community health centres: Rendering a primary health service with full-time medical officers in respect of mother and child health, health promotion, geriatrics, occupational therapy, physiotherapy, psychiatry, speech therapy, communicable diseases, mental health, etc.

Community-based services: Rendering a community-based health service at non-health facilities in respect of home-based care, abuse victim care, mental health and chronic care, school health, etc.

Other community services: Rendering environmental and part-time district surgeon services, etc.

HIV and AIDS: Rendering a primary health care service in respect of HIV and AIDS campaigns and special projects.

Nutrition: Rendering a nutrition service aimed at specific target groups and combining direct and indirect nutrition interventions to address malnutrition.

Coroner services: Rendering forensic and medico-legal services in order to establish the circumstances and causes surrounding unnatural death.

District hospitals: Rendering of a hospital service at district level.

Source: National Treasury.

^b In 2015/16, the Health Facilities Management programme spent R1.9 billion on PHC facilities and R2.2 billion on district hospitals. Future versions of the review should consider including district and total spending for this programme.

Table 2: Provincial district health services expenditure by sub-programme and economic classification (nominal R million)^a

R million	2012/13		2013/14		2014/15		2015/16	
Programme 2: District Health Services	Audited outcome	Percentage of total	Audited outcome	Percentage of total	Audited outcome	Percentage of total	Pre-audited outcome	Percentage of total
District Management	3 416	5.6%	3 391	5.4%	3 395	5.1%	3 492	5.0%
Community Health Clinics	13 064	21.6%	12 852	20.5%	13 348	20.0%	14 107	20.2%
Community Health Centres	6 873	11.4%	7 100	11.3%	7 741	11.6%	7 877	11.3%
Community Based Services	2 339	3.9%	2 238	3.6%	2 602	3.9%	2 812	4.0%
Other Community Services	1 343	2.2%	1 535	2.4%	1 433	2.1%	1 525	2.2%
HIV/AIDS	10 586	17.5%	12 136	19.3%	13 037	19.6%	13 876	19.9%
Nutrition	265	0.4%	202	0.3%	220	0.3%	199	0.3%
Coroner Services	470	0.8%	500	0.8%	513	0.8%	515	0.7%
District Hospitals	22 003	36.4%	22 687	36.1%	24 260	36.4%	25 291	36.2%
Global fund (WC only)	160	0.3%	168	0.3%	128	0.2%	93	0.1%
Total	60 521	100.0%	62 810	100.0%	66 676	100.0%	69 788	100.0%
Compensation of employees	38 479	63.6%	40 867	65.1%	42 800	64.2%	45 009	64.5%
Goods and services	18 252	30.2%	18 637	29.7%	20 451	30.7%	21 222	30.4%
<i>of which:</i>								
<i>Consultants and professional services: Laboratory services</i>	2 583	4.3%	2 585	4.1%	3 267	4.9%	3 217	4.6%
<i>Inventory: Medical supplies</i>	1 540	2.5%	1 624	2.6%	1 779	2.7%	1 894	2.7%
<i>Inventory: Medicine</i>	7 650	12.6%	8 071	12.8%	8 596	12.9%	9 181	13.2%
<i>Property payments</i>	1 653	2.7%	1 800	2.9%	2 023	3.0%	2 184	3.1%
Interest and rent on land	1	0.0%	2	0.0%	2	0.0%	4	0.0%
Transfers and subsidies	3 191	5.3%	2 683	4.3%	2 772	4.2%	2 902	4.2%
<i>of which</i>								
<i>Municipalities</i>	994	1.6%	815	1.3%	880	1.3%	1 065	1.5%
<i>Non profit institutions</i>	1 914	3.2%	1 554	2.5%	1 454	2.2%	1 472	2.1%
<i>Households</i>	220	0.4%	225	0.4%	369	0.6%	338	0.5%
Payments for capital assets	596	1.0%	574	0.9%	648	1.0%	648	0.9%
<i>of which</i>								
<i>Buildings and other fixed structures</i>	85	0.1%	22	0.0%	18	0.0%	5	0.0%
<i>Machinery and equipment</i>	512	0.8%	552	0.9%	629	0.9%	643	0.9%
Payments for financial assets	3	0.0%	47	0.1%	3	0.0%	4	0.0%
Total economic classification	60 521	100.0%	62 810	100.0%	66 676	100.0%	69 788	100.0%

Source: National Treasury.

1.1 Provincial and local government district health services expenditure per capita (uninsured population)

Provincial and local government (LG) expenditure per capita (uninsured) on DHS is the total amount spent per person not covered by a medical scheme. The numerator for this indicator is the sum of provincial and LG expenditure under the DHS programme (with the exception of the Coroner Services sub-programme, which is excluded). The denominator is the estimated uninsured population in each district. Examining DHS expenditure is important as it makes up the largest portion of health service delivery, with PHC services forming the largest component of DHS expenditure. Although all South Africans can access health services in the public sector, it is generally the population without medical aid that seeks health care at public facilities. Approximately 16% of South Africans are members of medical schemes, although this percentage differs significantly across provinces and districts.

Overall, provincial departments of health and LGs in South Africa spent R1 639 per uninsured person on DHS in 2015/16, a real increase of 1.3% from R1 618 per capita uninsured in 2014/15 (in 2015/16 terms).

Although this indicator is useful in showing expenditure in this very important segment of health spending, it is less useful for comparing districts and provinces, as a significant portion of the expenditure is for district hospitals, which are unevenly distributed across provinces and districts. The number of district hospitals in a district is influenced by a number of factors, such as the number of higher-level hospitals, the number of community health centres (CHCs) and the number of district hospitals in nearby districts. This largely explains the wide disparities in DHS expenditure per capita across districts, as shown in Figure 1. In 2015/16, expenditure ranged from a low of R1 081 per uninsured person in Amajuba

(KwaZulu-Natal (KZN)) to a high of R3 049 in Central Karoo (Western Cape (WC)). These two districts also differed vastly from the overall per capita (uninsured) expenditure in their respective provinces (R1 724 in KZN and R1 713 in WC).

There does not seem to be a correlation between expenditure and status as a National Health Insurance (NHI) pilot district. This is illustrated by the fact that both the lowest-spending district, Amajuba (KZN), and fourth-highest-spending district, uMzinyathi (KZN), are NHI pilot districts.

Figure 1: Provincial and local government district health services expenditure per capita (uninsured) by district, 2015/16

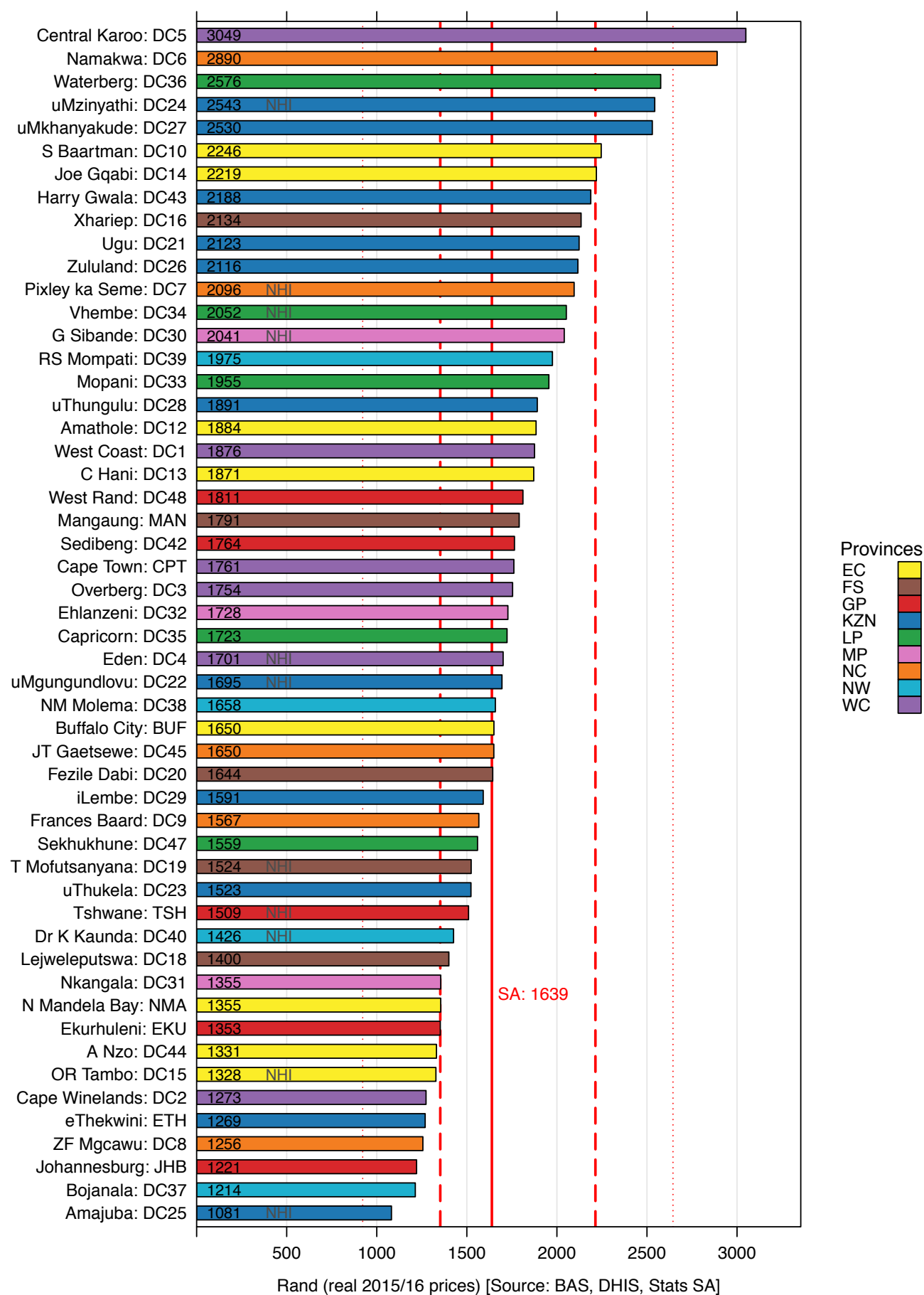
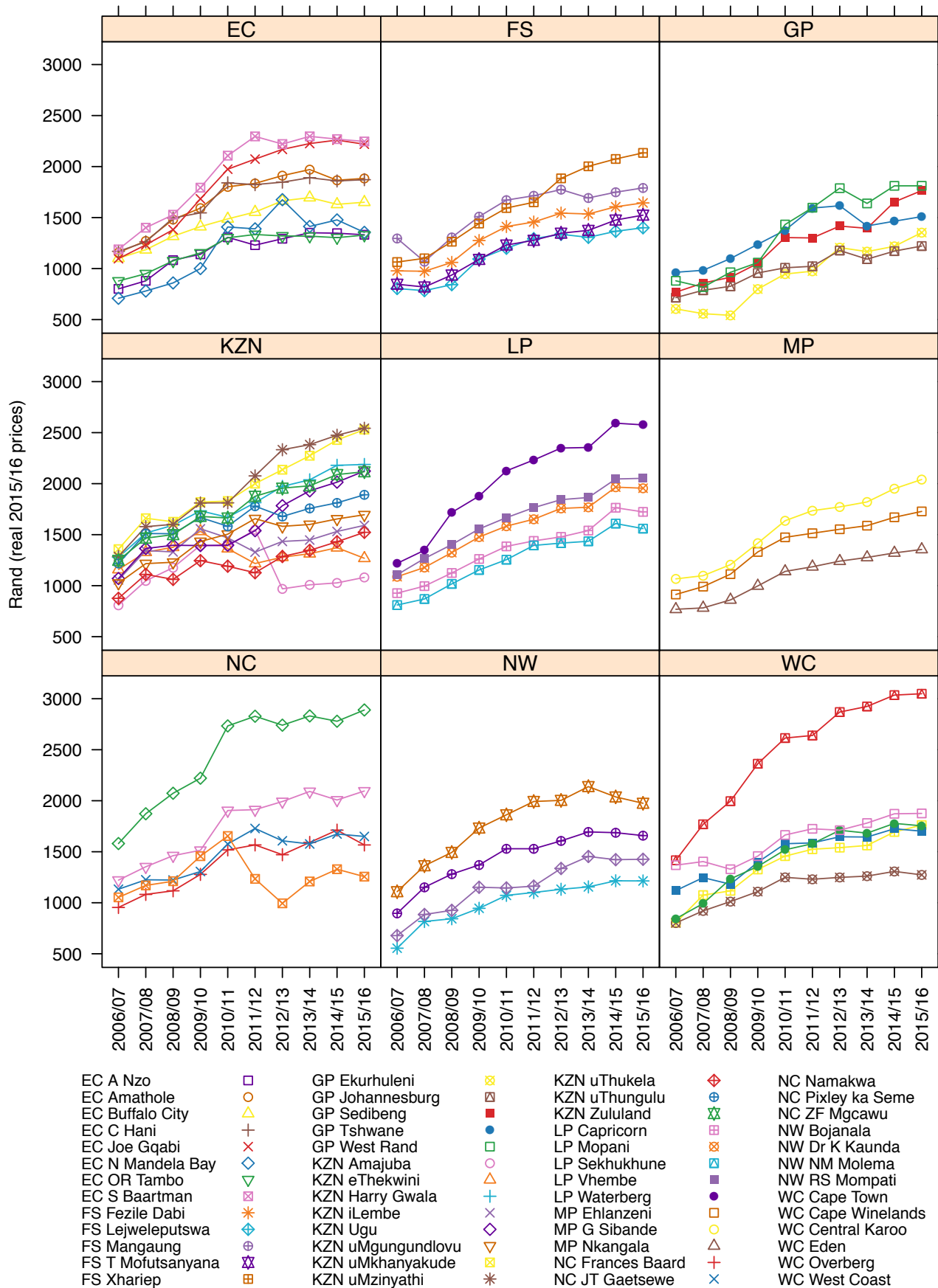


Figure 2 shows that between 2006/07 and 2015/16, per capita (uninsured) expenditure increased significantly in real terms in most districts. Particularly strong growth was seen in Waterberg district in Limpopo Province (LP), which increased very rapidly from R1 219 to R2 576 per uninsured person over this period, and in the Central Karoo (WC), which increased from R1 417 in 2006/07 to R3 049 in 2015/16 when it had the highest per capita (uninsured) expenditure in the country. Disparities among districts within provinces increased over this 10-year period. This was particularly pronounced in the KwaZulu-Natal, Northern Cape (NC) and Western Cape provinces.

Figure 2: Annual trends for provincial and local government district health services expenditure per capita (uninsured)



1.2 Provincial and local government primary health care expenditure per capita (uninsured population)

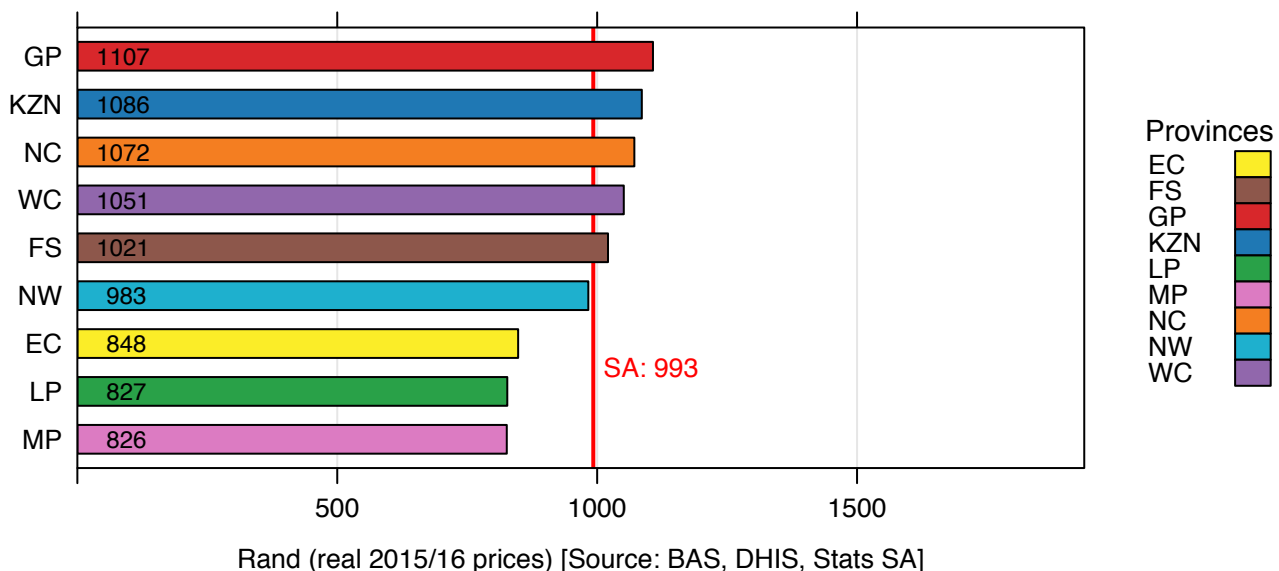
Provincial and local government PHC expenditure per capita (uninsured) is calculated in the same way as the previous indicator, but excludes District Management and District Hospitals. Primary health care services taken into account in this indicator include: community health clinics, community health centres, community-based services, other community services, HIV and AIDS, and nutrition. The sum of these sub-programmes makes up the numerator for this indicator, while the denominator is the uninsured population.

Examining PHC expenditure per capita (uninsured) is important as primary health is the first level of care, it is closest to the community, and it has a large role to play in responding to the needs of the community. The health status of the population is influenced positively when investments are made into PHC and when high-quality resources are used equitably, effectively and efficiently.

Growth in this indicator may reflect progress in key government initiatives such as PHC re-engineering and health systems strengthening in preparation for NHI. Primary health care expenditure per capita (uninsured) is a starting point in examining equity in the distribution of financial resources for health. An equitable distribution of resources should be based on the relative health care need across provinces and districts, and a needs-based resource allocation formula, which is discussed in the conclusions and recommendations section of this chapter, may help in this regard.

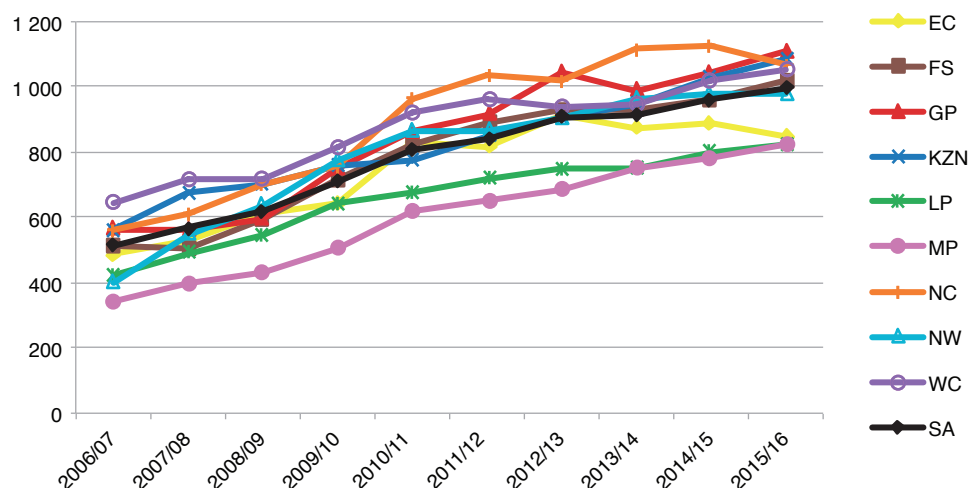
In 2015/16, PHC expenditure per capita (uninsured) in South Africa was R993, a 3.2% real increase from 2014/15. Interprovincial differences were much smaller than intra-provincial differences, as shown in Figure 3. Gauteng (GP) had the highest spending at R1 107 per capita (uninsured), a real increase of 5.7% from R1 048 in 2014/15 (in 2015/16 prices), when it was ranked the fourth-highest-spending province. As can be seen in section 7.2, this was largely due to high expenditure per PHC visit. Mpumalanga (MP) had the lowest PHC expenditure per capita (uninsured) at R826, closely followed by Limpopo at R827. The low PHC expenditure in Limpopo was likely a result of these services being delivered at district hospitals, as Limpopo spent 49.8% of its DHS funds on district hospitals, more than any other province.

Figure 3: Provincial and local government primary health care expenditure per capita (uninsured) by province, 2015/16



As shown in Figure 4, South Africa has almost doubled its PHC expenditure per capita (uninsured) in real terms from R511 in 2006/07 to R993 in 2015/16, which represents an average annual increase of 7.7%. All provinces increased their expenditure significantly over this period, although this might be partially explained by increasing utilisation trends, particularly in earlier years. In recent years there has been a slight decrease in the Eastern Cape (EC) and Northern Cape (NC), which may be cause for concern.

Figure 4: Annual trends for provincial and local government primary health care expenditure per capita (uninsured) by province, 2006/07–2015/16 (Rand)

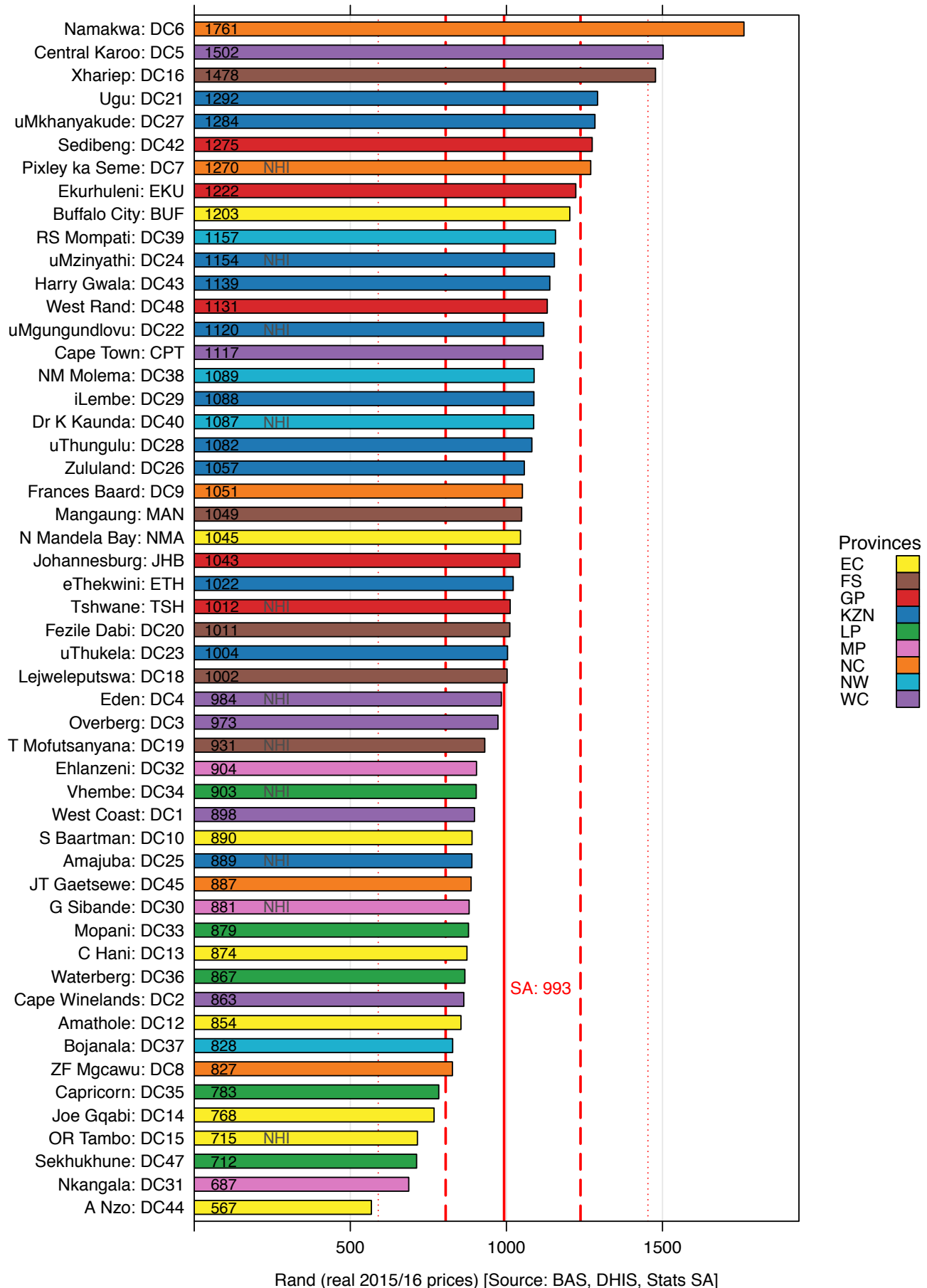


Source: BAS, DHIS, StatsSA.

Figure 5 shows considerable differences in the level of PHC expenditure per capita (uninsured) across districts, and that the highest-spending district spent more than three times per capita than the lowest-spending district. Namakwa (NC) had by far the highest expenditure (R1 761 per capita), followed by Central Karoo (WC) and Xhariep (Free State (FS)). These three districts have relatively small populations and low population density, which does tend to increase the cost of service delivery, but Namakwa (NC) and Central Karoo (WC) in particular might still warrant scrutiny as their expenditure per headcount (see next section) was also materially above the national average. A Nzo (EC) was the lowest-spending district at R567 per capita, and is potentially severely underfunded.

All the metros were above the national average, with Ekurhuleni (GP) the highest-spending metro at R1 222 per capita and Tshwane (GP) the lowest at R1 012. The high spending levels in the metros is partly due to their relatively stronger ability to raise their own revenue and allocate it to health care (for example, in Ekurhuleni the LG component of expenditure was R459 per capita in 2015/16).

Figure 5: Provincial and local government primary health care expenditure per capita (uninsured) by district, 2015/16



Overall there was significant real growth in PHC expenditure per capita (uninsured) in all districts seen over a nine-year period, although as noted, there has been negative growth in the Eastern Cape and Northern Cape in recent years (Figures 4 and 6). Some provinces (GP, KZN, LP and MP) have a relatively equal distribution across their districts, while others, such as the Northern Cape and Western Cape, show much greater disparities, largely as a result of a single very rural district with a low population being an outlier. These have had particularly strong growth, and Xhariep (FS), Namakwa (NC) and Central Karoo (WC) are now the three highest-spending districts.

Figure 6: Annual trends for provincial and local government primary health care expenditure per capita (uninsured)

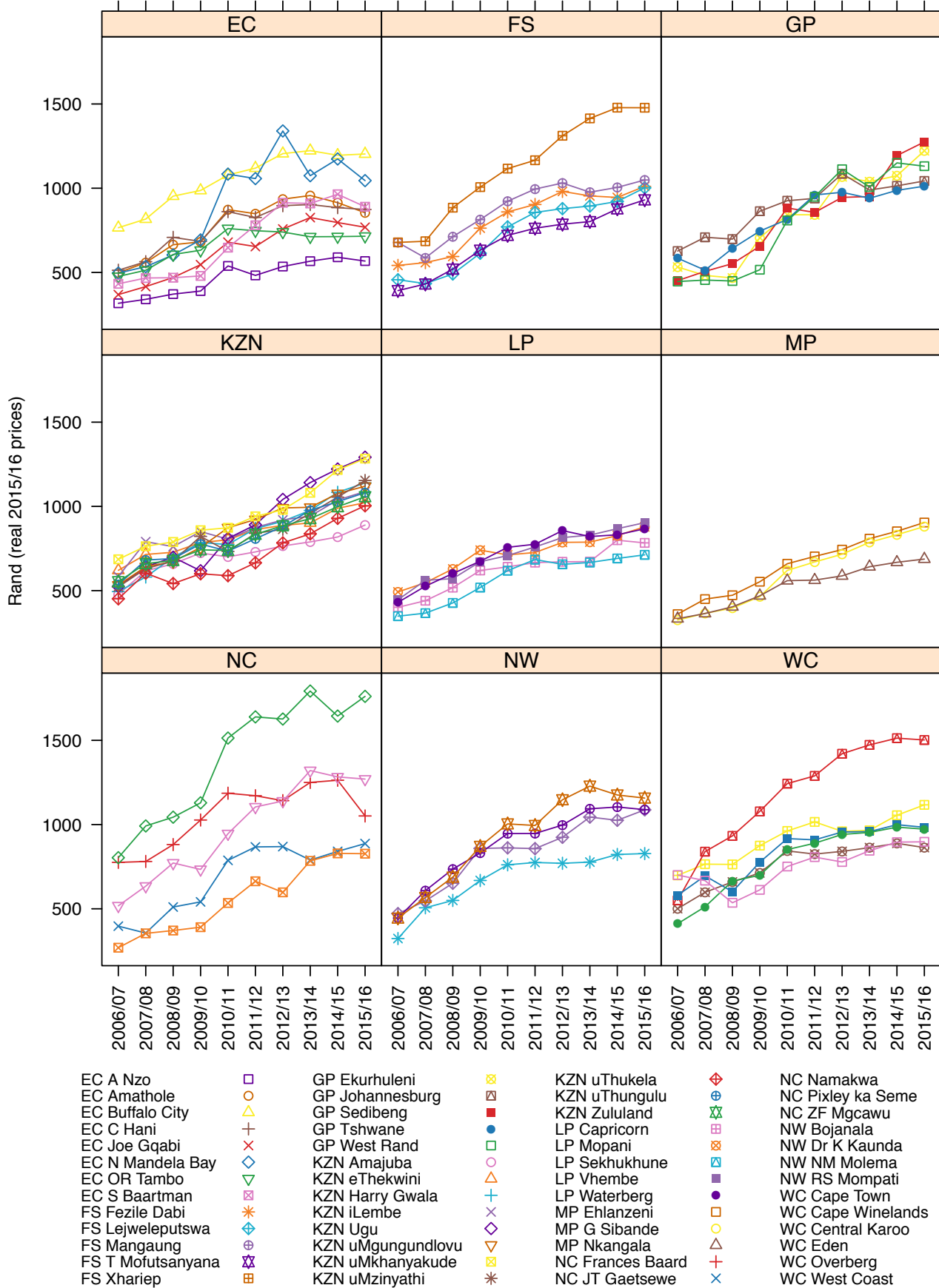
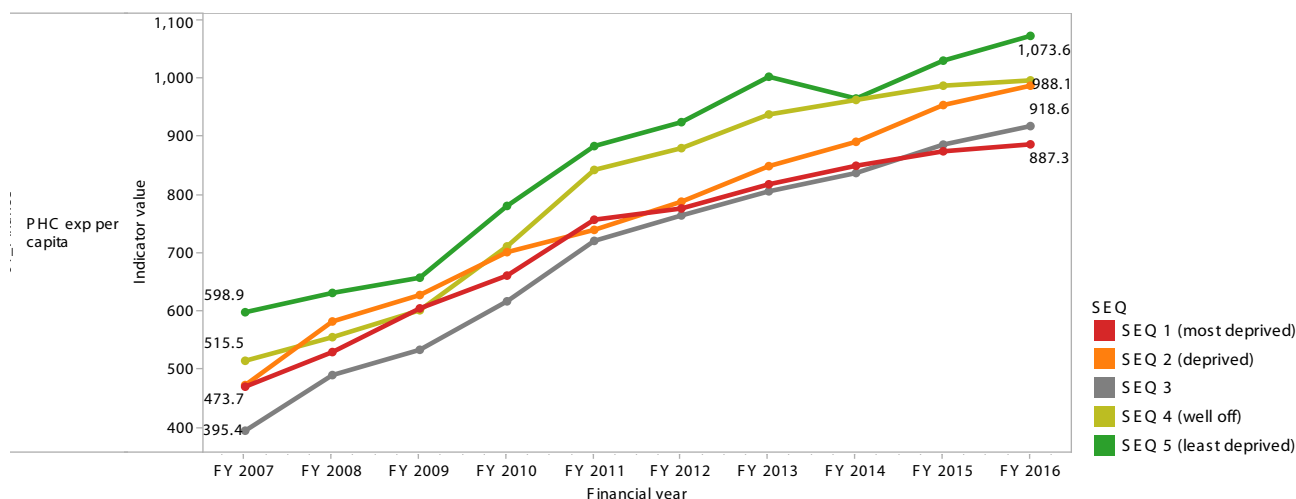


Figure 7 shows PHC expenditure per capita by socio-economic quintile (SEQ), based on a deprivation index, which is a composite measure of relative deprivation based on a set of variables from Census 2011. Districts in SEQ5 (least deprived) spent on average 21.0% more per capita on PHC than districts in SEQ1 (most deprived). This indicates that deprived districts are not sufficiently funded, which could be addressed by allocating funds through risk-adjusted capitation. However, the picture is likely partly skewed by poor districts often accessing PHC services at district hospitals. A fuller analysis should separate outpatient expenditure and utilisation from inpatient expenditure and utilisation.

Figure 7: Provincial and local government primary health care expenditure per capita (uninsured) by socio-economic quintile, 2015/16 (weighted average of data by district quintile)



1.3 Provincial and local government expenditure per primary health care headcount

While PHC expenditure per capita can provide insight into the prioritisation of PHC across districts, looking at how much, on average, was spent on each visit might be a better measure to evaluate efficiency. The numerator for this indicator is the sum of provincial and LG expenditure on PHC, and the denominator is the number of PHC visits/headcount.

Figure 8 shows that the average spending per PHC headcount in South Africa was R349 in 2015/16, a real increase of 6.7% from 2014/15. Differences across the provinces were considerable. Gauteng had the highest expenditure per headcount by far at R464, which partially explains why its expenditure per capita was also the highest in the country, and the Eastern Cape had the lowest expenditure at R276 per headcount.

Figure 8: Provincial and local government primary health care expenditure per headcount by province, 2015/16

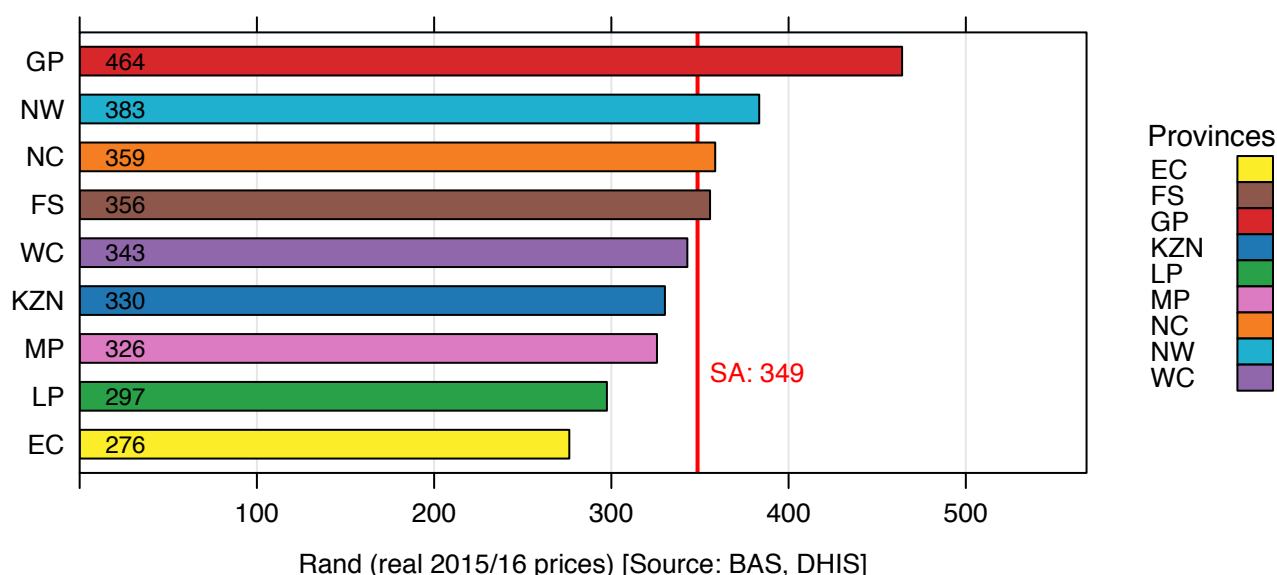
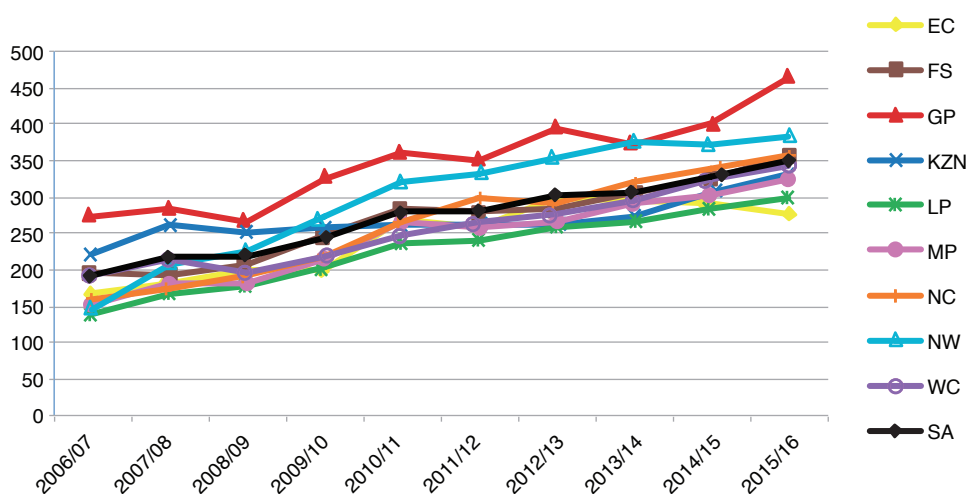


Figure 9 shows that South Africa has increased its PHC expenditure per headcount in real terms by an average of 6.9% per year, from R192 in 2006/07 to R349 in 2015/16. The Eastern Cape has seen a reduction over the past three years, from R300 per headcount in 2012/13 to R276 per headcount in 2015/16, which is significantly below the national average. Gauteng had the highest expenditure per headcount throughout this time period, with the exception of 2013/14, when North West (NW) exceeded Gauteng.

Part of the reason why expenditure per headcount is increasing is that expenditure per capita increases have been sustained, while the increase in PHC headcount seen over the past decade has levelled off over the past three years and in fact declined in 2015/16. This decline is generally attributed to increased community-based services through PHC outreach teams as well as the new central chronic medicines dispensing and distribution (CCMDD) model, whereby chronic patients can collect their medicines at alternative pick-up points instead of visiting a PHC facility. A fuller analysis that includes CCMDD and community health worker visits, and that separates expenditure on these, would help explain this rise in unit costs. Other reasons for the increasing input costs are wage increases and increased cost of imported medicines as a result of the weakening Rand.

Figure 9: Annual trends for provincial and local government primary health care expenditure per headcount by province, 2006/07–2015/16 (Rand)



Source: BAS, DHIS.

Figure 10 shows that in 2015/16, PHC expenditure per headcount ranged from R226 in Amathole (EC) to R516 in Sedibeng (GP). Four of the five highest-spending districts were in Gauteng, while all five of the lowest-spending districts were in the Eastern Cape as a result of the decreased spending per headcount seen over the past three years in this province. Districts in the Western Cape and KwaZulu-Natal were fairly concentrated around the national average, with the exception of the Central Karoo (WC) which was far above average at R503 and eThekweni (KZN) which was below average at R294. With the exception of eThekweni (KZN) and N Mandela Bay (EC), all metros were above the national average, due to their relatively stronger ability to generate their own revenue for health care. In general, the highest-spending district should be investigated for inefficiencies and managers in these districts should attempt to find ways to reduce average unit costs, while the lowest-spending districts might potentially be under-resourced.

Figure 10: Provincial and local government primary health care expenditure per headcount by district, 2015/16

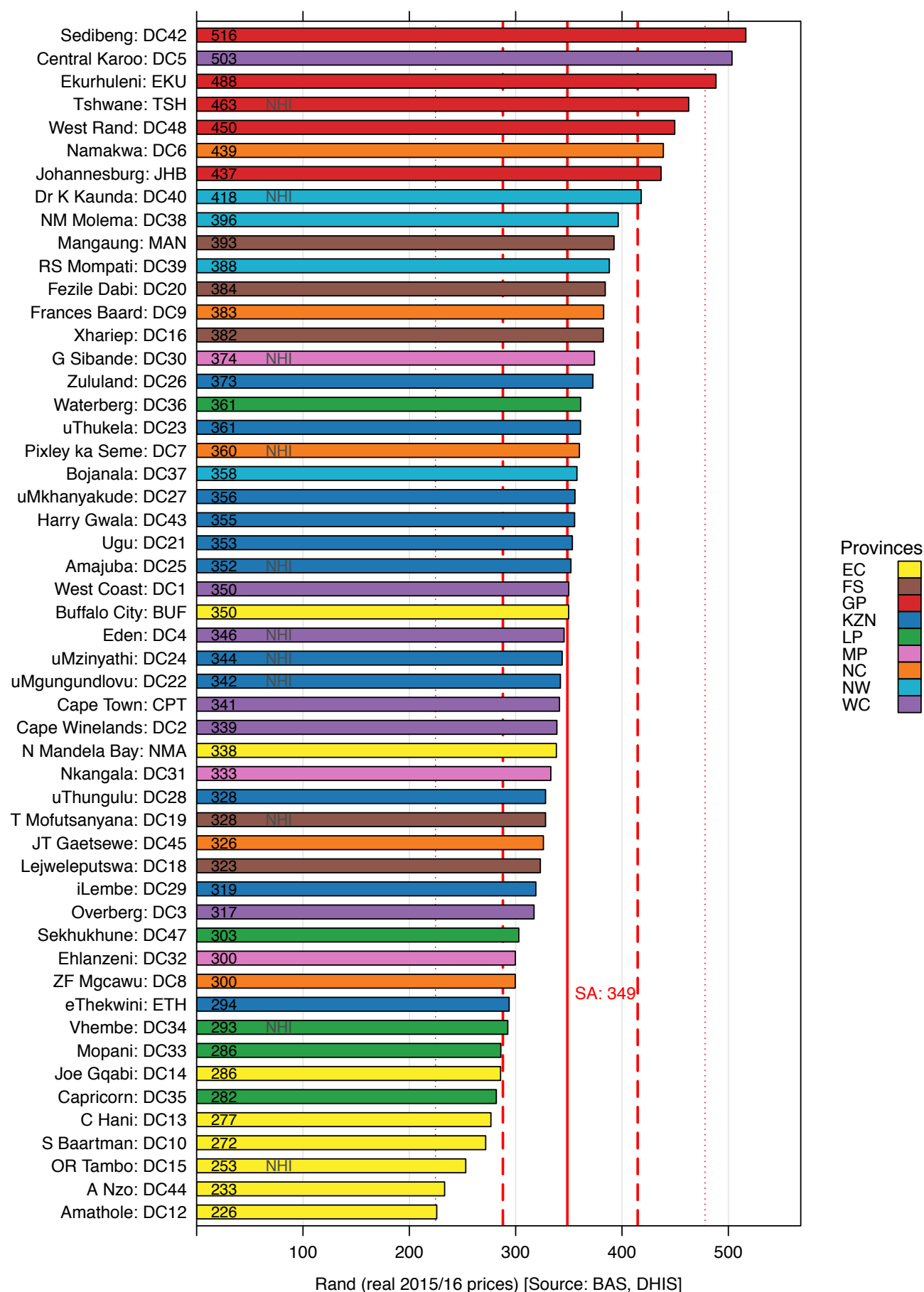
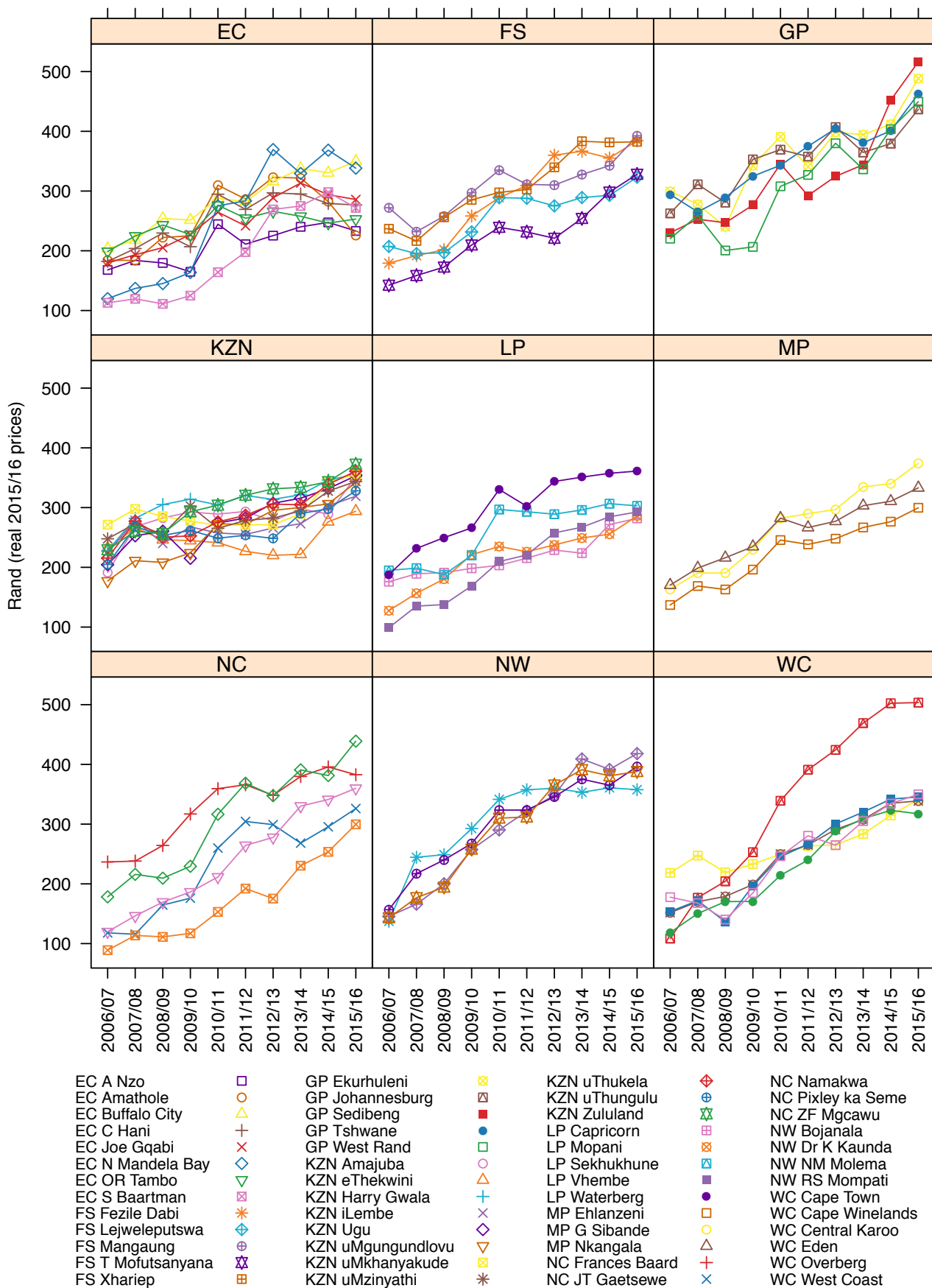


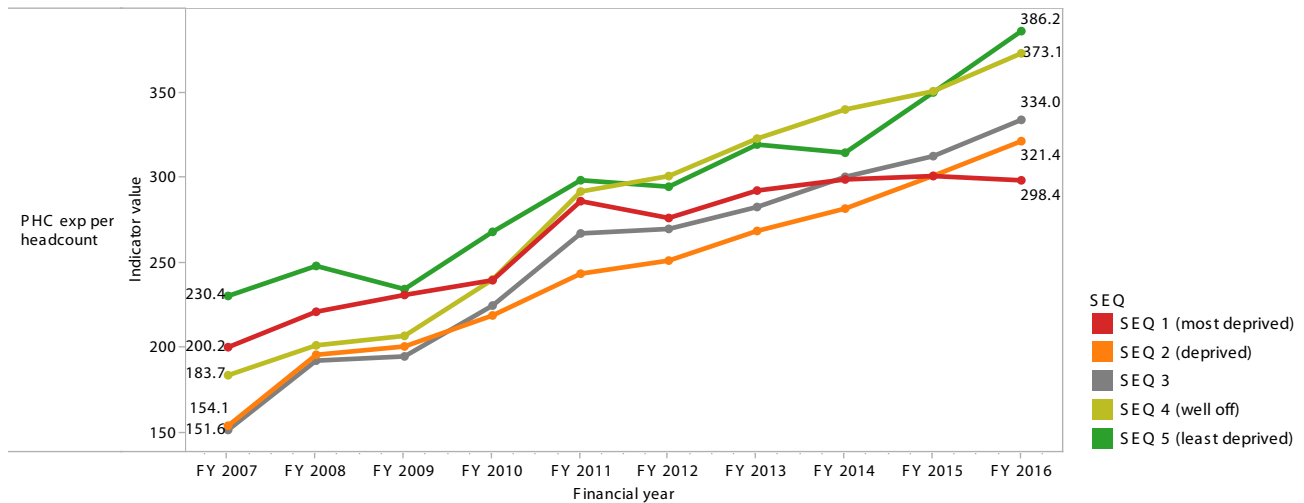
Figure 11 also reflects significant increases in real PHC expenditure per headcount in most districts, particularly those in the Northern Cape, North West, Western Cape and, in the past two years, also in Gauteng. However, there has been slower growth in the Eastern Cape and KwaZulu-Natal districts. As can be expected, the spread across districts for this indicator is somewhat narrower than PHC expenditure per capita, but it is still notable that the highest-spending district spent more than twice the amount per headcount than the lowest-spending district.

Figure 11: Annual trends for provincial and local government primary health care expenditure per headcount



Expenditure per headcount by SEQ follows the pattern of expenditure per capita (Figure 12). The most-deprived SEQ had the lowest expenditure per headcount, in fact it decreased slightly from 2014/15, while the least-deprived SEQ had the highest expenditure, which also increased sharply between 2013/14 and 2015/16. This indicates that inequities are not being addressed adequately. In fact, inequity may be increasing, as SEQ1 only grew by an average of 3.8% per year over this nine-year period, while SEQ5 grew by 5.7% and SEQ4 by 8.0%. The sharp growth in SEQ5 in the past two years was largely driven by the sharp increase in expenditure per headcount in Gauteng districts (Sedibeng, Ekurhuleni, Tshwane and Johannesburg all increased by 20% or more since 2013/14).

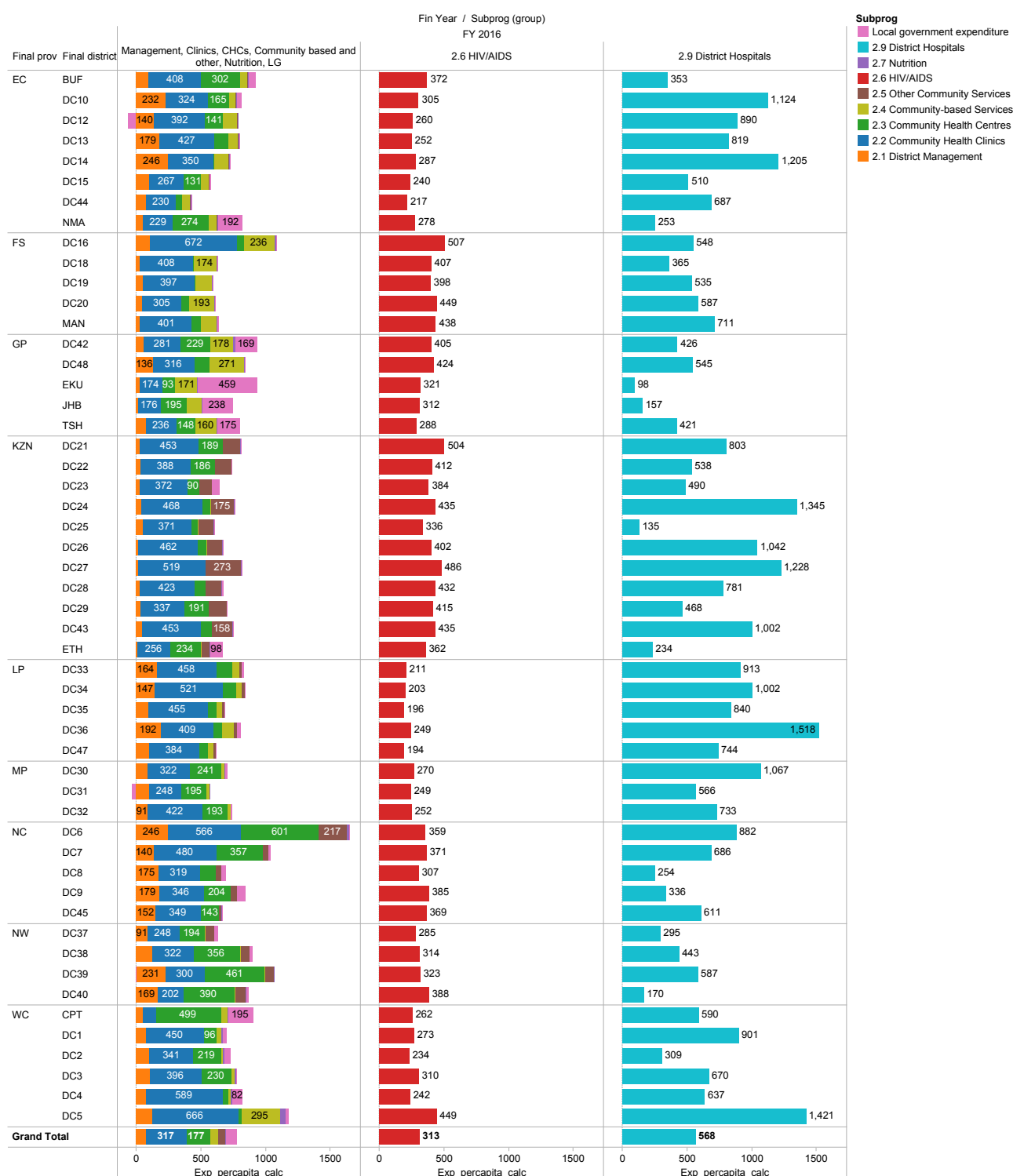
Figure 12: Provincial and local government primary health care expenditure per headcount (uninsured) by socio-economic quintile, 2015/16 (weighted average of data by district quintile)



Detailed composition of expenditure

Figure 13 shows the breakdown of DHS expenditure per capita in three categories: PHC (excluding HIV and AIDS); HIV and AIDS; and district hospitals. This shows clearly that much of the variation in DHS expenditure across districts can be attributed to variations in spending on district hospitals, and to some extent also spending on HIV and AIDS. However, the high inequities in the core PHC expenditure also merit attention.

Figure 13: Provincial and local government primary health care expenditure per capita (uninsured) by district and sub-programme, 2015/16



Source: BAS, DHIS, StatsSA.

As PHC utilisation is one of the most important drivers of PHC expenditure, it is worthwhile analysing to what extent differences in expenditure per capita are driven by differences in utilisation patterns. Table 3 shows the PHC utilisation rate among the uninsured population for each district over the past 10 years. Overall, utilisation increased gradually from 2.6 visits per uninsured person per year in 2005/06 to 3.0 in 2010/11, after which it levelled off and in fact decreased over the last two years. The utilisation rate in 2015/16 was 2.8 visits per uninsured person per year, but at district level the rate ranged from 2.1 in Nkangala (MP) to 4.0 in Namakwa (NC).

Table 3: Primary health care utilisation per capita (uninsured), 2005/06–2015/16 (number)

Province	District	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
EC	BUF	3.8	3.8	3.7	3.8	3.9	3.7	4.0	3.8	3.6	3.6	3.4
	DC10	3.7	3.8	3.9	4.2	3.8	3.9	3.9	3.4	3.3	3.2	3.3
	DC12	2.6	2.7	3.0	3.0	3.0	2.8	3.0	2.9	3.0	3.2	3.8
	DC13	2.7	2.8	2.8	3.1	3.3	2.9	3.1	3.0	3.1	3.2	3.2
	DC14	2.0	2.1	2.2	2.3	2.4	2.6	2.7	2.6	2.6	2.7	2.7
	DC15	2.4	2.4	2.3	2.5	2.8	2.8	2.9	2.8	2.8	2.9	2.8
	DC44	1.9	1.9	1.9	2.1	2.4	2.2	2.3	2.4	2.4	2.4	2.4
	NMA	4.1	4.1	3.9	4.2	4.2	3.9	3.7	3.6	3.3	3.2	3.1
FS	DC16	2.9	2.9	3.2	3.5	3.5	3.7	3.9	3.9	3.7	3.9	3.9
	DC18	2.2	2.2	2.2	2.5	2.7	2.7	3.0	3.2	3.1	3.1	3.1
	DC19	2.7	2.8	2.7	3.0	3.0	3.0	3.3	3.6	3.2	2.9	2.8
	DC20	3.1	3.0	2.9	2.9	3.0	3.0	2.9	2.7	2.6	2.7	2.6
	MAN	2.5	2.5	2.5	2.8	2.7	2.8	3.2	3.3	3.0	2.9	2.7
GP	DC42	1.9	2.0	2.0	2.2	2.4	2.6	2.9	2.9	2.8	2.6	2.5
	DC48	1.8	2.0	1.8	2.2	2.5	2.6	2.9	2.9	3.0	2.8	2.5
	EKU	1.7	1.8	1.7	1.9	2.1	2.2	2.5	2.7	2.6	2.6	2.5
	JHB	2.3	2.4	2.3	2.5	2.4	2.5	2.6	2.7	2.7	2.7	2.4
	TSH	1.9	2.0	1.9	2.2	2.3	2.4	2.6	2.4	2.5	2.5	2.2
KZN	DC21	2.4	2.6	2.5	2.7	2.9	3.0	3.2	3.4	3.6	3.7	3.7
	DC22	0.7	3.0	3.0	3.2	3.4	3.2	3.4	3.4	3.3	3.5	3.3
	DC23	1.9	2.1	2.2	2.2	2.4	2.1	2.3	2.6	2.7	2.7	2.8
	DC24	2.0	2.1	2.3	2.6	2.7	2.8	3.0	3.1	3.3	3.2	3.4
	DC25	2.0	2.5	2.3	2.3	2.5	2.4	2.5	2.8	2.6	2.8	2.5
	DC26	2.2	2.4	2.5	2.6	2.5	2.4	2.6	2.7	2.8	2.9	2.8
	DC27	2.3	2.5	2.6	2.8	3.1	3.2	3.5	3.6	3.7	3.6	3.6
	DC28	2.6	2.6	2.5	2.7	3.0	3.0	3.2	3.5	3.4	3.5	3.3
	DC29	2.4	2.6	2.8	3.2	3.2	3.1	3.4	3.5	3.5	3.4	3.4
	DC43	2.0	2.2	2.1	2.3	2.5	2.5	2.7	2.9	3.0	3.1	3.2
	ETH	2.3	2.7	2.7	3.0	3.2	3.3	3.8	4.0	4.1	3.6	3.5
LP	DC33	3.7	3.9	3.5	3.5	3.3	3.0	3.2	3.3	3.2	3.2	3.1
	DC34	4.6	4.5	4.2	4.1	4.0	3.4	3.4	3.2	3.1	3.0	3.1
	DC35	2.1	2.3	2.3	2.7	3.1	3.2	3.1	2.9	3.0	2.9	2.8
	DC36	2.4	2.3	2.3	2.4	2.5	2.3	2.6	2.5	2.3	2.3	2.4
	DC47	1.6	1.8	1.8	2.3	2.4	2.1	2.3	2.3	2.3	2.3	2.4
MP	DC30	2.0	2.0	1.9	2.1	2.0	2.2	2.3	2.4	2.4	2.4	2.4
	DC31	1.9	2.0	1.8	1.9	2.0	2.0	2.1	2.1	2.1	2.2	2.1
	DC32	2.7	2.6	2.7	2.9	2.8	2.7	2.9	3.0	3.0	3.1	3.0
NC	DC45	3.4	3.4	3.1	3.1	3.1	3.0	2.8	2.9	2.9	2.8	2.7
	DC6	4.1	4.5	4.6	5.0	4.9	4.8	4.4	4.7	4.6	4.3	4.0
	DC7	3.8	4.3	4.3	4.6	3.9	4.5	4.2	4.1	4.0	3.8	3.5
	DC8	2.9	3.0	3.1	3.3	3.3	3.5	3.5	3.4	3.4	3.3	2.8
	DC9	2.9	3.3	3.3	3.3	3.2	3.3	3.2	3.3	3.3	3.2	2.7
NW	DC37	2.7	2.4	2.1	2.2	2.3	2.2	2.2	2.1	2.2	2.3	2.3
	DC38	2.9	2.8	2.8	3.1	3.1	2.9	2.9	2.9	2.9	3.0	2.7
	DC39	3.1	3.1	3.2	3.5	3.4	3.2	3.2	3.1	3.1	3.1	3.0
	DC40	3.3	3.2	3.3	3.3	3.3	3.0	2.7	2.7	2.6	2.6	2.6
WC	CPT	3.6	3.2	3.1	3.5	3.8	3.9	3.9	3.6	3.4	3.4	3.3
	DC1	3.8	3.9	4.0	3.8	3.3	3.0	2.9	2.9	2.8	2.7	2.6
	DC2	3.1	3.3	3.5	3.7	3.6	3.4	3.1	2.9	2.8	2.7	2.5
	DC3	3.6	3.5	3.4	3.9	4.1	4.0	3.7	3.3	3.1	3.0	3.1
	DC4	3.9	3.8	4.0	4.4	4.0	3.7	3.4	3.2	3.0	2.9	2.8
	DC5	5.2	5.1	4.7	4.6	4.3	3.7	3.3	3.3	3.1	3.0	3.0
Grand Total		2.6	2.7	2.6	2.8	2.9	2.9	3.0	3.0	3.0	2.9	2.8

Source: DHIS.

Key findings and implications

Key findings by province

Eastern Cape

The five lowest-spending districts per headcount, and three of the five lowest-spending districts per capita were in the Eastern Cape. As a whole, the province's expenditure on these indicators decreased in real terms over the past three years. A Nzo had by far the lowest PHC expenditure per capita in the country. Although utilisation was relatively low (Table 3), A Nzo appears to be severely under-funded, a situation that is likely to require attention. Buffalo City had the highest PHC expenditure in the province, largely driven by high expenditure on CHCs and clinics, while expenditure on district hospitals was relatively low per capita. Buffalo City's expenditure on PHC per headcount was very close to the national average; the high per capita expenditure is explained by the relatively high utilisation rate, namely 3.4 visits per person per year among the uninsured population. S Baartman and Joe Gqabi districts had very high expenditure on district management (R232 and R246 per capita respectively); if this expenditure was not due to data issues (e.g. PHC expenditure allocated to management) then there may be scope for better efficiencies on this sub-programme. Joe Gqabi had a relatively high antenatal HIV prevalence rate at 30.7%,^c but HIV and AIDS spending per capita (R287) was significantly below the R313 national average.

Free State

Xhariep had the highest PHC expenditure per capita (and the third-highest in the country), due to very high spending on clinics. The district had a high PHC utilisation rate at 3.9 visits per person per year among the uninsured population, and costs per capita were possibly high due to population scarcity. However, it had the highest expenditure per capita on HIV and AIDS in the entire country, and may in fact be overfunded in this area as its antenatal HIV prevalence rate (25.8%) was slightly below the national average of 29.7%.^d The other four districts in the province had relatively equal expenditure per capita on both PHC and HIV and AIDS, although some variation can be seen in district hospital spending.

Gauteng

Primary health care expenditure per capita was spread relatively equally across Gauteng districts. However, its composition varied substantially. Notably, in Ekurhuleni 49.1% of PHC expenditure was from local government. This may potentially have been a result of underfunding by the provincial department of health, as provincial expenditure on clinics and CHCs was relatively low, and may warrant attention by the department. A similar pattern can be seen in Johannesburg, although to a lesser extent. Both these metros had very low expenditure on district hospitals, as most of the hospitals in the province are either regional or tertiary. Gauteng had the lowest PHC utilisation rate in the country, ranging between 2.2 and 2.5 visits per person per year among the uninsured population; the high expenditure per capita is a result of the very high costs per visit. It is recommended that efficiencies be sought in order to reduce further escalation in PHC expenditure per headcount. A long-term review of care provided by hospitals is needed in Gauteng as the lack of district hospital beds results in inefficient spending by secondary- and tertiary-level care.

KwaZulu-Natal

Due to the high HIV prevalence rate in KwaZulu-Natal, all districts in the province spent above the national average on HIV and AIDS, ranging from R336 to R504 per capita. Expenditure on PHC was relatively equally distributed across districts, and costs were largely driven by clinics. The second largest component of PHC spending in the province was 'other community service', which was much higher than in other provinces. It is recommended that KwaZulu-Natal relooks at its classification of expenditure in this sub-programme, as BAS records show that significant amounts were paid for items that are usually paid for under other sub-programmes, including R191 million for Community Service (CommServe) doctors, R154 million for CommServe nurses, R140 million for PHC management services, and R58 million for PHC outreach teams. There were wide discrepancies across districts in terms of district hospital expenditure, ranging from a low of R135 per capita in Amajuba to a high of R1 345 in uMzinyathi; this is likely to have been driven by differences in distribution of district hospital beds in the province.

Limpopo

Limpopo had the second-lowest PHC expenditure after the Eastern Cape, both per capita and per headcount. It had the lowest expenditure per capita in the country on HIV and AIDS, partially explained by the relatively low HIV prevalence rate.^d Limpopo's high DHS expenditure can be explained by very high expenditure on district hospitals, comprising 49.8% of total DHS expenditure in the province. Limpopo has only two tertiary hospitals and five regional hospitals, and

^c South African National Department of Health. The National Antenatal Sentinel HIV Prevalence Survey South Africa. Pretoria: NDoH; 2013.

^d McIntyre D, Anselmi L. Guidance on using needs based formulae and gap analysis in the equitable allocation of health care resources in East and Southern Africa. EQUINET discussion paper 93. Harare: Regional Network for Equity in Health in Southern Africa; 2012.

therefore relies heavily on districts to provide hospital services, and it is likely that a large portion of PHC services are also provided in these hospitals. Waterberg had the highest district hospital expenditure per capita in the country, namely R1 518 per capita in its seven district hospitals. Further analysis of expenditure and utilisation of outpatient services at district hospitals would be useful to determine the extent to which PHC services are provided there. It is also notable that Limpopo had relatively high expenditure per capita on district management across all districts, particularly in Waterberg and Mopani (R192/capita and R164/capita, respectively). It is recommended that Limpopo reprioritise funds from this area towards core services.

Mpumalanga

Expenditure per capita on PHC and HIV and AIDS was relatively low in Mpumalanga although expenditure on the CHC sub-programme was above the national average. The low PHC expenditure per capita is likely explained by a combination of relatively low expenditure per headcount and low utilisation per uninsured person in Nkangala district (2.1 visits per uninsured person per year) and G Sibande (2.4 visits per uninsured person per year). It is of potential concern that all districts in the province were below the national average on HIV and AIDS expenditure, including G Sibande, which had the fifth-highest antenatal HIV prevalence rate in the country in 2012 (40.8%).^d

Northern Cape

There were significant differences across districts in terms of both PHC expenditure and district hospital expenditure. Namakwa had the highest PHC expenditure in the country by far at R1 648 per capita, approximately double the national average. This was driven by both a very high expenditure per headcount and having the highest utilisation rate in the country at 4.0 visits per uninsured person per year. While other districts in the province had very low expenditure on other community services, Namakwa had the second-highest expenditure on this sub-programme in the country at R217 per capita. BAS records show that the majority of Namakwa's expenditure in this sub-programme was for PHC outreach services, while there was very little or no expenditure recorded for PHC outreach in the other Northern Cape districts. Further analysis is recommended to establish why this was the case. Namakwa also had the highest expenditure per capita on district hospitals in the province. This indicates that the district is potentially over-resourced overall, and reprioritisation towards other less-resourced districts such as JT Gaetsewe or ZF Mgcawu should be considered. The Northern Cape's expenditure per capita on HIV was above the national average, despite it having the lowest prevalence rate. Expenditure on district management was relatively high in all districts in the province. Again, Namakwa spent above the national average on HIV and AIDS, despite having by far the lowest antenatal HIV prevalence rate in the country at 2.3%.^d

North West

Expenditure on district hospitals in North West was particularly low compared with other provinces, with the exception of RS Mompoti district which was slightly above the national average. Bojanala had low expenditure per capita on PHC services, a result of low utilisation, as expenditure per headcount was in fact slightly above the national average. Despite the low PHC expenditure, Bojanala had relatively high expenditure on district management at R91 per capita. The other districts in the province, particularly RS Mompoti, also had fairly high expenditure on district management as a proportion of total PHC expenditure, and the province should potentially look into reprioritising funds towards core PHC services.

Western Cape

The Western Cape spent slightly above the national average on both DHS and PHC. The PHC expenditure was largely concentrated in provincial clinics, with the exception of the City of Cape Town, which relies more on municipal clinics and CHCs for the provision of PHC services. Central Karoo had the highest expenditure per capita on DHS in the country, resulting from high expenditure in the three main categories shown in Figure 13. HIV and AIDS programmes in this district may potentially be over-resourced, given that the antenatal prevalence rate (6.9%) in the district was far below the national average of 29.7%.^d The high expenditure per capita in Central Karoo was driven mainly by high expenditure per headcount (R503), as PHC utilisation was only slightly above the national average and lower than utilisation in both the City of Cape Town and Overberg.

Disparities over time

Table 4 shows the ratio of the highest to lowest-spending districts for each year in the key expenditure areas discussed in this chapter. A high ratio signifies a wide difference between the highest-spending district and the lowest-spending district. The disparity between the highest and lowest-spending districts increased between 2005/06 and 2015/16 for all indicators, except HIV and AIDS and PHC per headcount. The ratio for DHS expenditure per capita increased quite significantly between 2005/06 and 2008/09, after which it gradually declined to 2.82:1 in 2015/16. The ratio for PHC expenditure per capita (both excluding and including HIV and AIDS) remained relatively stable over the 10-year period, although slightly increased differences can be seen. In 2015/16, these ratios were 3.85:1 and 3.12:1 respectively. The

disparities in HIV expenditure were extremely high between 2005/06 and 2007/08, after which they declined sharply in 2008/09. This was most likely the result of ART becoming more widely available across the country and as provision shifted from hospital level to PHC level through nurse-driven ART implementation. Since 2008/09, the disparity has gradually decreased further, but it was still 2.62:1 in 2015/16. Primary health care expenditure per headcount has become more equal across districts; the ratio of highest to lowest-spending districts decreased from 3.36:1 in 2006/07 to 2.29:1 in 2015/16.

These ratios show that there are still serious inequities in resource allocation between districts and that in some aspects these inequities are increasing. The district with the highest spending on PHC (excluding HIV and AIDS) per capita spent 3.85 times as much per capita as the lowest-spending district, and the district with the highest expenditure per headcount spent 2.29 times as much per visit as the lowest-spending district. As discussed earlier in this chapter, this is a result of intra-provincial more than inter-provincial disparities. Provincial departments of health are encouraged to make efforts to address this and to review their methodologies for allocating budgets across districts.

Table 4: Ratio of the highest to lowest-spending in key expenditure areas, 2005/05 – 2015/16 (=1)

	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
DHS per capita	2.57	2.85	3.35	3.83	2.96	2.89	2.90	2.96	2.90	2.95	2.82
PHC (excl. HIV/AIDS) per capita	3.36	3.30	3.21	3.27	3.58	3.58	3.74	3.87	3.59	3.59	3.85
HIV/AIDS per capita	18.08	20.55	18.93	5.67	6.13	6.56	3.97	3.16	2.74	3.02	2.62
PHC (incl. HIV/AIDS) per capita	2.95	3.06	2.86	2.76	2.85	2.83	3.35	3.18	3.13	2.84	3.12
PHC (incl. HIV/AIDS) per headcount	-	3.36	2.74	2.74	3.01	2.56	2.04	2.42	2.12	2.04	2.29

Source: National Treasury.

Towards needs-based allocations

Currently, budgeting at both provincial and district level is generally done on an incremental or historical basis (meaning that districts receive the same budget as the previous year adjusted by a set percentage, generally consumer price index inflation). The effect of using historical budgeting is that it perpetuates, and may even worsen, the present inequities across districts as districts that have always received lower proportions of resources for health will continue to do so irrespective of the relative need for health care present in the district. At interprovincial level, the provincial equitable share (PES) formula aims to ensure that each province receives its equitable proportion of nationally raised revenue. The health component is weighted at 27% of the formula and takes into account medical scheme coverage, population health risk profile and utilisation patterns. However, it does not stipulate the proportion that provinces must actually allocate to the health sector, and these allocations are quite often largely determined by historical budgets and expenditure.

There is a need to move away from historical, incremental budgeting towards allocative efficiency through a needs-based approach to resource allocation. The NHI White Paper, which was released for public comment in December 2015, states that under NHI, “the main mechanism that will be used to pay providers for personal health services will be a risk-adjusted capitation system with an element of performance-based payment”.^e This means that providers will be reimbursed based on the number of patients enrolled at their facilities, and the amount received per patient enrolled will be calculated through a formula taking into account age, gender and epidemiological profile.

This chapter has shown that HIV and AIDS constitutes a significant and growing portion of PHC expenditure in South Africa. Given the importance of this single cost driver, consideration should be given to excluding HIV and AIDS allocations from the capitation formula, and to having a separate method of reimbursing providers for HIV and AIDS costs (e.g. a fixed amount per ART patient together with linked performance incentives).

As it is likely to take several years before capitation is fully implemented under NHI, provinces can in the interim consider alternative approaches to allocating funding across districts. This can be done by creating a range of needs-based formulae using selected indicators of need and weighting them according to importance. Commonly used indicators of need include population size (which is the most important indicator), age-sex composition, disease burden and socio-economic indicators^d (such as a deprivation index like the one used in this publication).

Such needs-based formulae would produce ‘target expenditure shares’ for each district, which would be indicative of the percentage of resources required. The target shares would be used to determine which districts are ‘relatively over-resourced’ and which are ‘relatively under-resourced’. The distribution of resources should be viewed through the lens of relativity as all districts are struggling with the amount of resources they have. The trend internationally is to reprioritise funds from ‘relatively over-resourced’ districts to ‘relatively under-resourced’ districts. However, if the overall PHC budget is growing in real terms, another approach would be to keep the baseline of the ‘relatively over-resourced’ district constant

^e South African National Department of Health. White Paper on National Health Insurance. Pretoria: NDoH; 2015.

in real terms, while allocating all real increases in the PHC budget (at a set rate or percentage increase) to the relatively under-resourced areas (over a set time period) until equity is reached.^f This approach increases stakeholder buy-in when suggesting a needs-based approach to resource allocation. Given South Africa's current constrained budgetary climate it is likely that the former approach will be a necessity. However, it would have to be implemented gradually to avoid unsustainable budget reductions in relatively over-resourced districts and to ensure that the benefiting districts have the absorptive capacity to spend additional funds.

Conclusions and recommendations

- ◆ This chapter has shown that there are still substantial inequities in PHC expenditure across districts in South Africa. While these inequities exist on an interprovincial level, they are even greater across districts, and differences in expenditure per capita have increased over the past decade. This should serve as an impetus towards needs-based approaches to resource allocation. While a risk-based capitation is envisaged as the main reimbursement mechanism for PHC under NHI, it is recommended that provinces explore similar needs-based approaches in the interim. Low expenditure in districts in the most deprived socio-economic quintiles further strengthens this argument.
- ◆ Expenditure per capita and per headcount has increased significantly in real terms over the past decade and has been sustained, albeit at a slower pace, in recent years despite fiscal constraints. This indicates that districts are becoming better resourced to carry out PHC services. However, there is a need to get a better sense of the normative costs of providing high-quality health care. It is currently difficult to say whether the national averages of R349 spent per headcount or R993 per capita are high or low. Part of the increasing expenditure is due to higher HIV workload, which has relatively higher unit costs. There may also be areas of inefficiency in the rising unit costs, and potential for better efficiencies should be investigated, particularly in districts at the higher end of the range, such as Sedibeng (GP) and Namakwa (NC). However, several districts such as A Nzo and OR Tambo (both EC) had remarkably low expenditure both per capita and per headcount, and are likely to require attention. The Eastern Cape and Northern Cape have shown a decrease in PHC expenditure per capita (uninsured), while Limpopo was the only province to show a decrease in expenditure per PHC headcount. This is important to note as this would mean that more investment needs to be made in PHC level care in these provinces.
- ◆ This chapter also highlighted some methodological challenges in reviewing DHS and PHC expenditure. Firstly, there is a need for better uniformity in the classification of expenditure across provinces, particularly under the sub-programmes 'community-based services' and 'other community services'. Sub-programme objectives may need to be reviewed and revised to become more explicit and mutually exclusive, and implementation of these objectives should be better monitored and enforced. Secondly, a more complete analysis of PHC expenditure would need to separate out expenditure and utilisation of PHC services at district hospitals and include analyses of outreach services by community health workers and delivery of chronic medicines through central chronic medicines dispensation and distribution.

^f Maharaj Y. Promoting equity in primary healthcare expenditure across districts in the North West Province, using a needs-based resource allocation approach (dissertation). Cape Town: University of Cape Town; 2016. Available from: <https://open.uct.ac.za/handle/11427/20926> [Accessed 14 September 2016].

2 Management PHC

Ronel Steinhobel

The Ideal Clinic Realisation and Maintenance (ICRM) programme was initiated by the South African National Department of Health (NDoH) in July 2013 in order to systematically improve primary health care (PHC) facilities and the quality of care they provide. In his speech on Operation Phakisa implementation, President Jacob Zuma stated that the “Operation Phakisa Ideal Clinic Realisation and Maintenance segment seeks to transform all [our] public sector clinics into Ideal Clinics which provide good quality care to all [our] communities”.^a The National Health Council thereafter gave a directive on 24 April 2015 for all PHC facilities to be Ideal by 2019, starting in April 2015.^b

The purpose of a health facility is to promote health and to prevent illness and further complications through early detection, treatment and appropriate referral. A number of criteria must be met for a facility to achieve this purpose and be considered an Ideal Clinic. An Ideal Clinic is defined as a clinic with good infrastructure, adequate staff, adequate medicines and supplies, good administrative processes, and sufficient adequate bulk supplies.^b It uses applicable clinical policies, protocols and guidelines, and it harnesses partner and stakeholder support.^b All these things contribute to ensure the provision of good-quality health services to the community. An Ideal Clinic also collaborates with other government departments, the private sector and non-governmental organisations to address the social determinants of health.^c

In order to develop and sustain the Ideal Clinic, various components need to be in alignment and functional. These are:

- ◆ Administration
- ◆ Integrated clinical services management
- ◆ Medicines, supplies and laboratory services
- ◆ Human resources for health
- ◆ Support services
- ◆ Infrastructure
- ◆ Health information management
- ◆ Communication
- ◆ District health system support
- ◆ Implementing partners and stakeholders

Each of these 10 components is constituted of different sub-components, and each sub-component has a number of specific elements that need to be in place. Some elements are further defined by a checklist of measures to be fulfilled. There are 10 components and 32 sub-components in the Ideal Clinic model, as shown in Figure 1.

a President Jacob Zuma. Report on Operation Phakisa implementation. The Presidency, South African Government, 13 August 2015.

b National Department of Health. Ideal Clinic of South Africa: Monthly provincial report on PHC facilities identified to be Ideal in 2015/16. Pretoria: NDoH, July 2015.

c National Department of Health. Ideal Clinic components and definitions. Pretoria: NDoH, April 2015.

Figure 1: Ideal Clinic realisation and maintenance components and sub-components



Source: National Department of Health. Ideal Clinic of South Africa: Monthly provincial report on PHC facilities identified to be Ideal in 2015/16.

Each of these components and sub-components has a number of elements, which are listed in an Assessment Tool. Some elements are further defined by checklists, to be completed by marking with a 'Y' in the relevant column. Figure 2 shows an example of one sub-component and its associated elements. The status of a health facility is determined by scoring the facility against the elements in the Assessment Tool.

Figure 2: Extract from a section of the Ideal Clinic Assessment Tool showing a sub-component and elements

Component 4: Human Resources for Health						
Sub component 14: Staff allocation and use – Monitor whether the PHC facility has the required HRH capacity and whether staff is appropriately applied						
ELEMENTS		Weight	Method of measurement	Level of responsibility	Checklist	Performance
95	There is an individual Performance Management Agreement for each staff member	I		HF		
96	Continued staff development needs are determined for the current financial year and submitted to the district manager	I		HF		
97	Training records reflect planned training is conducted as per the district training programme	I		HF		
98	The disciplinary procedure is available	I		HF		
99	The grievance procedure is available	I		HF		
100	Staff satisfaction survey is conducted annually	I		D		
101	The results of the staff satisfaction survey is used to improve the work environment	I		HF		

Source: National Department of Health. Ideal Clinic of South Africa: Monthly provincial report on PHC facilities identified to be Ideal in 2015/16.

Figure 2 shows that each element is scored for weight, method of measurement, level of responsibility, and performance. The results of the assessment are displayed by means of a scorecard. The scorecard has three colours: green indicates that the targets/norms/standards have been achieved; amber indicates partial achievement; and red indicates lack of achievement.^a This is illustrated in Figure 3.

Figure 3: Keys used in the Assessment Tool to determine health facility performance on the Ideal Clinic elements

Performance is scored in line with three colours as follows:

Green (G)		= achieved
Amber (A)		= partially achieved
Red (R)		= not achieved

Key and description for method of measurement

Key	Method of Measurement (MM)
	a) Check applicable documents e.g. policies, guidelines, standard operating procedures, data, etc
?	b) Ask staff members and or clients for their views or level of understanding
	c) Objective observations and or conclusion
	d) Test the functionality of equipment/systems

Key and description for level of responsibility

Key	Description
NDoH	National Department of Health
P	Province
D	District
HF	Health Facility

Key and description for weighting

Key	Description
V	Vital
E	Essential
I	Important

The Assessment Tool is reviewed annually to ensure that the contents are up to date. The first version (6.4) was published in 2014, thereafter version 15 was published at the beginning of 2015 and a revised version named 'version 15 for peer reviews' was published in February 2016. The number of elements varies in each version of the tool. The data for this report were generated using version 15 for peer reviews.

Existing staff at district and sub-district level (previously tasked with quality improvement and PHC facility supervision) have been organised into district scale-up teams. These teams are working to improve weaknesses in clinics on a daily basis. A cross-district peer review was conducted during February 2016. Each district selected two teams, with two members per team, from staff within their district. These teams conducted status determinations at selected facilities in districts in another province. The selected facilities were chosen according to the best-performing facilities for the 2015/16 financial year.

Version 15 for peer reviews has 167 elements. The average score, according to the weights assigned to the 167 elements, determines whether Ideal Clinic status is achieved or not, as shown in Table 1. The majority of elements are weighted as Essential (81 elements), followed by Important (70 elements), and lastly Vital (15 elements). In order for a facility to obtain Ideal Clinic status, the facility must at a minimum score 100% for elements weighted as Vital, 70% for elements weighted as Essential, and 64% for elements weighted as Important. This will give the facility silver status. Depending on how a facility performs in a status determination, it will be scored and subsequently categorised as silver (70–79%), gold (80–89%), platinum (90–99%), diamond (100%), or no category achieved. The facility will only move out of the "no category achieved" classification when the minimum scores for Vital, Essential and Important elements have been achieved as set out in Table 1. It is therefore important to note that a facility can obtain a high average score (70%–99%) but still fail to obtain an Ideal Clinic category.

Table 1: Ideal Clinic categories

Weights	Number of elements	Silver (%)	Gold (%)	Platinum (%)	Diamond (%)
Vital	15	100	100	100	100
Essential	81	70	80	91	100
Important	71	64	75	86	100
Average percentage	167	70–79	80–89	90–99	100

Source: National Department of Health. Ideal Clinic of South Africa: Monthly provincial report on PHC facilities identified to be Ideal in 2015/16.

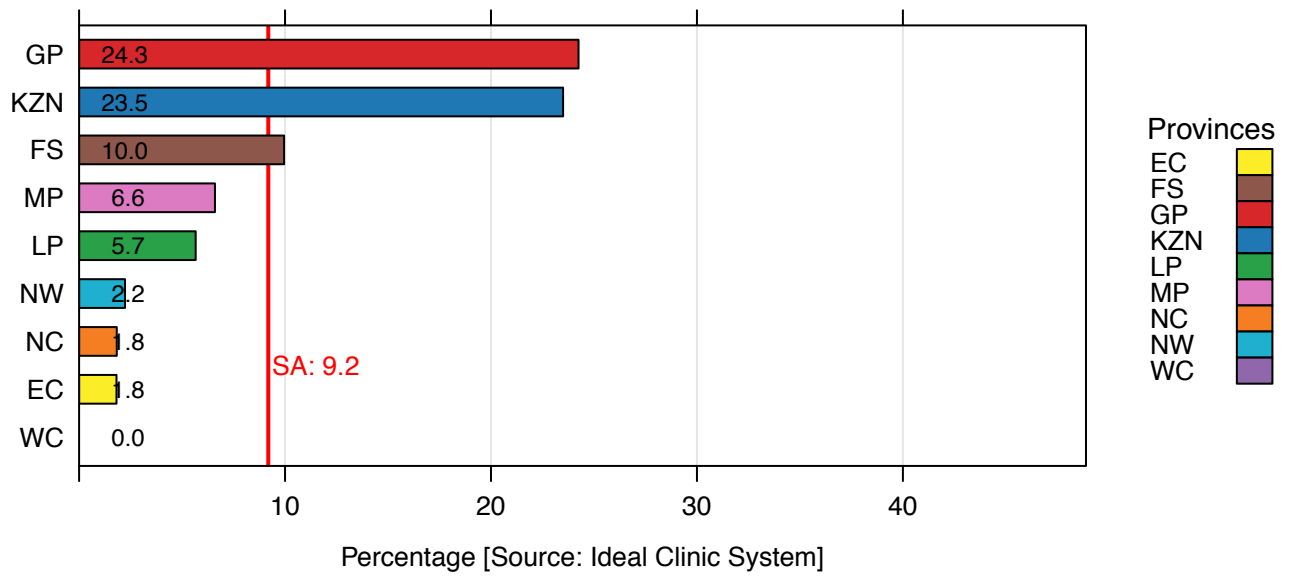
This chapter covers two Ideal Clinic indicators, namely percentage Ideal Clinics, and percentage of fixed PHC facilities with patients that have access to a medical practitioner.

2.1 Percentage Ideal Clinics

This indicator measures the proportion of fixed PHC facilities that achieved Ideal Clinic status and the category achieved, viz. silver, gold, platinum or diamond status.

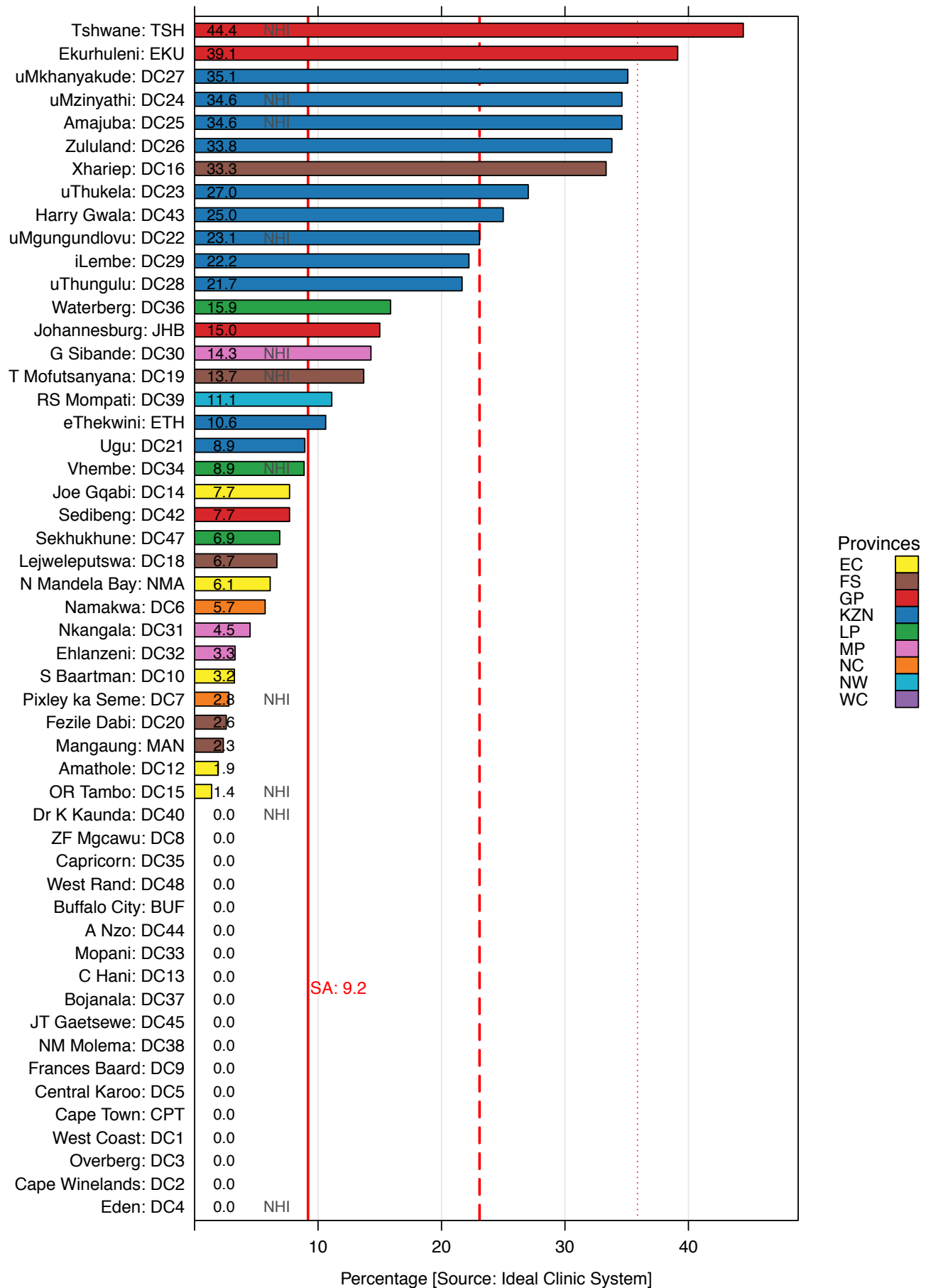
The national average was 9.2% in 2016. This excluded the Western Cape (WC) facilities, which were not included in the ICRM programme for the 2015/16 financial year. However, these facilities joined the programme on 1 April 2016 for the 2016/17 financial year. Gauteng (GP) performed the best in 2016, with 24.3% of fixed PHC facilities classified as Ideal Clinics, followed closely by KwaZulu-Natal (KZN) at 23.5% (Figure 4). The Northern Cape (NC) and Eastern Cape (EC) performed the worst with only 1.8% of fixed PHC facilities classified as Ideal Clinics.

Figure 4: Percentage Ideal Clinics by province, 2016



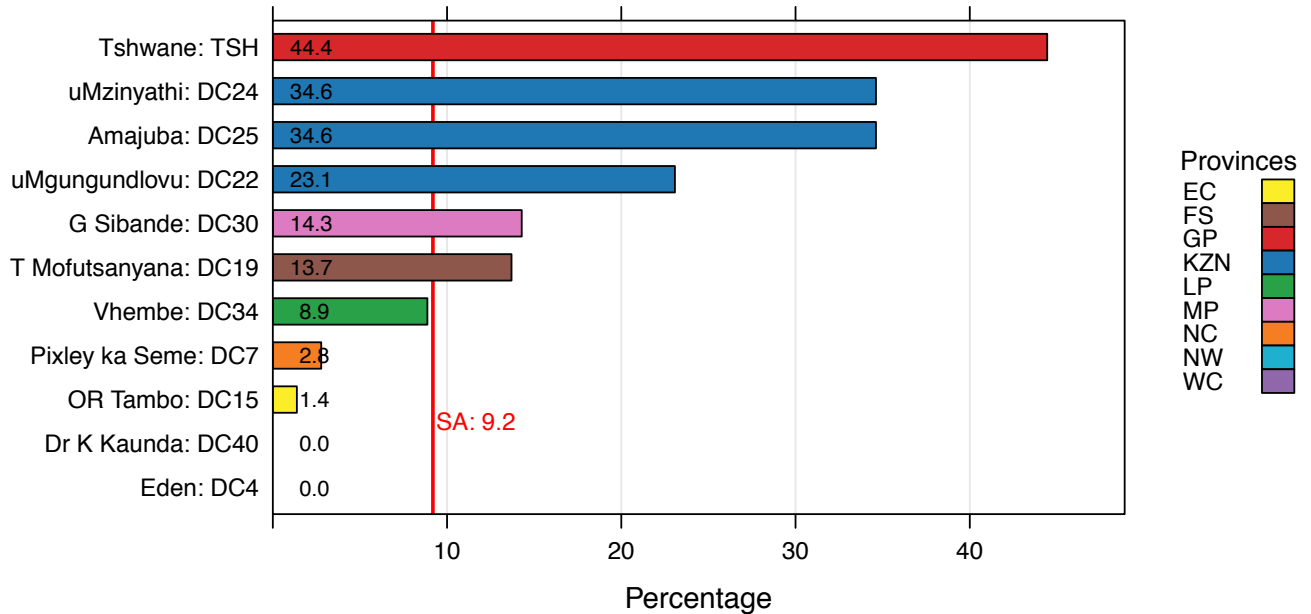
Excluding the six districts in the Western Cape, 12 districts had no facilities classified as Ideal Clinics. Tshwane (GP) was the best-performing district with 44.4% of fixed PHC facilities obtaining Ideal Clinic status (Figure 5). Six of the top 10 districts were from KwaZulu-Natal.

Figure 5: Percentage Ideal Clinics by district, 2016



Six of the 11 National Health Insurance (NHI) districts exceeded the national average (Figure 6). In Dr K Kaunda in North West (NW), none of the fixed PHC facilities obtained Ideal Clinic status.

Figure 6: Percentage Ideal Clinics by National Health Insurance district, 2016

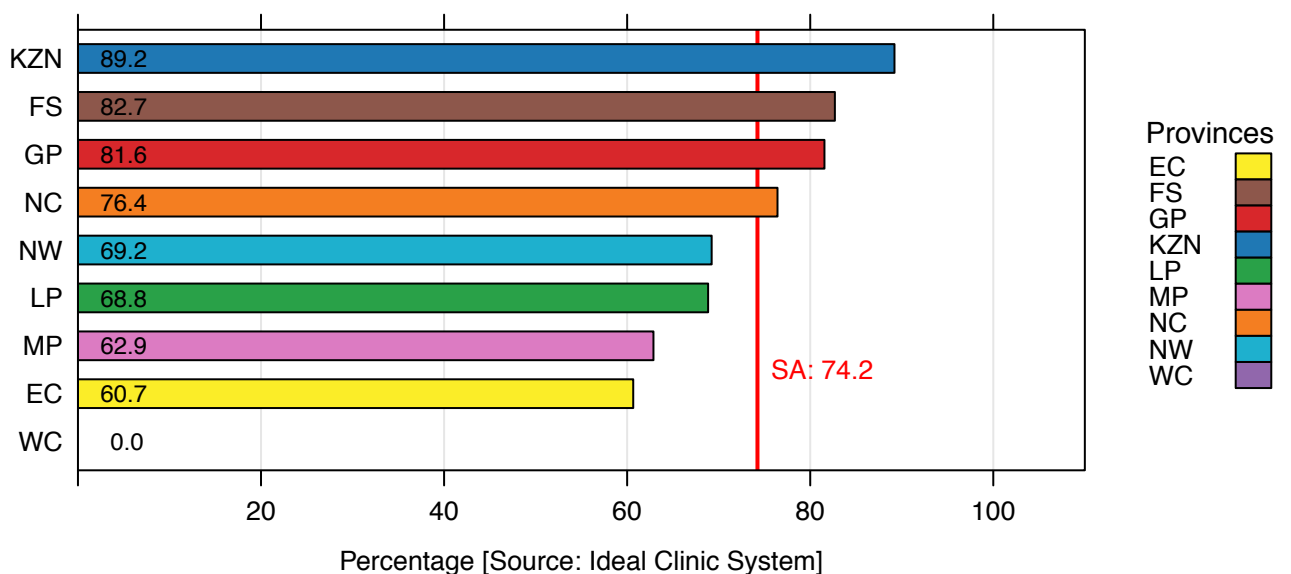


2.2 Percentage of assessed PHC facilities with patients that have access to a medical practitioner

This indicator measures the percentage of PHC facilities, out of all facilities that have conducted a status determination, with patients that have access to a medical practitioner. The denominator is the number of PHC facilities that conducted a status determination on version 15 as indicated in column G of the Ideal Clinic Assessment Tool.

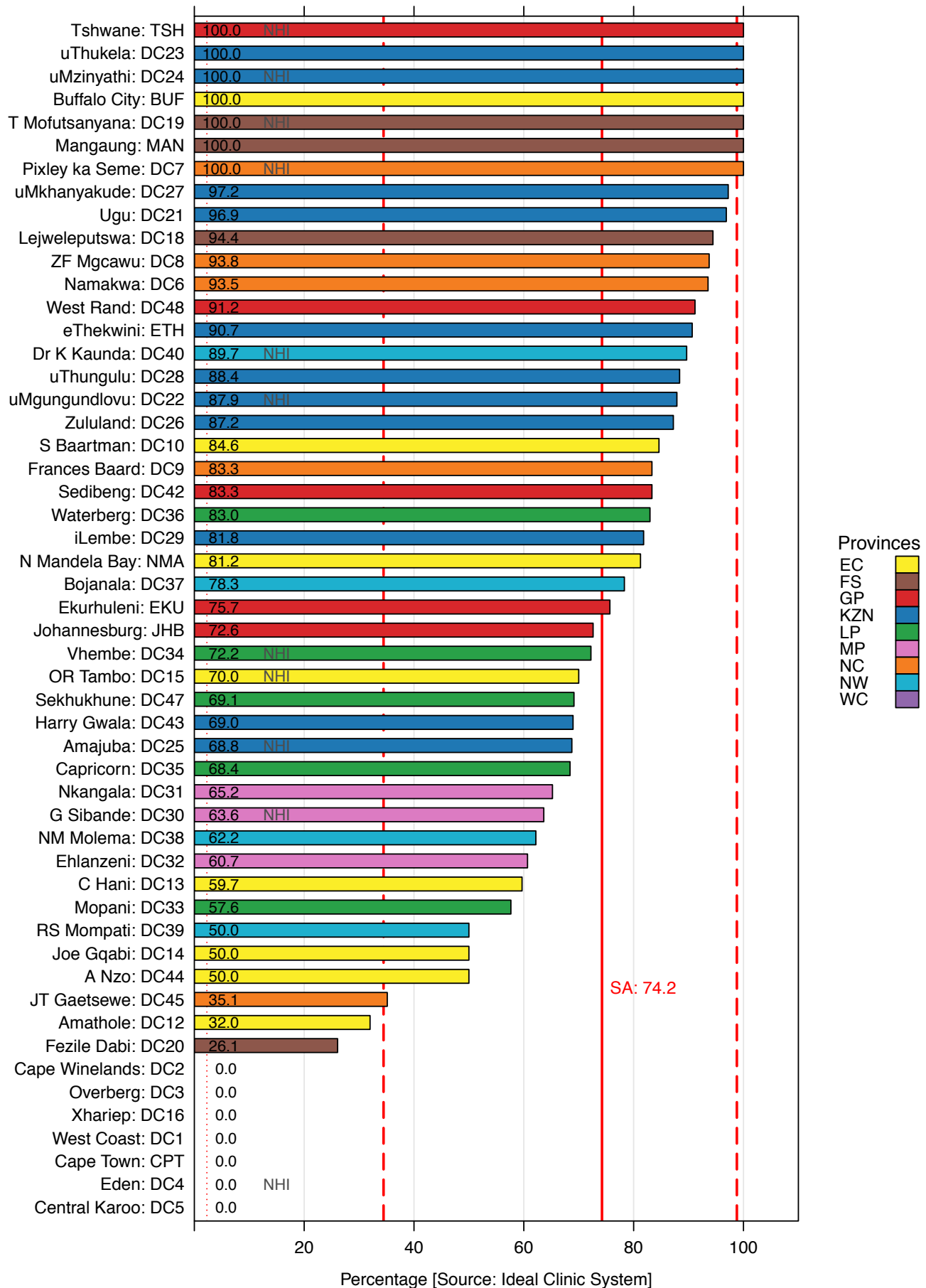
The national average was 74.2% in March 2016. The Western Cape was not included in the ICRM programme for the 2015/16 financial year but joined the programme on 1 April 2016 for the 2016/17 financial year. KwaZulu-Natal, Free State, Gauteng and Northern Cape exceeded the national average (Figure 7). The Eastern Cape performed the lowest, with only 60.7% of assessed PHC facility patients having access to a medical practitioner.

Figure 7: Percentage of assessed PHC facilities with patients that have access to a medical practitioner by province, 2016



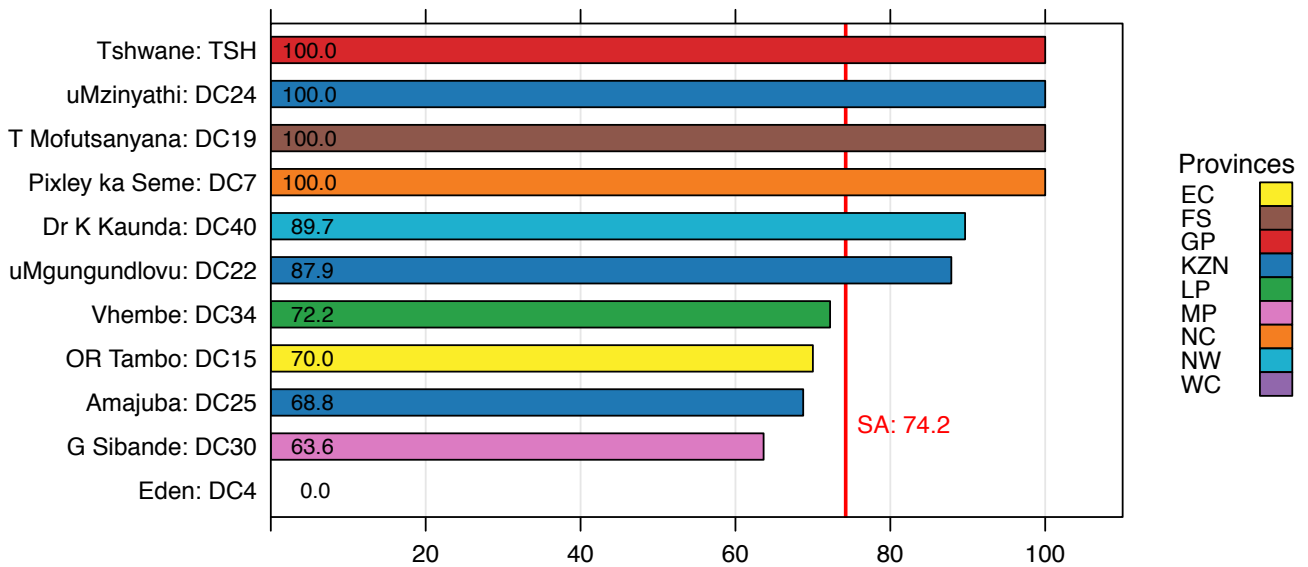
Among the districts, seven districts had a medical practitioner available at all the assessed facilities (Figure 8). Nineteen districts did not reach the national average, including five districts in the Eastern Cape, four districts in Limpopo and all three districts in Mpumalanga.

Figure 8: Percentage of assessed PHC facilities with patients that have access to a medical practitioner by district, 2016



Four NHI districts had a medical practitioner available at all the assessed facilities, namely Tshwane (GP), uMzinyathi (KZN), Thabo Mofutsanyana (FS) and Pixley ka Seme (NC). Four NHI districts did not reach the national average of 74.2%, namely Vhembe (LP) (72.2%), OR Tambo (EC) (70.0%) Amajuba(KZN) (68.8%) and G Sibande (MP) (63.6%) (Figure 9).

Figure 9: Percentage of assessed PHC facilities with patients that have access to a medical practitioner by National Health Insurance district, 2016



Conclusions and recommendations

- ◆ Progress with regard to turning clinics into Ideal Clinics is slower than desired, with multiple factors contributing to the poor performance of clinics.
- ◆ A major challenge is getting essential equipment, consumables and furniture to clinics. This is due to a pervasively poor supply chain system in seven of the nine provinces (at provincial, district and facility level). Weaknesses relate to poor processes, systems and skills. This is being strategically and systematically addressed in collaboration with provinces and the support of National Treasury. There is also a lack of a dedicated clinic managers and support staff (pharmacy assistants, cleaners, groundsmen, administrative support, and data capturers) in many clinics.
- ◆ A number of key transversal levers need to be in place to support the clinics. Of these, supply chain management is of utmost importance.
- ◆ Each province has been assigned a national Ideal Clinic coordinator to support and monitor the province. At provincial and district level, Perfect Permanent Teams for Ideal Clinic Realisation and Maintenance (PPTICRM) are responsible for supporting and monitoring clinics. Unfortunately not all districts have dedicated teams to support clinics within their district.
- ◆ That said, it needs to be recognised that the ICRM is a new programme and the National Department of Health is confident that the pace of turning clinics into Ideal Clinics will increase as the programme becomes more institutionalised at provincial and district level.
- ◆ Specific issues are being addressed in provinces, with a focus on building sustainable systems to support the ICRM programme.

3 Management inpatients

Nazia Peer

District hospitals play a fundamental role in the district health system as they support primary health care (PHC) and serve as the entry point to more specialised care. The indicators in this section have been reported individually, but should be viewed as interdependent and therefore interpreted collectively. District hospitals typically admit patients with acute and uncomplicated illnesses. More complicated cases are transferred to regional or tertiary hospitals.

3.1 Inpatient bed utilisation rate (district hospitals)

Bed utilisation rate (BUR) measures the occupancy of available beds and therefore indicates how efficiently a hospital is using its available capacity. It is calculated as follows: number of inpatient days added to half the number of day patients, and divided by usable bed days. Bed utilisation rate is expressed as a percentage.

In 2015/16, the national inpatient BUR was 65.3%; the rate decreased by 0.5 percentage points from 2014/15 but has been stable for the past five years between 65.3% and 67.2%. Figure 1 shows that there is great inter-provincial variation between the highest BUR in the Western Cape (WC) (87.5%) and the lowest BUR in the Eastern Cape (EC) (57.2%). In 2015/16, the Northern Cape (NC) BUR was 61.4%, with the province including both the district with the second-highest BUR and the district with the lowest BUR. In 2014/15 and 2015/16, the highest-performing three provinces in terms of BUR have been the Western Cape, Mpumalanga Province (MP) and Limpopo Province (LP), with the Eastern Cape the worst performer. However, bed utilisation in Gauteng Province (GP) increased by 5.1 percentage points from 2014/15, and the province moved up to the middle of the league table. In KwaZulu-Natal (KZN), the BUR decreased by 2.6 percentage points over the same time period and KwaZulu-Natal is now the second-worst performer among all the provinces. This warrants further investigation.

Figure 1: Inpatient bed utilisation rate by province, 2015/16

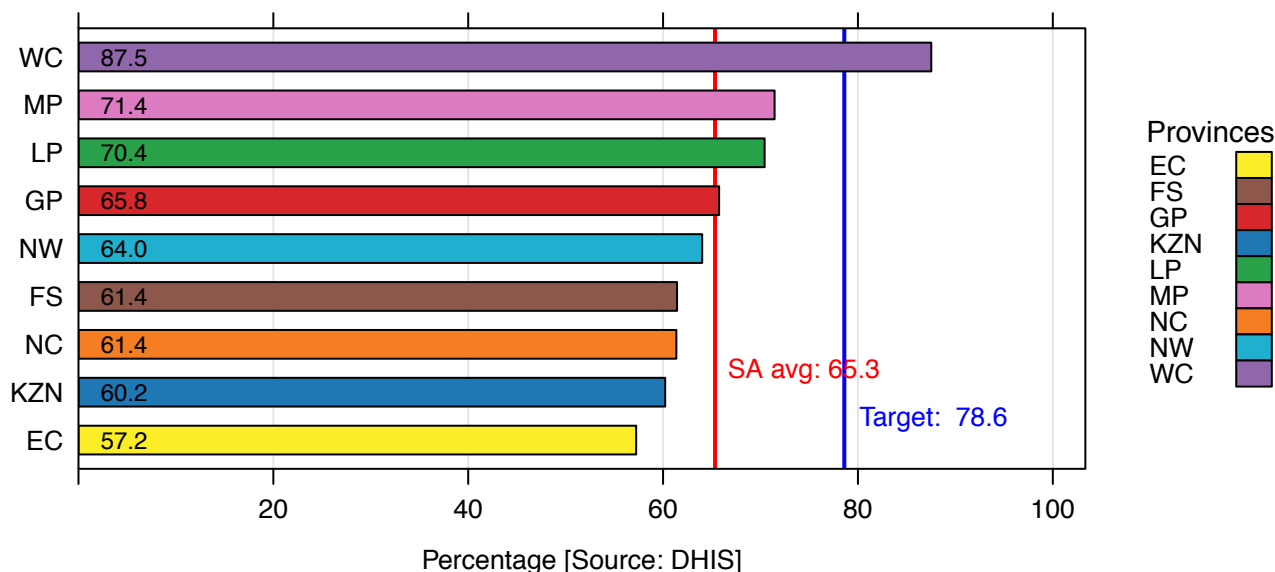
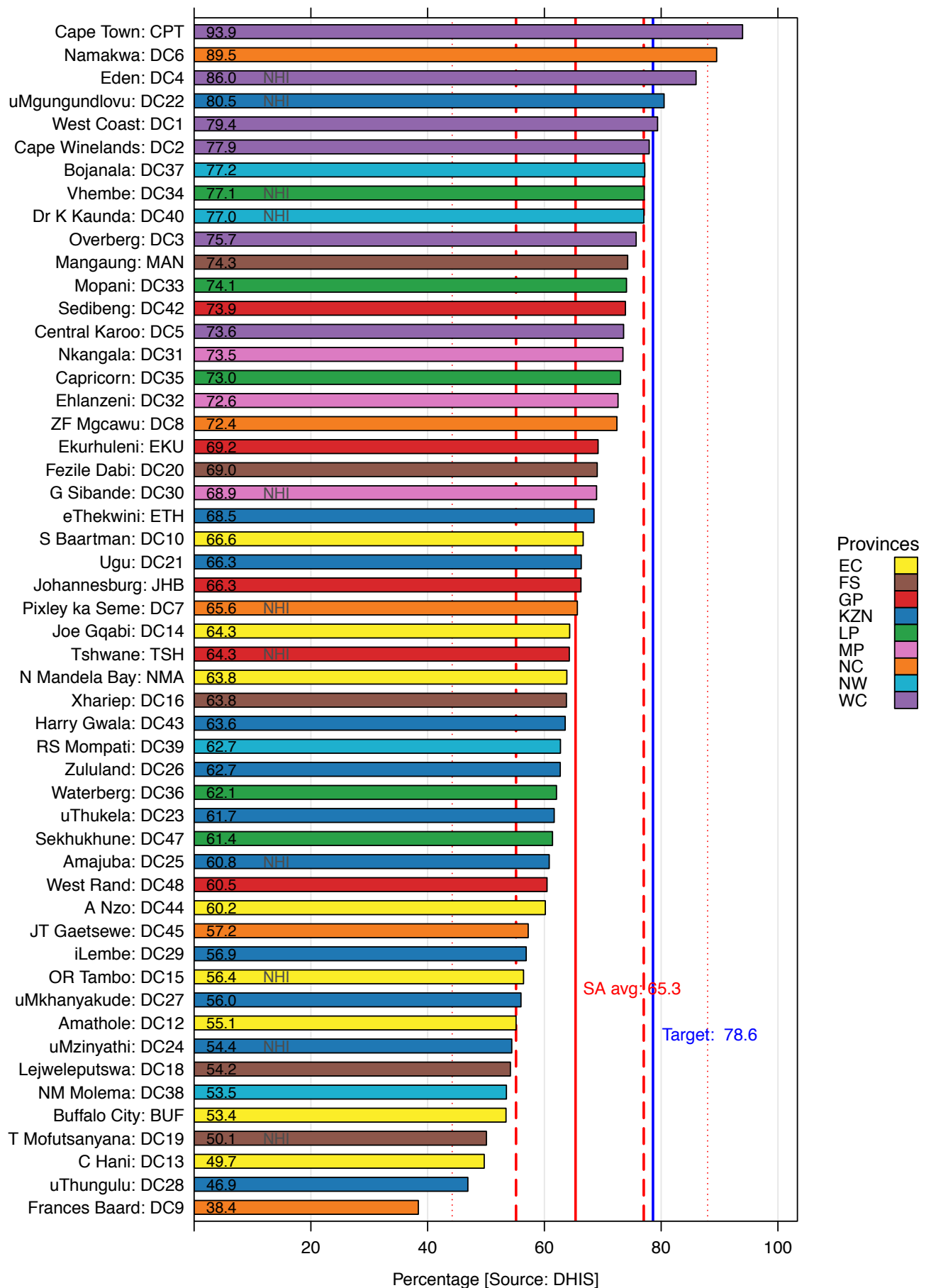


Figure 2 and Map 1 show the district BURs for 2015/16. The three districts with the highest BURs were Cape Town (WC) (93.9%), Namakwa (NC) (89.5%), and Eden (WC) (86.0%). Xhariep (FS) moved from the fifth-highest value in 2013/14 (80.8%) to a middle-of-the-league table value of 63.8%. This change appears to be due to lower utilisation in Diamond (Diamant) Hospital. Only five districts were above the national target of 78.6%. Three of these were in the Western Cape, and one each in KwaZulu-Natal and the Northern Cape.

Capricorn district in Limpopo Province rose from 69.5% in 2014/15 to 73.0% in 2015/16, following a notable decline in 2013/14 when the value was 48.5%. This sustained increase for two consecutive years indicates a probable data problem in 2013/14. Frances Baard (NC) increased slightly from 36.3% in 2014/15 to 38.4% in 2015/16, which is reassuring because this indicator has fluctuated for several years, probably due to data-quality issues. However, this extremely low BUR points to excessive hospital beds being available in this district, with associated inefficient use of scarce resources as much of district hospital expenditure is fixed costs.

All the Eastern Cape districts had BURs between 49.7% (S Bantman) and 66.6% (Joe Gqabi), with the majority of them positioned towards the lower half of the table. All the Western Cape and Mpumalanga districts are in the top one-third of the table.

Figure 2: Inpatient bed utilisation rate by district, 2015/16



Map 1: Inpatient bed utilisation rate by district, 2015/16

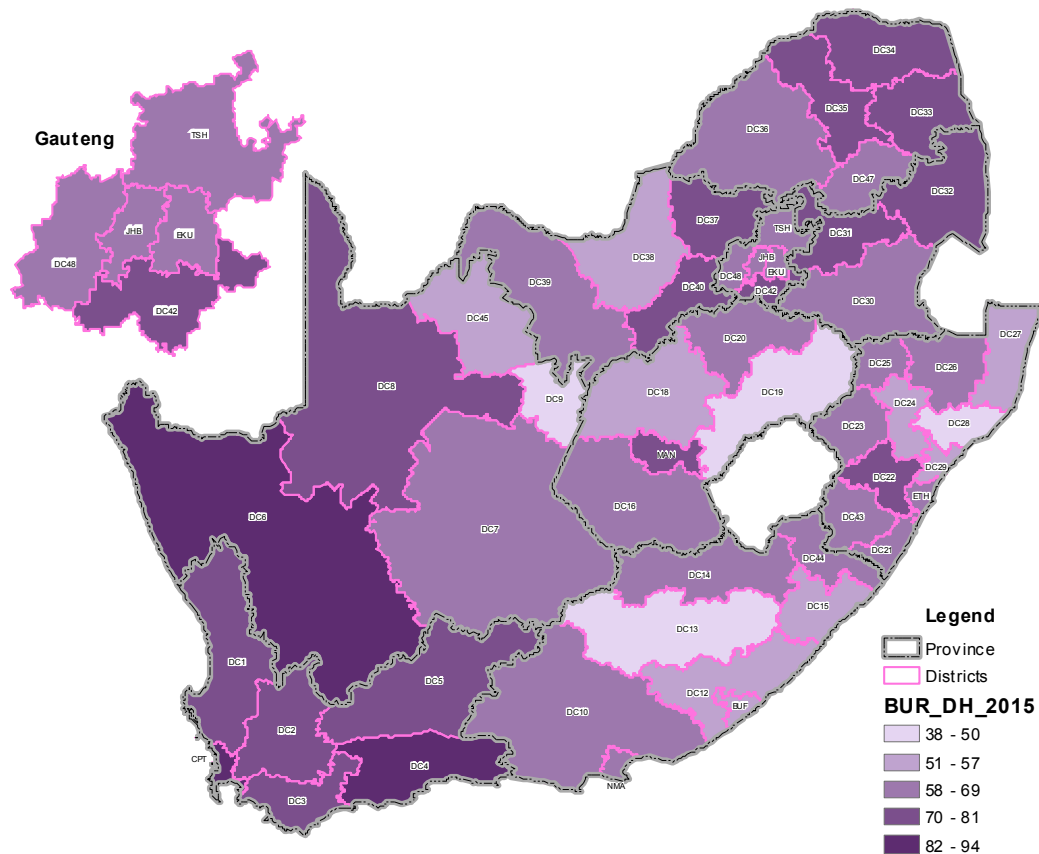
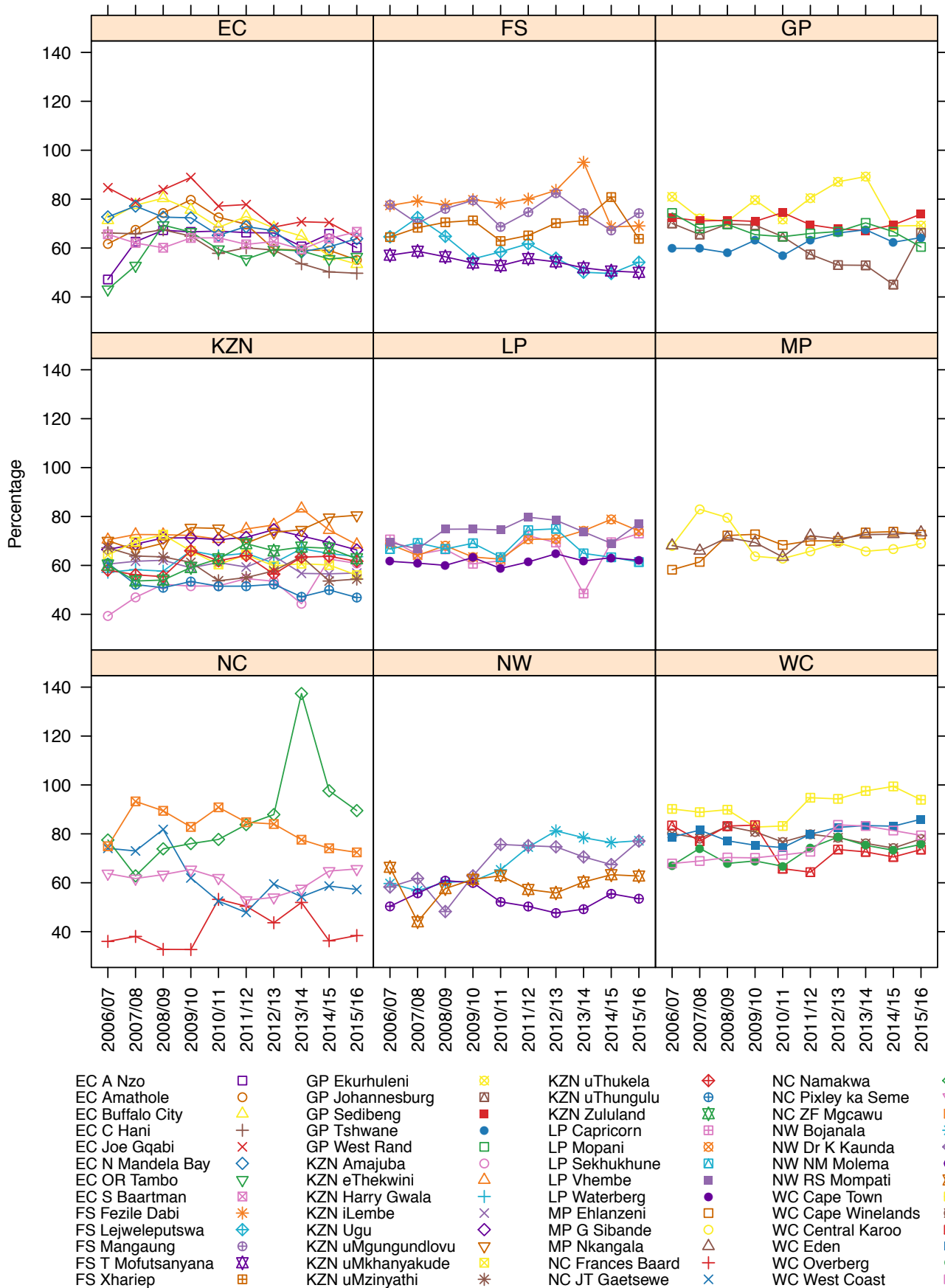


Figure 3 presents BUR trends over time and shows that the Western Cape had an overall BUR of over 80%. All the districts in the Western Cape had high BURs, with Cape Town higher than the other five districts. However, the gap between Cape Town and other districts decreased in 2015/16. All the other provinces had BURs between 60% and 70% and generally showed no real changes over time, except for Gauteng, the Northern Cape and the Free State. Ekurhuleni (GP) showed erratic rises followed by a drop in 2013/14. Johannesburg (GP) experienced a drop in BUR in 2013/14, followed by a rise in 2015/16. The fluctuations in Gauteng need to be investigated.

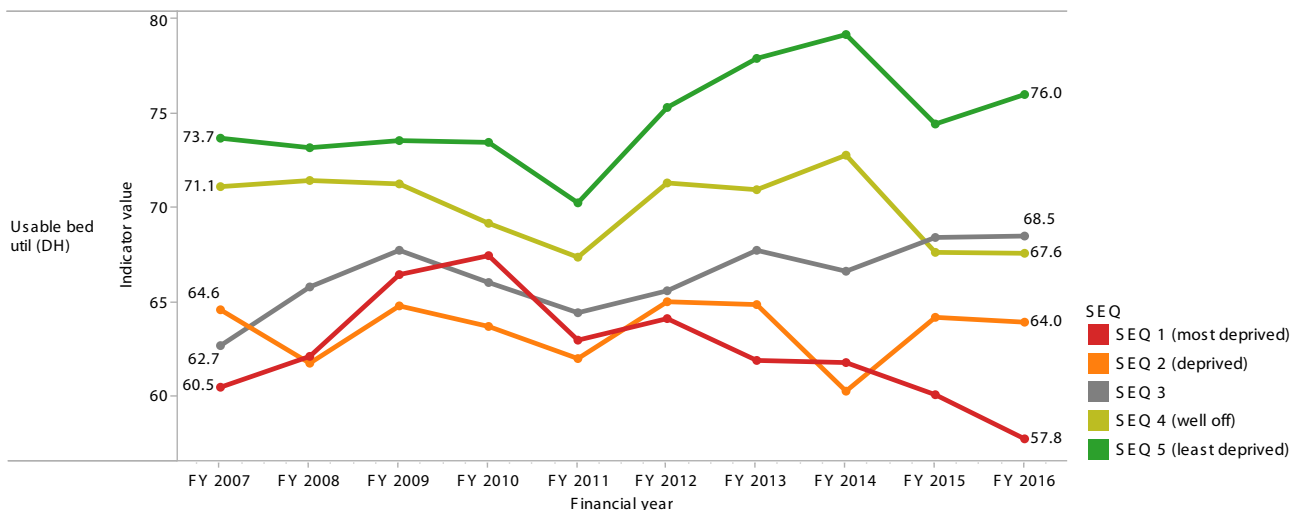
Mpumalanga districts do not show much variation (apart from G Sibande with peaks in 2006/07 and 2007/08), and the province had the lowest BUR for a second consecutive year in 2015/16. In the Free State, Fezile Dabi increased steadily from 2010/11 and reached a high in 2013/14. However, it dropped sharply to 68.7% as a result of an increase in the number of usable bed days (denominator). The Northern Cape showed great inter-district variation, with Namakwa, ZF Mgcawu and Frances Baard decreasing, and Pixley Ka Seme and JT Gaetsewe increasing. Namakwa is showing signs of stabilising. Generally, the variation in Northern Cape values could be due to its small numbers of usable beds and/or poor data quality.

Figure 3: Annual trends for inpatient bed utilisation rate



Although there was considerable variation within socio-economic quintiles (SEQs), overall the average BUR remained distinctly higher in SEQs 4 and 5 than in SEQs 1 and 2. However, in 2015/16, the BUR in SEQ3 was 0.9% higher than in SEQ4. Bed utilisation in all the SEQs remained the same or dropped in 2015/16, except for SEQ5, where BUR rose. This implies that hospital resources in poorer socio-economic districts need to be used much more efficiently (Figure 4).

Figure 4: Trends in average district values by socio-economic quintile for inpatient bed utilisation rate



3.2 Average length of stay (district hospitals)

Average length of stay (ALOS) refers to the average number of days that patients spend in hospital. It is calculated as follows: total number of inpatient days during a year plus half the number of day patients, divided by the number of separations (deaths, discharges and transfers out).

A persistently long ALOS could mean that patients are kept in hospital for too many days. Possible reasons for this include the following:

- ◆ A shortage of doctors leading to patients not being discharged or transferred timeously.
- ◆ In rural areas the disease profile and case mix, including high HIV, tuberculosis (TB) and mental health burdens, contribute more to a longer ALOS than factors in urban areas.
- ◆ Some surgical procedures (e.g. orthopaedic) can extend ALOS because patients require prolonged stays in hospital for rehabilitation.
- ◆ Some district hospitals have no laboratories and patients have to stay in hospital until the results are available.
- ◆ An undercount in the number of discharges can incorrectly extend ALOS.

If the ALOS is too short, it could mean that the quality of care afforded to patients is sub-standard and patients are being discharged without appropriate care. It may also mean that too many patients are being referred to other hospitals without proper investigation. Maintaining a consistent ALOS is vital, and both too-long and too-short ALOS warrant further investigation.

The national average for ALOS decreased slightly from 4.7 days in 2013/14 to 4.6 days in 2014/15 and to 4.5 days in 2015/16 (Figure 5). The provincial pattern shows that KwaZulu-Natal (5.7 days) and the Eastern Cape (5.1 days) had the longest ALOS; both provinces have a significant number of rural district hospitals. This was the third successive year that KwaZulu-Natal and the Eastern Cape had the longest ALOS.

Figure 5: Average length of stay by province, 2015/16

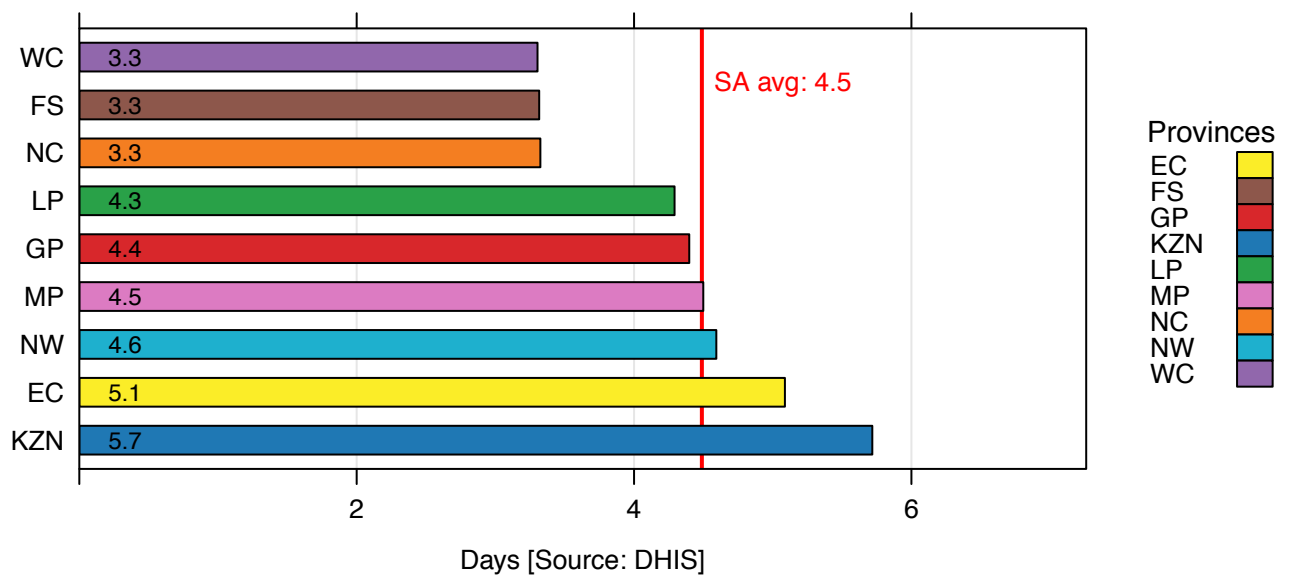
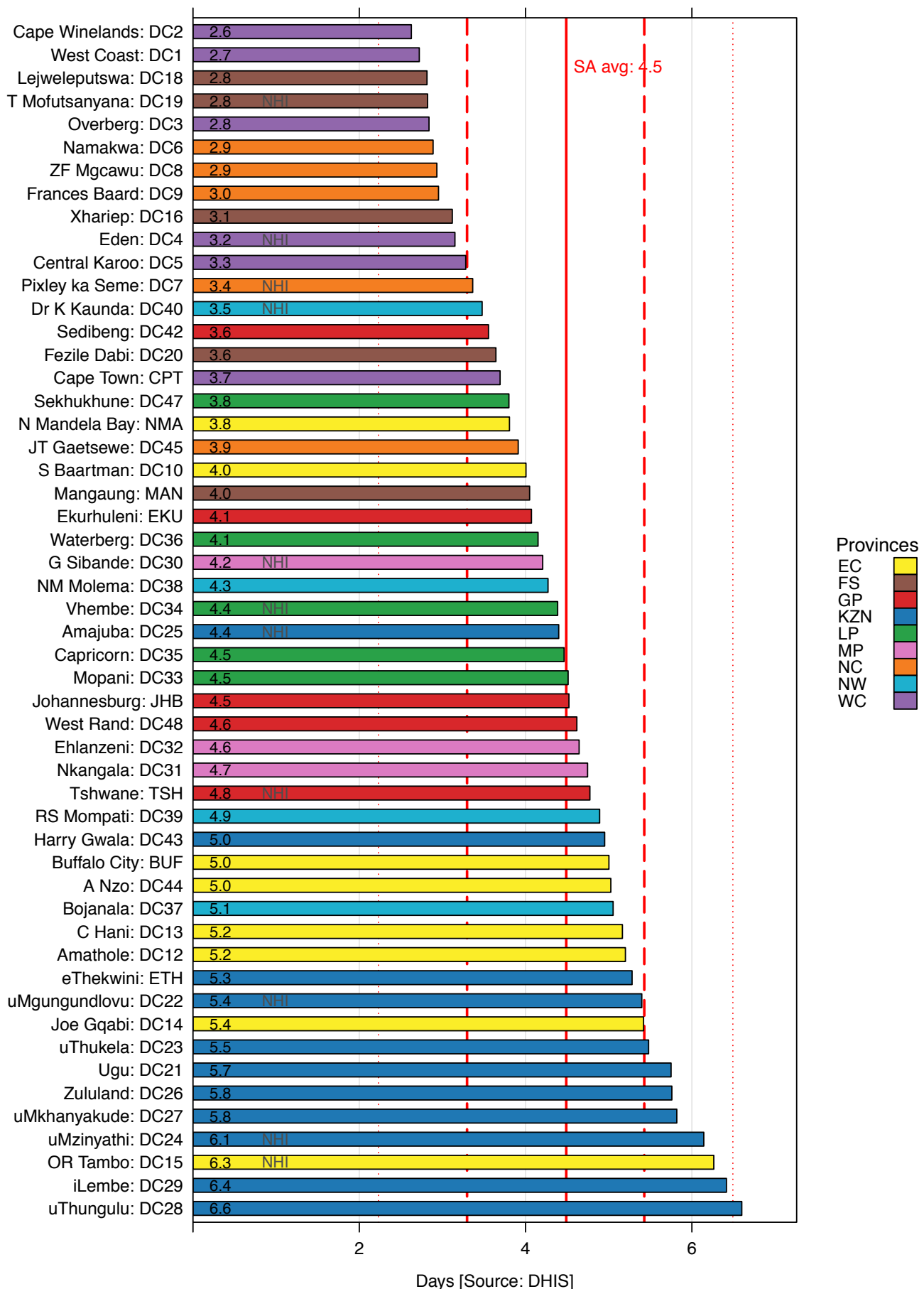


Figure 6 and Map 2 show the distribution of ALOS among districts. The 10 districts with the longest ALOS were located in KwaZulu-Natal (eight districts) and the Eastern Cape (two districts). uThungulu (KZN) had the longest ALOS at 6.6 days, followed by iLembe (KZN) at 6.4 days, and OR Tambo (EC) at 6.3 days. The 10 districts with the shortest ALOS were in the Free State and Northern Cape (three districts each) and the Western Cape (four districts). Average length of stay continued to increase in Frances Baard (NC), which had an ALOS of 3.0 days in 2015/16, and as such it is no longer among the three districts with the shortest ALOS. This could be due to improvements in the quality of care. In Eden (WC), ALOS dropped from 3.6 days in 2014/15 to 3.2 days in 2015/16 and it is now among the 10 districts with the shortest ALOS.

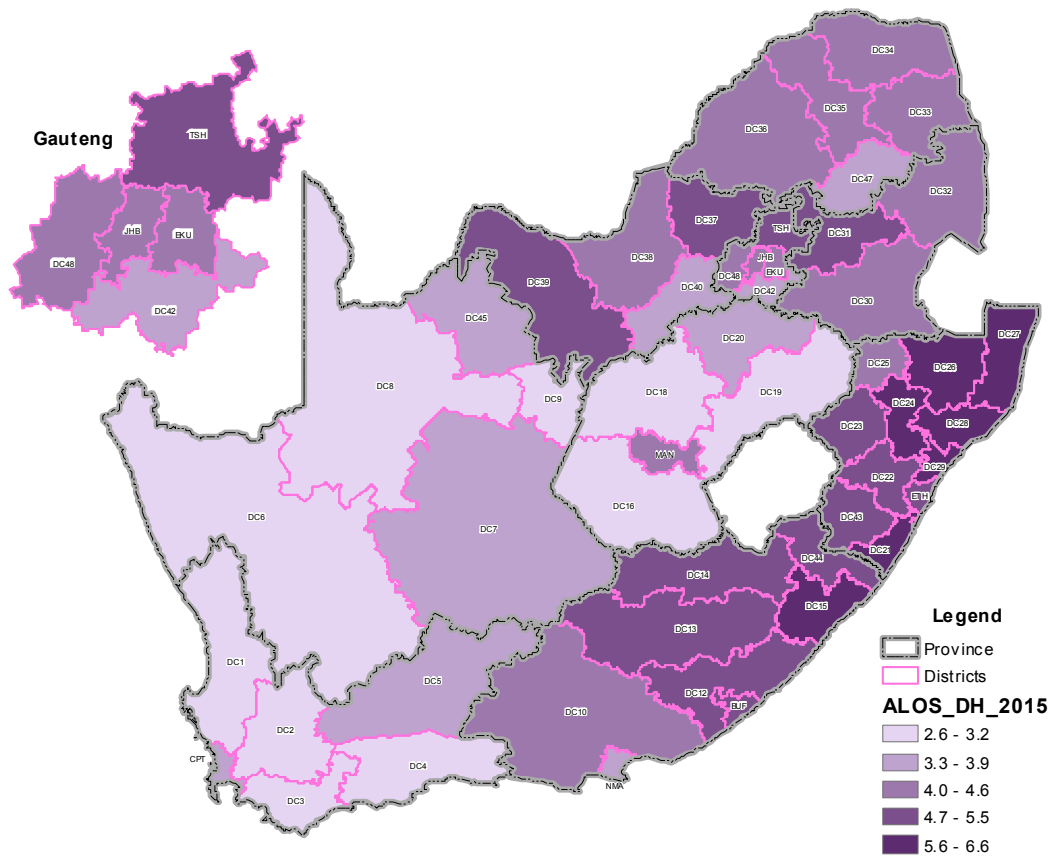
eThekweni (KZN) had the longest ALOS among the metros (5.3 days), probably due in part to all districts in KwaZulu-Natal having extended ALOS as a result of the high burden of HIV and TB. In Cape Town, the ALOS increased to 4.3 days in 2013/14 and 2014/15. This was probably linked to the opening of two new large district hospitals in Mitchell's Plain and Khayelitsha, which resulted in greater patient access and decreased burden on higher levels of care. However, in 2015/16 the ALOS reverted to 3.7 days, which was closer to previous levels. In the Free State, Xhariep showed an increase in ALOS from 2.2 days in 2014/15 to 3.1 days in 2015/16; thus it is no longer the district with the lowest ALOS. T Mofutsanyana and Lejweleputswa (both FS) continue to be among the districts with the shortest ALOS.

Figure 6 shows the variation in ALOS among the National Health Insurance (NHI) districts. The ALOS in OR Tambo (EC) was 2.3 times that of T Mofutsanyana (FS), which had the shortest ALOS among the NHI districts. Apart from Tshwane (GP), the NHI districts with the longest ALOS were all rural.

Figure 6: Average length of stay by district, 2015/16

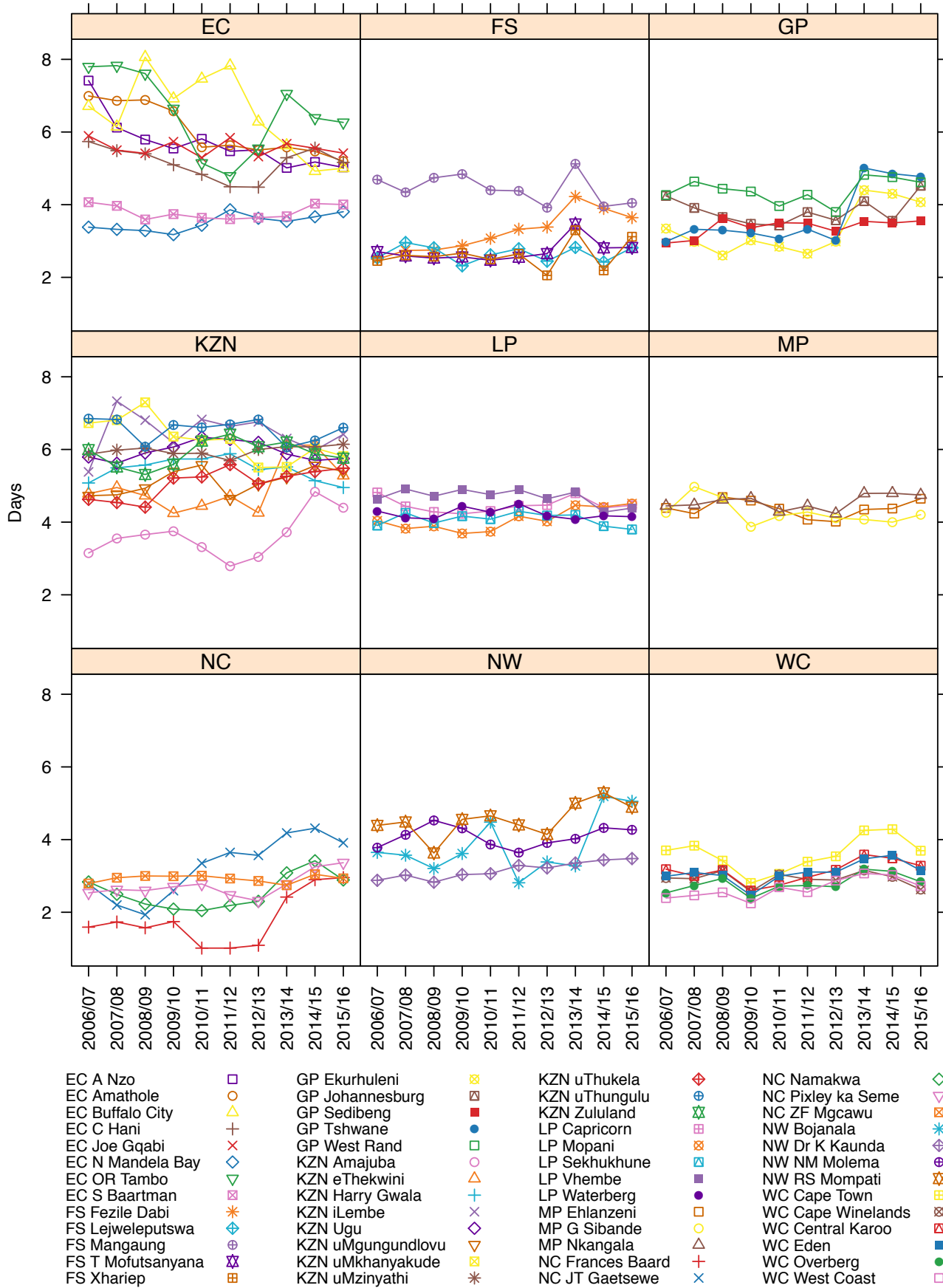


Map 2: Average length of stay by district, 2015/16



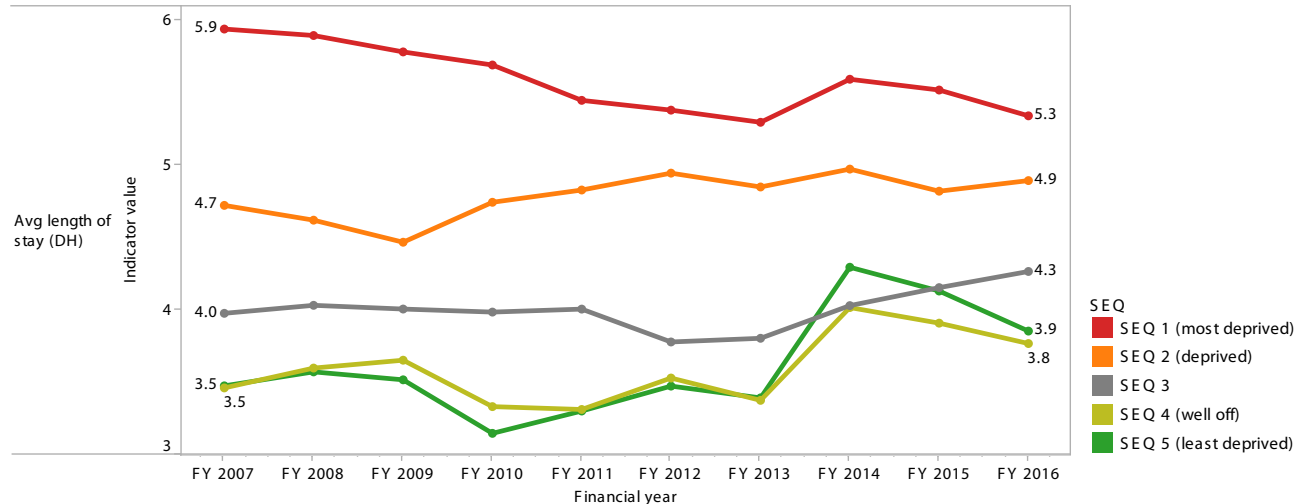
The annual ALOS trends for Limpopo, Mpumalanga, North West (NW) and the Western Cape do not show much inter-district variation (Figure 7). In the Free State, the pattern was constant among the districts, apart from in Mangaung and Fezile Dabi. The Eastern Cape and KwaZulu-Natal showed great variation. Buffalo City (EC) had the longest ALOS of 8.1 days in 2008/09; this dropped to 5.0 days in 2015/16. This variation is most likely explained by poor data quality. In KwaZulu-Natal, uThukela and iLembe districts showed the greatest variation, with iLembe peaking at 7.3 days in 2008/09 and uThukela dropping to 4.4 days in 2008/09. Although the ALOS in Amajuba increased from 2011/12, the district has consistently had the shortest ALOS in KwaZulu-Natal.

Figure 7: Annual trends for average length of stay



In previous years, a long ALOS was generally seen in the most deprived districts (SEQ1), and the shortest ALOS in the least deprived districts (SEQ5). In 2015/16, SEQ1 districts clearly had the longest ALOS, with OR Tambo (EC) at 6.3 days and uMzinyathi (KZN) at 6.1 days. There was a declining gradient from SEQ2 to SEQ3. Of note, SEQ5 had a 0.1 lower ALOS than SEQ4 (Figure 8).

Figure 8: Trends in average district values by socio-economic quintile for average length of stay



3.3 Expenditure per patient day equivalent (district hospitals)

Expenditure per patient day equivalent (PDE) is a composite process indicator that connects financial data with service-related data from the hospital admissions and outpatients records. This indicator measures how the resources available to the hospital are being spent, and is a marker of efficiency. The indicator measures the average cost per PDE at a district hospital, and is expressed as Rands per PDE. The indicator value is calculated by dividing the total expenditure of the hospital (within budget programme 2: district health services, as recorded in the Basic Accounting System (BAS)) by the number of PDEs. PDEs are calculated by adding the number of inpatients, plus half the number of day patients, plus one-third the number of outpatients and emergency room visits, as recorded in the District Health Information Software (DHIS).

Comparative analysis of costs involved to perform the same activity across facilities is important in monitoring performance efficiency.^a It is assumed that the average cost of one inpatient day is equivalent to that of three outpatient visits. Historically, under-utilisation of hospital services, and over-staffing with fixed costs like salaries, are common causes of high PDEs. This results in high expenditures with low utilisation. As expenditure per PDE is a ratio between costs and services, improved performance is possible if costs are reduced or utilisation increased.

Expenditure per PDE can be compared across similar hospitals within or between districts. Rural hospitals, particularly those located in more remote areas, struggle to attract and retain staff for many reasons, including poor hospital infrastructure, lack of staff accommodation, uneven remuneration of staff working in different rural locations, and poor road and transport networks.^b Consequently, some of these hospitals are poorly utilised, with a low BUR, and may have high expenditure per PDE since almost all fixed costs remain even if facilities are not fully utilised. Certain district hospitals, particularly in KwaZulu-Natal and the Eastern Cape, offer some regional and tertiary hospital services. This may result in higher expenditure per PDE since expenditure per PDE generally increases with the level of care, as the category of staff (e.g. medical specialists) and drugs are more expensive.

The value of this (and other) indicators is determined by the reliability of the underlying data. A number of factors potentially impact on the data quality. Denominator issues include, for example, outpatient department (OPD) headcount values, which could be underestimated because visits to allied health workers are not included. Another denominator issue is expenditure, which may be underestimated because some aspects of the budget are not allocated to the hospital (e.g. medicines and HIV costs in Limpopo and laboratory expenses in KwaZulu-Natal).

In 2015/16, the average cost per PDE in South Africa for all district hospitals was R2 342, an increase from the 2014/15 value of R2 269 and the 2013/14 value of R2 185. All values for this indicator are given as real 2015/16 costs, which means that the

a Adams I, Darko D, Accorsi S. Improving efficiency: Assessing efficiency in service delivery. Bulletin of Health Information. 2004; 1(1):20–7. Available from: <http://www.ghanahealthservice.org/includes/upload/publications/Assessing%20efficiency%20in%20service%20delivery.pdf> [Accessed 13 August 2015].

b Barron P, Monticelli F. Key district health indicators. Volume 1. Durban: Health Systems Trust, 2007.

effect of inflation has already been adjusted for. This steady rise is expected since medical inflation has traditionally been higher than the consumer price index (CPI).

Figure 9 shows the provincial expenditure per PDE. This ranged from R2 060 in the Western Cape (the lowest expenditure per PDE) to R2 791 in Limpopo (the highest expenditure per PDE) – a 35% difference. Thus the Limpopo Department of Health (DoH) is paying R731 more than the Western Cape DoH for every patient treated in a district hospital for one day.

Figure 9: Expenditure per patient day equivalent by province, 2015/16

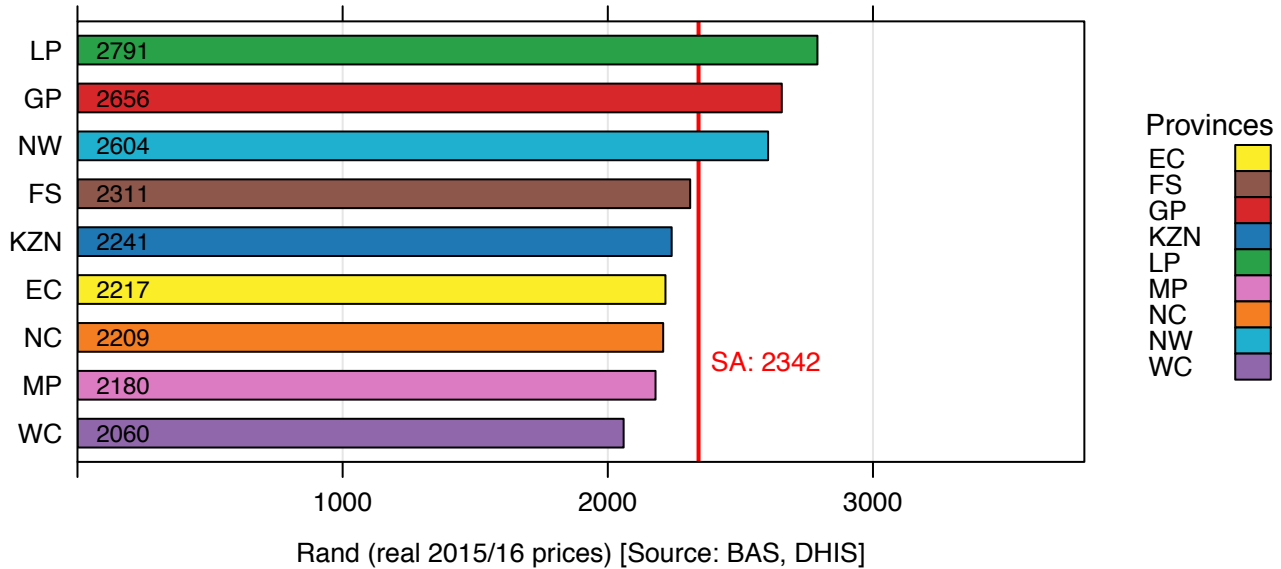
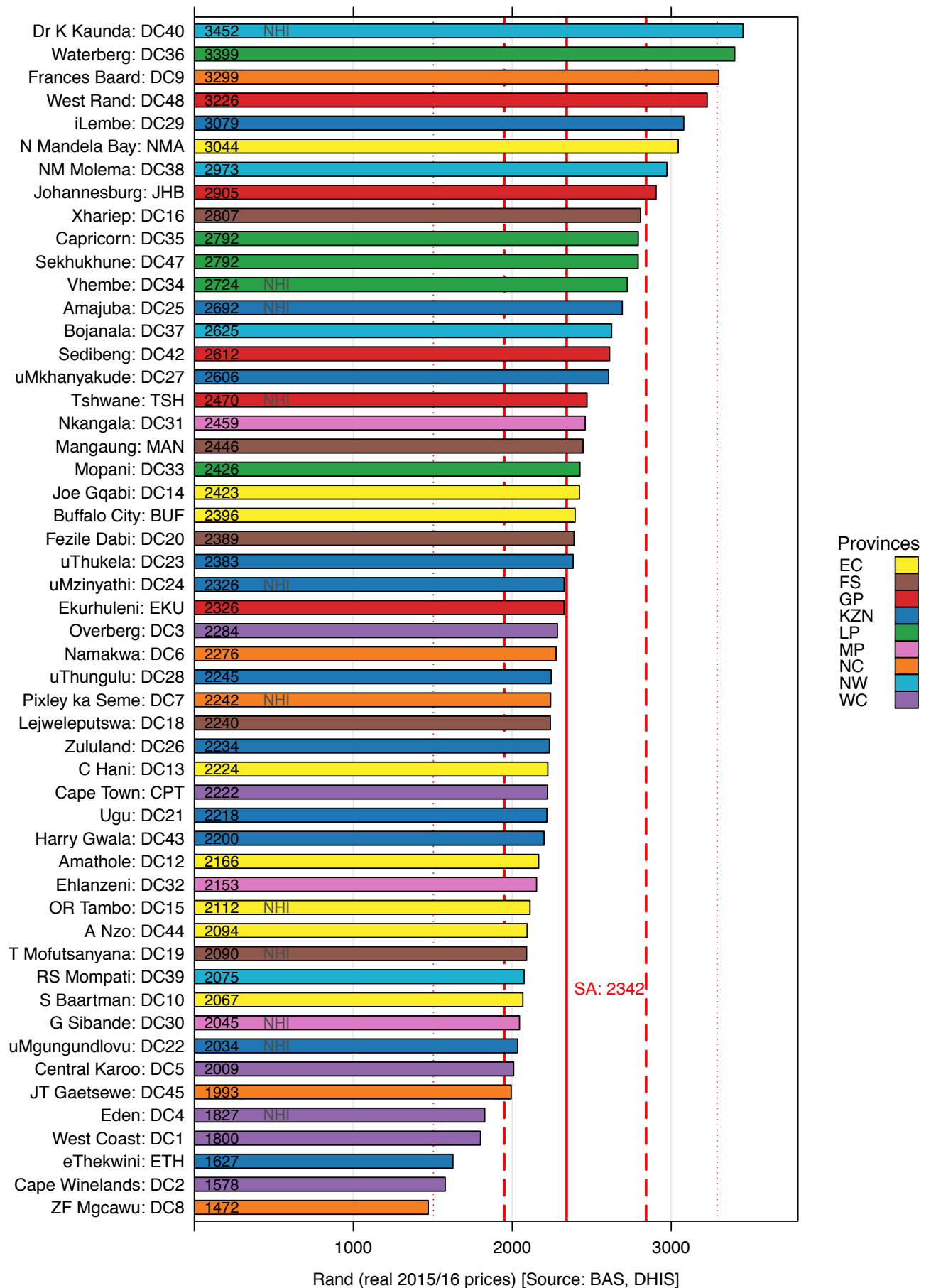


Figure 10 and Map 3 show the 2015/16 expenditure per PDE for the 52 districts. Four of the 10 districts with the lowest expenditure per PDE were in the Western Cape. Seven provinces had at least one district among the 10 with the highest expenditure per PDE, while Gauteng, Limpopo and North West each had two districts represented. In 2014/15, Johannesburg had the highest expenditure per PDE (R3 818), but in 2015/16 dropped to the eighth-highest expenditure (R2 905). This drastic reduction of more than 20% was probably due to a data quality issue in 2014/15 as the value in that year was out of line with the trend (Figure 11). Dr K Kaunda (NW) currently has the highest expenditure per PDE (R3 452). Two districts with high expenditure per PDE remained among the top four districts in 2012/13, 2013/14, 2014/15 and 2015/16, namely Frances Baard (NC) and Waterberg (LP). In Limpopo and North West, all the districts were above the South African average. As in previous years, the Northern Cape had the most inter-district variation, with districts in the high, low and middle positions of the table. In 2013/14, Eastern Cape districts were predominantly in the top one-third of the table, with Joe Gqabi having the lowest expenditure per PDE in 2013/14. In 2015/16, Joe Gqabi and Buffalo City were in the middle of the league table, with other Eastern Cape districts spread throughout the table. As most districts have a number of district hospitals, these district variations conceal the much greater variations that exist between individual hospitals. ZF Mgcawu (NC) had the lowest expenditure per PDE of all districts, less than half that of the highest expenditure in Dr K Kaunda.

Figure 10: Expenditure per patient day equivalent by district, 2015/16



Map 3: Expenditure per patient day equivalent by district, 2015/16

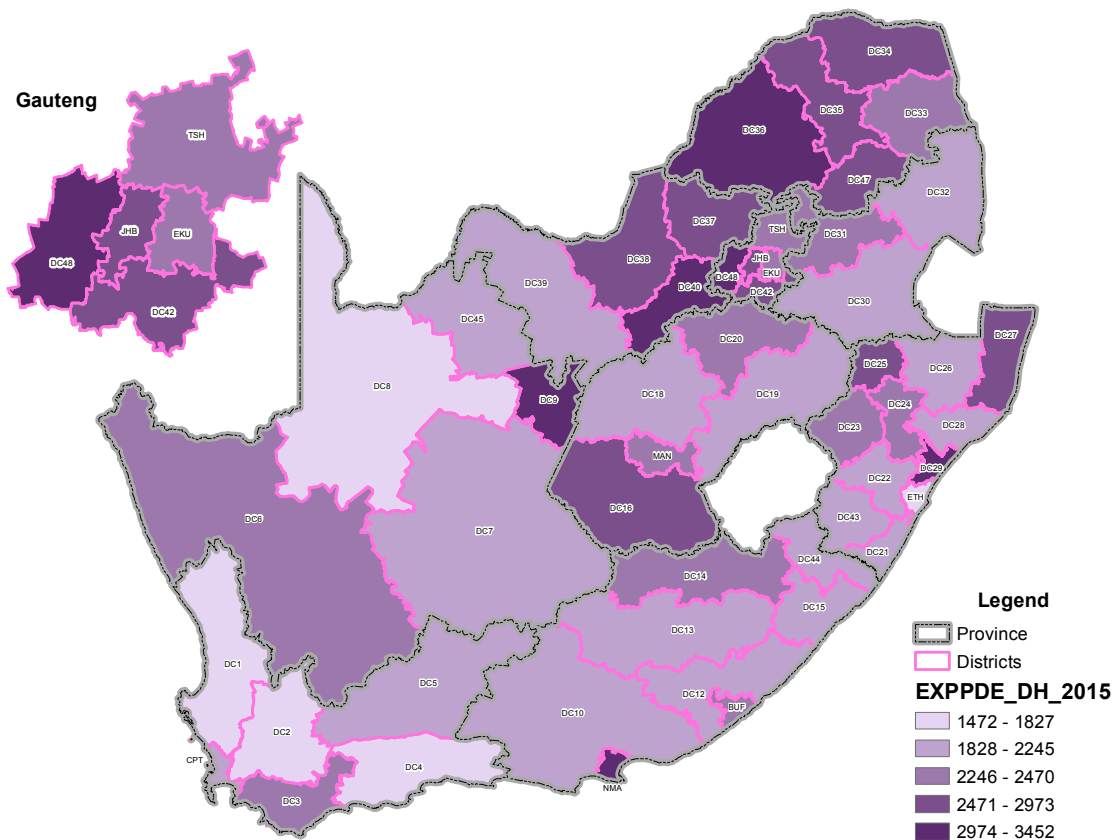
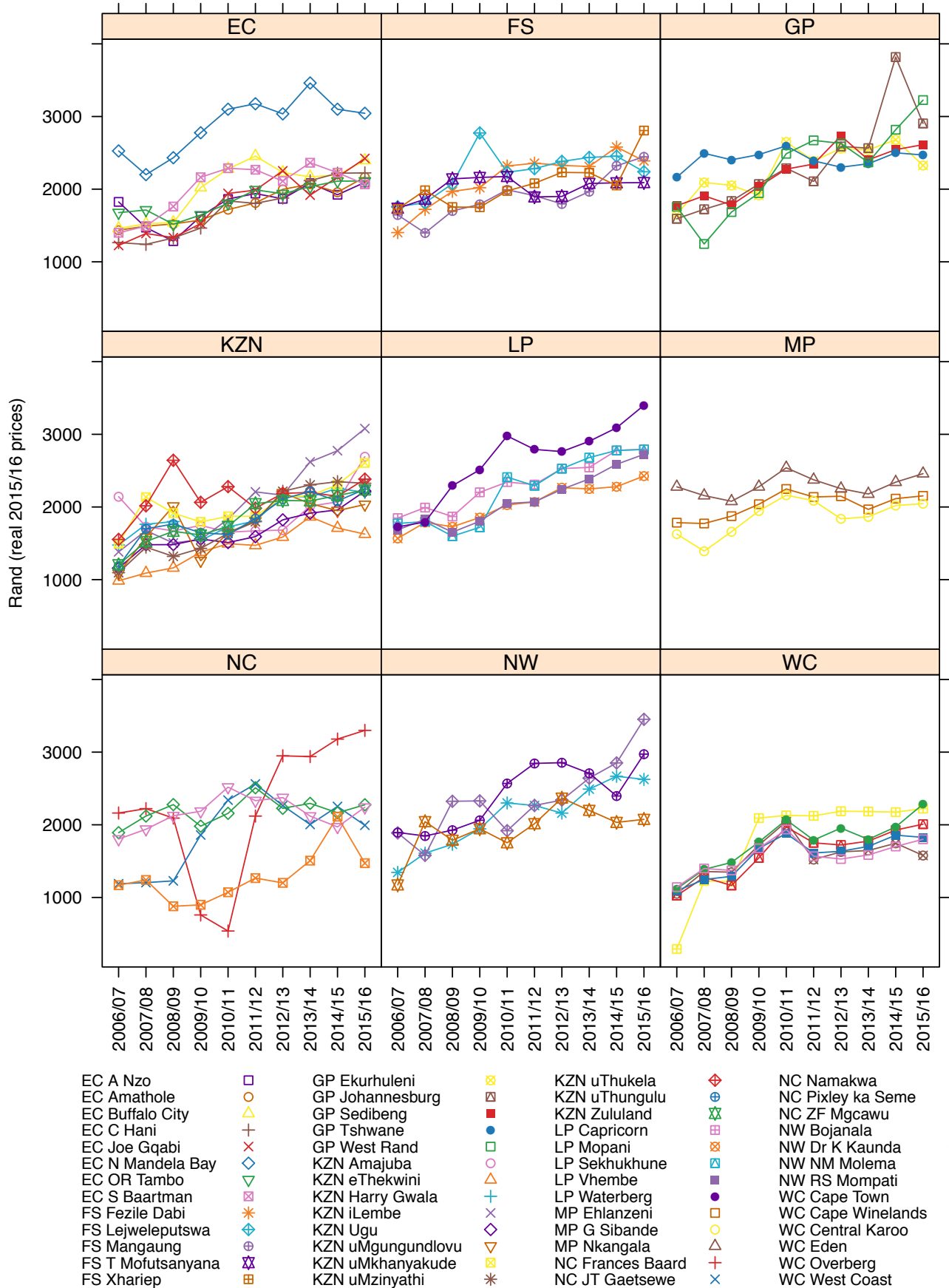


Figure 11 reflects inter-district variations in expenditure per PDE over the last 10 years, with the Western Cape showing steady increases up to 2010/11. Thereafter expenditure per PDE has been relatively constant in all Western Cape districts. Fluctuations in expenditure per PDE in the Northern Cape were predominantly in Frances Baard and JT Gaetsewe. This is suggestive of either inadequate data quality (for example, expenditure not being linked accurately to individual facilities), or to variations in service provision. Several facilities in the Northern Cape have undergone renovations, restructuring or reclassification, resulting in periods of reduced services. Within each district in the Northern Cape, individual hospitals have tended to differ widely in their expenditure per PDE.

Overall, KwaZulu-Natal districts showed a steady increase in expenditure per PDE over time. In NM Molema in North West, some hospitals seem to be reporting expenditure jointly, although the PDEs remain separate, leading to extreme changes in the indicator values per facility. Expenditure per PDE declined in RS Mompoti (NW), where Joe Morolong Memorial Hospital has been reclassified from a district to a regional hospital.

In Limpopo, all the districts showed a steady increase in expenditure per PDE over time, with Waterberg consistently having the highest expenditure per PDE. The Free State has also showed steady increases, apart from Lejweleputswa where there was a sharp rise in 2009/10. In the Eastern Cape, N Mandela Bay has been an outlier, with a expenditure per PDE much greater than the other districts. All the districts show increased expenditure per PDE over time. Joe Gqabi continues to rise, from a sharp drop in 2009/10, but has increased above most of other districts. This warrants further investigation. In Mpumalanga, expenditure per PDE has plateaued since 2009/10, while the gap among the three districts has been maintained. In Gauteng, Johannesburg and West Rand have shown the most variation in expenditure per PDE.

Figure 11: Annual trends for expenditure per patient day equivalent



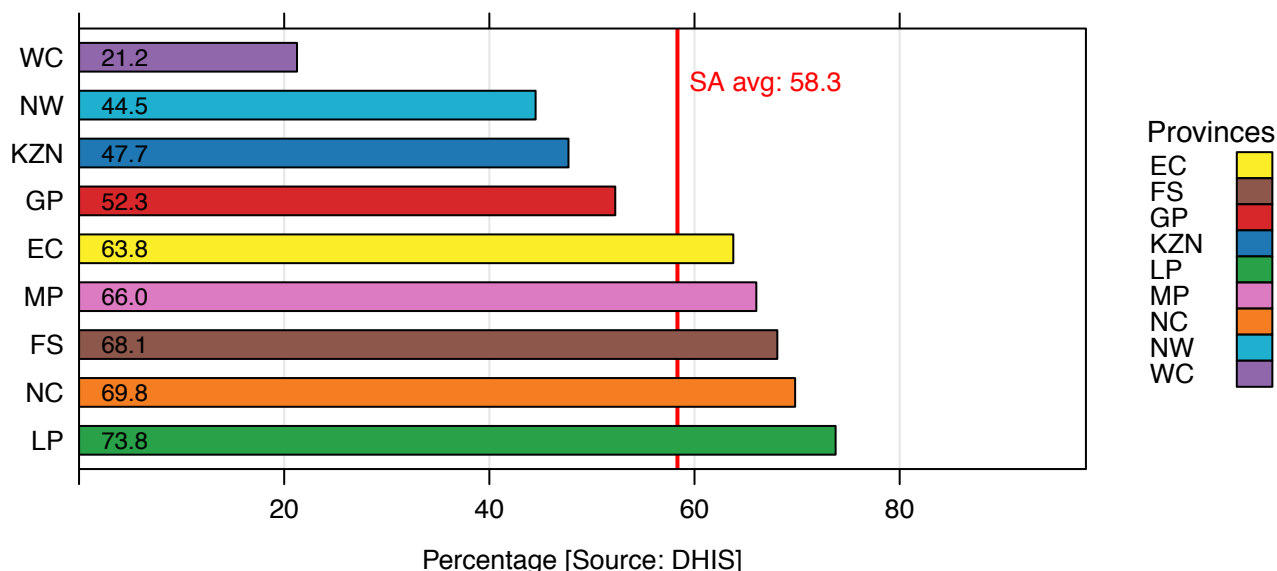
3.4 OPD new client not referred rate

This indicator is being reported on for the fourth year. OPD new client not referred rate refers to the percentage of new outpatient clients who enter a hospital without a referral letter. The percentage is calculated by dividing new OPD cases that are not referred (numerator) by all new OPD cases (denominator). Outpatient Department follow-up and emergency clients are excluded from the denominator. OPD new client not referred rate monitors the utilisation trends of clients who by-pass PHC facilities. There is no target set for this indicator.

High OPD new client not referred rate values could imply overburdened PHC facilities or inadequately performing facilities resulting in poor referral systems. High values could also indicate a lack of referral systems, or that clients are resistant to change. If a patient needs to see a doctor, he or she will have to go to a hospital because most doctors do not render a medical service at PHC facilities. Drug stock-outs at clinics and strict opening and closing times without extended after-hour services can contribute to patients attending a hospital without going to a clinic first. Lastly, in some areas, patients may live closer to a hospital than to PHC facilities.

The South African average for this indicator has continued to decrease, from 60.7% in 2014/15 to 58.3% in 2015/16. Figure 12 shows the more than 3.5-fold difference between the Western Cape with the lowest rate (21.2%), and Limpopo with the highest rate (73.8%). In 2014/15, the same provinces had the lowest and highest values; however, the rates were 29.5% (WC) and 75.2% (LP) respectively. While 2015/16 saw consistent decreases across all provinces, the rate in Gauteng increased from 46.9% in 2014/15 to 52.3%.

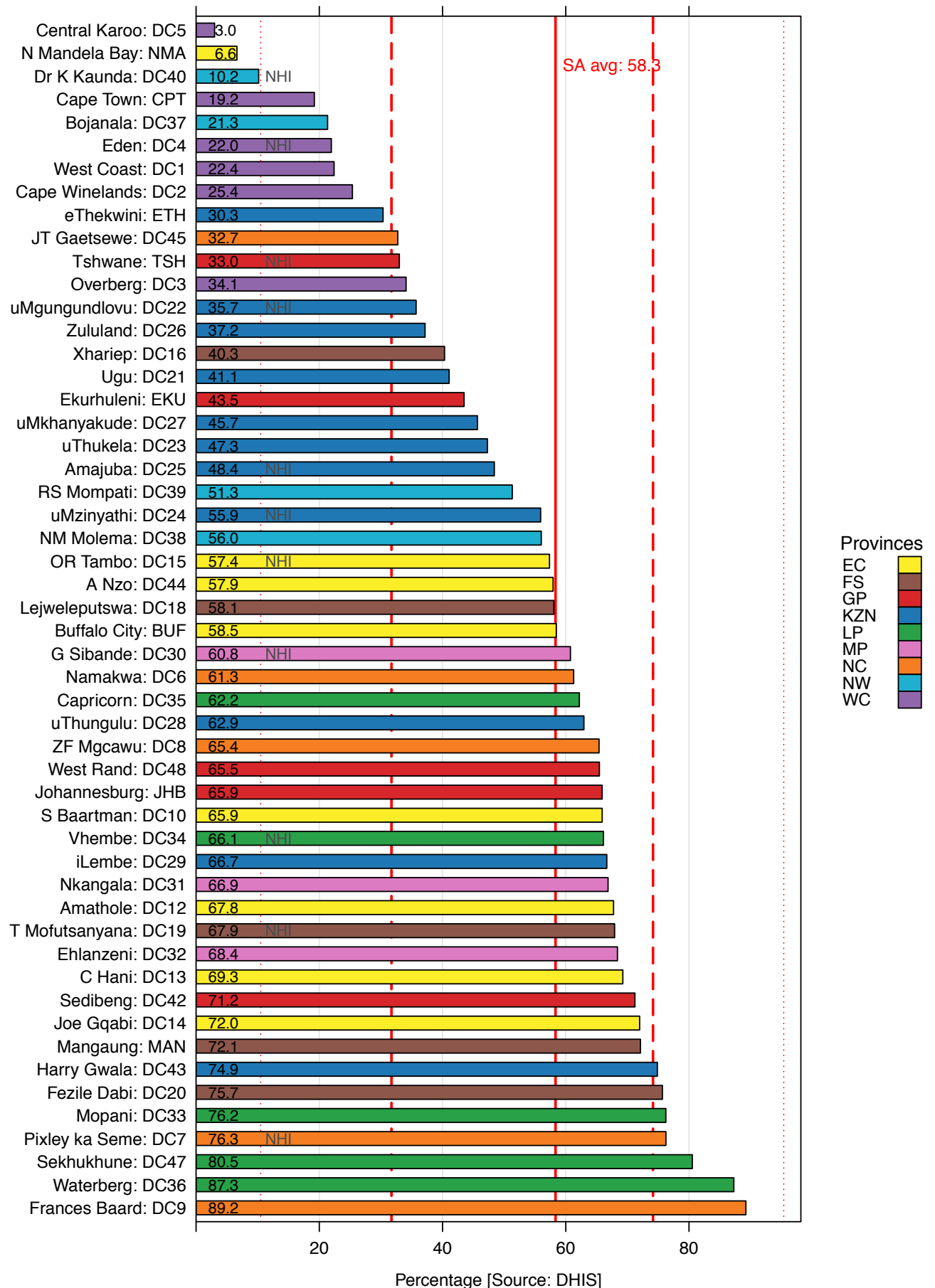
Figure 12: OPD new client not referred rate by province, 2015/16



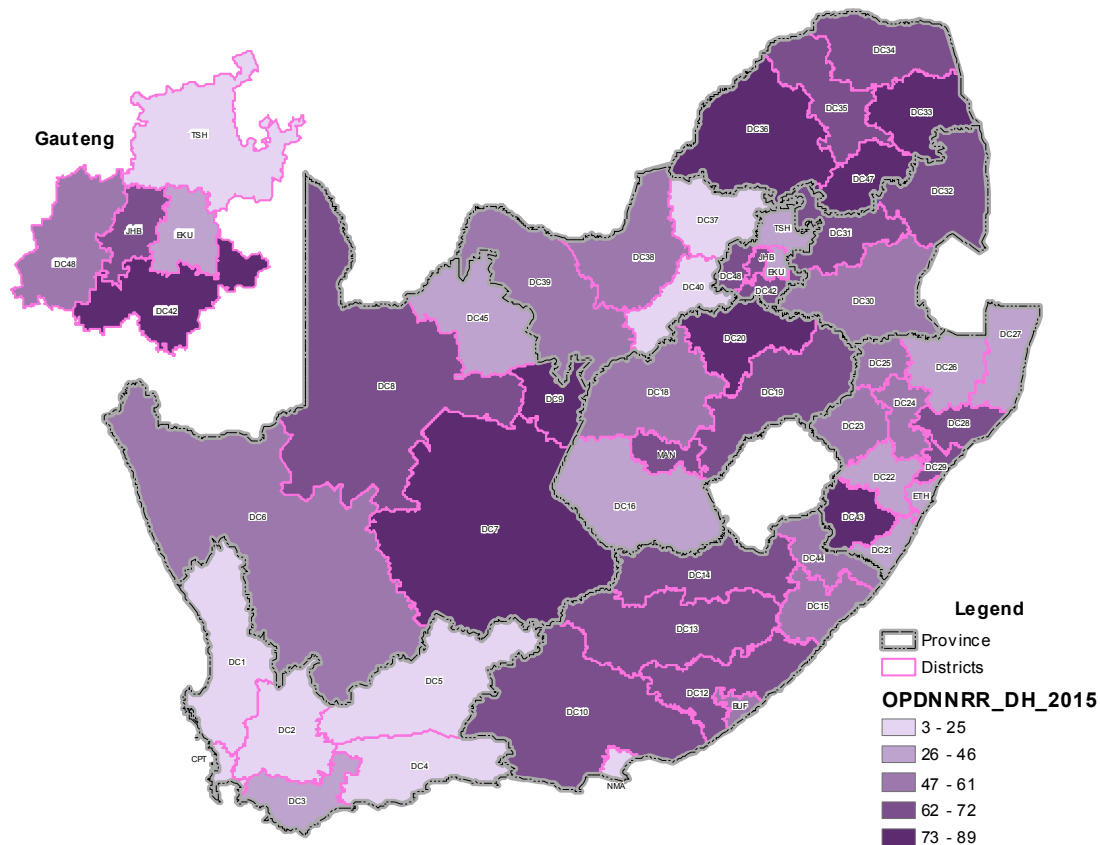
Among the districts, the highest 2015/16 rate was in Frances Baard (NC) at 89.2%, an increase from 88.4% in 2014/15, followed by Waterberg (LP) at 87.3%, a decrease from 93.9% the previous year (Figure 13). The lowest rate was in the Central Karoo (WC) at 3.0%, which was lower than the previous year's value of 4.6%, and in N Mandela Bay (EC) at 6.6%, which was also lower than the 2014/15 value of 8.9%. The Western Cape had five districts among the 10 with the lowest not referred rates (Map 4). Johannesburg, which reported for the second time, moved closer to the middle of the league table with a value of 65.9%, up from the bottom of the table in 2014/15.

Figure 13 also shows that of the NHI districts, Pixley Ka Seme (NC) had the highest OPD new client not referred rate (76.3%), but this was less than the rate of 80.7% in 2013/14. Dr K Kaunda (NW) had the lowest rate for an NHI district at 10.2%.

Figure 13: OPD new client not referred rate by district, 2015/16



Map 4: OPD new client not referred rate by district, 20115/16



There are no real distinct provincial patterns, or substantial intra- and inter-provincial variations. The exception is observed for the districts in Limpopo, which have been fairly consistent over time (Figure 14), albeit at very high levels.

Although there is a wide variation in the rate within each SEQ, an associative pattern cannot be seen between specific quintiles and the OPD new client not referred rate (Figure 15).

Figure 14: Annual trends for OPD new client not referred rate

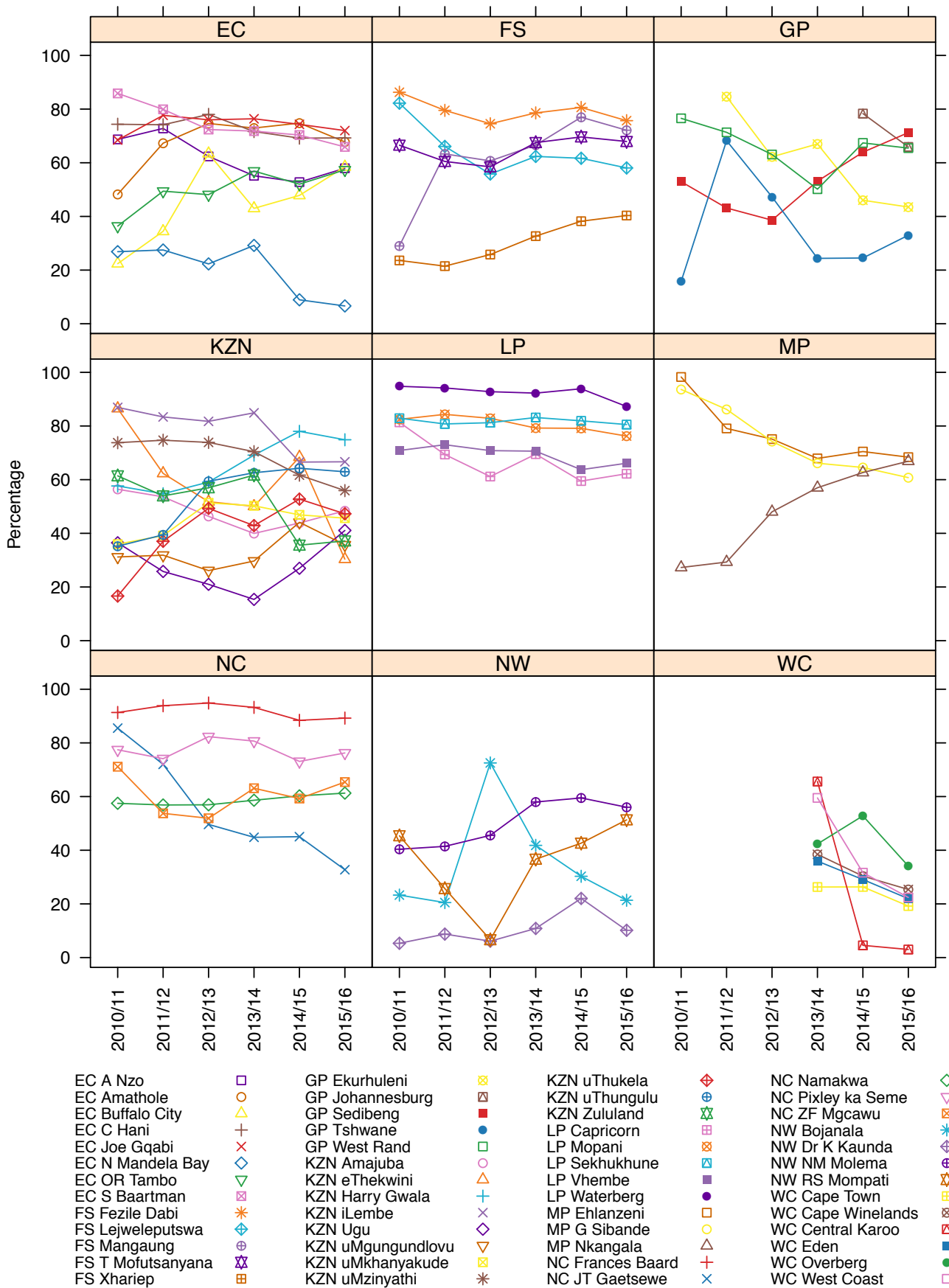
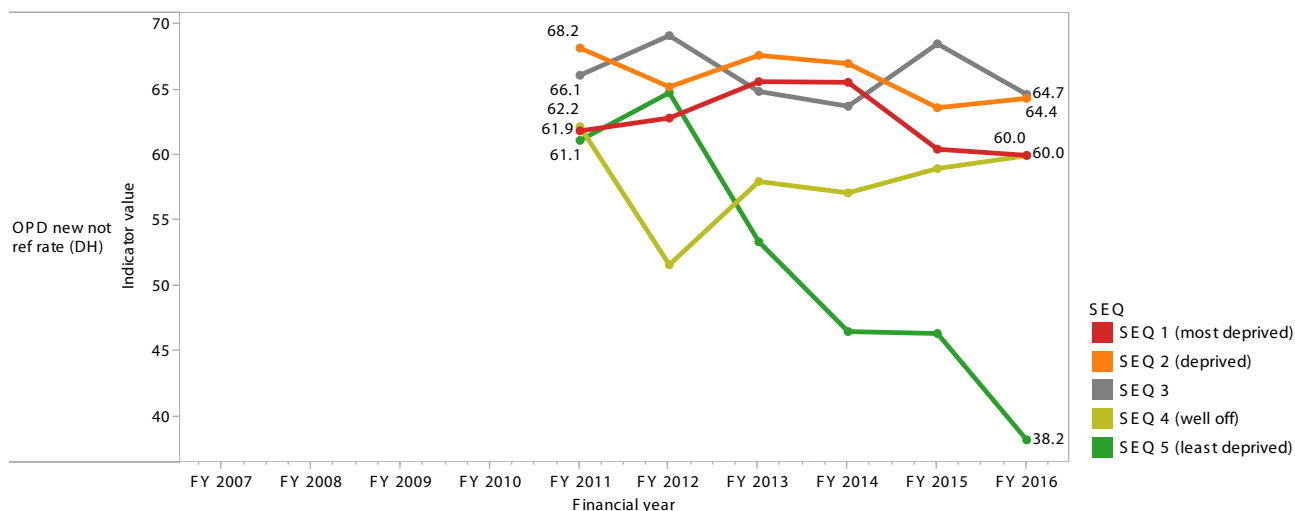


Figure 15: Trends in average district values by socio-economic quintile for OPD new client not referred rate



3.5 Inpatient crude death rate

The inpatient crude death rate (ICDR) is an impact indicator that refers to the proportion of all inpatient separations due to death. Inpatient separations include inpatient transfers out, deaths, and inpatient discharges. The indicator therefore includes deaths from all causes that occur in a hospital.

The South African average ICDR for all hospitals was 5.0% in 2015/16, the lowest value recorded in the last four years (Figure 16). The ICDR has been decreasing steadily from 5.8% in 2012/13. North West Province and the Eastern Cape recorded the highest values in 2015/16 (6.5% and 6.3% respectively).

Figure 17 shows the district league table for ICDR. Bojanala (NW) had the highest ICDR at 8.1%, followed by C Hani (EC) at 7.5% and OR Tambo (EC) at 7.5%. All six Western Cape districts were among the 10 districts with the lowest ICDRs. The lowest ICDR was in Overberg (2.3%), followed by Namakwa (NC) (3.0%). Other provinces showed more variation in their values. Five of the 10 districts with the highest ICDRs were in the Eastern Cape, two in the Free State, and one each in North West, Mpumalanga and KwaZulu-Natal. There was a distinct pattern in the Eastern Cape, with the five generally more rural districts in the eastern part of the province having high crude death rates, while the three more urban districts in the western part reflect rates much closer to the national average (Map 5).

Figure 16: Inpatient crude death rate by province, 2015/16

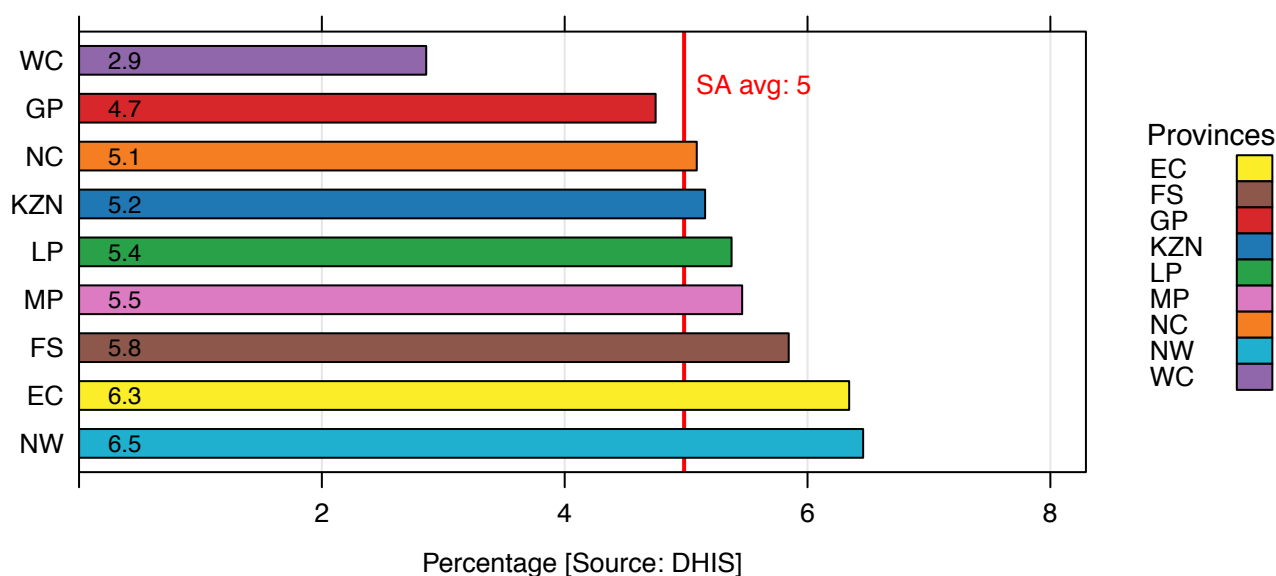
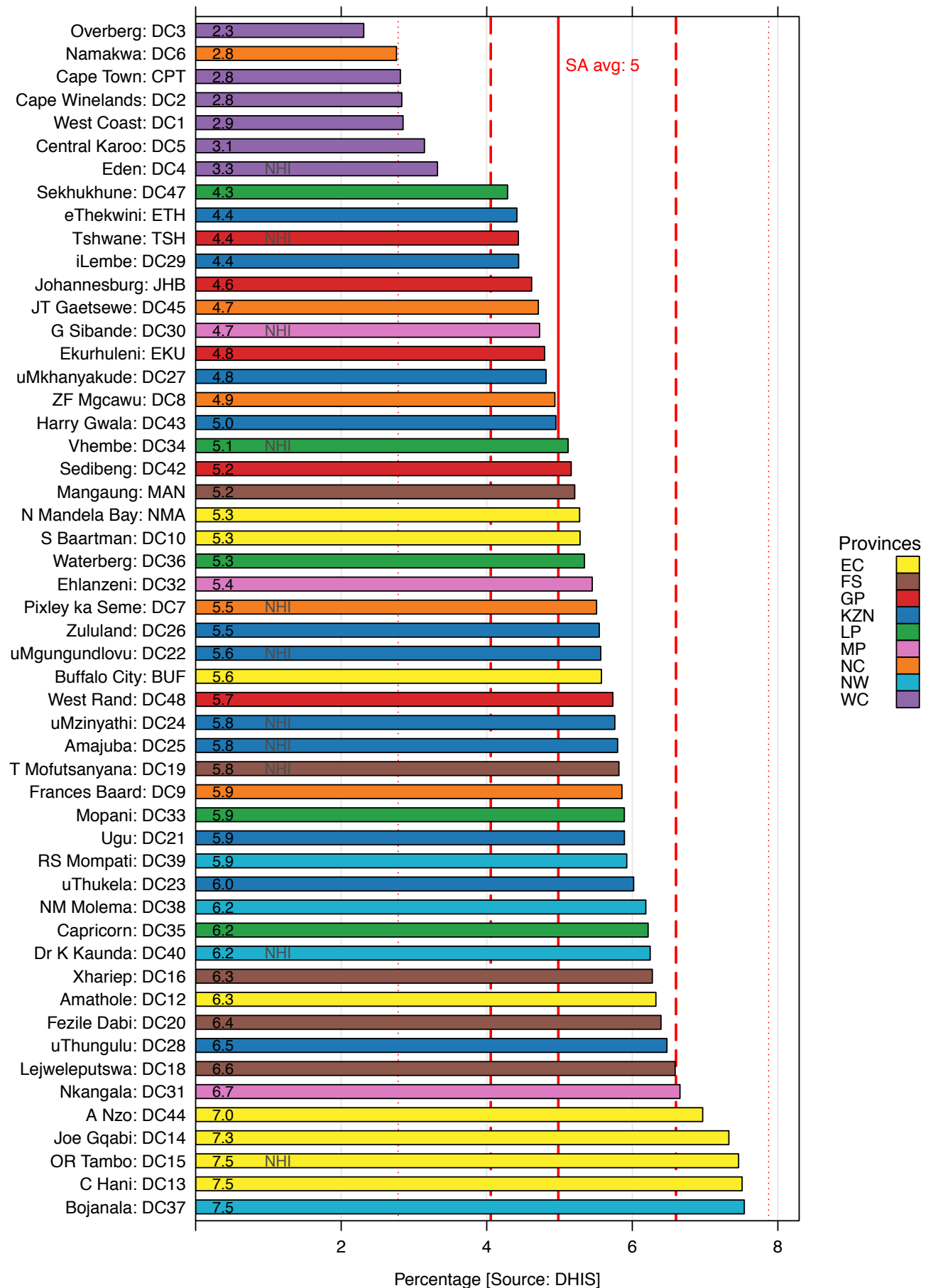
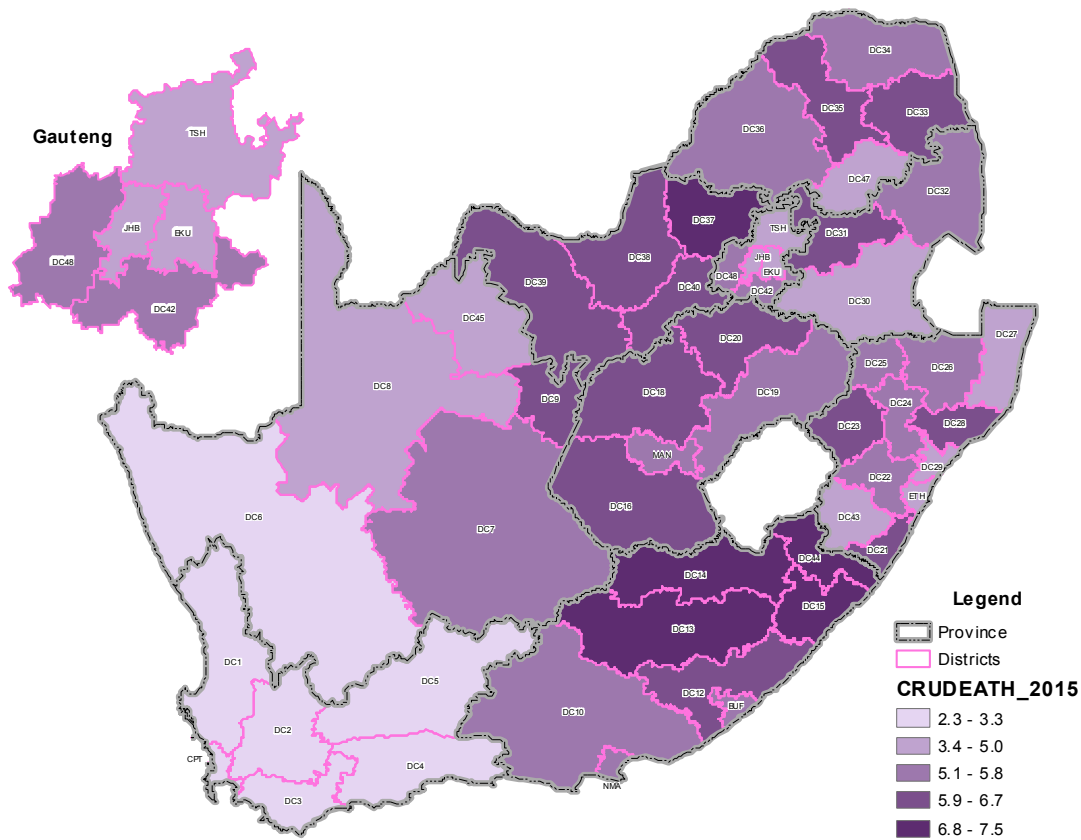


Figure 17: Inpatient crude death rate by district, 2015/16

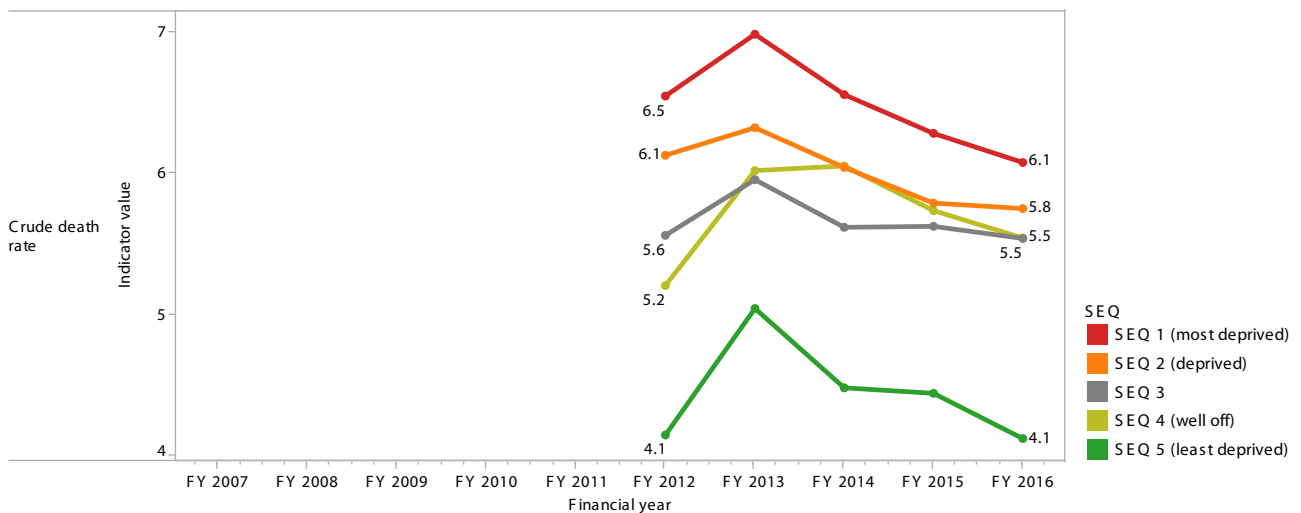


Map 5: Inpatient crude death rate by district, 2015/16



The ICDR was lowest in the least deprived districts (SEQ5) and highest in the most deprived (SEQ1), which is in line with expectations, with greater morbidity, burden of disease and lower access in SEQ1 (Figure 18).

Figure 18: Trends in average district values by socio-economic quintile for inpatient crude death rate



Key findings

- ◆ The indicator values are determined by the reliability of the underlying data.
- ◆ The indicators show great inter-provincial and inter-district variation.
- ◆ Hospital resources in poorer socio-economic districts need to be used more efficiently; however, contexts like rurality, small population numbers, and high burden of disease affect these indicators and can mask improvements.

Recommendations

- ◆ Where districts show erratic indicator values further investigation is warranted to ascertain the data issues.
- ◆ More needs to be done to improve referral pathways in order to ensure that appropriate care is given in the respective settings.

4 Delivery

4.1 Delivery in facility under 18 years rate

Joan Dippenaar and Muchiri Wandai

The delivery in facility under 18 years rate indicator measures the proportion of all deliveries among women younger than 18 years in public health facilities in South Africa. The numerator is the number of deliveries among women under 18 in public health facilities, while the denominator includes all deliveries in public health facilities over the same time period. The indicator is expressed as a percentage.

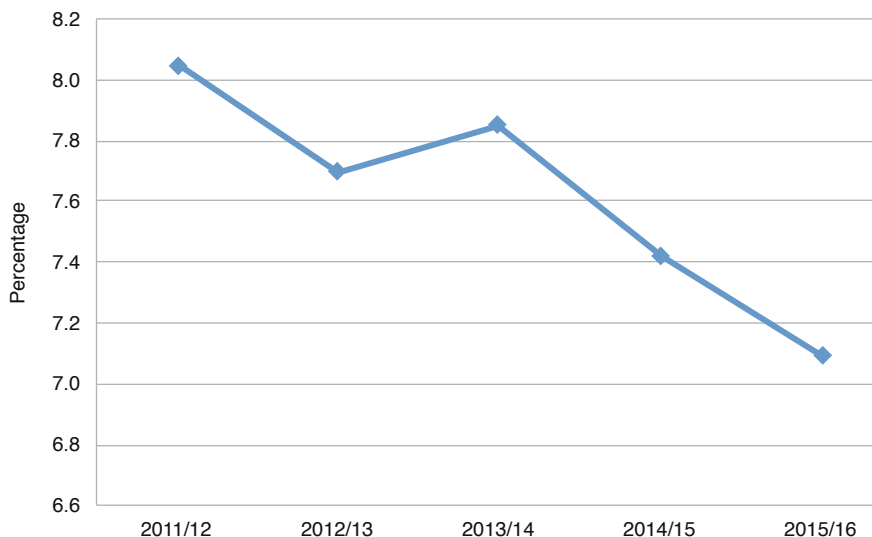
The South Africa Demographic and Health Survey (SADHS) findings from 1998^a to 2003^b indicate that most young women become sexually active by the age of 18 years, and that one in three women will be pregnant by the age of 18 years. Most women start using a contraceptive method at the age of 20 and half of all women who give birth will have their first child before their 21st birthday.

Despite the existence of the Choice on Termination of Pregnancy Act (Act 92 of 1996^c), which gives women safe choices and the right and access to safe legal abortion in South Africa, these services are not equally available or accessible, especially in rural areas in South Africa.^d In 2001, Health Systems Trust (HST) reported that in South Africa far more girls under 18 than over 18 years of age opted for legal abortions.^d A study by Rambau^e reported an overall trend of 78 voluntary abortions per 10 000 pregnancies in 2013.

The delivery in facility under 18 years rate indicator is a marker of the success of sexual and reproductive health services, and the effectiveness, availability, accessibility and quality of these services. A low rate is indicative of successful provision of programmes and services, such as availability and accessibility of good-quality reproductive health and termination of pregnancy services. This indicator is also affected by the demographic profile and will generally be higher in areas with a higher proportion of young people.

The national delivery in facility under 18 years rate shows a downward trend, from 8.1% in 2011/12 to 7.1% in 2015/16, with the exception of a slight increase in 2013/14 (Figure 1).

Figure 1: National delivery in facility under 18 years' rate trends, 2011/12–2015/16 (%)



Source: DHIS.

a South Africa Demographic and Health Survey. Cape Town: Medical Research Council, 1998. Available from: www.mrc.ac.za/bod/dhsfin1.pdf [Accessed 29 July 2016].

b South Africa Demographic and Health Survey. Cape Town: Medical Research Council, 2003. Available from: <http://www.mrc.ac.za/bod/sadhs.htm> [Accessed 29 July 2016].

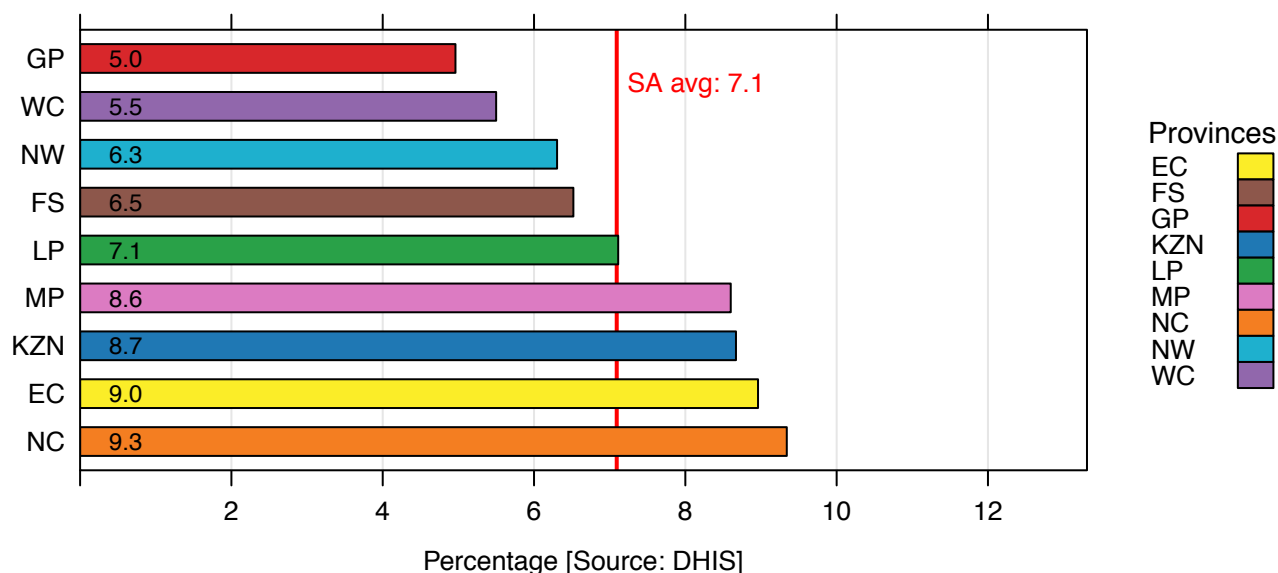
c Choice on Termination of Pregnancy Act (Act 92 of 1996). Available from: http://www.saflii.org/za/legis/consol_act/cotopa1996325/ [Accessed 29 July 2016].

d Seepe J. 2001. Shocking abortion figures. Available from: <http://www.hst.org.za/news/shocking-abortion-figures> [Accessed 28 July 2016].

e Rambau NP. Levels and determinants of voluntary abortion in South Africa. Johannesburg: University of the Witwatersrand; 2015. Available from: <http://mobile.wiredspace.wits.ac.za/bitstream/handle/10539/19693/Levels%20and%20Determinants%20of%20Voluntary%20Abortion%20in%20South%20Africa.pdf?sequence=2&isAllowed=y> [Accessed 28 July 2016].

The provincial rates are shown in Figure 2; generally the more urbanised provinces (Western Cape (WC) and Gauteng Province (GP)) had lower rates than rural provinces (KwaZulu-Natal (KZN) and the Eastern Cape (EC)). Gauteng had the lowest rate (5.0%), although the rate increased marginally from 4.8% in 2014/15 (Figure 2). The Northern Cape (NC) has had the highest rates since 2011/12; however, the rate dropped slightly from 9.6% in 2014/15 to 9.3% in 2015/16.

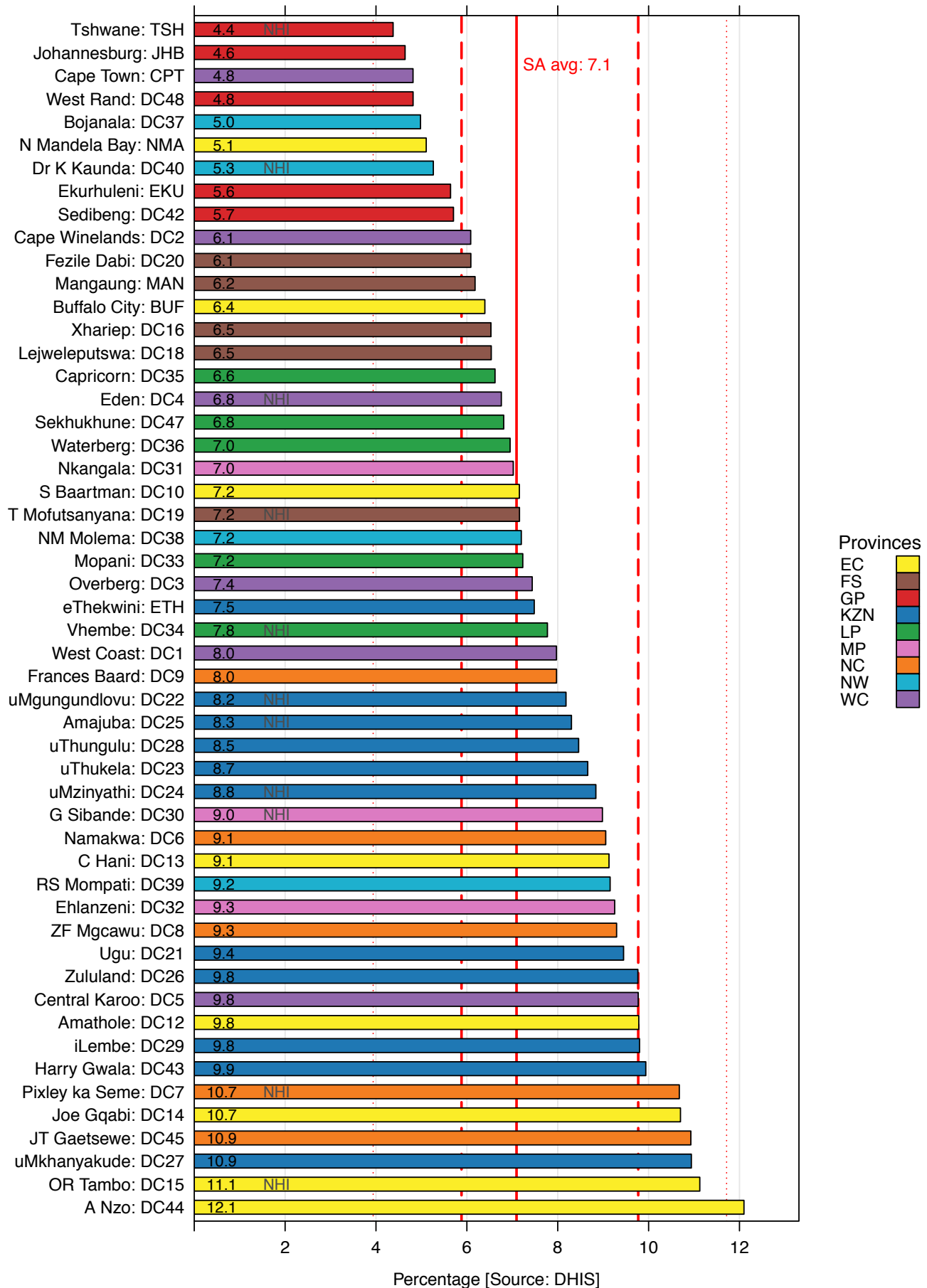
Figure 2: Delivery in facility under 18 years rate by province, 2015/16



Among the districts, A Nzo (EC) had the highest rate (12.1%) and Tshwane (GP) the lowest (4.4%) (Figure 3). This constitutes a 2.75-fold difference between the highest and lowest rated districts. A definite urban-rural gradient is evident in virtually every province, with districts with capitals/metros having lower rates than more rural districts (e.g. in KwaZulu-Natal, eThekweni had a lower rate than uMkhanyakude, and in the Eastern Cape, N Mandela Bay had a lower rate than A Nzo). This is also clearly illustrated in Map 1. All five districts in Gauteng were among the 10 districts with the lowest rates. Eight of the nine metros had rates below the national average. Among the 10 worst-performing districts, four were in the Eastern Cape, three in KwaZulu-Natal and two in the Northern Cape.

Among the National Health Insurance (NHI) districts, Tshwane (GP) was the best performer with a rate of 4.4%, and was one of only three NHI districts with a rate below the national average. OR Tambo (EC) had the highest rate at 11.1%. It has been the NHI district with the highest rate since 2012/13, although the rate dropped from 12.9% to 11.1% over the period.

Figure 3: Delivery in facility under 18 years rate by district, 2015/16



Map 1: Delivery in facility under 18 years rate by sub-district, 2015/16

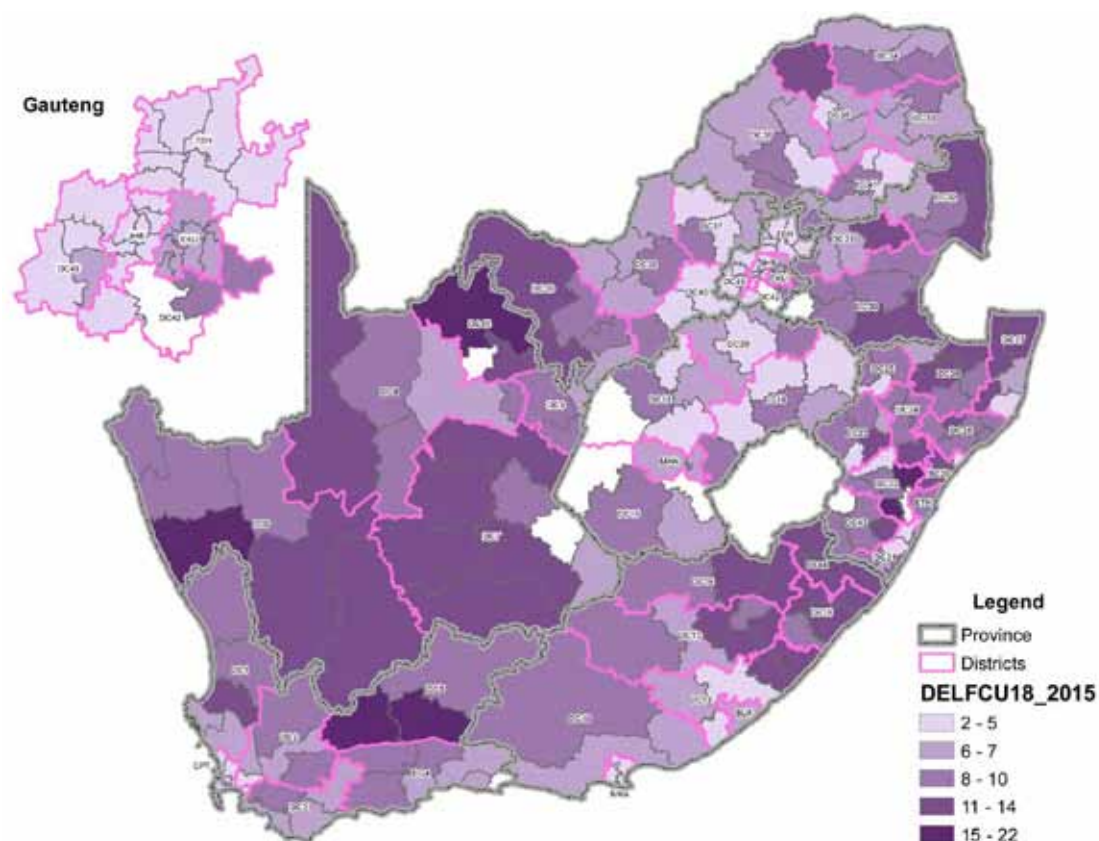
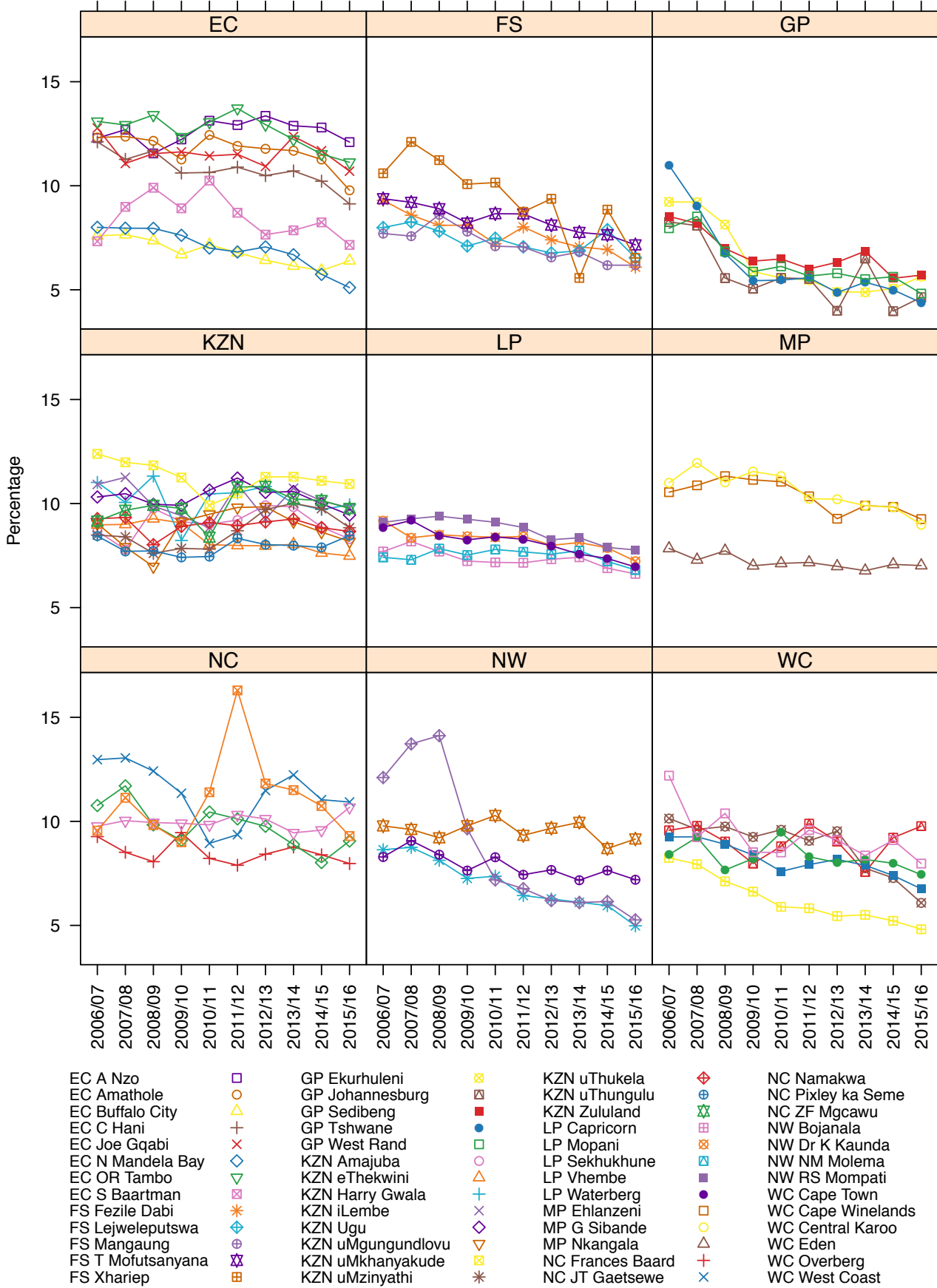


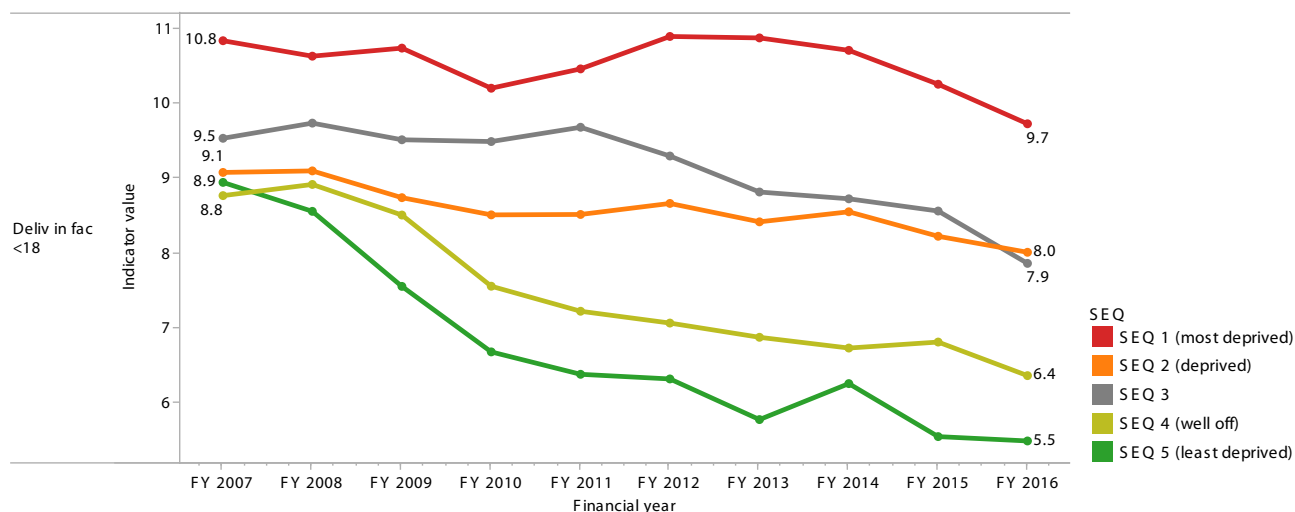
Figure 4 shows the downward annual trend and decrease in delivery rate among under 18 year olds for most districts in each province. Ten districts showed an increase between 2014/15 and 2015/16, with the highest increase of 1.1 percentage points occurring in Namakwa and Pixley ka Seme (both NC). The remaining 42 districts showed decreased rates, with seven districts showing decreases of one percentage point or more. Amathole (EC) had the highest decrease at 1.5 percentage points.

Figure 4: Annual trends for delivery in facility under 18 years rate



The poorest districts (socio-economic quintile (SEQ)1) also had the highest delivery in facility under 18 years rates compared with wealthier districts (SEQ5) (Figure 5). The gap between SEQ5 and SEQ1 has increased substantially over the past decade. This is an important marker of inequity between rural (most-deprived) and urban (least-deprived) service provision to adolescent girls.

Figure 5: Trends in average district values by socio-economic quintile for delivery in facility under 18 years rate



Key findings

The difference in the delivery in facility under 18 years rate between the metros, cities and rural areas clearly indicates the need for special interventions and programmes focussed on the rural population. Inroads have been made in the larger cities and metros, but more focus should be placed on the rural areas where rates are higher.

Recommendations

- ◆ Sexual and reproductive health programmes need to focus on prevention of pregnancy in adolescent girls, especially in rural areas.
- ◆ Adolescent girls in rural areas need to have the same access to legal termination of pregnancy services as their counterparts in the cities.

4.2 Delivery by Caesarean section rate (district hospitals)

James Michael Burnett

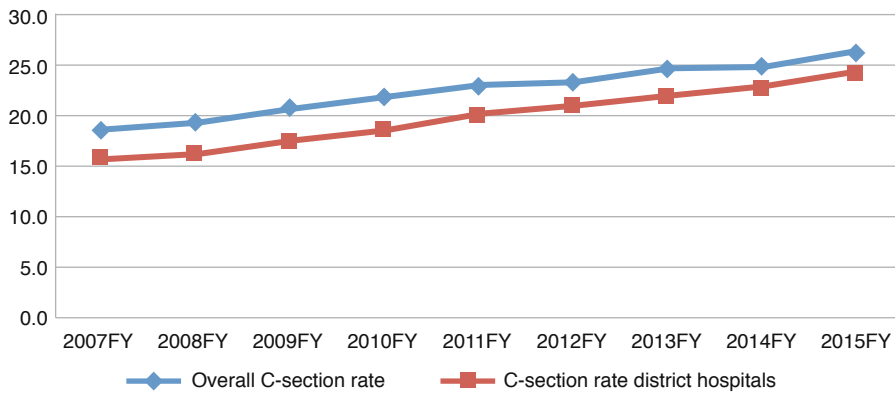
The Caesarean section (C-section) rate is an important indicator of access to essential obstetric care as it measures the proportion of deliveries in hospitals that are done by C-section. The numerator is the number of C-sections conducted in the facility, and the denominator is the number of deliveries that took place in that facility over the same time period. If a woman delivers more than one child on one occasion it is counted as one delivery and two (or more) births, irrespective of the method of delivery. Where one child (or more) is delivered normally (vaginally), and one (or more) by a more complex method (e.g. C-section), the delivery is recorded in terms of the more complex method, i.e. 'Caesarean delivery'.

It is therefore a facility-based and not a population-based indicator. This section focuses on C-sections performed at district hospitals.

Figure 6 shows the overall national C-section rate and C-section rate trends in district hospitals. In 2015/16, the national average was 26.2% (overall C-section rate), while the rate for district hospitals was 24.1%.

Section A: Delivery

Figure 6: National delivery by Caesarean section rate trends, 2007/08–2015/16 (%)



The proportion of C-sections done differed considerably at various levels of care, as shown in Table 1 and Figure 7. In all the provinces the largest proportion of C-sections took place in regional, provincial tertiary and national central hospitals. Free State (FS), North West (NW) and Limpopo Province (LP) reported that C-sections were done at community health centres (CHCs). However, C-sections generally cannot be done at CHCs. This situation may be due to incorrect classification of facilities as CHCs instead of district hospitals in the District Health Information Software (DHIS).

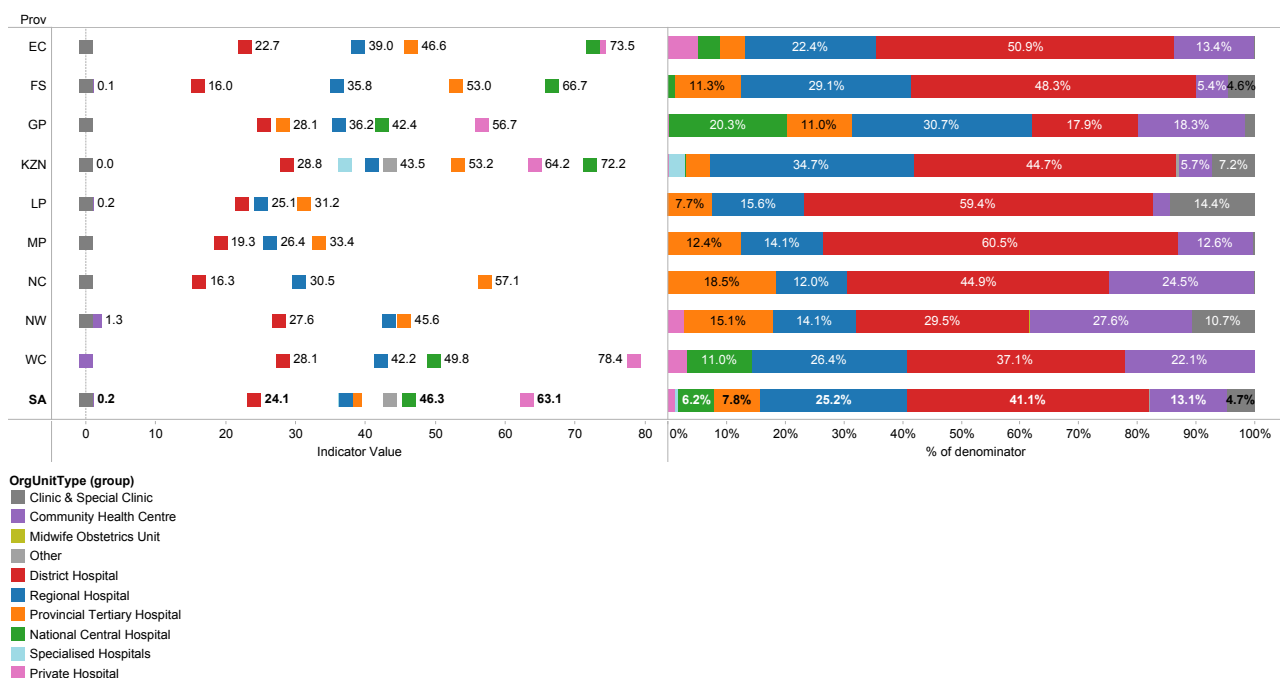
Table 1: Delivery by Caesarian section rate by level of care per province, 2015/16 (%)

	Community health centre	District hospital	Regional hospital	Provincial tertiary hospital	National central hospital	Specialised hospital	Other hospital*
EC		22.7	39.0	46.6	72.6		
FS	0.1	16.0	35.8	53.0	66.7		
GP		25.6	36.2	28.1	42.4		
KZN		28.8	40.9	53.2	72.2	37.1	43.5
LP	0.2	22.3	25.1	31.2			
MP		19.3	26.4	33.4			
NC		16.3	30.5	57.1			
NW	1.3	27.6	43.4	45.6			
WC		28.1	42.2		49.8		

* Private hospital/Medical centre

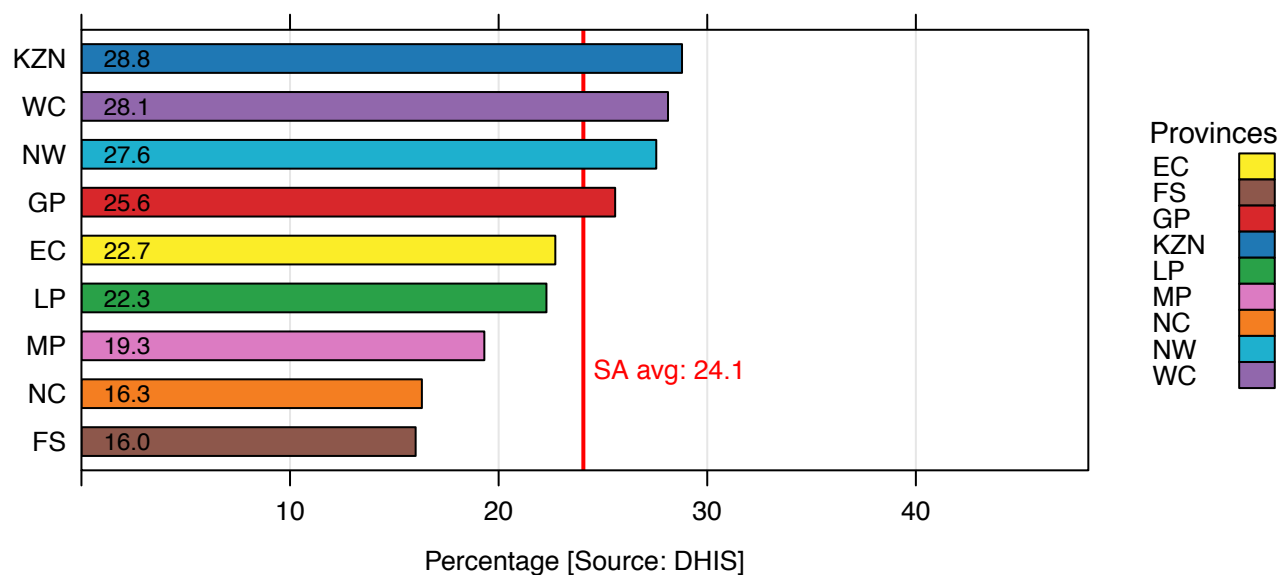
Source: DHIS.

Figure 7: Delivery by Caesarian section rate (column 1) and percentage of deliveries (column 2) by level of care per province, 2015/16



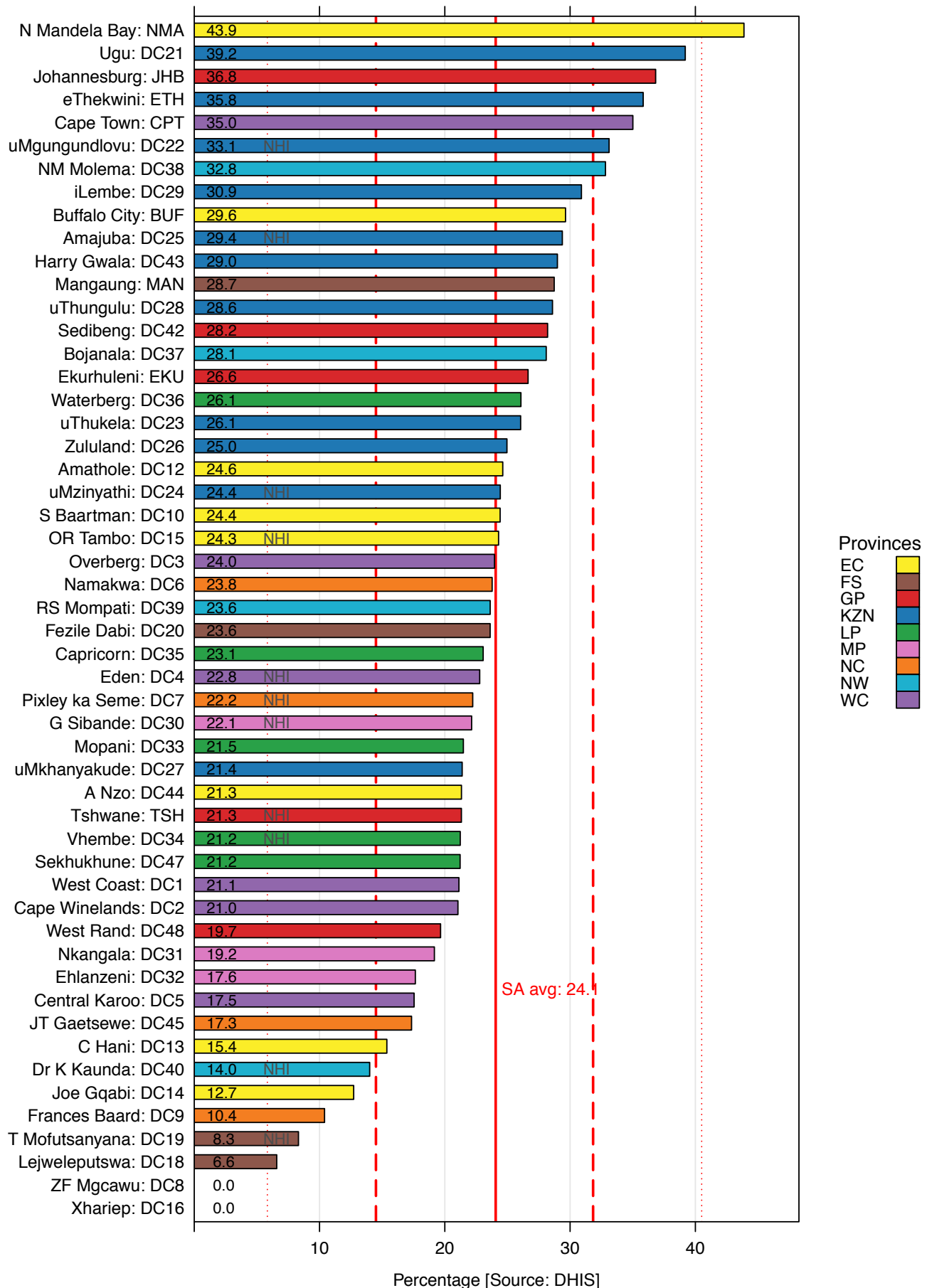
The national C-section rate in district hospitals increased from 22.7% in 2014/15 to 24.1% in 2015/16, with the national average in all institutions being 26.2%. There was a large variation in the C-section rate in district hospitals among provinces, as shown in Figure 8. The highest rate was in KwaZulu-Natal (28.2%) and the lowest in the Free State (FS) (16.0%). In 2015/16, the C-section rate in district hospitals increased in seven of the nine provinces, with the highest increase being in Limpopo (LP) (2.6 percentage points). Slight declines were noted in the Free State and North West, with decreases of 1.0 and 0.3 percentage points respectively.

Figure 8: Delivery by Caesarean section rate by province, 2015/16

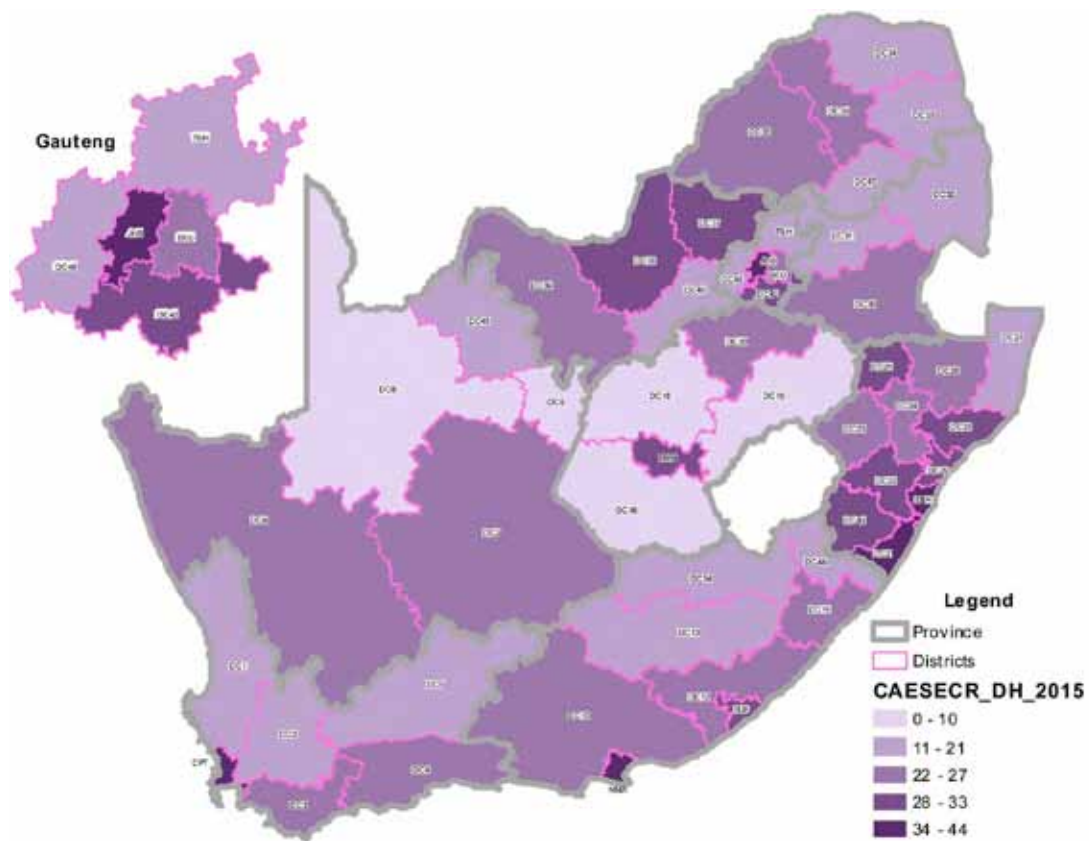


The C-section rate in district hospitals was highest in N Mandela Bay (EC) at 43.9% (Figure 9 and Map 2). This district has had the highest C-section rate in the country for the fifth consecutive year. Interestingly, ZF Mgqawu (NC) and Xhariep (FS) districts reported no C-sections at district hospitals. The reasons for this anomaly are that Xhariep referred all complicated birth cases to other districts, and all the C-sections in ZF Mgqawu were done at the regional hospital (Figure 10). Thirteen districts had a lower C-section rate in 2015/16 than in 2014/15. The rate in Amathole (EC) increased by 6.7 percentage points from 2014/15.

Figure 9: Delivery by Caesarean section rate (district hospitals) by district, 2015/16

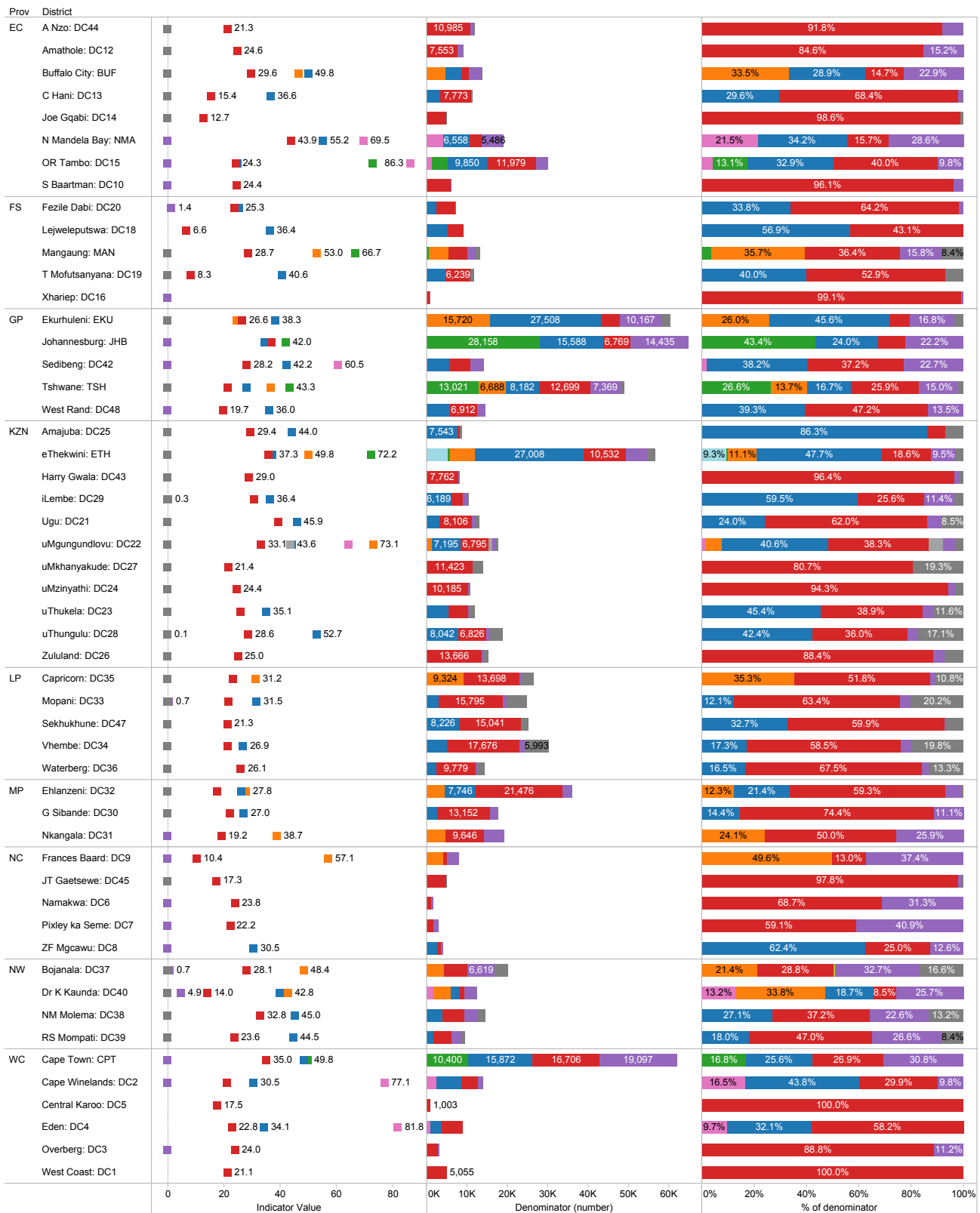


Map 2: Delivery by Caesarean section rate (district hospitals) by district, 2015/16



Section A: Delivery

Figure 10: Delivery by Caesarean section rate by level of care per district, 2015/16

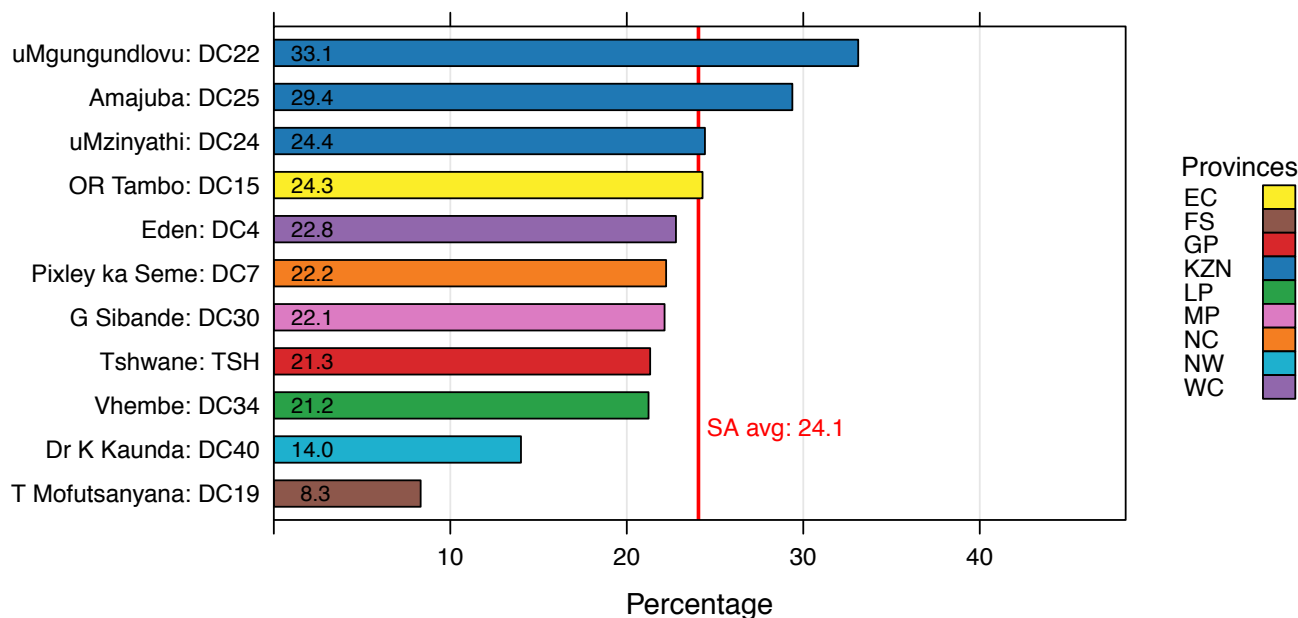


- OrgUnitType (group)
- Clinic & Special Clinic
 - Community Health Centre
 - Midwife Obstetrics Unit
 - Other
 - District Hospital
 - Regional Hospital
 - Provincial Tertiary Hospital
 - National Central Hospital
 - Specialised Hospitals
 - Private Hospital

Note: Column 1 shows the C-section rate, column 2 the number of deliveries and column 3 the percentage of deliveries per district by each level of care.

Among the NHI districts, the highest rate was in uMgungundlovu (KZN) (33.1%), and the lowest rate in T Mofutsanyana (FS) (8.3%) (Figure 11). This is the same positioning as in 2014/15, although the C-section rate increased by 1.5 percentage points in uMgungundlovu and decreased by 0.4 percentage points in T Mofutsanyana.

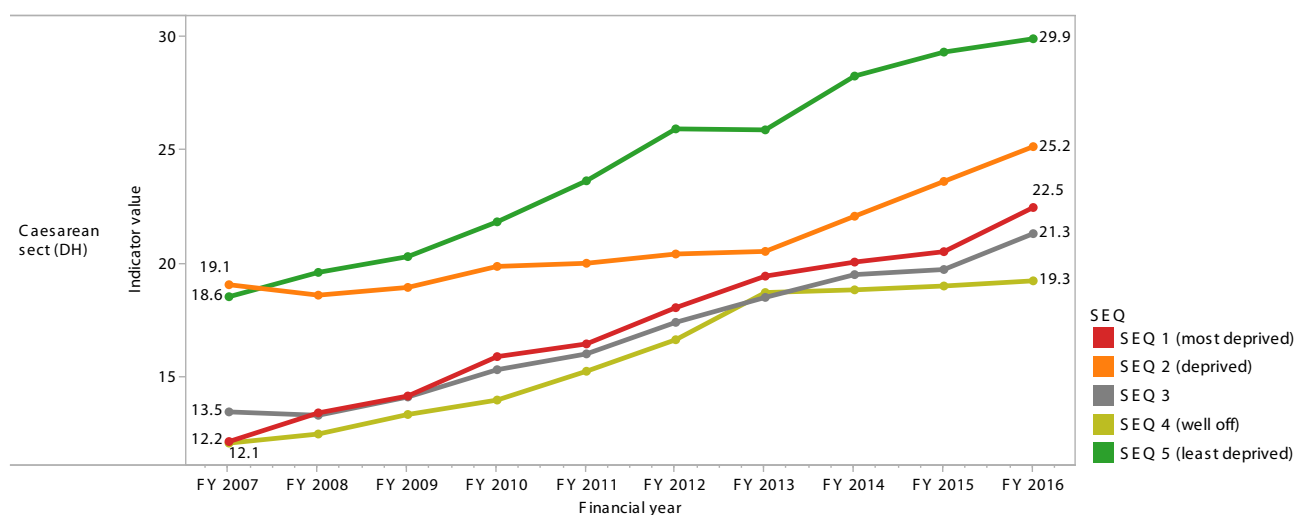
Figure 11: Delivery by Caesarean section rate (district hospitals) by National Health Insurance district, 2015/16



Nine of the 11 NHI districts showed an increase in 2015/16, the highest increase being in OR Tambo (EC) (3.2 percentage point increase). The greatest decline was noted in Dr K Kaunda (5.8 percentage points decrease).

C-section rates were higher in district hospitals in metro than non-metro areas. The rate remained highest in the wealthiest districts (SEQ5) (Figure 12). Apart from this there was no obvious correlation between SEQ and C-section rate.

Figure 12: Trends in average district values by socio-economic quintile for delivery by Caesarean section rate (district hospitals)



The 10 hospitals with the highest C-section rates are listed in Table 2. Khayelitsha Hospital in Cape Town had the highest rate at 47.0%.

Table 2: District hospitals with the highest reported delivery by Caesarean section rates, 2015/16

	Province	District	C-sections	Deliveries	C-section rate
			(N)	(N)	(%)
Khayelitsha Hospital*	WC	Cape Town	1 791	3 810	47.0
Wentworth Hospital*	KZN	eThekweni	1 112	2 371	46.9
Mitchells Plain Hospital*	WC	Cape Town	1 206	2 699	44.7
Murchison Hospital	KZN	Ugu	1 269	2 856	44.4
Uitenhage Hospital*	EC	N Mandela Bay	1 319	3 006	43.9
Stutterheim Hospital	EC	Amathole	212	504	42.1
Bheki Mlangeni District Hospital	GP	Johannesburg	1 616	3 853	41.9
Humansdorp Hospital*	EC	S Baartman	655	1 617	40.5
General de la Rey Hospital*	NW	NM Molema	704	1 787	39.4

*Also in the top 10 in 2014/15.

Source: DHIS.

Key findings and recommendations

- ◆ The national C-section rate in district hospitals increased from 22.7% in 2014/15 to 24.1% in 2015/16. According to the Guidelines for Maternity Care in South Africa,^f C-sections are associated with an increased risk of maternal infection, haemorrhage, thromboembolism, and obstetric complications in subsequent pregnancies, and the performance of C-sections without valid indications is not acceptable practice. It is therefore important to explore the reasons for the increase in the C-section rate.
- ◆ ZF Mgcawu (NC) and Xhariep (FS) reported no C-sections at district hospitals. According to the DHIS 2014/15, both districts have district hospitals. Furthermore, according to the Guidelines for Maternity Care in South Africa, all district hospitals should have the necessary facilities and staff to perform C-sections 24 hours a day.
- ◆ Caesarean section rates in four NHI districts were above the national average (uMgungundllovu, Amajuba, uMzinyathi, and OR Tambo), with the top three all in KwaZulu-Natal. A review should be done to determine the reason for the high C-section rates in these districts.

4.3 Institutional maternal mortality ratio

Samukelisiwe Mahlawe

The World Health Organization (WHO) defines maternal mortality as the “death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes”.⁹ The maternal mortality ratio (MMR) is a measure of maternal mortality and is defined as the number of maternal deaths per 100 000 live births.

South Africa’s health data derived from all public health institutions are recorded in the DHIS. These data are used to calculate the facility/institution-based MMR. The institutional MMR (iMMR) is calculated from the number of maternal deaths (numerator) and the number of live births (denominator) recorded by the DHIS,^h and expressed per 100 000.

Maternal mortality remains a crucial indicator reflecting the capacity of health systems around the globe to deliver preventive, promotive and curative health services.ⁱ In 2014, the WHO estimated that more than half a million maternal deaths took place worldwide, with the majority of these deaths occurring in Africa.^j The Sustainable Development Goals (SDGs), unanimously adopted by the 193 member states of the United Nations at a summit in September 2015, address the needs of people in both developed and developing countries, and emphasise that no one should be left behind. Sustainable Development Goal 5 states that by 2030, the global MMR should have been reduced to less than 70 per 100 000 live births.^k

f South African National Department of Health. Guidelines for Maternity Care in South Africa. 4th ed. Pretoria: NDoH; 2015.

g World Health Organization. Health statistics and information systems: Maternal mortality ratio (per 100 000 live births). Available from: <http://www.who.int/healthinfo/statistics/indmaternalmortality/en/> [Accessed 16 July 2016].

h Chweneyagae D, Delis-Jarrosay N, Farina Z, Fawcus S, Godi NP, Khaole N, et al. Writing Group of the National Committee on Confidential Enquiries into Maternal Deaths, National Department of Health, South Africa. The impact of HIV infection on maternal deaths in South Africa. *South African Journal of Obstetrics and Gynaecology*. 2012; 8(3):70-6.

i Mmusi-Phetoe RMM. Social factors determining maternal and neonatal mortality in South Africa: A qualitative study. *Curationis* 2016; 39(1): a1571. <http://dx.doi.org/10.4102/curationis.v39i1.1571>.

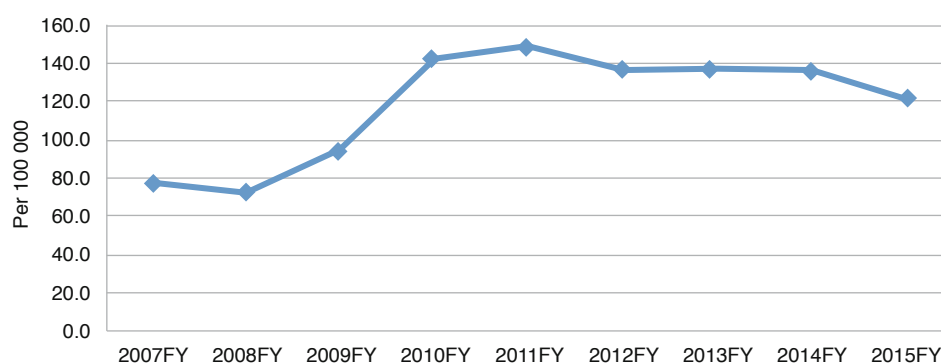
j Republic of South Africa. Millennium Development Goals. Improve maternal health 2015. Statistics South Africa. Pretoria: Statistics South Africa; 2015.

k Indicators and a Monitoring Framework. Launching a data revolution for the Sustainable Development Goals. Available from: <http://indicators.report/targets/3-1/> [Accessed 29 July 2016].

The major causes of maternal death in South Africa are haemorrhage and hypertension. Non-pregnancy-related infections (mainly HIV) account for approximately 30% of all maternal deaths in this country.^l

South Africa has shown a slightly decreasing trend in iMMR over the past five years (Figure 13). In 2015/16, there were a total of 1 074 maternal deaths and 901 642 live births. The national iMMR was 119.1 deaths per 100 000 live births. The iMMR for 2015/16 reached the national target of 120 deaths per 100 000 live births, compared with 132.5 deaths per 100 000 live births in 2014/15, derived from 1 270 maternal deaths and 958 252 live births.

Figure 13: National institutional maternal mortality ratio trends, 2007/08–2015/16 (per 100 000 live births)



Source: DHIS.

In the provinces, there was a general decline in the iMMR from 2014/15. However, the iMMR in Mpumalanga and the Western Cape rose from 115.4 to 125.3, and from 54.4 to 69.6 per 100 000 live births respectively (Table 3). KwaZulu-Natal had the highest number of maternal deaths overall, with 223 deaths from 184 184 live births.

Table 3: Institutional maternal mortality ratio by province, 2011/12–2015/16 (per 100 000 live births)

	2011/12	2012/13	2013/14	2014/15	2015/16
EC	114.9	109.5	156.2	148.3	135.2
FS	199.1	132.7	143.4	217.8	130.2
GP	123.3	116.5	104.5	112.6	107.6
KZN	192.2	165.5	148.4	124.9	121.1
LP	184.6	177.9	152	165.2	140.2
MP	135	175.8	149.1	115.4	125.3
NC	147.7	144.6	118.9	254.1	112.5
NW	189.7	166.6	184.9	167.1	148.1
WC	28.6	8.7	68.6	54.4	69.6
SA	144.9	132.9	133.3	132.5	119.1

Source: DHIS.

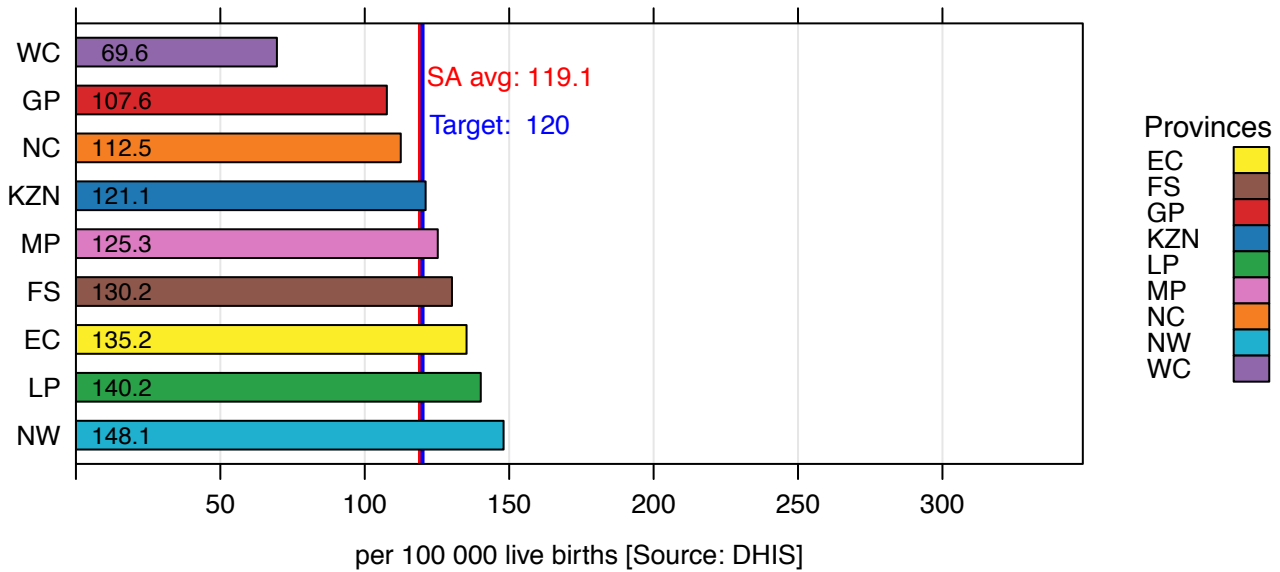
In 2015/16, the Western Cape, Gauteng and Northern Cape performed better than the national target of 120 deaths per 100 000 live births (Figure 14).

The Northern Capes' iMMR dropped significantly from 224.4 deaths per 100 000 in 2014/15 to 112.5 per 100 000 in 2015/16. This was due to a data error in 2014/15.^m

^l South African National Department of Health. South Africa's National Strategic Plan for a Campaign on Accelerated Reduction of Maternal and Child Mortality in Africa (CARRMA).

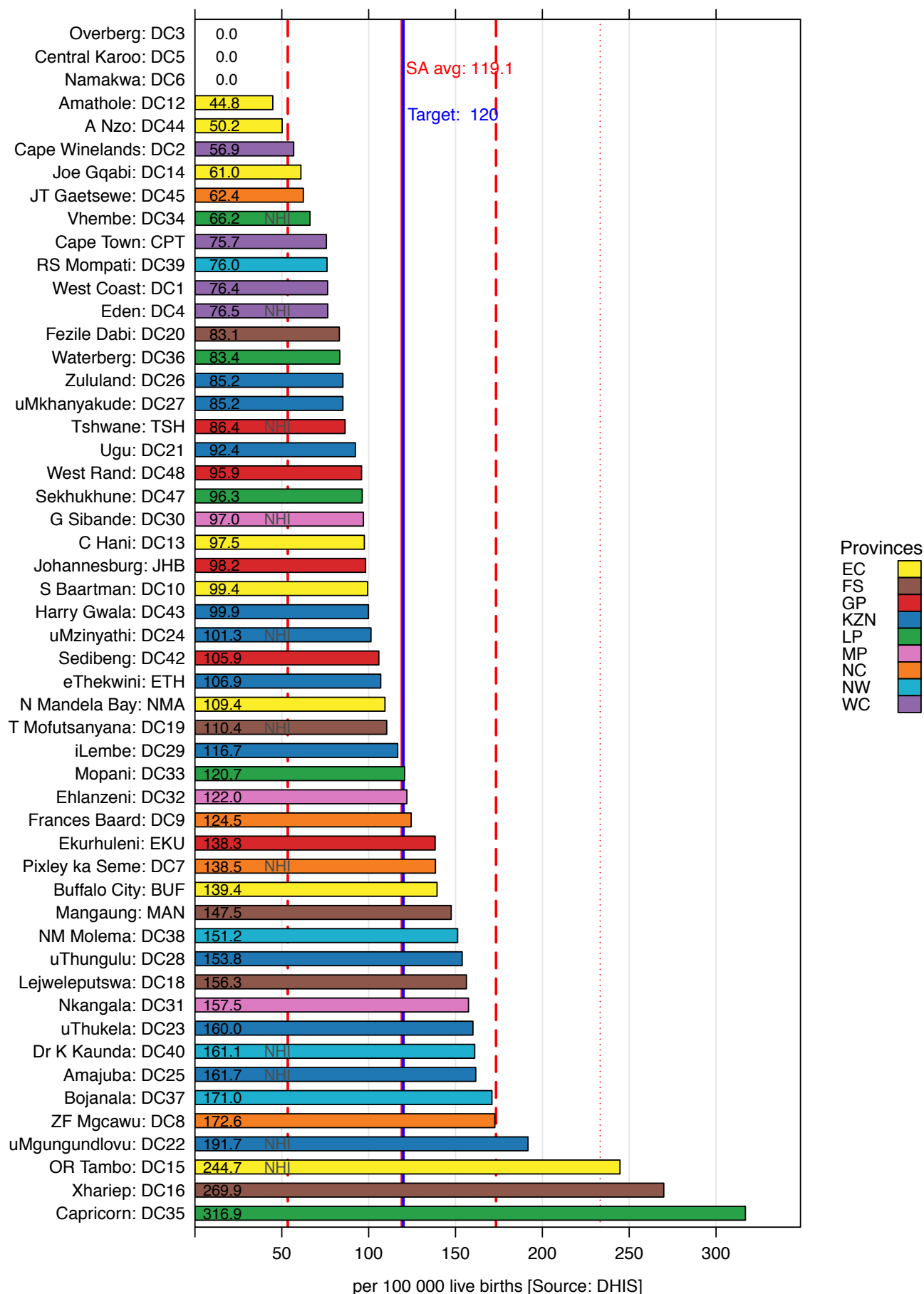
^m Massyn N, Peer N, Padarath A, Barron P, Day C, editors. District Health Barometer 2014/15. Durban: Health Systems Trust; October 2015.

Figure 14: Institutional maternal mortality by province, 2015/16 (per 100 000 live births)



In 2015/16, the iMMR for the districts ranged from zero deaths in Overberg (WC), Central Karoo (WC) and Namakwa (NC) to 316.9 deaths per 100 000 live births in Capricorn (LP) (Figure 15 and Map 3). Overberg district had a zero iMMR for the second year in a row. Capricorn (LP) (316.9 per 100 000), Xhariep (FS) (269.9 per 100 000) and OR Tambo (EC) (244.7 per 100 000) had the highest iMMRs, which were more than double the national average. There were 83 maternal deaths in Capricorn, from 26 191 live births. Forty-two districts (80.8%) reached the national target. Among the NHI districts, Vhembe (LP) performed the best with an iMMR of 66.2 per 100 000 live births, followed by Eden (WC) at 76.5 per 100 000. The worst-performing NHI district was OR Tambo (EC). Only six of the 11 NHI districts reached the national target.

Figure 15: Institutional maternal mortality ratio by district, 2015/16



Map 3: Institutional maternal mortality ratio by sub-district, 2015/16

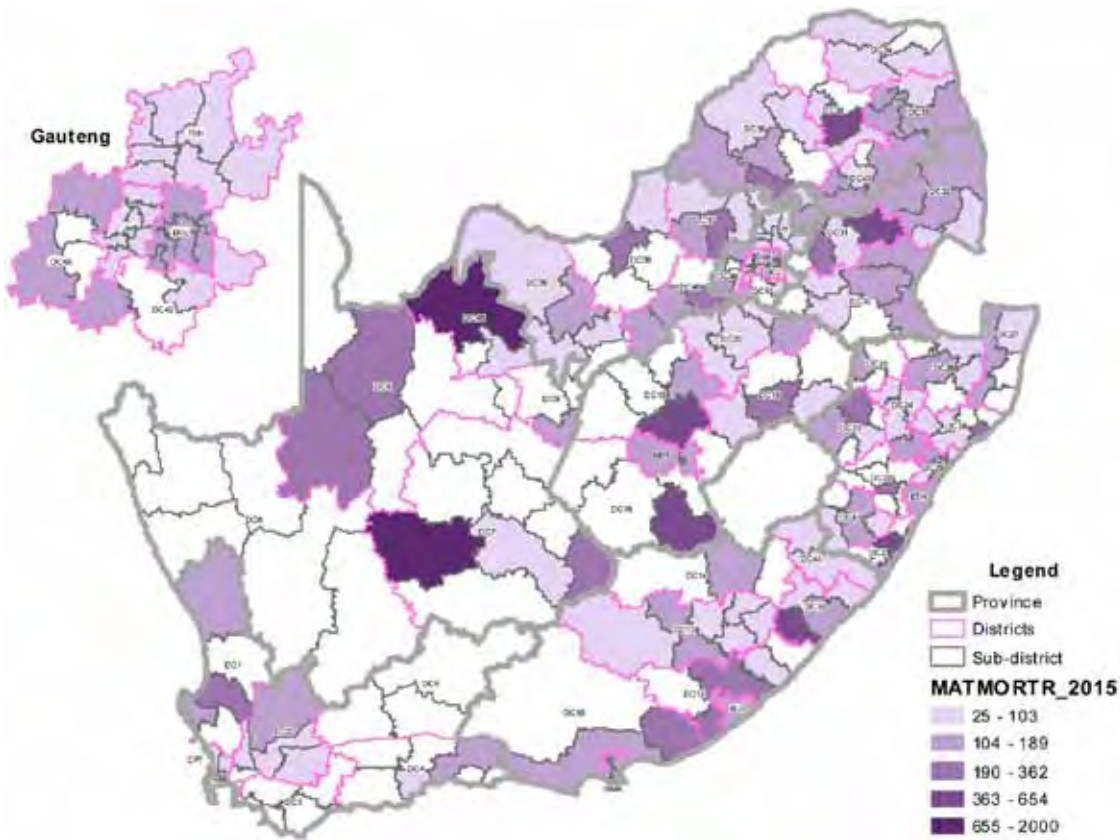
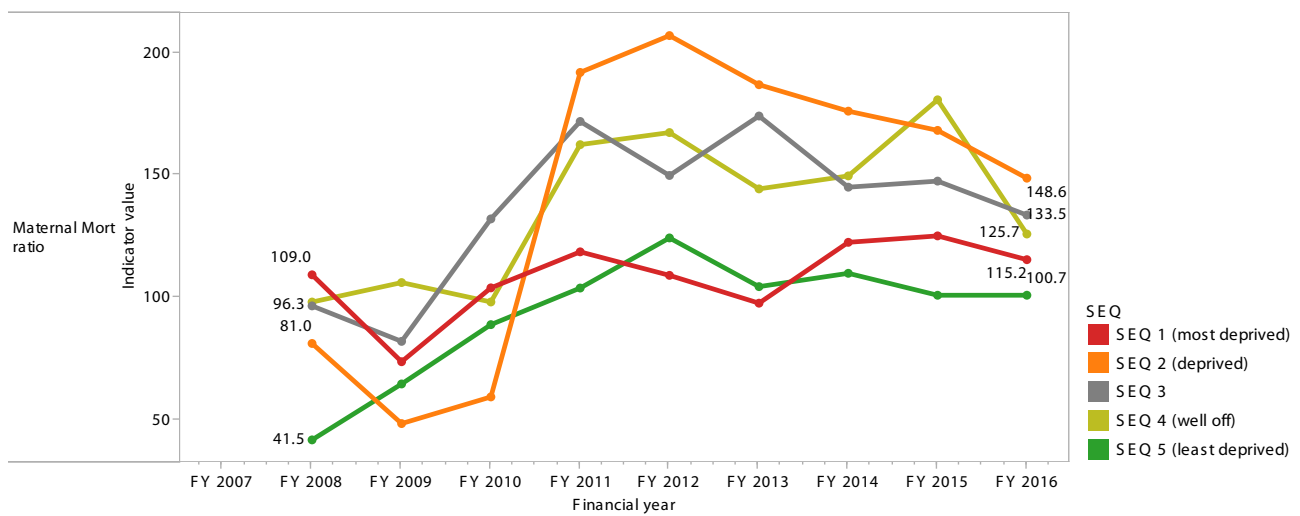


Figure 16 shows the average district values by socio-economic quintile. There were no clear trends. In 2015/16, the iMMR was highest in SEQ2 and SEQ3 and lowest in SEQ5.

Figure 16: Trends in average district values by socio-economic quintile for institutional maternal mortality ratio



Key findings

- ◆ There has been a general reduction in maternal mortality in South Africa over the past three years. The Western Cape has consistently had the lowest iMMR for the past five years, followed by Gauteng and the Northern Cape.

Recommendations

- ◆ Specific hospitals with high mortality figures and high iMMRs need to be targeted for individual improvement. One consideration is an accreditation system for hospitals performing caesarean sections, with minimum staffing norms and skills also put in place.

4.4 Stillbirth in facility rate

Joan Dippenaar and Muchiri Wandai

The stillbirth rate (SBR) measures the number of babies born dead per 1 000 total births. In calculating the SBR the number of stillbirths is divided by the number of live births and stillbirths and then multiplied by 1 000.ⁿ

The SBR specifically reflects the quality of antenatal care in late pregnancy as well as the quality of care during labour. It includes macerated stillbirths, where the baby died more than six hours before labour started, and fresh stillbirths, where the foetal heartbeat was present at birth but the baby was born without signs of life. The indicator does not differentiate between fresh and macerated stillbirths. The 2013 National Indicator Data Set (NIDS) definition states that stillbirths should only be counted when the foetus is of 26 or more weeks' gestational age and/or weighs 500g or more.

The 2030 SDG targets^k include stillbirth as an essential indicator in health care. The stillbirth rate is one of the key indicators reflecting foetal, maternal and health system factors, and it is an important overall indicator of the health system. Half of all stillbirths occur during labour and birth.^o

The Perinatal Problem Identification Programme's (PIIP) ninth report in 2014^p indicates that overall most births and most neonatal deaths occur in district hospitals. The report categorised the main causes of 9 567 stillbirths as being due to patient and family associated factors (34%), health provider factors (7.1%), and administrative factors (1.7%). The "inappropriate response to poor fetal movement" was the second highest cause of stillbirths at 18.6%. No antenatal care was found to be a contributory factor in 4.7% of stillbirths; late booking in 4.4%; delay in seeking medical care 3.0%; and the rest of the 11 factors contributed less than 1% each. Unexplained stillbirths were found to be the largest category of macerated stillbirths across all levels of care.

The National Perinatal Morbidity and Mortality Committee report^q of 2014 analysed 75.6% of all perinatal deaths. Based on these data, the committee calculated the SBR for 2014/2015 at 20.7 per 1 000 total births.

For 2015/16, only stillbirths that occurred in health facilities were analysed and reported on. This included the majority of public health sector facilities along with a limited number of private hospitals and mobile clinics. Deaths outside of these services, such as in the community, were not taken into account.

The national stillbirth in facility rate was 21.1 deaths per 1 000 total births in 2015/16. This was an increase from 20.7 per 1 000 in 2014/15 and a decrease from 21.5 per 1 000 in 2013/14. The rate was the lowest in the Western Cape at 17.5 deaths per 1 000 total births and highest in the Free State at 27.1 per 1 000 total births (Figure 17). The SBR increased by 2.0 per 1 000 in the Western Cape between 2014/15 and 2015/16, by 10.1 per 1 000 in the Eastern Cape, by 3.7 per 1 000 in Mpumalanga, by 5.5 per 1 000 in KwaZulu-Natal, and by 6.7 per 1 000 in the Free State. The rate decreased in Gauteng, North West, Limpopo and Northern Cape in the same period. The biggest decrease was in the Northern Cape at 4.6 per 1 000 total births.

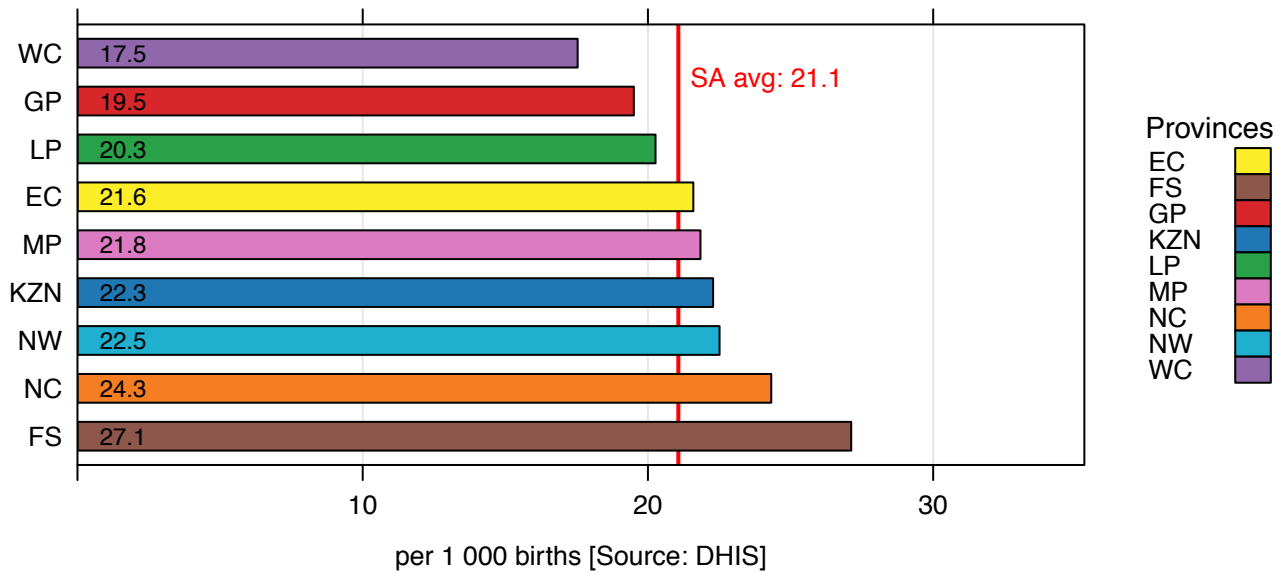
n Dictionary of terminology (2012). Available from: www.cbs.gov.il/reader/Milon/Milon_ByTerm_E.html?MyID=822&OnlyFinal [Accessed 23 July 2016].

o The Lancet. Ending preventable stillbirths. An Executive Summary for The Lancet's Series. January 2016. Available from: <http://www.thelancet.com/pb/assets/raw/Lancet/stories/series/stillbirths2016-exec-sum.pdf> [Accessed 23 July 2016].

p Pattinson RC, Rhoda N, for the PIIP group. Saving Babies 2012–2013: Ninth report on perinatal care in South Africa. Pretoria: Tshepesa Press; 2014. Available from: www.ppip.co.za [Accessed 23 July 2016].

q National Perinatal Morbidity and Mortality Committee (NaPeMMCo) Interim Report 2012. National Department of Health; 2014. Available from: www.health.gov.za/.../2015-04-30-08-24-27?...national-perinatal-morbidity-and-mortality-committee [Accessed 23 July 2016].

Figure 17: Stillbirth in facility rate by province, 2015/16

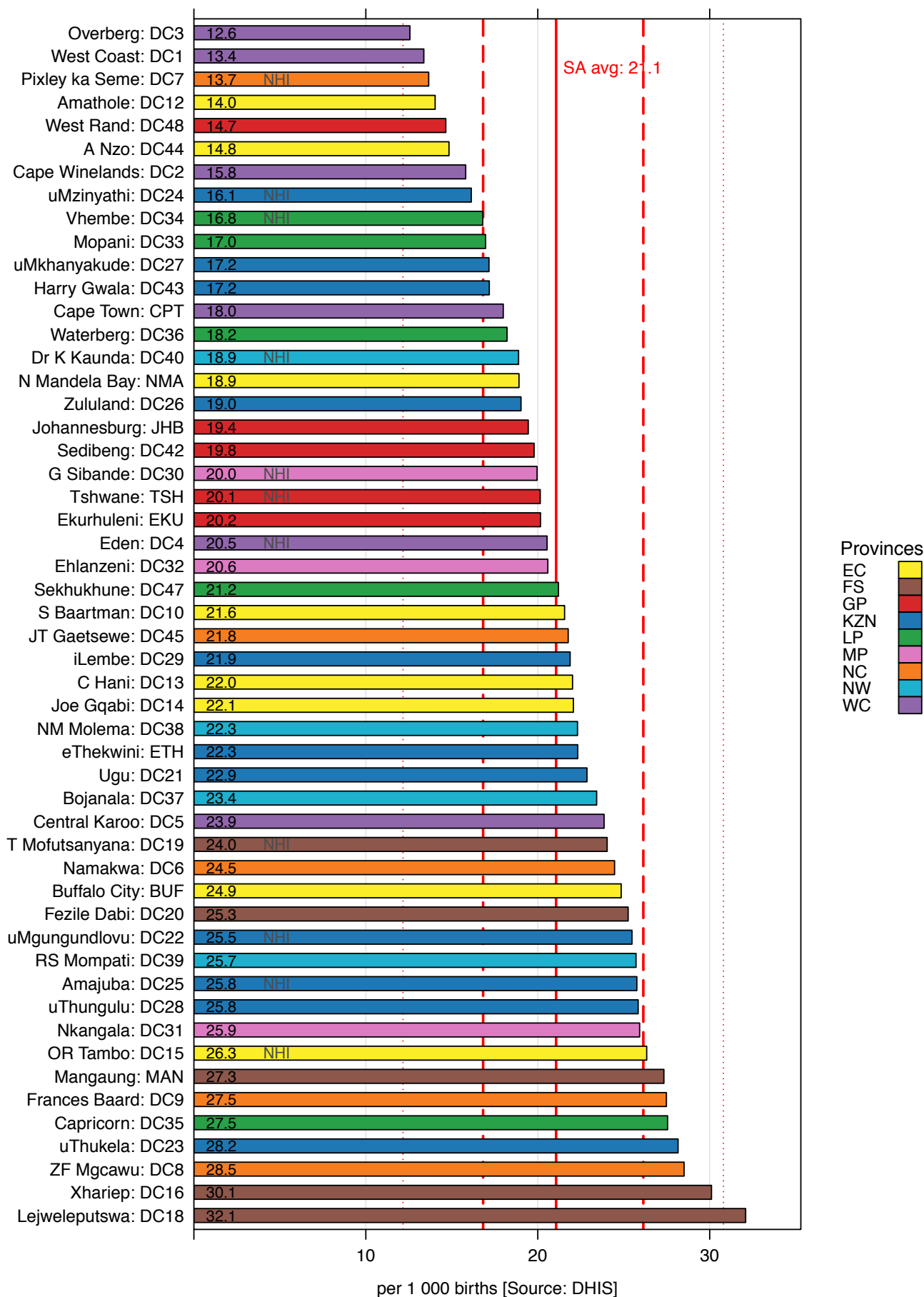


At district level there was a 2.5-fold difference between the best- and the worst-performing districts, with Overberg (WC) having the lowest SBR at 12.6 per 1 000 total births, and Lejweleputswa (FS) the highest at 32.1 per 1 000 total births (Figure 18).

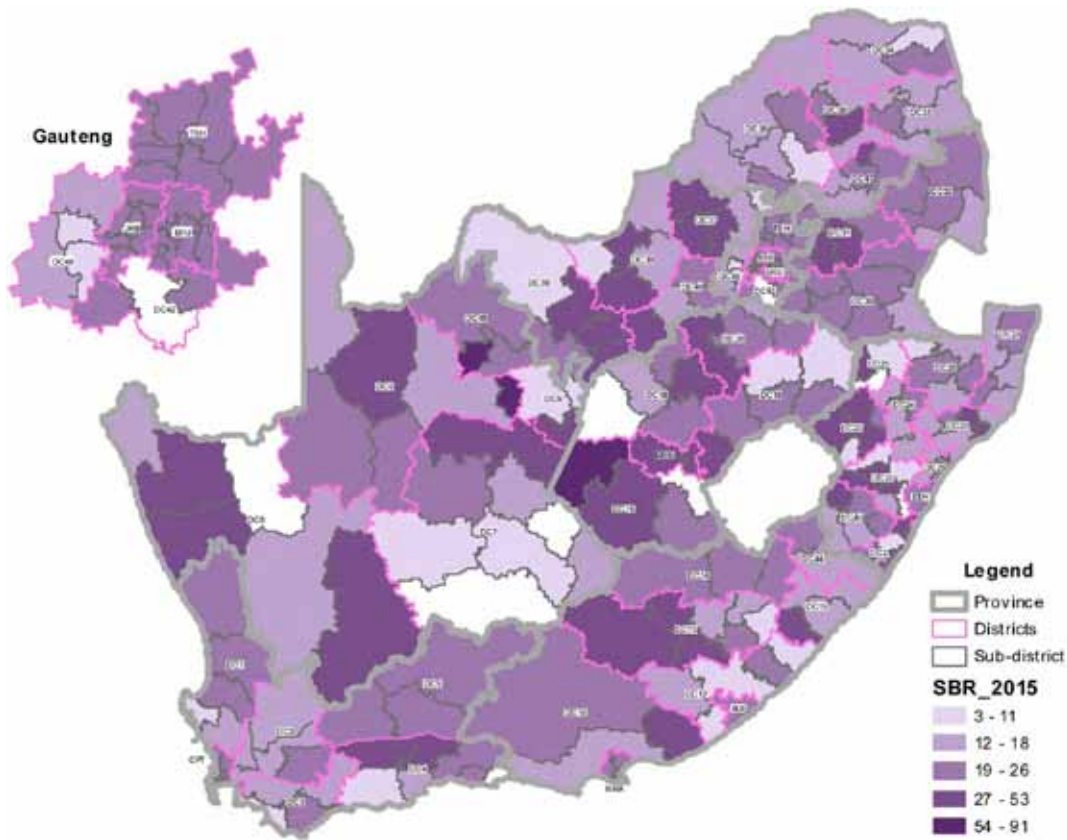
All the districts in Gauteng showed SBRs below the national average. This contrasts with the Free State, where all the districts had SBRs above the national rate. In Limpopo, the biggest burden was in Capricorn, probably due to referral of high-risk cases to the tertiary hospital in Capricorn. The sub-districts with the highest SBRs were Letsemeng in Xhariep (FS), Kgatelopele in ZF Mgcawu (NC), and Gamagara in JT Gaetsewe (NC). (Map 4). These are all very sparsely populated rural areas with small stillbirth numbers.

Four of the 11 NHI districts had SBRs above the national average. These were OR Tambo (EC) (26.3 per 1 000 total births), Amajuba (KZN) (25.8 per 1 000), uMgundgundlovu (KZN) (25.5 per 1 000) and T Mofutsanyana (FS) (24.0 per 1 000). The best-performing NHI district was Pixley ka Seme (NC) at 13.7 deaths per 1 000 total births. Pixley ka Seme was overall the third-best performing district among the 52 districts.

Figure 18: Stillbirth in facility rate by district, 2015/16

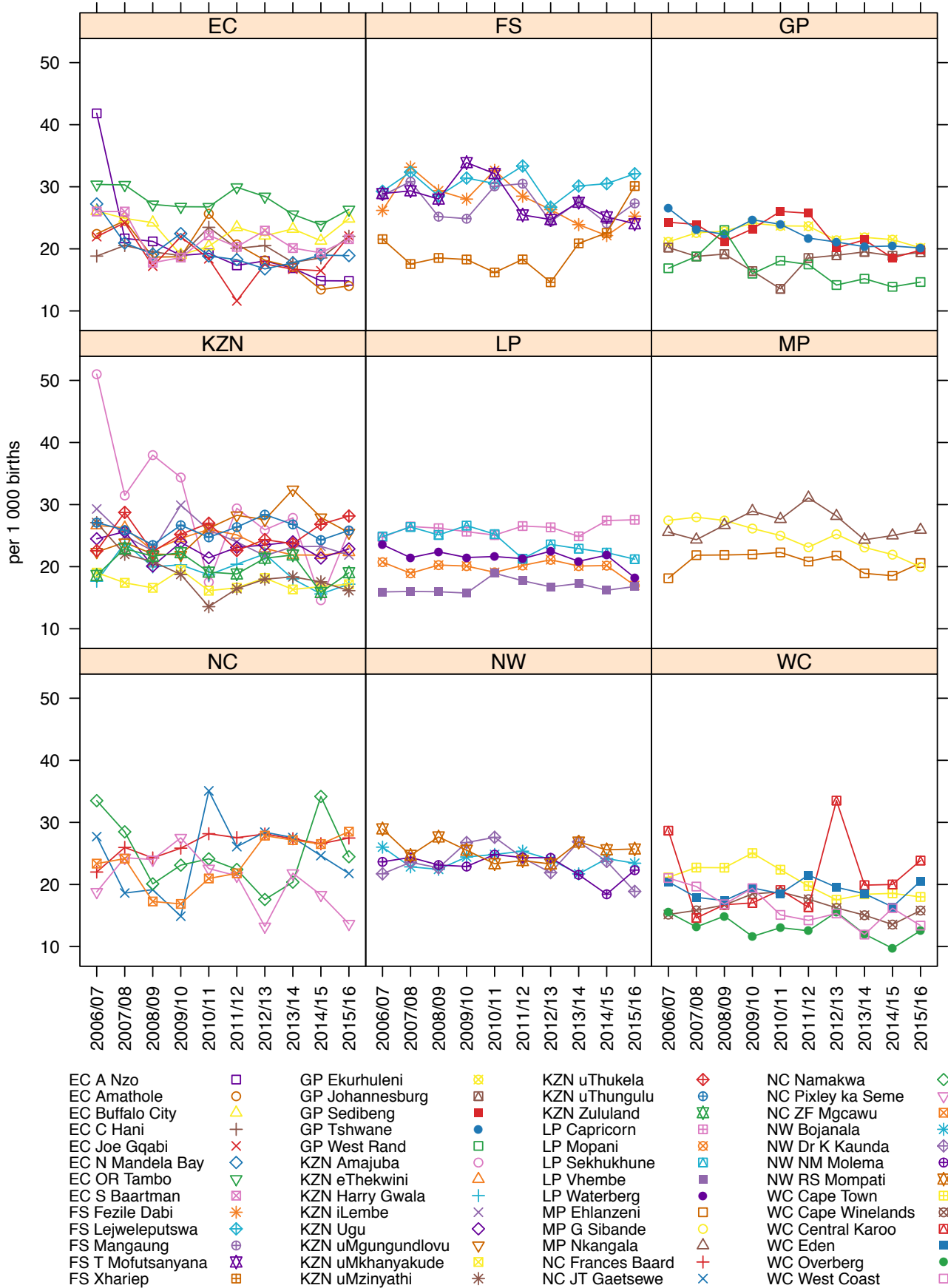


Map 4: Stillbirth in facility rate by sub-district, 2015/16



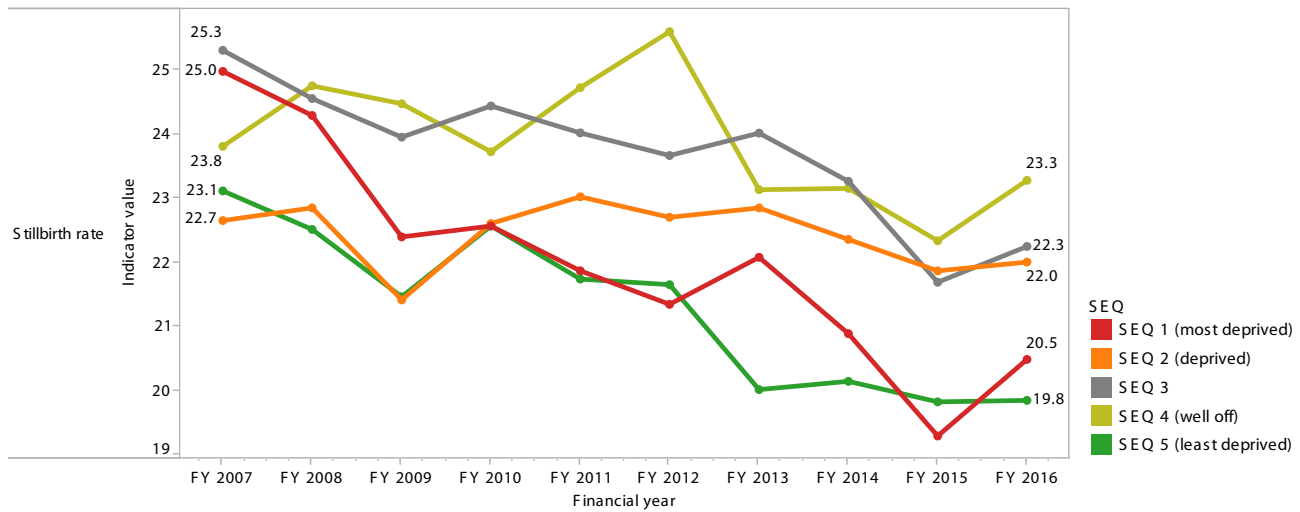
The SBR remained relatively stable in most districts between 2013/14 and 2015/16. However, huge SBR fluctuations were observed over the same period in Amajuba (KZN), Namakwa (NC) and Overberg (WC), possibly due to small stillbirth numbers. An increasing trend in the same period was also observed in C Hani (EC), Capricorn (LP), Central Karoo (WC), Lejweleputswa (FS), Nkangala (MP), uMkhanyakude (KZN) and Xhariep (FS) (Figure 19).

Figure 19: Annual trends for stillbirth in facility rate



Although there was a general downward trend in SBR across all socio-economic quintiles, the rate rose in SEQs 1–4 in 2015/16, while in SEQ5 the downward trend continued (Figure 20). There was no clear correlation between SEQ and SBR, with SEQ4 having the highest SBR and SEQ5 the lowest.

Figure 20: Trends in average district values by socio-economic quintile for stillbirth in facility rate



Key findings

The District Health Barometer has been reporting on SBR data from the DHIS since 2007/08. There has been a general downward trend in the SBR over time, and an improvement in case reporting in the public health sector.

Recommendations

- ◆ With the exception of the Western Cape, most districts have sub-districts with a high SBR that affects the total SBR for the district. These sub-districts (and more importantly the hospitals within them) should become a focus for intervention.
- ◆ The 'National Newborn Action Plan'^o should guide the activities required to prevent stillbirths.
- ◆ Improvement of data quality remains an important goal and PPIP should be extended to cover all institutions and all births.

4.5 Inpatient early neonatal death rate

Tamlyn Seunanden

The inpatient early neonatal death rate (ENDR) or inpatient death 0–7 days measures the number of deaths among live-born babies that occur within seven days of birth per 1 000 live births. Neonatal deaths are included only when the foetus is at 26 or more weeks' gestational age and weighs 500 g or more. The deaths reported in this chapter occurred predominantly in public health facilities but include a limited number of deaths in private hospitals. Deaths that occurred at home were not included.

The inpatient ENDR provides an indication of the quality of antenatal, intrapartum and postnatal care; it also provides integral information needed to improve health care provided to pregnant women, neonates and new mothers.^f Early neonatal death is also a significant contributor to the under-5 mortality rate, which has been monitored as part of Millennium Development Goal (MDG) 4A which aimed to reduce the under-5 mortality rate by two-thirds between 1990 and 2015.⁵ Similarly, the SDGs are part of the new era in which the target is to reduce under-5 mortality to at least as low as 25 per 1 000 live births by 2030.^k Inpatient ENDR is a key indicator to address in order for South Africa to meet its targets and end preventable deaths among neonates and children under 5.

The 2015/16 national inpatient ENDR was 10.5 per 1 000 live births, an increase from 10.1 per 1 000 live births in 2014/15 (Figure 21), and higher than the national target of 10.0 per 1 000 live births. The rate has been stable at around 10 per 1 000

r Onwudiegwu U, Awowole I. Current trends in perinatal mortality in developing countries: Nigeria as a case study. In: Ezechi O, Odberg-Petterson K, editors. Perinatal mortality. Croatia: InTech Europe; 2012. Available from: <http://www.intechopen.com/books/perinatal-mortality> [Accessed 06 August 2016].

s Newsletter of the HIV, TB AND MNCWH Cluster, 6 May 2015. Available from: http://www.rmchsa.org/wp-content/uploads/2013/05/HIV_TB_MNCH-Newsletter-May-2015.pdf [Accessed 8 August 2016].

live births since 2010/11 (Table 4). Provincially, the Northern Cape had the highest inpatient ENDR at 14.3 per 1 000 live births and the Western Cape had the lowest rate at 7.3 per 1 000 live births. Four provinces reached the national target. Five provinces showed increases in rates between 2014/15 and 2015/16, namely the Free State, KwaZulu-Natal, Limpopo, Mpumalanga and the Western Cape.

Figure 21: Inpatient early neonatal death rate by province, 2015/16

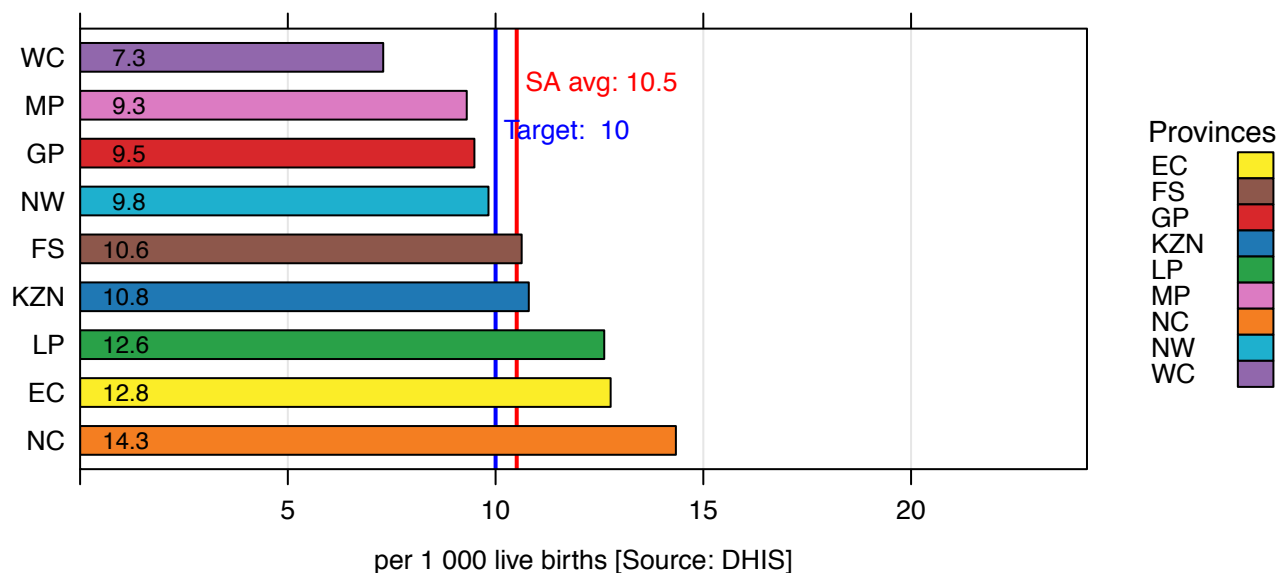


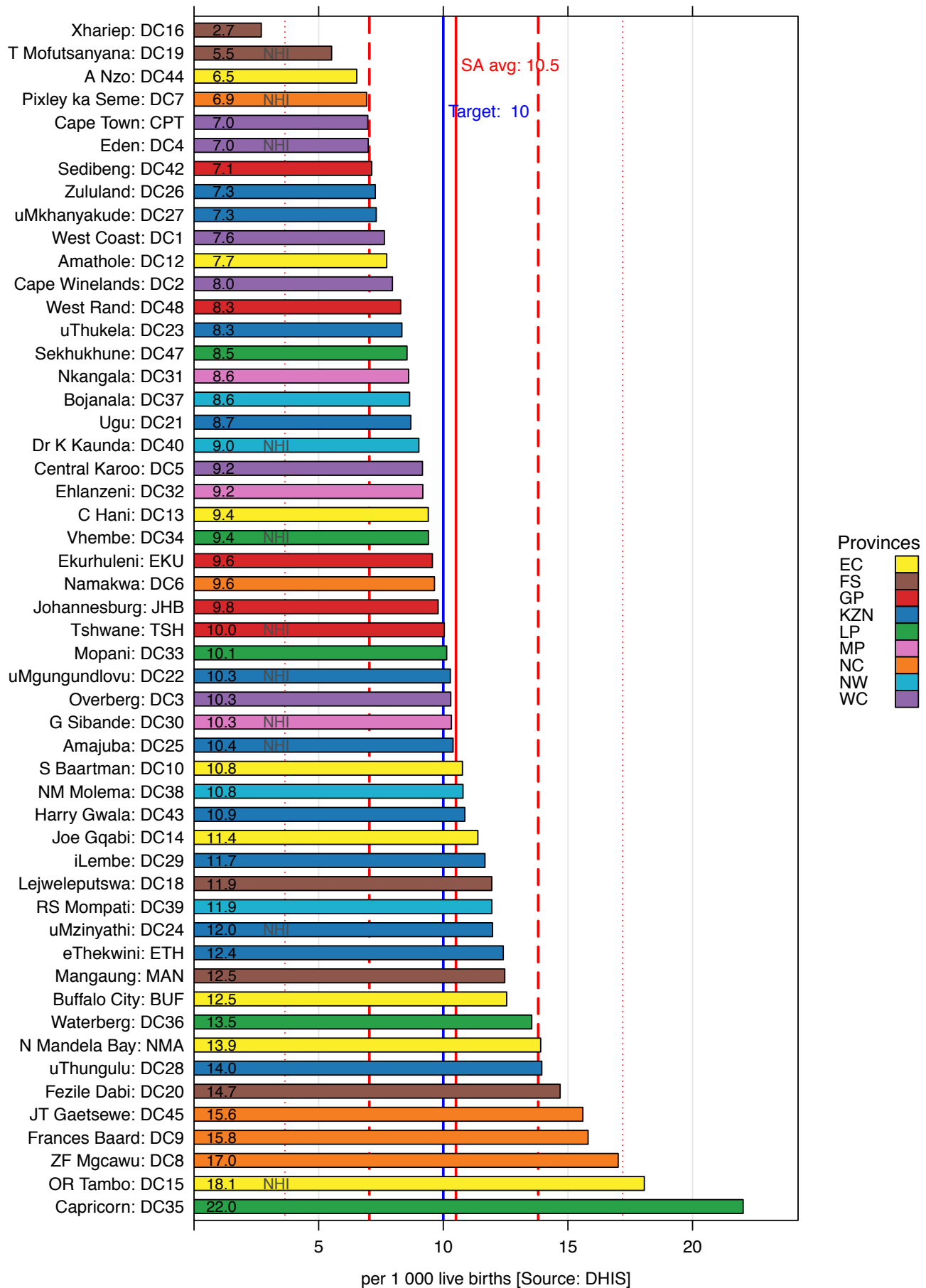
Table 4: Inpatient early neonatal death rate by province, 2010/11–2015/16 (per 1 000 live births)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EC	13.2	14.5	16.4	14.1	13.3	12.8
FS	12.4	11.7	10.8	12.3	10.5	10.6
GP	9.6	9.7	8.8	9.3	9.7	9.5
KZN	9.0	9.2	8.7	10.4	10.3	10.8
LP	10.7	11.0	11.5	11.7	11.6	12.6
MP	9.2	9.8	9.5	8.6	7.9	9.3
NC	12.0	13.0	11.7	12.8	14.6	14.3
NW	12.8	11.2	10.4	9.5	10.8	9.8
WC	4.9	5.1	6.2	4.8	5.3	7.3
SA	10.0	10.2	10.2	10.1	10.1	10.5

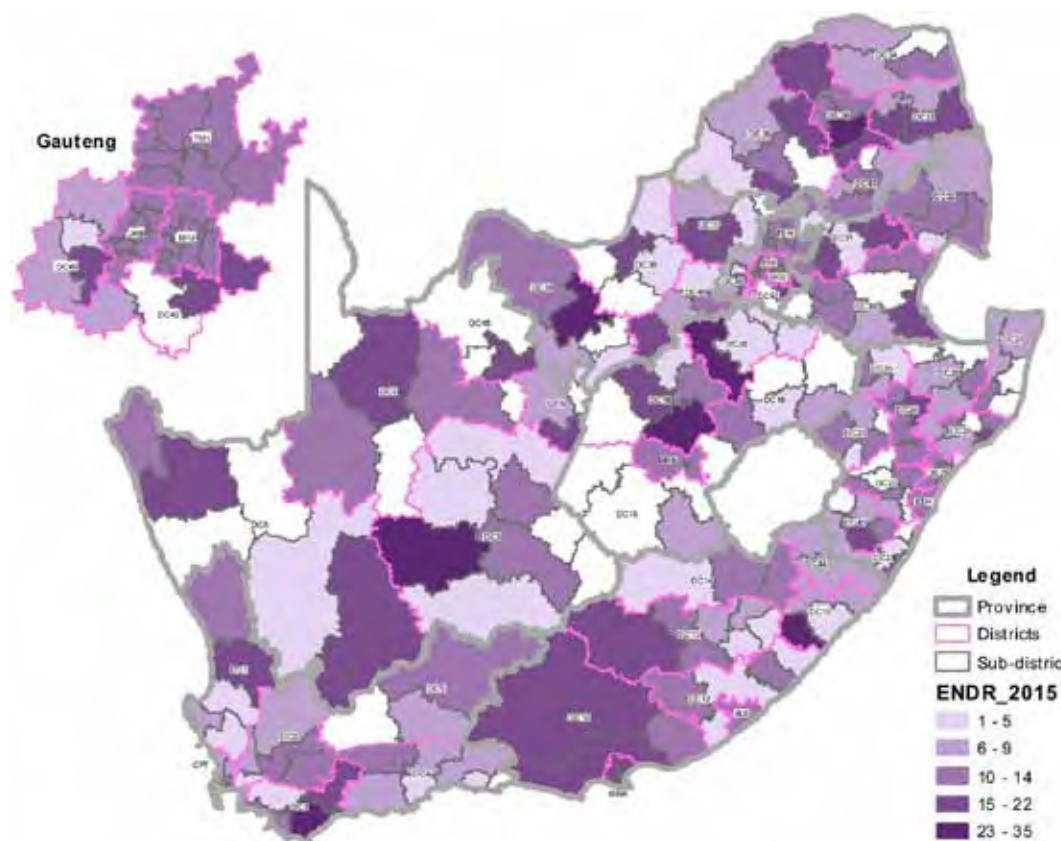
Source: DHIS.

Capricorn in Limpopo was the worst-performing district at 22.0 per 1 000 live births, which is more than twice the national target (Figure 22). Xhariep (FS) had the lowest ENDR at 2.7 per 1 000. This was followed by an NHI district, T Mofutsanyana (FS) at 5.5 per 1 000 live births. Twenty-seven districts reached the national target in 2015/16. This included four of the six districts in the Western Cape, and two of the three districts in Mpumalanga. The Northern Cape had the highest number of sub-districts with an ENDR between 22 and 44 per 1 000 live births (Map 5), probably due to small numbers of early neonatal deaths. The inpatient ENDR in N Mandela Bay decreased to 13.9 per 1 000 in 2015/16, which is a notable improvement as it had the highest value in 2014/15 (19.5 per 1 000 live births).

Figure 22: Inpatient early neonatal death rate by district, 2015/16



Map 5: Inpatient early neonatal death rate by sub-district, 2015/16



OR Tambo in the Eastern Cape was the worst-performing NHI district with a rate of 18.1 per 1 000 live births, far above the national target (Figure 23). OR Tambo was also the poorest-performing NHI district in 2013/14 and 2014/15. Only six of the 11 NHI districts reached the national target, with the best-performing district, T Mofutsanyana (FS) at 5.5 per 1 000 live births.

Figure 23: Inpatient early neonatal death rate by National Health Insurance district, 2015/16

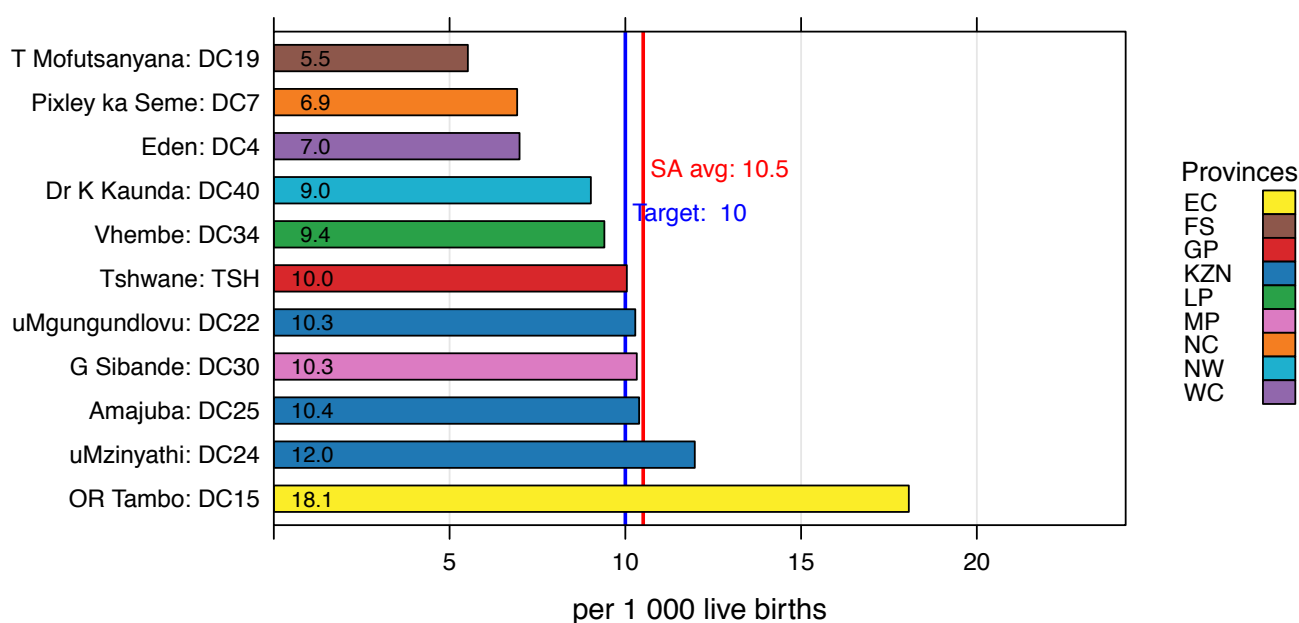


Table 5 shows the 10 hospitals with the highest number of early neonatal deaths in 2015/16.

Table 5: Hospitals with the highest reported inpatient early neonatal deaths, 2015/16

	Province	District	Hospital type	Early neonatal deaths (n)
Nelson Mandela Academic Hospital	EC	OR Tambo	National central hospital	374
Mankweng Hospital	LP	Capricorn	Provincial tertiary hospital	288
Dora Nginza Hospital	EC	N Mandela Bay	Regional hospital	248
Chris Hani Hospital	GP	Johannesburg	National central hospital	230
L Umfolozi War Memorial Hospital	KZN	Uthungulu	Regional hospital	201
Charlotte Maxeke Hospital	GP	Johannesburg	National central hospital	200
Thelle Mogoerane Regional Hospital	GP	Ekurhuleni	Regional hospital	176
Tembisa Hospital	GP	Ekurhuleni	Provincial tertiary hospital	171
Prince Mshiyeni Hospital	KZN	eThekwini	Regional hospital	161
Dr G Mukhari Hospital	GP	Tshwane	National central hospital	152

The five district hospitals with the highest number of early neonatal deaths in 2015/16 were Helene Franz Hospital in Capricorn (LP), Tshwaragano Hospital in JT Gaetsewe (NC), St Mary's Hospital in eThekwini (KZN), Donald Fraser Hospital in Vhembe (LP), and Tonga Hospital in Ehlanzeni (MP) (Table 6). Limpopo had the most district hospitals (n = 11) each with over 40 early neonatal deaths in 2015/16.

Table 6: District hospitals with the highest reported inpatient early neonatal deaths, 2015/16

	Province	District	Early neonatal deaths (n)
Helene Franz Hospital	LP	Capricorn	61
Tshwaragano Hospital	NC	J T Gaetsewe	61
St Mary's Hospital	KZN	eThekwini	60
Donald Fraser Hospital	LP	Vhembe	60
Tonga Hospital	MP	Ehlanzeni	58
Jane Furse Hospital	LP	Sekhukhune	52
Jubilee Hospital	GP	Tshwane	50
Lebowakgomo Hospital	LP	Capricorn	49
Seshego Hospital	LP	Capricorn	49
Zebediela Hospital	LP	Capricorn	49
Nkhensani Hospital	LP	Mopani	49
Benedictine Hospital	KZN	Zululand	49
Piet Retief Hospital	MP	G Sibande	48
Butterworth Hospital	EC	Amathole	47
Dr CN Phatudi Hospital	LP	Mopani	47
ML Malatjie Hospital	LP	Mopani	47
Charles Johnson Memorial Hospital	KZN	Umzinyathi	46
Bertha Gxowa Hospital	GP	Ekurhuleni	43
Elim Hospital	LP	Vhembe	43
Hlabisa Hospital	KZN	Umkhanyakude	42
Church of Scotland Hospital	KZN	Umzinyathi	42
Siloam Hospital	LP	Vhembe	42
Embuleni Hospital	MP	G Sibande	41

Year-on-year fluctuations in inpatient ENDR were seen in most districts. Districts in the Northern Cape showed huge fluctuations (Figure 24), probably due to the small number of early neonatal deaths. The same applies to Xhariep (FS), Central Karoo (WC) and JT Gaetsewe (NC), all deep rural districts. OR Tambo (EC), Mangaung (FS), eThekwini (KZN), uMkhanyakude (KZN), Nkangala (MP), Cape Town (WC), Cape Winelands (WC) and West Coast (WC) had increases between 2013/14 and 2015/16. However, Amathole (EC), C Hani (EC), N Mandela Bay (EC), Lejweleputswa (FS), T Mofutsanyana (FS), Ugu (KZN), Mopani (LP), and Dr K Kaunda (NW) had decreases in the same period.

Figure 24: Annual trends for inpatient early neonatal death rate

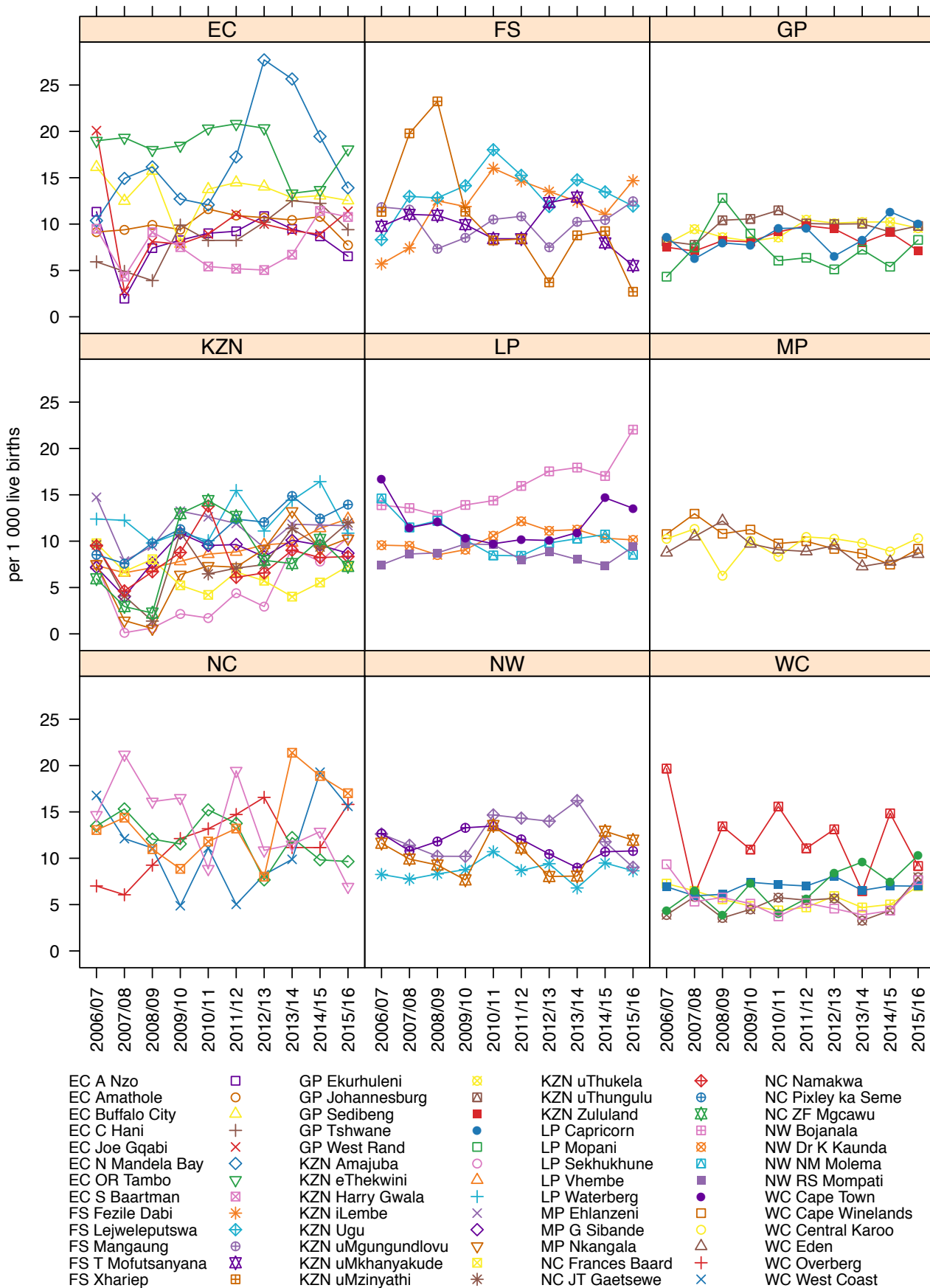
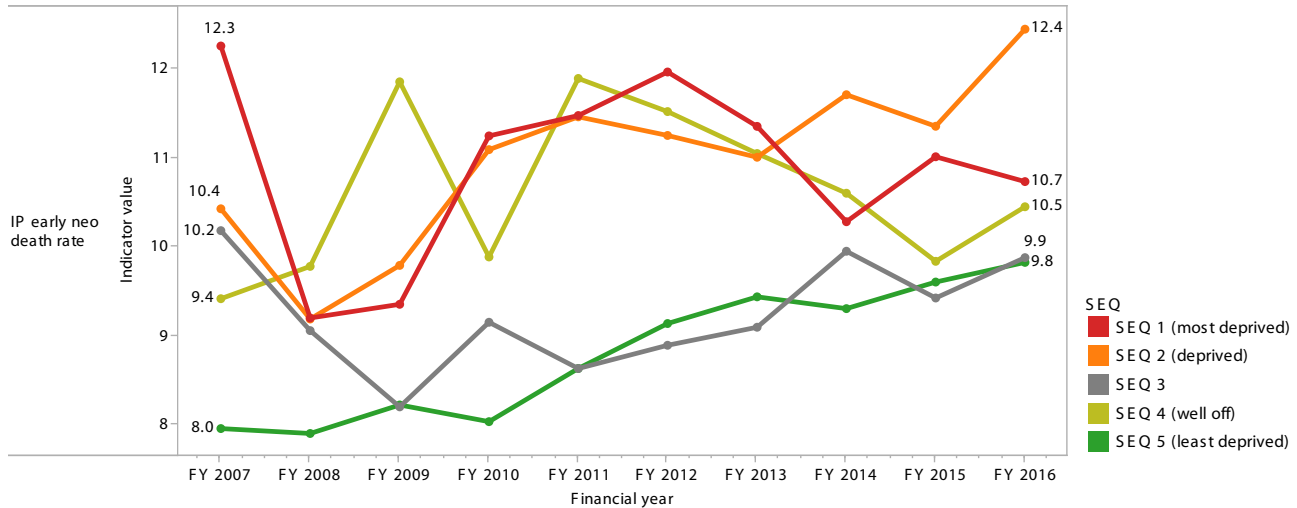


Figure 25 shows the average district values by SEQ for this indicator. Huge fluctuations in inpatient ENDR were seen for SEQs 1, 2 and 4 over the past nine years. SEQ5 showed a steady negative upward trend. In 2015/16, the inpatient ENDR was highest in SEQ2 (12.4 per 1 000 live births) and lowest in SEQ3 and SEQ5 (9.9 and 9.8 per 1 000 live births respectively).

Figure 25: Trends in average district values by socio-economic quintile for inpatient early neonatal death rate



Key findings

- ◆ Data in this section show that the inpatient ENDR target has not been achieved. Five provinces had increased rates between 2014/15 and 2015/16. This requires further investigation. The inpatient ENDR is increasing in SEQ5, the least-deprived group of South Africans.

Recommendations

- ◆ It would be useful to interrogate data from hospitals that appear to be functioning poorly. The inpatient ENDR can be analysed together with the stillbirth and C-section rates to provide insight into possible challenges at respective facilities.
- ◆ Improving the quantity, quality and use of data will also allow the departments of health to choose and implement the most effective interventions that can strengthen existing programmes, particularly at district level.^t

4.6 Mother postnatal visit within 6 days rate

Nandipha Jacobs

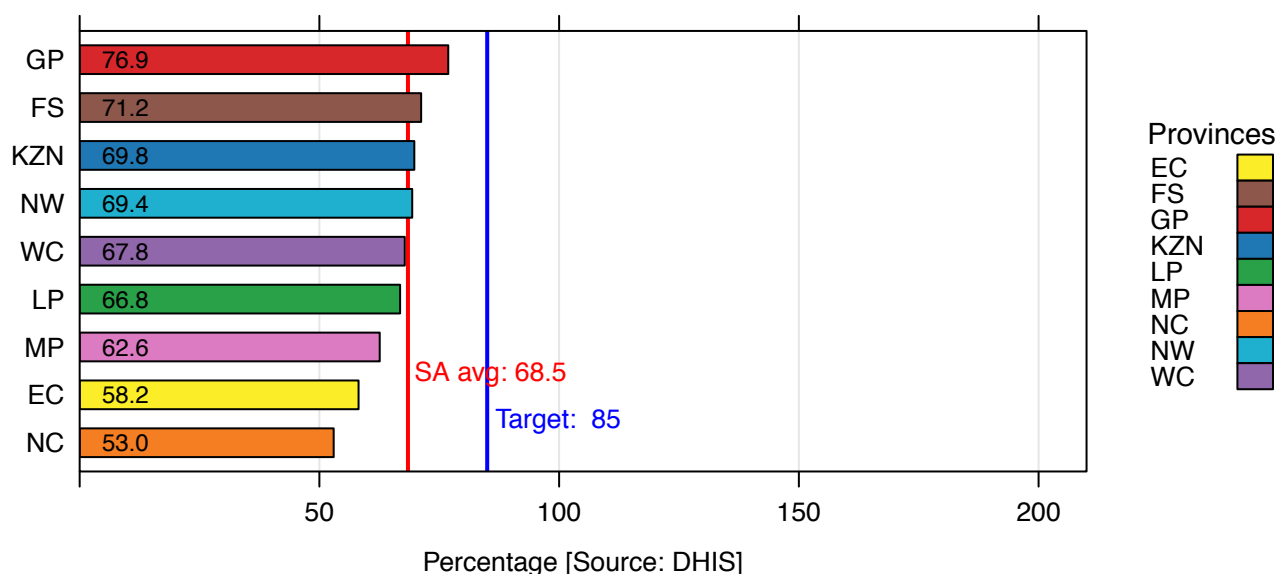
Postnatal care takes place in the period after the delivery of the baby and includes routine clinical examination and observation of the woman and her baby.^u The objectives of routine postnatal care are to manage the normal psychological and physical changes that occur in the first days after delivery; to assist, counsel and provide advice; and to screen for problems that threaten the health of the mother and baby.^v The Every Death Counts report released in 2008 revealed that the care provided in the postnatal period needs strengthening when compared with the coverage provided by maternal and child care packages.^w

The mother postnatal visit within 6 days rate indicator monitors access to, and utilisation of, postnatal care. The numerator for this indicator is the number of postnatal visits by a mother, within 6 days of delivery, either at a primary health care (PHC) facility, or a postnatal home visit by facility staff. The denominator is the total number of deliveries in the facility. The purpose of the visit is for a postnatal check-up and only the first visit within 6 days of delivery should be counted. It is the second time that this indicator is being reported on in the DHB since its introduction in 2009/10.

^t Lawn JE, Kerber K, Enweronu-Laryea C, Cousens S. 3-6 million neonatal deaths – what is progressing and what is not? *Semin Perinatol.* 2010; 34:371–86.
^u South African Government. Postnatal Care. Available from: <http://www.gov.za/services/birth/postnatal-care> [Accessed 28 July 2016].
^v South African National Department of Health. Guidelines for Maternity Care in South Africa. 4th ed. Pretoria: NDoH; 2015.
^w Bradshaw D, Chopra M, Kerber K, Lawn J, Moodley J, Pattinson R, et al. Every death counts: saving the lives of mothers, babies and children in South Africa. National Department of Health, Medical Research Council, University of Pretoria, Save the Children, UNICEF. Cape Town; 2008.

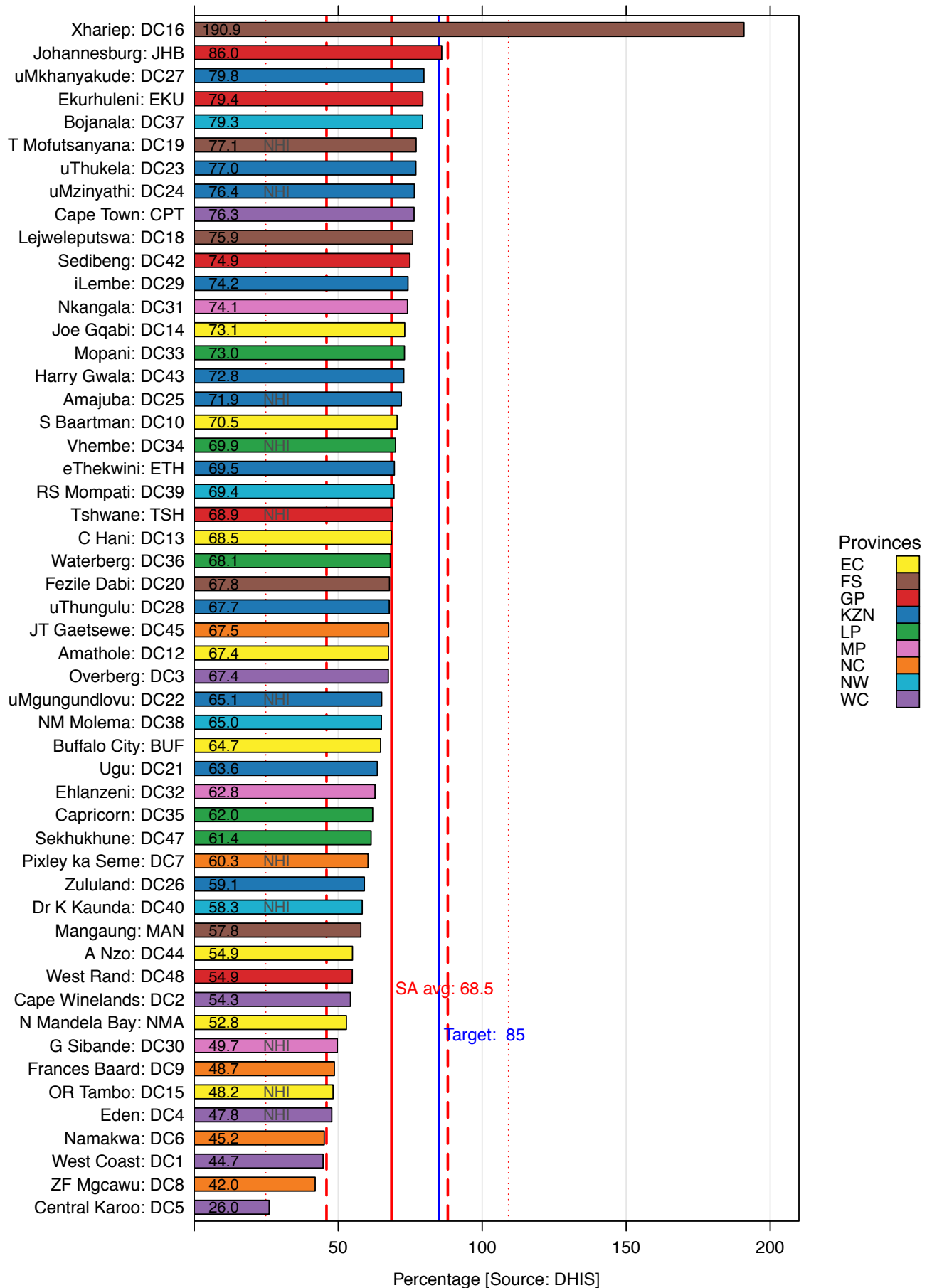
The data trend shows a decline in the national mother postnatal visit within 6 days rate from 74.3% in 2014/15 to 68.5% in 2015/16, far below the national target of 85.0%. All provinces were below the national target. As in 2014/15, the rate was lowest in the Northern Cape (53.0%) (Figure 26).

Figure 26: Mother postnatal visit within 6 days rate, by province, 2015/16



Among districts, the highest rates were reported in Xhariep (FS) (190.9%), Johannesburg (GP) (86.0%) and uMkhanyakude (KZN) (79.8%). The rates in Xhariep and Johannesburg surpassed the national target of 85.0% (Figure 27 and Map 6). Xhariep also remained the highest-rating district (above 100%) from 2011/12 (Figure 28). Despite having 1 491 postnatal visits and 781 deliveries in 2015/16, no Caesarean sections have been performed in Xhariep since 2014/15, as all complicated cases are referred to other districts. The denominator is therefore artificially low. The Central Karoo (WC) (26.0%), ZF Mgcawu (NC) (42.0%) and West Coast (WC) (44.7%) had the lowest rates. The Central Karoo and West Coast, both in the Western Cape, also had the lowest rates in 2014/15. In the 11 NHI districts, T Mofutsanyana (FS) had the highest rate (77.1%), and Eden (WC) had the lowest rate (47.8%) in 2015/16. The rate in T Mofutsanyana declined from 89.6% in 2014/15, while in Eden the rate improved slightly from 40.4% in 2014/15.

Figure 27: Mother postnatal visit within 6 days rate by district, 2015/16



Map 6: Mother postnatal visit within 6 days rate by sub-district, 2015/16

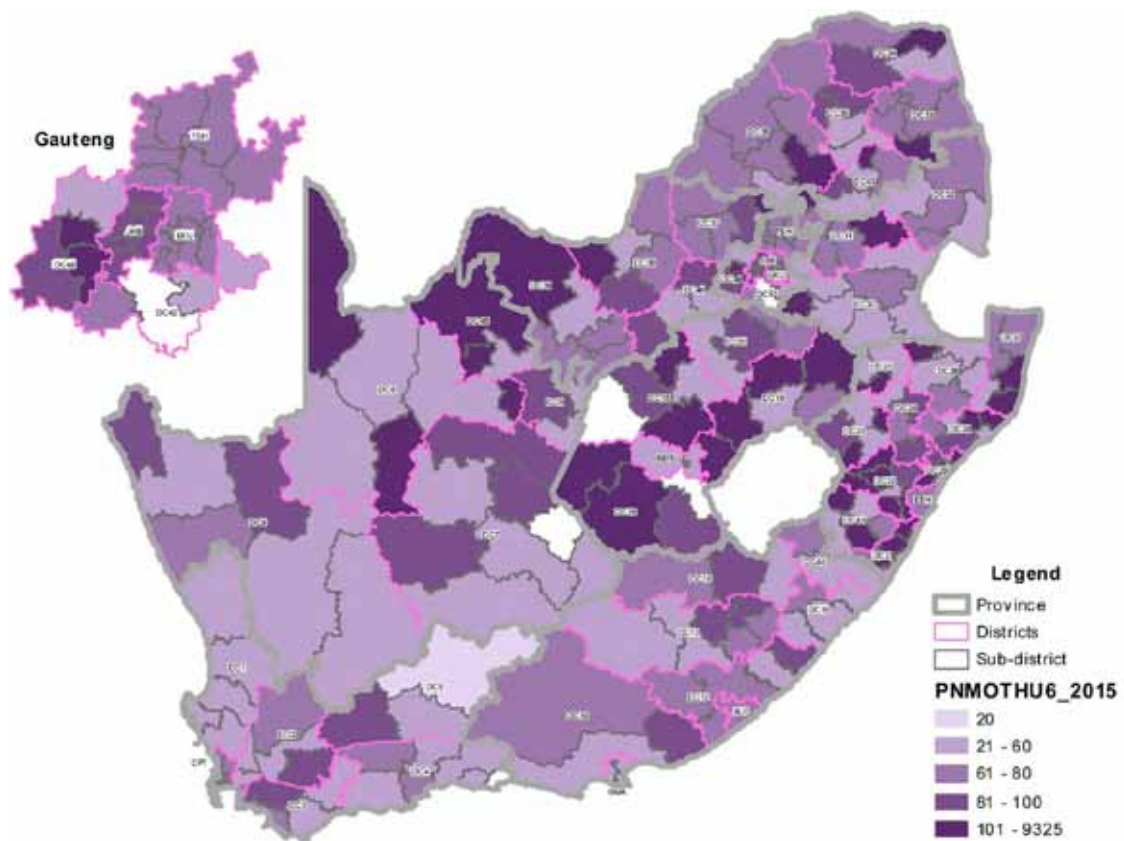
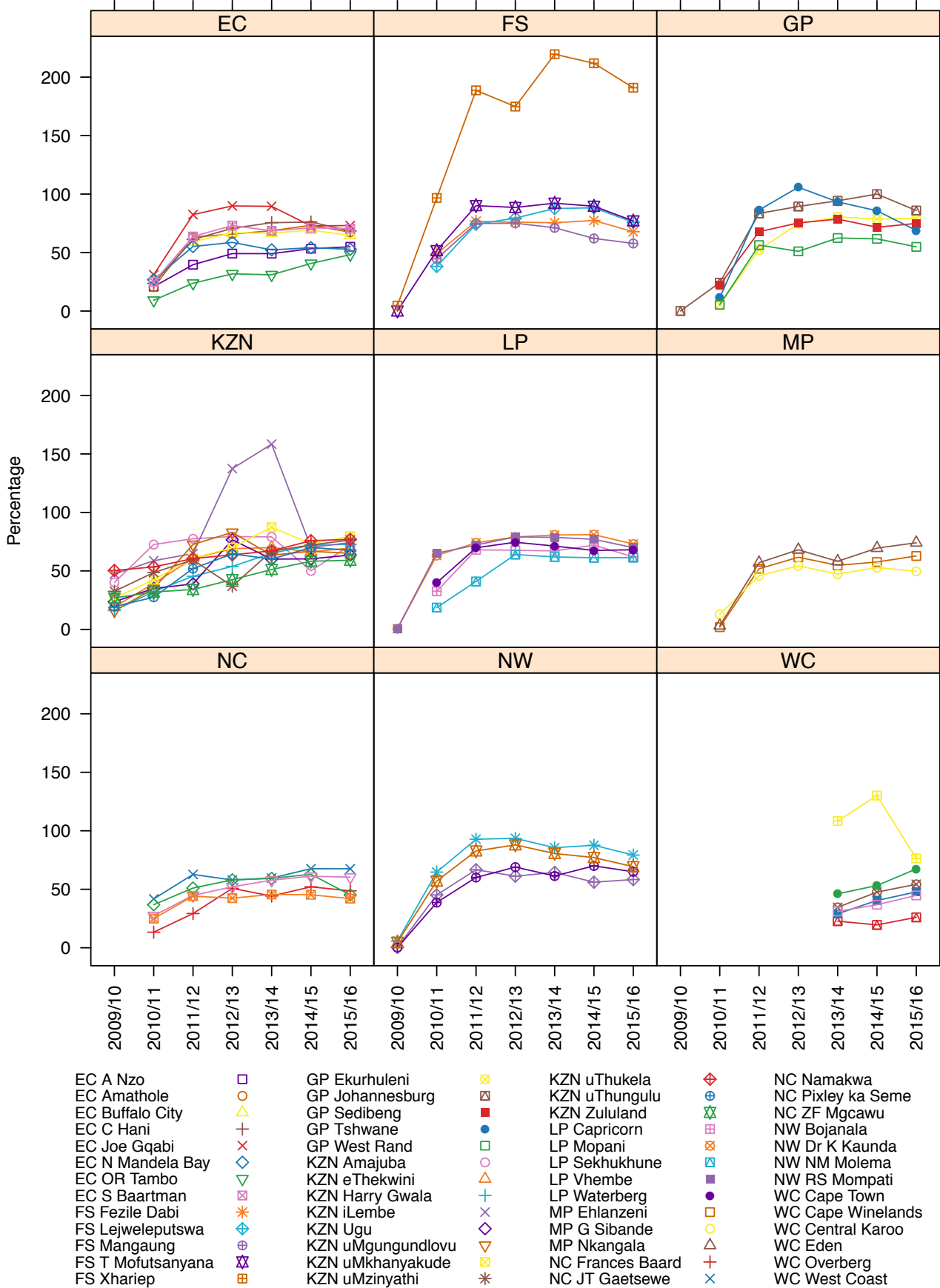
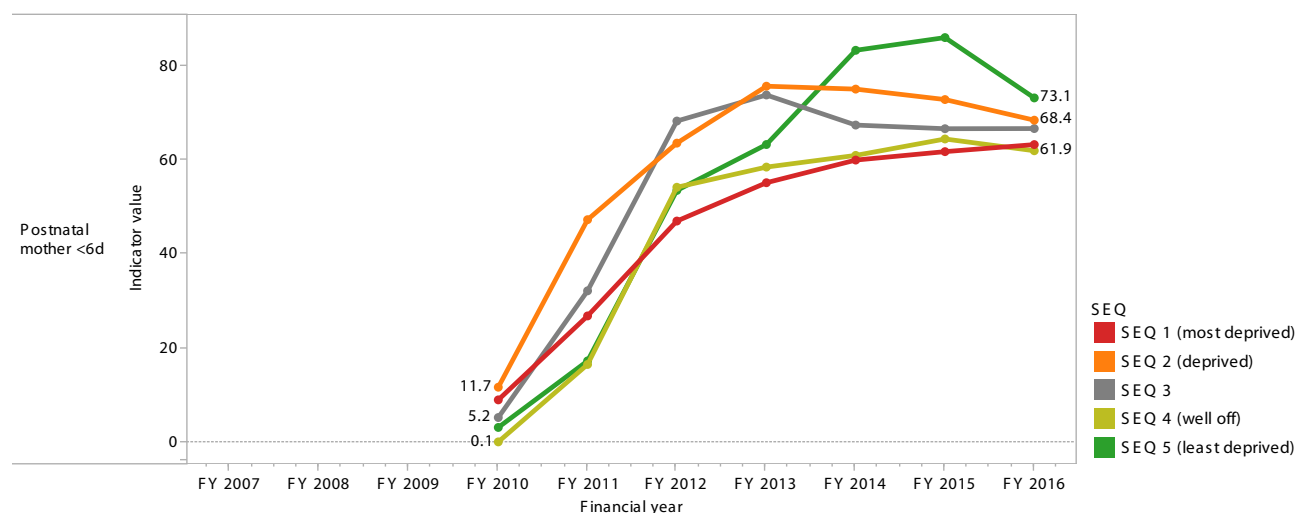


Figure 28: Annual trends for mother postnatal visit within 6 days rate



The well-off districts (SEQ4) and most-deprived districts (SEQ1) had lower mother postnatal within 6 days rates than the least-deprived districts (SEQ5), but the gaps decreased in 2015/16, with a notable drop in the SEQ5 group (Figure 29).

Figure 29: Trends in average district values by socio-economic quintile for mother postnatal visit within 6 days rate



Key findings

- ◆ The national mother postnatal visit within 6 days rate was far below the national target of 85.0% in 2015/16. All provinces were also below the national target. Only two districts reached the national target; however, the value of almost 200% in Xhariep (FS) appears unrealistic.

Recommendations

It is recommended that all facilities follow the Guidelines for Maternity Care in South Africa^f in order to:

- ◆ manage the normal psychological and physical changes that occur in the first days after delivery;
- ◆ assist, counsel and provide advice, and
- ◆ screen for problems that threaten the health of mother and baby.

5 PMTCT indicators

This section presents the core national indicators used to assess the progress and performance of key services in the prevention of mother-to-child transmission (PMTCT) programme. Data are from the District Health Information Software (DHIS) and National Health Laboratory Service (NHLS).

5.1 Antenatal 1st visit before 20 weeks rate

Duduzile F. Nsibandé and Nobubelo K. Ngandu

The antenatal 1st visit before 20 weeks rate measures the percentage of pregnant women who visit antenatal clinics for the first time before 20 weeks. The denominator is the number of pregnant women who had at least one antenatal visit before delivery.^a The National Department of Health's (NDoH) Annual Performance Plan 2013/14–2015/16^b set a national target of 60% for antenatal 1st visit before 20 weeks. With its latest strategic plan, the NDoH aims to achieve an antenatal 1st visit before 20 weeks rate of 80% by 2019/20.^c

Antenatal care (ANC) is a public health strategy that provides pregnant women with an opportunity to receive critical interventions to improve the health of mother and baby, and to reduce poor pregnancy outcomes and maternal and child mortality.^{d,e,f} Four goal-oriented ANC visits were recommended by the World Health Organization (WHO) and have been proven adequate in providing critical interventions for women with no underlying complications.^{g,h} Guidelines for maternity care in South Africa^f specify that pregnant women should present for the first antenatal visit before 20 weeks (ideally in the first trimester of pregnancy).

ANC attendance is associated with increased chance of receiving skilled birth attendance.ⁱ Early ANC booking increases the likelihood of HIV-positive women being started on antiretroviral treatment (ART) earlier, thus preventing intrauterine and intrapartum transmission of HIV from mother to the infant.^j Improved early ANC booking before 20 weeks in South Africa will help to further reduce the risk of mother-to-child transmission of HIV (MTCT) to below the current rate of 1.5%, and will improve progress towards the new global target of elimination of MTCT.

Delayed ANC booking and infrequent visits are major setbacks in providing good quality maternal care.^{k,l} Health system bottlenecks also contribute to poor uptake of this indicator. Solarin and Black (2013),^m for example, reported cases where women presenting early for ANC were turned back and asked to return a month later. Such healthcare-related issues need to be avoided as they hinder appropriate user uptake of health services. In order to achieve the Sustainable Development Goal 3 target, namely to end preventable deaths of newborns and children under 5 years of age by reducing neonatal mortality to at least as low as 12 per 1 000 live births and under-5 mortality to at least as low as 25 per 1 000 live births by 2030,ⁿ it is imperative that health system bottlenecks be addressed at all levels.

- a Massyn N, Day C, Peer N, Padarath A, English R, Barron P, editors. District Health Barometer 2013/14. Durban: Health Systems Trust; October 2014. Available from: <http://www.hst.org.za/publications/district-health-barometer-201314> [Accessed 19 July 2016].
- b South African National Department of Health. Annual Performance Plan 2012/13–2014/15. Pretoria: National Department of Health; 2012.
- c South African National Department of Health. Strategic Plan 2015/16–2019/20. Available from: <http://www.health-e.org.za/wp-content/uploads/2014/08/SA-DoH-Strategic-Plan-2014-to-2019.pdf> [Accessed 16 July 2016].
- d Bhutta ZA, Ahmed A, Black R, Cousens S, Dewey K, Giugliani E, et al. What works? Interventions for maternal and child undernutrition and survival. *Lancet*. 2008; 371(9610):417–40.
- e Hadrill R, Jones G, Mitchell C, Anumba D. Why do women attend late for antenatal booking? A qualitative interview study exploring the perspectives of maternity health and social care stakeholders. *Archives of Disease in Childhood-Fetal and Neonatal Edition* 2012; 97(Suppl 1):A117–8.
- f South African National Department of Health. Guidelines for maternity care in South Africa. A manual for clinics, community health centres and district hospitals. 4th ed. Pretoria; 2015.
- g Villar, J, Bergsjö, P. WHO antenatal care randomized trial: Manual for the implementation of the new model. WHO programme to map best reproductive health practices. Geneva: WHO; 2002. Available from: http://apps.who.int/iris/bitstream/10665/42513/1/WHO_RHR_01.30.pdf [Accessed 19 July 2016].
- h Pattinson RC. Basic antenatal care handbook. Pretoria: Medical Research Council; 2007. Available from: http://www.rmchsa.org/wp-content/resources/resources_by_theme/Mother&NewbornHealth/BasicAntenatalCareHandbook_PMTCT.pdf [Accessed 15 July 2016].
- i Wang W, Hong R. Levels and determinants of continuum of care for maternal and newborn health in Cambodia – evidence from a population-based survey. *BMC Pregnancy Childbirth* 2015; 15(1):1.
- j South African National Department of Health. National consolidated guidelines for the prevention of mother-to-child transmission of HIV (PMTCT) and the management of HIV in children, adolescents and adults. Pretoria: NDoH; 2014. Available from: http://www.sahivsoc.org/upload/documents/HIV%20guidelines%20_Jan%202015.pdf [Accessed 15 July 2016].
- k Schnippel K, Mongwenyana C, Long LC, Larson BA. Delays, interruptions, and losses from prevention of mother-to-child transmission of HIV services during antenatal care in Johannesburg, South Africa: a cohort analysis. *BMC Infectious Diseases* 2015; 15(1):1.
- l Haddad DN, Makin JD, Pattinson RC, Forsyth BW. Barriers to early prenatal care in South Africa. *International Journal of Gynecology & Obstetrics* 2016; 132(1):64–7.
- m Solarin I, Black V. "They told me to come back": women's antenatal care booking experience in inner-city Johannesburg. *Maternal and Child Health Journal*. 2013; 17(2):359–67.
- n United Nations. Transforming our world: the 2030 Agenda for Sustainable Development Goals. Available from: <https://sustainabledevelopment.un.org/post2015/transformingourworld> [Accessed 13 July 2016].

In 2015/16, the early booking rate (below 20 weeks) in South Africa was 61.2%. This is 1.2 percentage points above the target of 60% for this year. Table 1 shows the substantial increase of 7.3 percentage points compared with 2014/15. This has been one of the national programme successes. The national average has been improving steadily since 2006/07, with the 2015/16 rate almost double that of 2006/07. Over the last five years there have been regular annual increases of more than 10%.

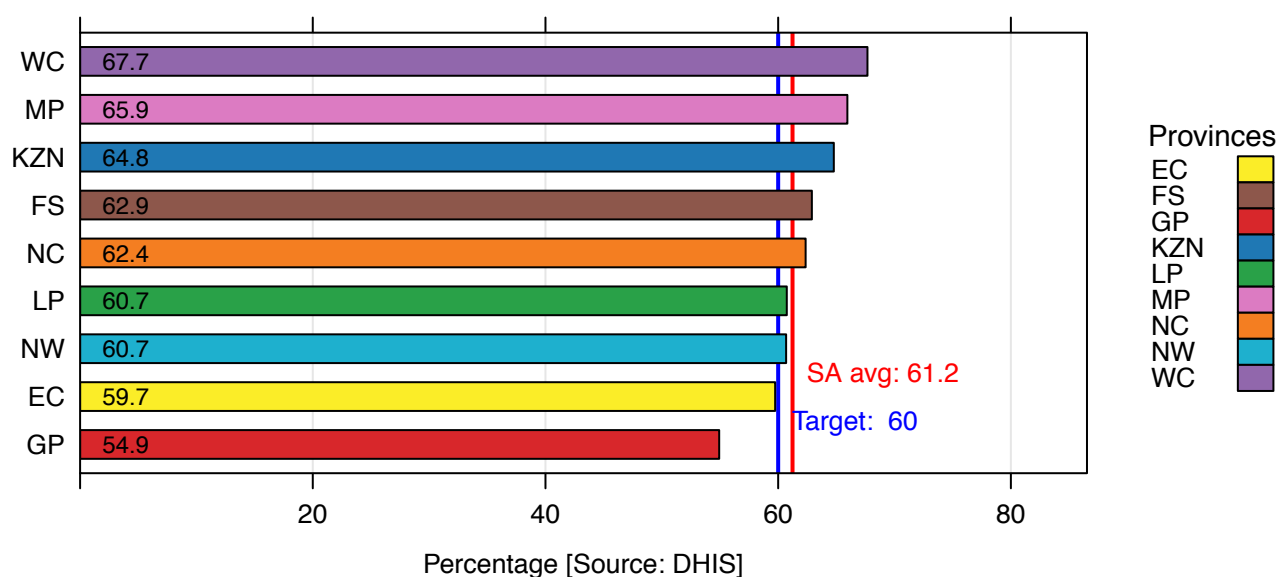
In 2015/16, all provinces except Gauteng (GP) achieved the 60% target (Figure 1).

Table 1: Provincial and national averages for antenatal 1st visit before 20 weeks rate, 2006/07–2015/16 (%)

	Antenatal 1st visit before 20 weeks (2006/07–2015/16)									
	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EC	27.5	27.3	27.6	28.9	31.7	33.6	39.6	43.3	48.8	59.7
FS	36.7	38.4	39.8	43.7	45.2	47.1	53.5	56.8	58.6	62.9
GP	25.4	25.8	24.3	25.2	30.6	34.6	37.8	43.7	48.4	54.9
KZN	30.9	32.3	33.5	34.6	36.9	41.0	46.4	56.2	57.3	64.8
LP	35.8	34.2	40.0	42.9	41.6	41.3	42.0	45.8	50.7	60.7
MP	29.5	28.1	32.3	33.0	36.0	37.5	42.2	49.0	56.6	65.9
NC	45.5	44.1	27.1	45.1	47.2	52.3	58.2	56.4	60.1	62.4
NW	31.8	33.2	36.4	37.2	39.6	42.3	44.1	50.6	54.3	60.7
WC	38.3	43.6	46.6	48.5	62.0	48.1	52.3	56.5	61.6	67.7
ZA	31.3	31.4	32.9	34.5	37.6	40.2	44.0	50.0	53.9	61.2

Source: DHIS.

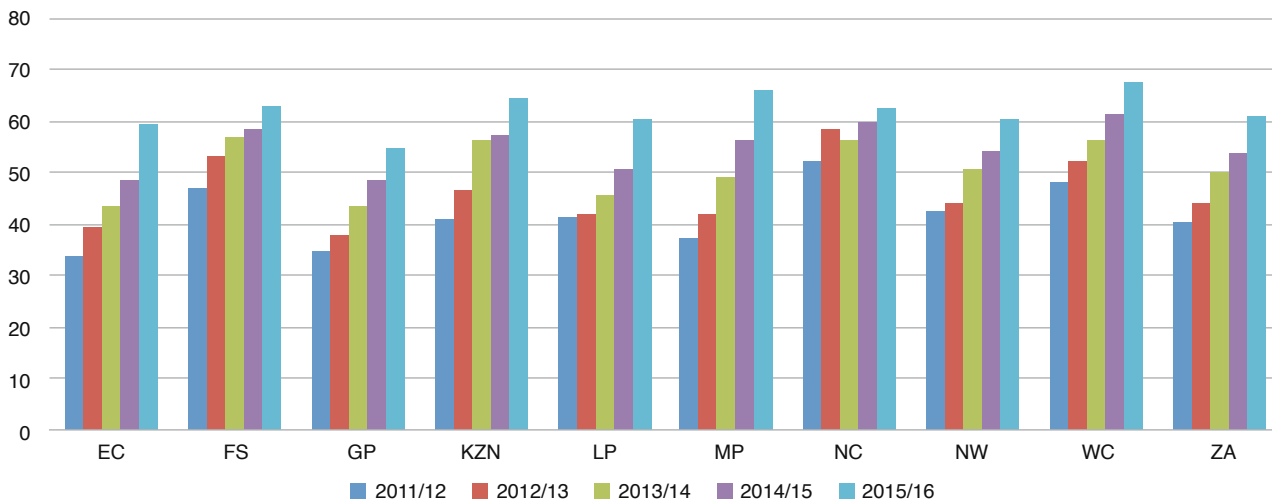
Figure 1: Antenatal 1st visit before 20 weeks rate by province, 2015/16



Provincial trends for the five-year period between 2010/11 and 2015/16 indicate that all provinces showed a substantial increase in early ANC uptake during this period, ranging from 5.7% in the Western Cape (WC) to 28% in the Eastern Cape (EC) (Table 1 and Figure 2).

The single exception to this was a small decline in the Northern Cape (NC) during 2013/2014. The Western Cape has consistently maintained the highest coverage since 2011/12. Although the Eastern Cape has been persistently recording rates below the national average since 2006/07, it had the highest increase of 10.9 percentage points in 2015/16, followed by Limpopo Province (LP) with an increase of 10 percentage points from 2014/15. The province with the lowest percentage increase, of 2.3 percentage points, was the Northern Cape.

Figure 2: Provincial trends for antenatal 1st visit before 20 weeks rate, 2011/12–2015/16 (%)

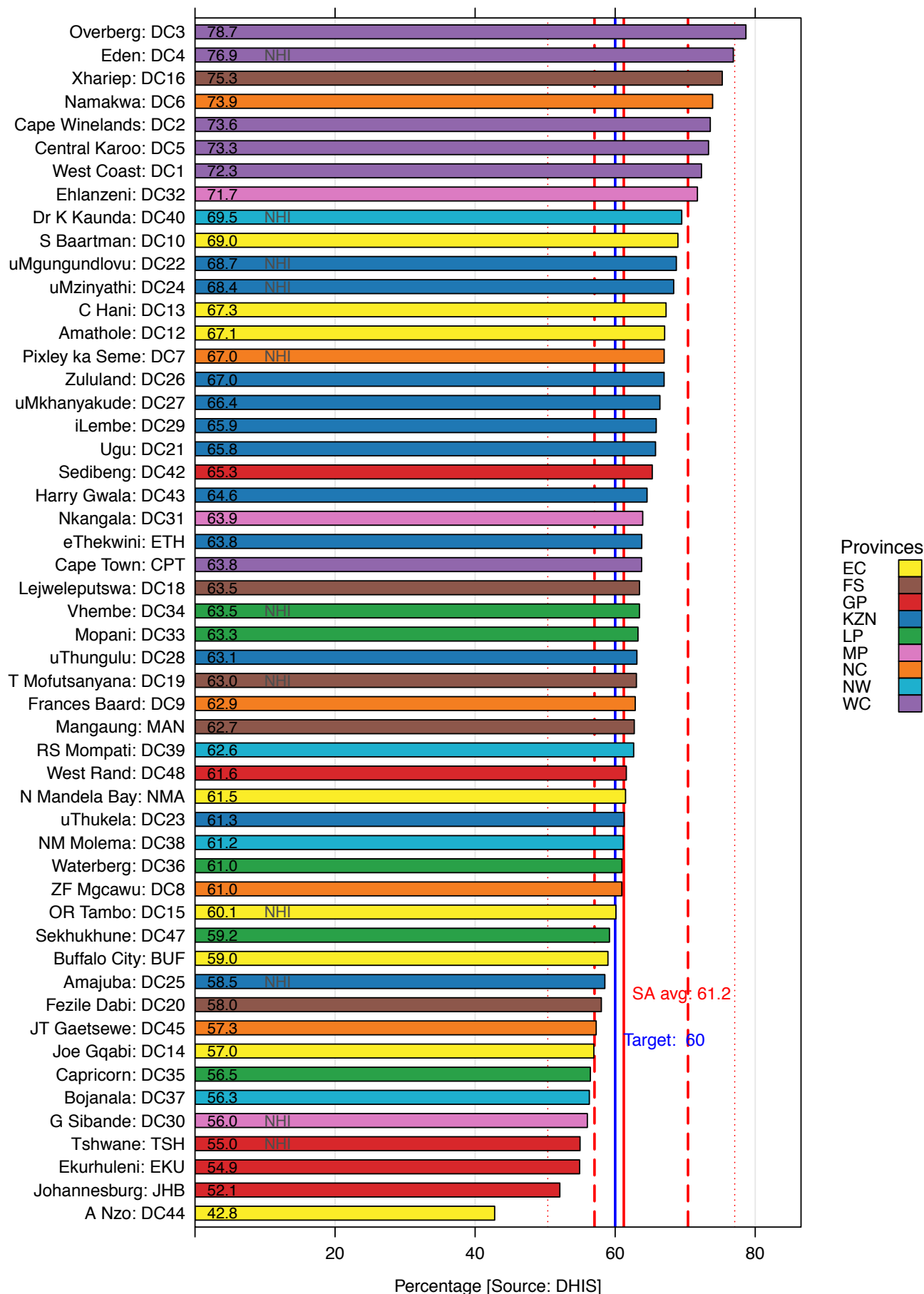


Source: DHIS.

At district level, the antenatal 1st visit before 20 weeks rate ranged widely, from 42.8% in A Nzo (EC) to 78.7% in Overberg (WC). It is encouraging that 75% of districts (39 out of 52) achieved the national target (Figure 3).

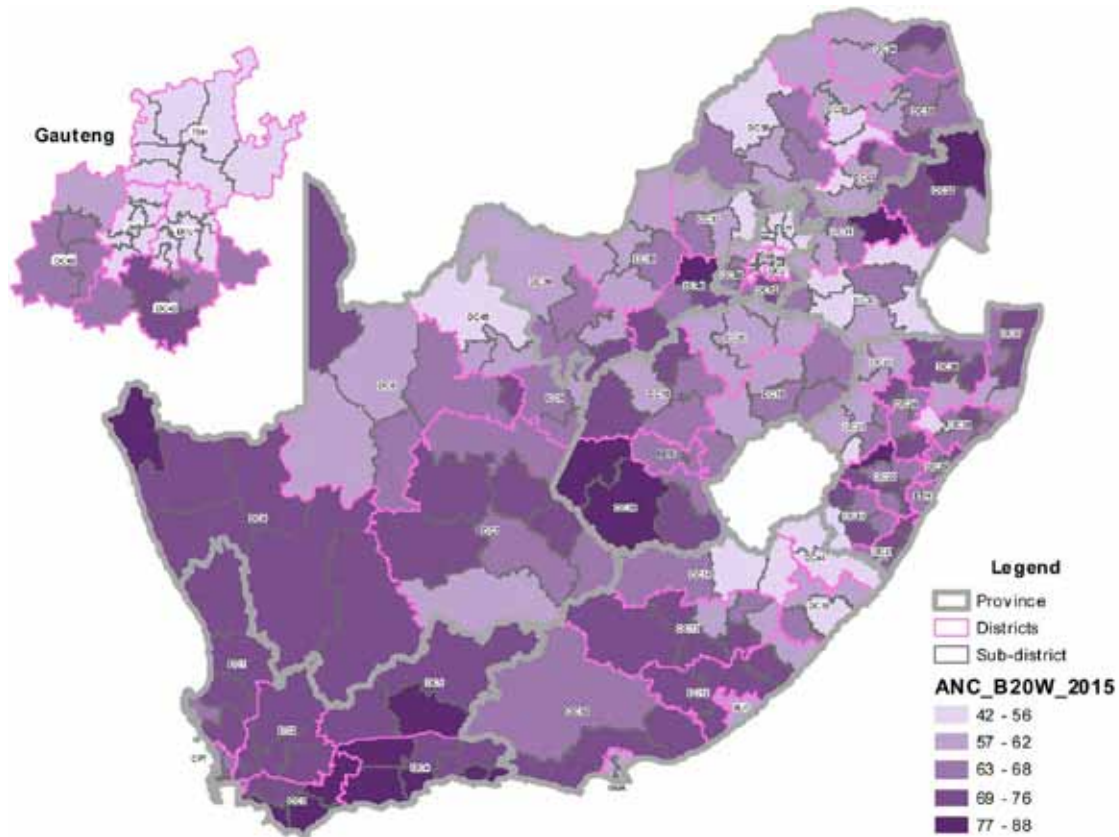
In 2015/16, antenatal 1st visit before 20 weeks rate increased in all districts except the West Coast (WC), which declined by one percentage point from the previous year. Seven districts, namely Dr K Kaunda (NW); Capricorn, Waterberg and Sekhukhune (LP); and Amathole, Buffalo City and OR Tambo (EC); increased coverage by at least 10 percentage points compared with one district in 2014/15 and five districts in 2013/14. OR Tambo (EC) had the highest increase of 18.3 percentage points, while Eden (WC) had the lowest increase of 0.7 percentage points.

Figure 3: Antenatal 1st visit before 20 weeks rate by district, 2015/16



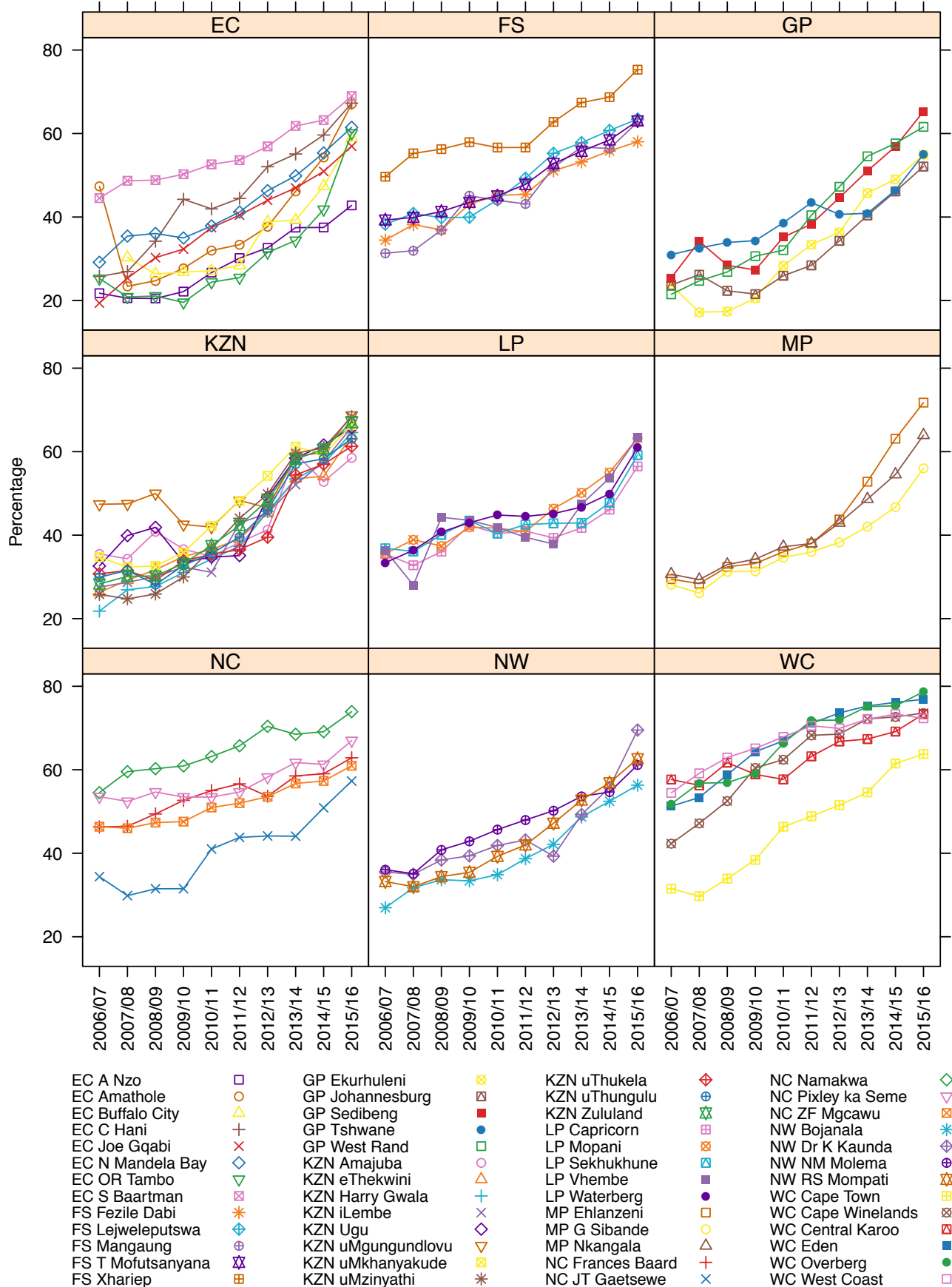
Map 1 shows the geographical distribution of antenatal 1st booking before 20 weeks rate by district and sub-district.

Map 1: Antenatal 1st visit before 20 weeks rate by sub-district, 2015/16



The 10-year trends also show an overall increase from 2006/07 to 2015/16 for all districts (Figure 4). However, it is notable that the rate of increase was relatively slow during the period 2006/07–2008/09, and accelerated thereafter.

Figure 4: Annual trends for antenatal 1st visit before 20 weeks rate



Section A: PMTCT indicators

Seven National Health Insurance (NHI) districts achieved coverage rates above the national target and average in 2015/16 (Figure 5). Eden (WC) ranked first in antenatal 1st visit before 20 weeks rate (76.9%) among the NHI districts (and second overall among all districts), while Tshwane (GP) ranked lowest (55.0%) among the NHI districts. Of note is that when rate estimates for NHI districts were pooled together, they did not appear to differ from estimates observed in non-NHI districts.

Figure 5: Antenatal 1st visit before 20 weeks rate by National Health Insurance district, 2015/16

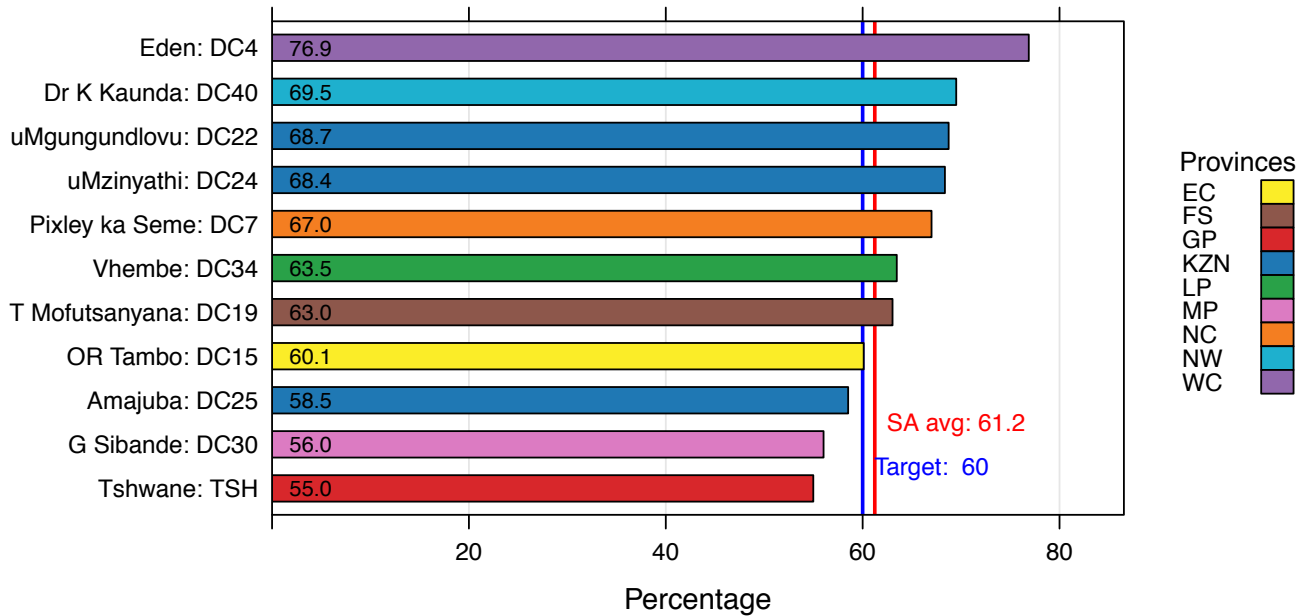
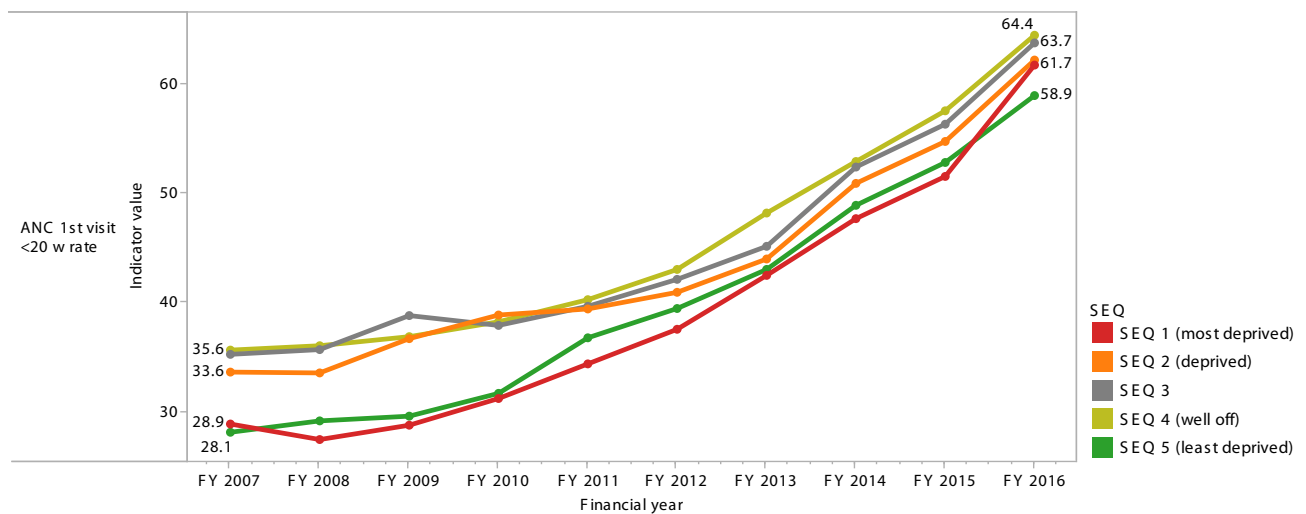


Figure 6 shows a steep increase in antenatal 1st visit before 20 weeks rate for all socio-economic quintiles (SEQs) in 2015/16, with rates ranging from 58.9% to 64.4%. Between 2006/07 and 2010/11, a wide gap separated SEQ1 and SEQ5 from the other three SEQs, with the former two consistently recording lower coverage rates. This gap was closed in 2011/12, and subsequently an upward trend has been observed in all SEQs from 2011/12 to 2015/16.

Figure 6: Trends in average district values by socio-economic quintile for Antenatal 1st visit before 20 weeks rate



Key findings

Attending ANC before 20 weeks is an important strategy to achieve Sustainable Development Goal 3 targets by 2030.

In 2015/16, South Africa met the national target for antenatal 1st visit before 20 weeks rate for the first time in more than 10 years. The majority of provinces, districts and NHI districts met the national target. In 2015/16, rates for SEQs 1 and 2 were higher than rates for SEQ5, indicating that the most disadvantaged in the country are being reached for this health service.

These improvements could be attributed to focused interventions by the DoH to improve early ANC booking rates through:

- ◆ the launch of ward-based community outreach teams in 2011;^o
- ◆ implementation of the 2015 PMTCT National Consolidated Guidelines;^j
- ◆ implementation of interventions outlined in the Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition (2012–2016);^p and
- ◆ implementation of interventions outlined in the 2012 Strategic Plan for the Campaign on Accelerated Reduction of Maternal and Child Mortality in Africa (CARMMA).^q

Variations in district performance continue to exist within the same province and between SEQs. This implies that some districts have the potential to improve more than others; it also indicates the need to address important health system barriers preventing women from accessing ANC and PMTCT services early.

Recommendations

The following interventions are recommended to address the bottlenecks identified by participants at *District Health Barometer* workshops:^f

- ◆ Involve key-stakeholders during district implementation plan meetings and health activities, and encourage districts that are performing well to share lessons learned.
- ◆ Mobilise the community and conduct dialogues to identify key messages that could promote early ANC booking.
- ◆ Improve access to ANC services. Antenatal services should be available every day, and there should be campaigns and household-based pregnancy screening.
- ◆ Ensure monthly and quarterly monitoring of ANC/data-quality audits at all levels and promote a culture of data use.
- ◆ Conduct periodic surveys into bottlenecks contributing to low early ANC and PMTCT uptake.

5.2 Antenatal client initiated on ART rate

Witness Chirinda and Yages Singh

The 'Antenatal client initiated on ART rate' indicator is derived as follows: the numerator is the number of ANC clients initiated on ART, and the denominator is the total number of ANC clients eligible for ART.

This indicator measures the proportion of all HIV-positive women enrolled on ART during their current pregnancy. The national policy changed between 2008 and 2015. This resulted in changes in eligibility criteria for ART initiation, and hence changes in estimates for this indicator over this time period.

The 2014/15 national target for this indicator was 93%. Inexplicably, the NDoH revised this target downwards for the current period (2015/16) to 88%, despite the performance for 2014/15 being 91.2%. With a national target now set below the previous performance level, it is very probable that every district will achieve it.

o Pillay Y, Barron P. The implementation of PHC re-engineering in South Africa 2011. Available from: <https://www.phasa.org.za/wp-content/uploads/2011/11/Pillay-The-implementation-of-PHC.pdf> [19 July 2016].

p South African National Department of Health. Strategic Plan for Maternal, Newborn, Child and Women's Health (MNCWH) and Nutrition in South Africa 2012–2016. Available from: <http://www.hst.org.za/publications/brief-summary-strategic-plan-maternal-newborn-child-and-women-s-health-mncwh-and-nutrit>. [Accessed 16 July 2016].

q South Africa's National Strategic Plan for a Campaign on Accelerated Reduction of Maternal and Child Mortality in Africa 2015 (CARMMA). "South Africa cares: No woman should die while giving life". Available from: <http://www.health-e.org.za/wp>. [Accessed 19 July 2016].

r Massyn N, Peer N, Padarath A, Barron P, Day C, editors. District Health Barometer 2014/15. Durban: Health Systems Trust; October 2015.

This section reviews the 2015/16 DHIS data on the antenatal client initiated on ART rate, and compares these data with data from preceding time periods, as well as national and global targets.

The recent WHO guidelines^s recommend the initiation of ART for all HIV-infected pregnant and lactating women. Most countries, including South Africa, have adopted this policy (Option B+).^t Option B+ provides for life-long maternal triple antiretroviral therapy (combination ART/ART) regardless of maternal CD4 cell count and staging.[†] Provision of ART to HIV-positive ANC clients reduces the chance of mother-to-child transmission of HIV during pregnancy as well intra- and post-partum and while breastfeeding. The other goals of ART treatment are to suppress the patient’s viral load to an undetectable level and to improve immunological status, with the CD4 cell count rising and remaining above baseline.

According to the South African ART guidelines,^u all HIV-positive pregnant women should receive ART with appropriate counselling from their first ANC visit regardless of gestational age, CD4 count and/or WHO staging.

The antenatal client initiated on ART rate was measured at 93.0% nationally in 2015/16. This is a 1.8 percentage point increase from 91.2% in 2014/15 (Table 2).

Figure 7 shows that the provincial antenatal client initiated on ART rates for 2015/16 ranged from 77.5% in the Western Cape to 97.6% in the KwaZulu-Natal (KZN). Three provinces (North West (NW), Free State (FS) and the Western Cape) did not meet the national target for the year (i.e. 88%).

Figure 7: Antenatal client initiated on ART rate by province, 2015/16

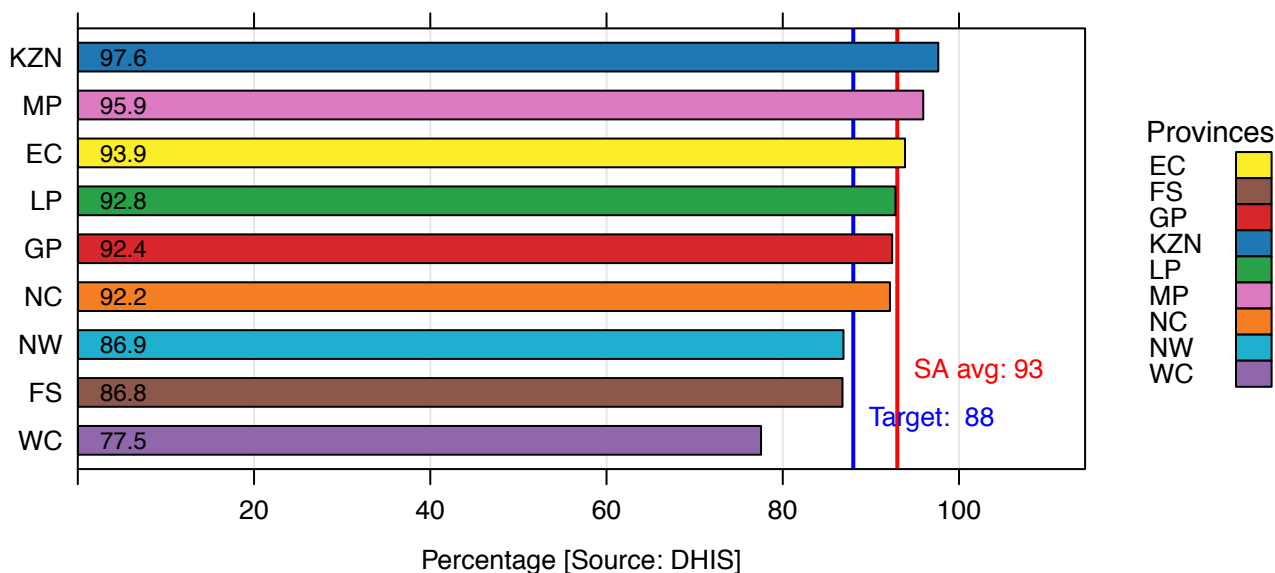


Table 2 shows provincial and national annual comparisons for the antenatal client initiated on ART rate. The Eastern Cape, Gauteng, KwaZulu-Natal, Mpumalanga (MP) and Northern Cape showed a clear upward trend over the period. Between 2014/15 and 2015/16, Gauteng had the highest increase (5.1 percentage points), followed by KwaZulu-Natal. The Western Cape and North West had decreases of 5.2 percentage points and 3.3 percentage points, respectively. Nationally, it is encouraging to note the increase in this indicator from 2013/14 to 2015/16 (Figure 8).

s World Health Organization. Guidelines on when to start antiretroviral therapy and on pre-exposure prophylaxis for HIV. Geneva: WHO; 2015.
 t Interagency Task Team on the Prevention and Treatment of HIV Infection in Pregnant Women, Mothers and Children. Option B+ countries and PMTCT regimen. 2015.
 u South African National Department of Health. National Consolidated Guidelines for the Prevention of Mother-to-child Transmission of HIV (PMTCT) and the Management of HIV in Children, Adolescents and Adults. Pretoria: NDoH; April 2015.

Table 2: Provincial and national trends for antenatal client initiated on ART rate, 2013/14–2015/16

	2013/14 (%)	2014/15 (%)	2015/16 (%)	% change between 2014/15 and 2015/16
Eastern Cape	79.0	91.7	93.9	2.2
Free State	80.8	88.7	86.8	-1.9
Gauteng	63.1	87.4	92.4	5.1
KwaZulu-Natal	85.4	95.2	97.6	2.5
Limpopo	78.6	92.9	92.8	-0.1
Mpumalanga	74.2	92.9	95.9	3.0
Northern Cape	80.3	89.8	92.2	2.4
North West	79.2	90.2	86.9	-3.3
Western Cape	68.5	82.8	77.5	-5.2
South Africa	76.3	91.2	93.0	1.8

Source: DHIS

Further investigation is required into the estimates from the Western Cape. The low proportion and huge percentage decrease may be due to differences in interpretation of either the numerator or denominator or both, poor data quality, or the result of using Western Cape-specific registers, with data incorrectly imported into the DHIS.

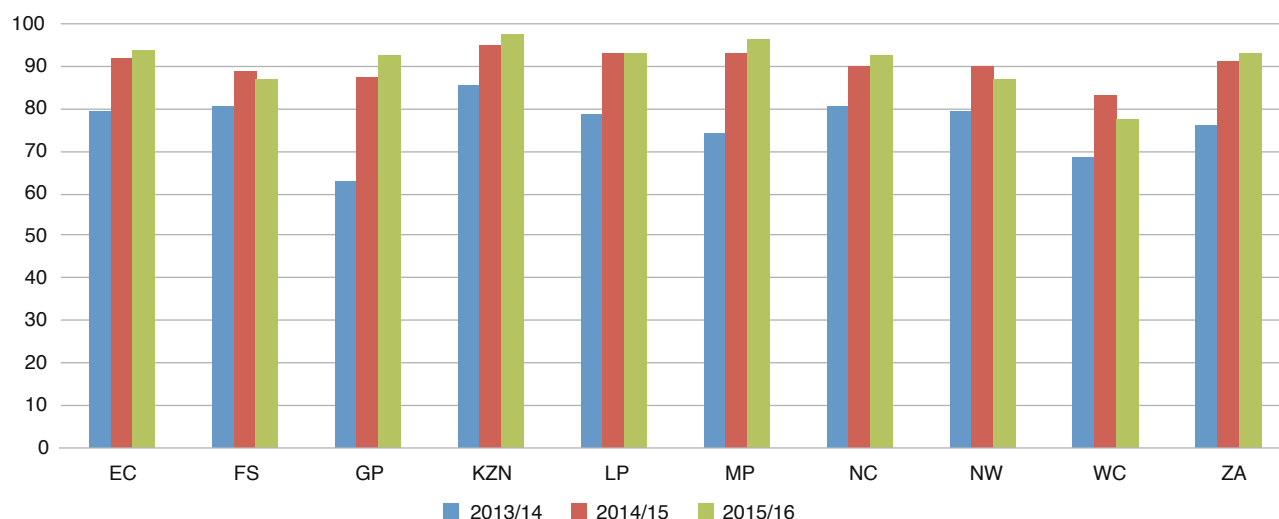
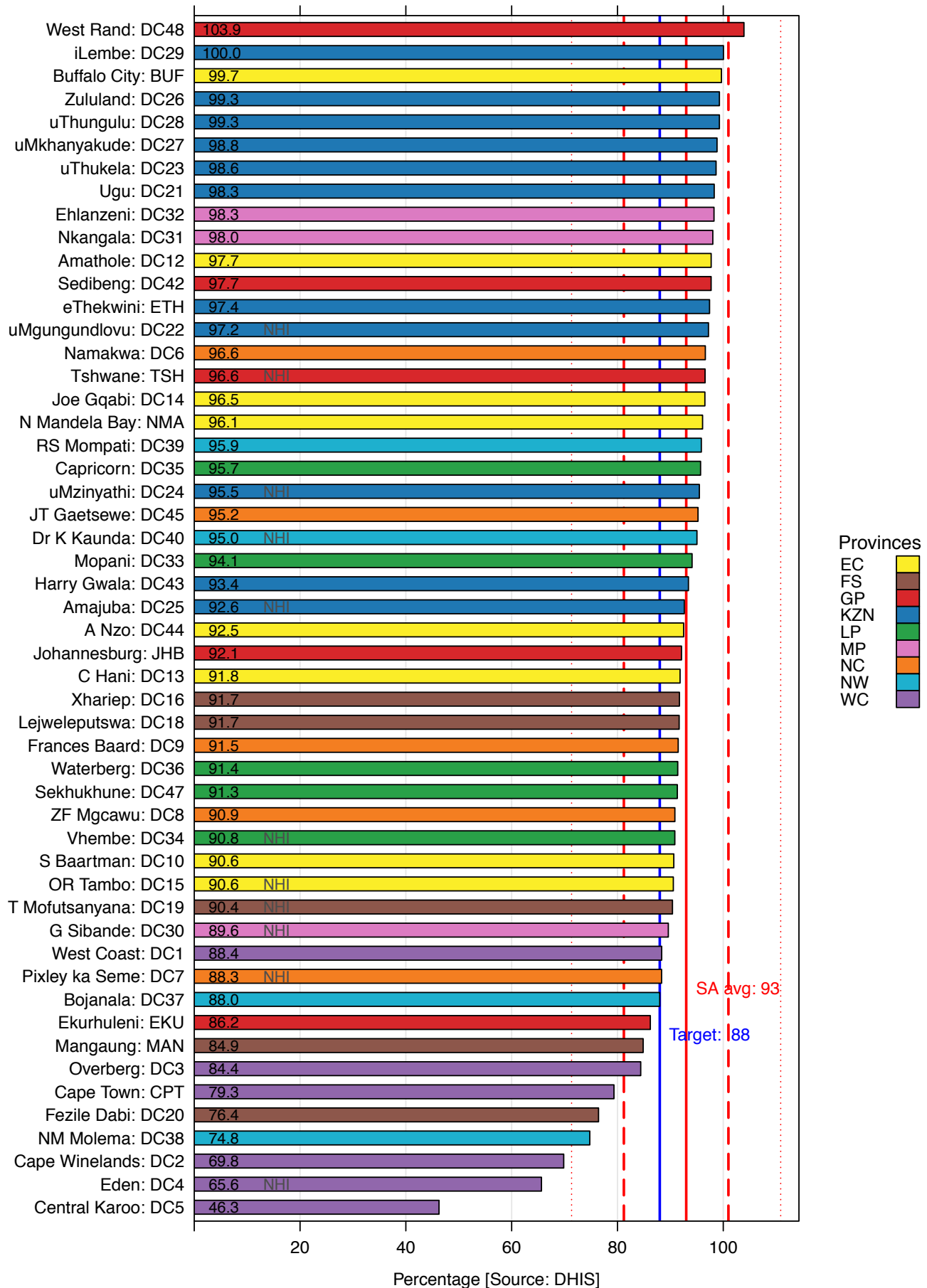
Figure 8: Provincial and national antenatal client initiated on ART rate, 2013/14–2015/16 (%)

Figure 9 shows the wide variation in antenatal client initiated on ART rate across districts. The rates above 100% could be the result of underestimation of the denominator, or could have resulted from client migration between sub-districts, districts and provinces. Rates for 2015/16 ranged from 103.9% in West Rand (GP) to 46.3% in the Central Karoo (WC). During the 2015/16 period, nine (17%) of the 52 districts were below the 2015/16 national target (88%) for antenatal client initiated on ART rate. However, 29 districts (56%) did not achieve the global target (95%) for the elimination of mother-to-child transmission (EMTCT) process indicator, which recommends 95% and more access to ART for pregnant and lactating women for 2 years.^v Two districts, namely West Rand (GP) and iLembe (KZN), had antenatal client initiated on ART rates greater than 100% due to issues with the denominator.

^v UNAIDS. 90-90-90: an ambitious treatment target to help end the AIDS epidemic. Geneva: UNAIDS; 2014.

Figure 9: Antenatal client initiated on ART rate by district, 2015/16



All but one of the NHI districts (Eden (WC)) achieved the national target of 88% for 2015/16 (Figure 10). Five out of 11 NHI districts were above the national average (93%).

Figure 10: Antenatal client initiated on ART rate by National Health Insurance district, 2015/16

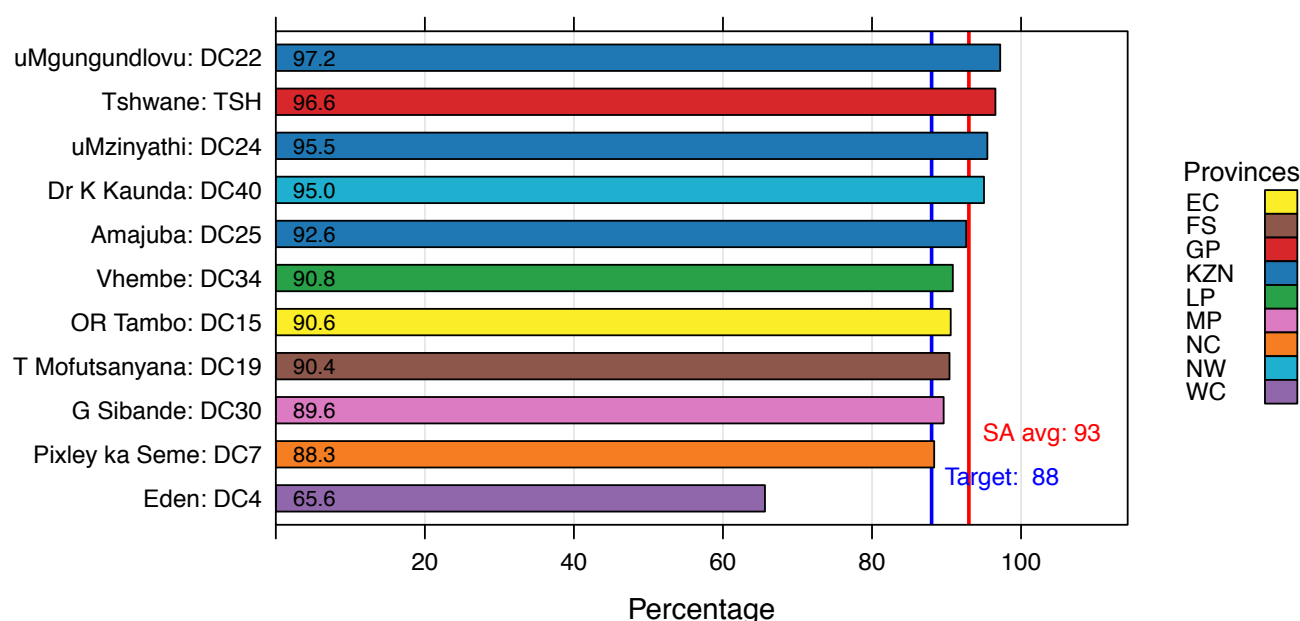


Table 3 shows annual trends in antenatal ART uptake at district level, as well as changes between 2014/15 and 2015/16. The green shading indicates districts that achieved a rate above 95% (global target). The orange shading indicates districts that achieved the national target for 2015/16 (88%), but less than 95%. The red shading indicates districts that did not meet the national target. More investigation is required into the nine districts that did not meet the national target, including five of the six Western Cape districts. It is of concern that many of the same districts also had substantial decreases in 2014/15. As discussed above, the Western Cape result is probably due to data issues; these need to be resolved urgently as they impact on the national picture.

Table 3: Proportion of eligible antenatal clients initiated on ART, 2013/14–2015/16

	2013/14 (%)	2014/15 (%)	2015/16 (%)	% change 2014/15–2015/16
West Rand: DC48	68.9	98.3	103.9	5.6
iLembe: DC29	96.2	100.3	100.0	-0.3
Buffalo City: BUF	79.6	98.2	99.7	1.5
Zululand: DC26	85.6	98.1	99.3	1.1
uThungulu: DC28	94.0	96.5	99.3	2.8
uMkhanyakude: DC27	73.1	90.0	98.8	8.8
uThukela: DC23	98.9	95.9	98.6	2.7
Ugu: DC21	91.3	98.0	98.3	0.3
Ehlanzeni: DC32	67.9	95.4	98.3	2.8
Nkangala: DC31	86.5	95.6	98.0	2.4
Amathole: DC12	89.4	95.9	97.7	1.8
Sedibeng: DC42	65.2	90.0	97.7	7.7
eThekwini: ETH	72.9	92.1	97.4	5.3
uMgungundlovu: DC22	102.9	98.7	97.2	-1.5
Namakwa: DC6	80.0	94.4	96.6	2.2
Tshwane: TSH	45.2	86.2	96.6	10.4
Joe Gqabi: DC14	88.3	96.0	96.5	0.5
N Mandela Bay: NMA	93.9	96.4	96.1	-0.3
RS Mompoti: DC39	74.2	92.2	95.9	3.7
Capricorn: DC35	77.0	92.3	95.7	3.5
uMzinyathi: DC24	93.5	98.3	95.5	-2.8
JT Gaetsewe: DC45	86.0	87.7	95.2	7.5
Dr K Kaunda: DC40	85.7	93.2	95.0	1.8

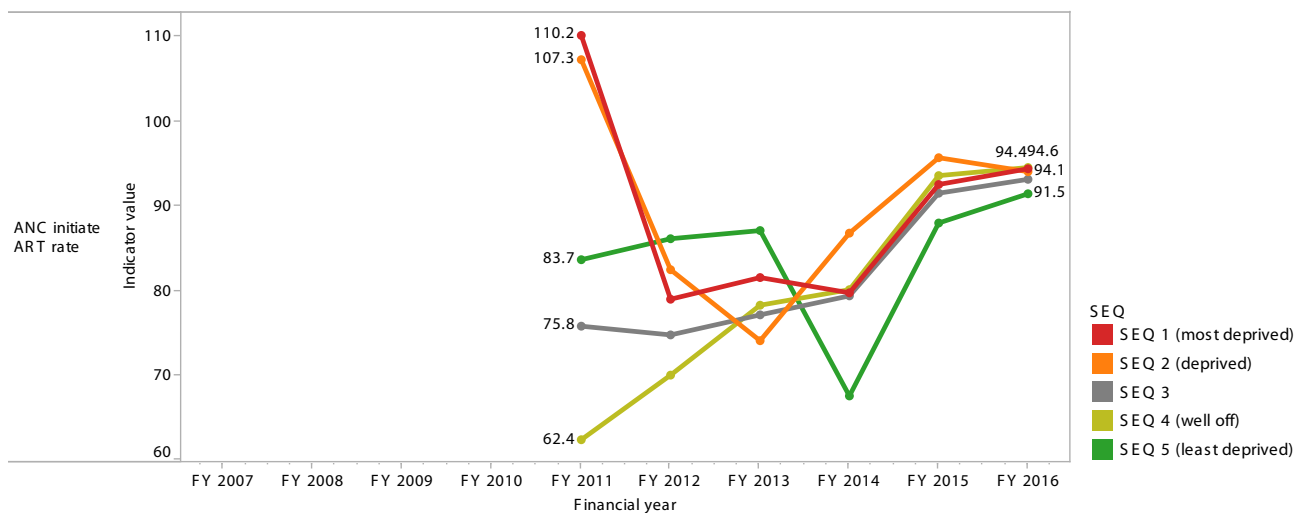
Section A: PMTCT indicators

	2013/14 (%)	2014/15 (%)	2015/16 (%)	% change 2014/15–2015/16
Mopani: DC33	80.0	92.7	94.1	1.4
Harry Gwala: DC43	96.3	97.6	93.4	-4.1
Amajuba: DC25	92.4	94.2	92.6	-1.6
A Nzo: DC44	73.9	87.0	92.5	5.5
Johannesburg: JHB	65.6	86.9	92.1	5.2
C Hani: DC13	80.0	92.6	91.8	-0.8
Xhariep: DC16	85.9	93.9	91.7	-2.2
Lejweleputswa: DC18	83.6	89.2	91.7	2.5
Frances Baard: DC9	76.2	88.5	91.5	3.0
Waterberg: DC36	74.9	88.5	91.4	2.9
Sekhukhune: DC47	78.7	93.8	91.3	-2.5
ZF Mgcawu: DC8	89.1	95.5	90.9	-4.7
Vhembe: DC34	82.0	96.7	90.8	-5.9
S Baartman: DC10	76.1	90.1	90.6	0.5
OR Tambo: DC15	69.2	86.6	90.6	4.0
T Mofutsanyana: DC19	82.7	89.3	90.4	1.1
G Sibande: DC30	75.1	85.9	89.6	3.7
West Coast: DC1	69.8	78.7	88.4	9.7
Pixley ka Seme: DC7	66.2	90.5	88.3	-2.2
Bojanala: DC37	79.7	86.1	88.0	1.9
Ekurhuleni: EKU	69.1	85.4	86.2	0.9
Mangaung: MAN	79.9	87.3	84.9	-2.4
Overberg: DC3	61.8	90.2	84.4	-5.8
Cape Town: CPT	65.3	84.1	79.3	-4.8
Fezile Dabi: DC20	73.3	87.9	76.4	-11.5
NM Molema: DC38	75.1	97.0	74.8	-22.2
Cape Winelands: DC2	85.9	80.1	69.8	-10.3
Eden: DC4	83.1	74.7	65.6	-9.1
Central Karoo: DC5	79.7	64.2	46.3	-17.9

Green: 2015/16 uptake rate >95% (global target). Orange: above national target (88%) but below global target (95%). Red: below 2015/16 national target rate of 88%.

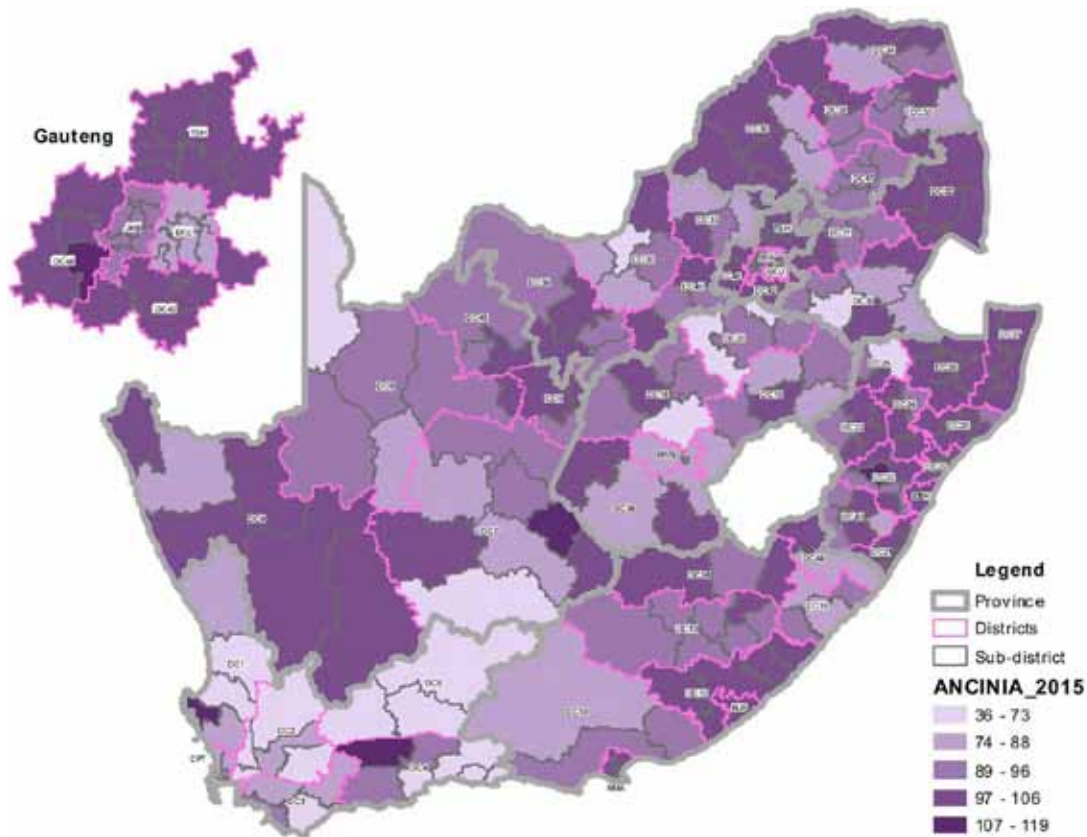
It is important to note that in 2015/16, there were no clear socio-economic differentials in the uptake of ANC ART (Figure 11). If anything, it seems the uptake was marginally lower in the least deprived quintile (91.5%) than in other quintiles which were above 94%.

Figure 11: Trends in average district values by socio-economic quintile for antenatal client initiated on ART rate



Map 2 provides a geographical overview of results for this indicator in 2015/16.

Map 2: Antenatal client initiated on ART rate by sub-district, 2015/16



Key findings

The accuracy of the indicator 'antenatal client initiated on ART rate' is determined by how the numerator and denominators are defined and interpreted. This could account for the low uptake rates in the Free State and North West. In the case of the Western Cape, it seems more likely that data issues, or incorrect importing of data into the DHIS, led to the low indicator values.

Nonetheless, the following conclusions can be drawn:

- ◆ The target for 2015/16 was achieved nationally and by most of the provinces and districts. The value needs to be revisited with a realistic updated target.
- ◆ However, some districts still failed to meet the target. These must be immediate areas of focus to ensure that ART uptake is met across all districts.
- ◆ It is encouraging to note that there are no differences in uptake of ART by socio-economic quintile. This means equity is being achieved.

Recommendations

- ◆ Focus must be placed on districts that are not meeting the national target, and on districts showing large decreases. It is important for success of the PMTCT programme that every HIV-infected woman is on ART.
- ◆ The low uptake might be real or due to data issues, or differences in calculations and interpretations of the indicator. It is important for provinces and districts to interrogate the indicator at their level and agree on a course of action.

5.3 HIV PCR birth testing coverage

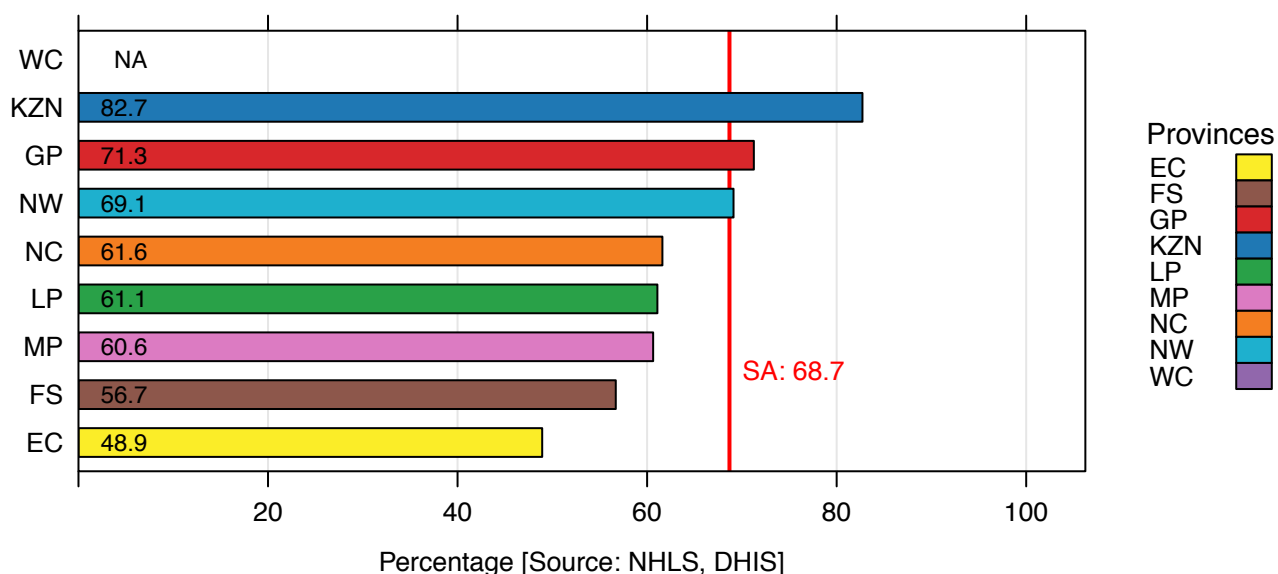
Ahmad Haeri Mazanderani and Gayle Sherman

In June 2015, South Africa introduced routine HIV polymerase chain reaction (PCR) testing at birth for all HIV-exposed neonates, and repeat testing at 10 weeks of age for infants who tested negative at birth.^w The new guidelines also recommend confirmatory testing through a second HIV PCR, instead of a baseline HIV viral load, for infants who test positive. These programmatic changes have resulted in new challenges, namely to capture testing accurately within these age ranges and to de-duplicate repeat tests performed for individual patients. Until these challenges have been addressed successfully, neither DHIS nor NHLS data will be able to accurately determine the coverage and positivity rate of early infant diagnosis (EID) by 10 weeks of age. However, NHLS data can currently provide estimates of birth testing coverage and intrauterine transmission rates as duplicate tests performed within the first week of life are considered infrequent.

Birth testing coverage measures the proportion of HIV-exposed neonates who received an HIV PCR test within the first six days of life. This indicator is calculated by dividing the number of PCR tests performed on neonates within the first six days of life (numerator) by the number of HIV-exposed neonates (denominator). The denominator, HIV-exposed neonates who require a PCR test, was obtained from the DHIS indicator 'Live births to HIV-positive women'.

In 2015/16, the national PCR birth testing coverage rate was 68.7% using NHLS PCR data and calculated HIV-exposed births. Rates ranged from 48.9% in the Eastern Cape to 82.7% in KwaZulu-Natal (Figure 12). It is important to note that routine birth testing was only introduced into the national testing programme in June 2015. However, KwaZulu-Natal, the province with the highest birth testing coverage, introduced birth testing in April 2015, two months earlier than the other provinces. Gauteng had the second-highest birth testing coverage at 71.3%. The Western Cape only performed targeted birth testing on neonates at high risk of transmission.

Figure 12: HIV PCR birth testing coverage by province, 2015/16



At a district level, birth testing coverage ranged from 24.5% in OR Tambo (EC) to 96.6% in uMgungundlovu (KZN) (Figure 13). Birth testing coverage ranged widely within individual provinces, with coverage in the Eastern Cape ranging from 24.5% in OR Tambo to 81.4% in S Baartman, and in the Free State from 32.2% in Lejweleputswa to 84.4% in Xhariep. Four Eastern Cape districts had birth testing coverage below 60%, indicating the need for increased testing of HIV-exposed neonates in this province. All districts in the Western Cape are excluded. The only NHI district to have a birth testing coverage below 50% was OR Tambo in the Eastern Cape (Figure 14).

As the EID programme was in transition during 2015/16, trends in the implementation of birth testing can only be determined in the next financial year (2016/17). However, data obtained to date suggest that South Africa is transitioning towards successfully implementing routine birth testing for all HIV-exposed neonates. Certain districts within the Eastern Cape and Free State have a disproportionately lower uptake of birth testing than other districts within the same province; this should prompt further emphasis on birth testing in order to improve early identification of intrauterine infections.

^w South African National Department of Health. National Consolidated Guidelines for the Prevention of Mother-to-child Transmission of HIV (PMTCT) and the Management of HIV in Children, Adolescents and Adults. Pretoria: NDoH; April 2015.

The impact of birth testing on ART uptake and infant mortality remains to be determined and is a research priority within the EID programme.

Figure 13: HIV PCR birth testing coverage by district, 2015/16

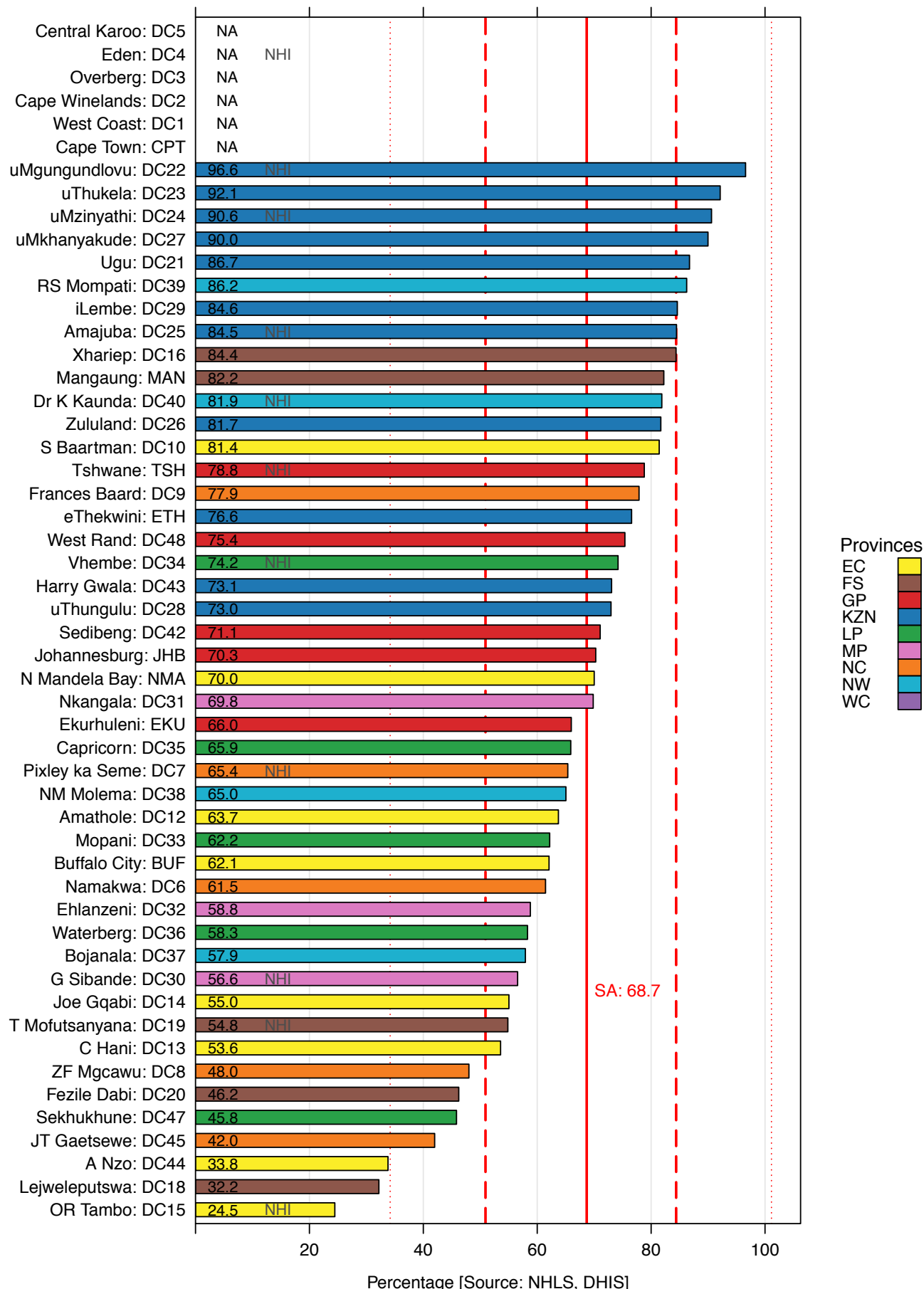
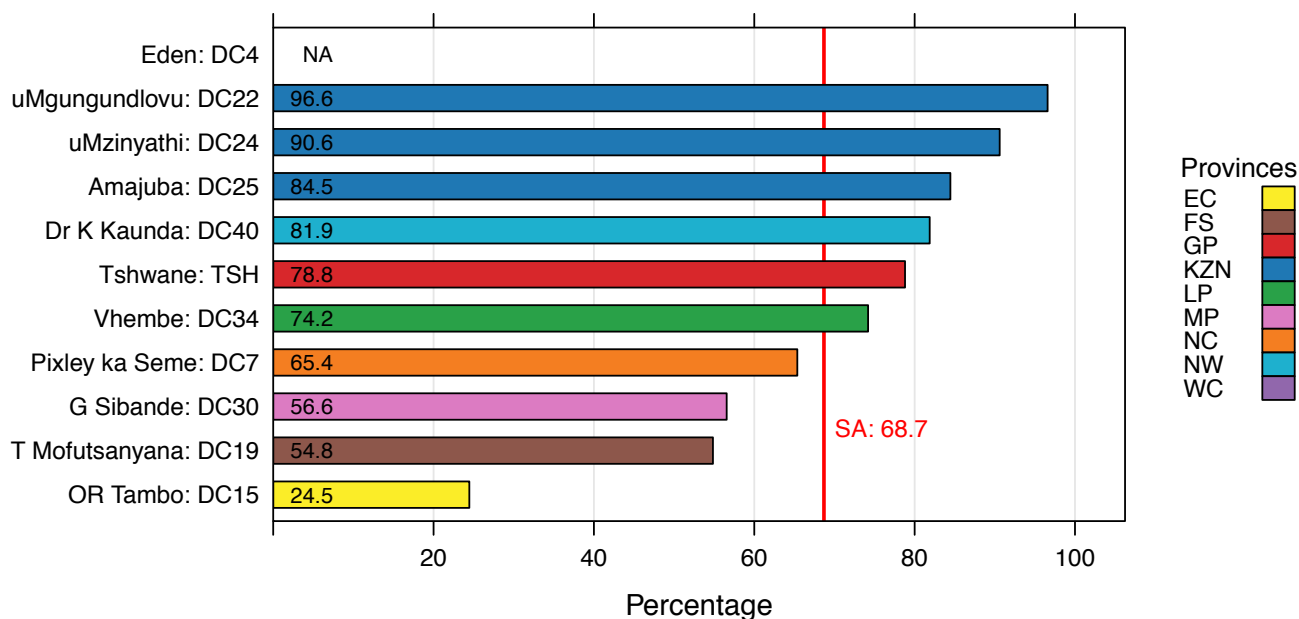


Figure 14: HIV PCR birth testing coverage by National Health Insurance district, 2015/16



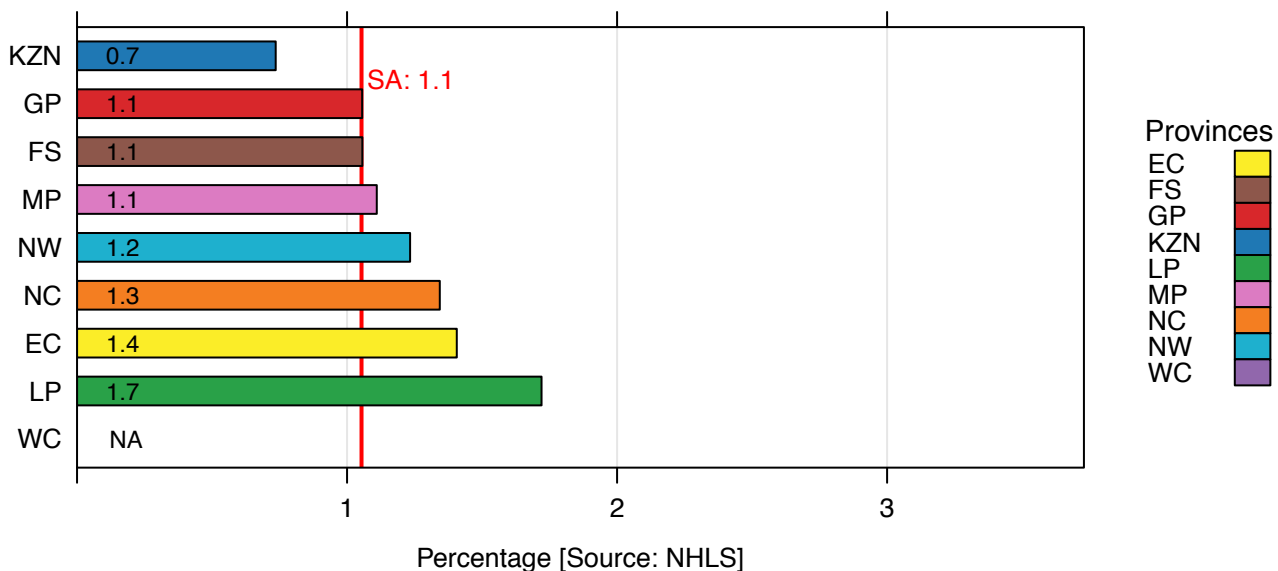
5.4 HIV intrauterine transmission rate

Ahmad Haeri Mazanderani and Gayle Sherman

Once South Africa implements a national unique patient identifier from birth, it is hoped that the new infant testing guidelines will not only provide the opportunity for earlier detection and treatment, but also facilitate surveillance efforts to determine both the intrauterine and early intrapartum transmission rates. Currently, the estimated intrauterine transmission rate is calculated from NHLS data as the proportion of HIV PCR tests performed within six days of delivery that have a positive result.

According to NHLS data for 2015/16, the national intrauterine transmission rate approximates 1.1%. As the national ‘infant 1st PCR test positive around 6 weeks rate’ was 1.5% for 2014/15, this suggests that most early infections will be identifiable at birth, providing the opportunity for early initiation of ART once routine HIV PCR testing at birth has been successfully implemented. The percentage of PCR tests within the first six days that were positive ranged from 0.74% in KwaZulu-Natal to 1.7% in Limpopo (Figure 15). The Western Cape performed targeted birth testing among high-risk cases during 2015/16 and implemented routine birth testing only in April 2016.

Figure 15: Percentage PCR tests positive within the first six days by province, 2015/16



At district level, the rate of PCR positivity within the first six days ranged from 0.0% in Xhariep (FS) to 3.4% in Namakwa (NC) (Figure 16). In some provinces the percentage positivity varied widely between districts, with rates in the Northern Cape ranging from 0.9% in Francis Baard to 3.4% in Namakwa. The high rate of intrauterine transmission in Namakwa is in keeping with the high EID rates previously reported for this district. Among NHI districts, three districts (excluding Eden in the Western Cape) had intrauterine transmission rates above the national average. These districts were OR Tambo (EC) (1.5%), Vhembe (LP) (1.6%), and Pixley ka Seme (NC) (1.8%) (Figure 17).

Since the introduction of routine HIV PCR testing at birth a much greater number of neonates are being detected soon after delivery. This provides the opportunity for earlier linkage into care than with the previous testing guidelines. Increased effort must be made to ensure that neonates who test positive have confirmatory HIV PCR testing and are initiated on ART timeously.

Figure 16: Percentage PCR tests positive within the first six days by district, 2015/16

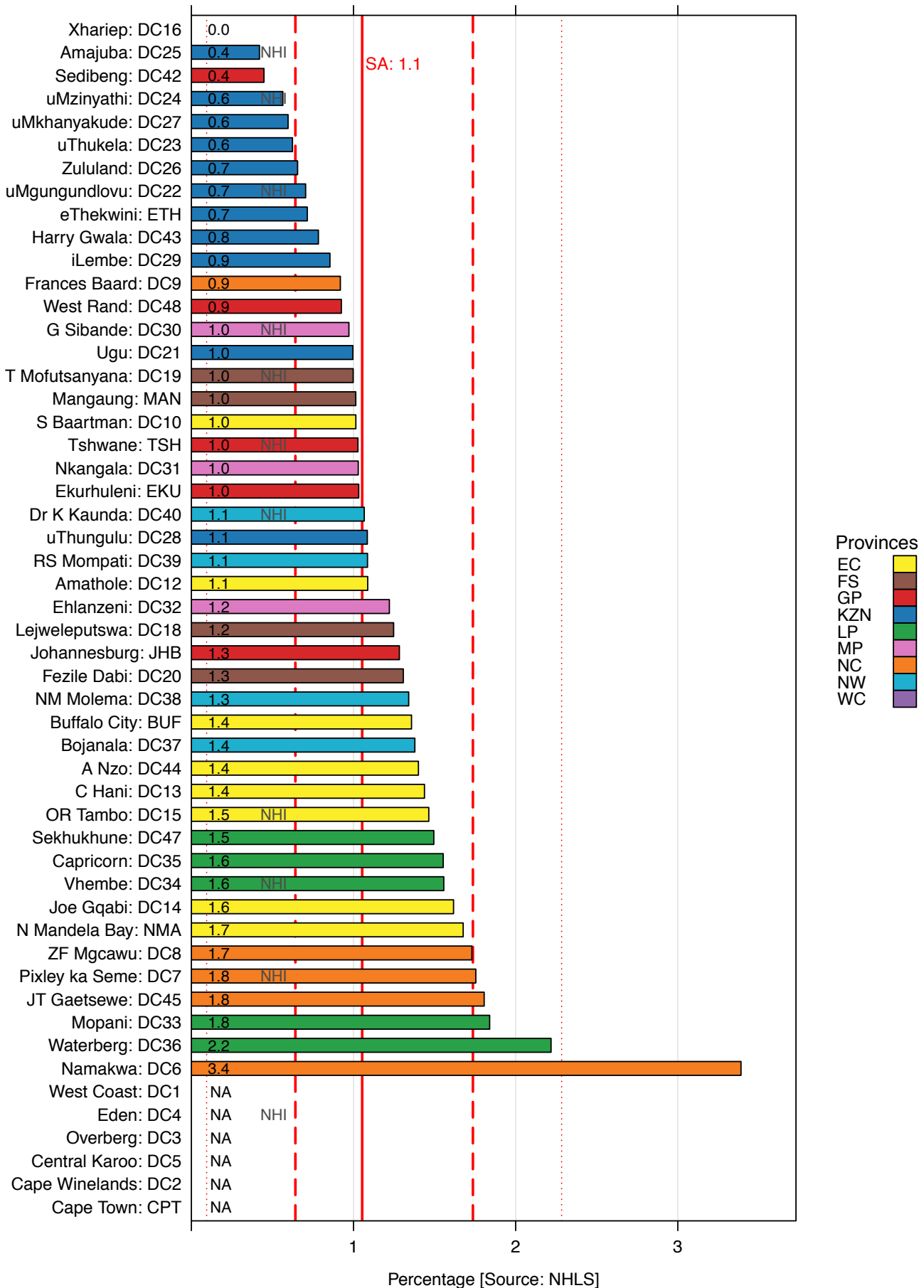
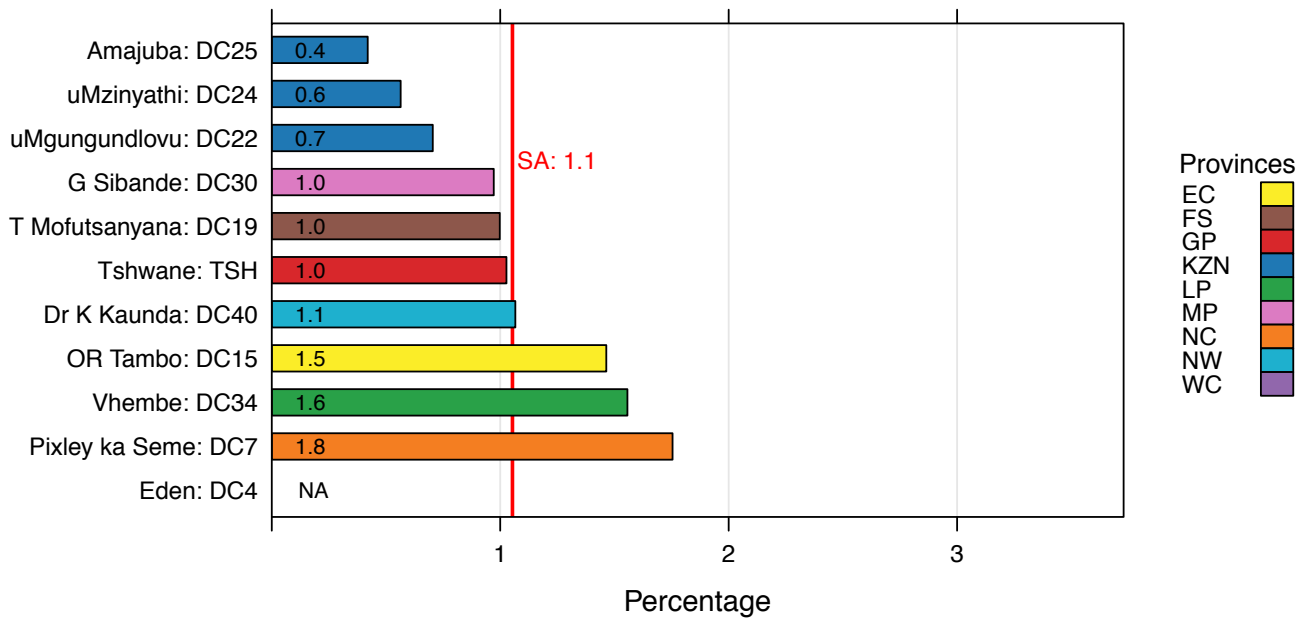


Figure 17: Percentage PCR tests positive within the first six days by National Health Insurance district, 2015/16



Key findings

- ◆ Data obtained to date suggest that South Africa is transitioning towards successful implementation of routine birth testing for all HIV-exposed neonates.
- ◆ The new guidelines recommend confirmatory testing through a second HIV PCR, instead of a baseline HIV viral load, for infants who test positive. These programmatic changes have resulted in new challenges, namely to capture testing accurately within these age ranges and to de-duplicate repeat tests performed for individual patients. Until these challenges have been addressed successfully, neither DHIS nor NHLS data will be able to accurately determine the coverage and positivity rate of EID by 10 weeks of age.
- ◆ Since the introduction of routine HIV PCR testing at birth a much greater number of neonates are being detected soon after delivery. This provides the opportunity for earlier linkage into care than with previous testing guidelines.

Recommendations

- ◆ The impact of birth testing on ART uptake and infant mortality remains to be determined and is a research priority within the EID programme.

6 Child health

This section includes six indicators, namely: (i) Vitamin A coverage 12–59 months; (ii) Child under 5 years diarrhoea case fatality rate; (iii) Child under 5 years pneumonia case fatality rate; (iv) Child under 5 years severe acute malnutrition case fatality rate; (v) Inpatient death under 5 years rate; and (vi) School Grade 1 screening coverage.

6.1 Vitamin A coverage 12–59 months

Duduzile F Nsibandé and Nobubelo K Ngandu

Vitamin A coverage 12–59 months is defined as the proportion of children in the 12–59-month age group who receive their full quota of two doses of oral vitamin A supplementation at 4–6-month intervals each year. This indicator provides useful information on preventive child health intervention coverage and acts as a proxy indicator for access to preventive health services among 12–59-month-old children.^{a,b}

Vitamin A is a micronutrient essential for normal vision, growth, development, red blood cell production and immune function.^c Periodic vitamin A supplementation plays a vital role in protecting child health and survival in vulnerable undernourished populations.^{d,e} Evidence from large, rigorously conducted community trials in South Asia and Africa have also shown that vitamin A supplementation at six-monthly intervals, and other strategies such as food fortification with vitamin A, can reduce pre-school child mortality by between 25% and 30%.^{c,f,g} Vitamin A supplementation is one of the key interventions listed in the 'Protect, Prevent and Treat Strategy' for the World Health Organization (WHO) Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD), which aims to end preventable child deaths due to pneumonia and diarrhoea by 2025.^h

One of the targets of Sustainable Development Goal (SDG) 3 is to end the preventable death of neonates and children under 5 years of age by 2030; in order to achieve this, SDG 3 recommends that countries aim to reduce neonatal mortality to less than 12 per 1 000 live births, and under-5 mortality to less than 25 per 1 000 live births.ⁱ

In developing countries, an estimated 190 million children below 5 years of age are affected by vitamin A deficiency (VAD).^j VAD predisposes children to morbidity from respiratory diseases, visual impairment (especially night blindness/xerophthalmia), and diarrhoea and measles, which can lead to death.^k In 2014, the WHO^l reported that night blindness is usually observed in children between 3 and 6 years of age, and that it is the world's leading preventable cause of blindness, making it a cardinal indicator of VAD.^c

The WHO recommends that countries with a VAD prevalence rate greater than 20% should consider this a severe public health problem requiring increased vitamin A supplement coverage.^m Vitamin A supplementation during childhood can reduce all-cause mortality, and mortality due to diarrhoea and measles.^k In South Africa, VAD in young children remains an important public health problem. According to the South African National Health and Nutrition Examination

a Massyn N, Day C, Dombo M, Barron P, English R, Padarath A, editors. District Health Barometer 2012/13. Durban: Health Systems Trust; October 2013. Available from: <http://www.hst.org.za/publications/district-health-barometer-2012/13>.

b United Nations Children's Fund (UNICEF). 2007. Vitamin A supplementation: A decade of progress. Available from http://www.unicef.org/publications/files/Vitamin_A_Supplementation.pdf.

c Sommer A, West KP Jr., Olson JA, Ross AC. Vitamin A Deficiency: Health, Survival, and Vision. New York: Oxford University Press; 1996.

d United Nations Children's Fund (UNICEF). Pneumonia and Diarrhoea: Tackling the deadliest diseases for the world's poorest children. New York: UNICEF; 2012.

e West KP Jr., Sommer A, Palmer A, Schultink W, Habicht JP. Commentary: Vitamin A policies need rethinking. *International Journal of Epidemiology*. 2015; 44:292–4. doi: 10.1093/ije/dyu275.

f Fawzi WW, Chalmers TC, Herrera G, Mosteller F. Vitamin A supplementation and child mortality: A meta-analysis. *JAMA*. 1993; 269:898–903.

g Mayo-Wilson E, Imdad A, Herzer K, Yakoob MY, Bhutta ZA. Vitamin A supplements for preventing mortality, illness, and blindness in children aged under 5: systematic review and meta-analysis. *BMJ* 2011; 343:d5094.

h World Health Organization/United Nations Children's Fund. Ending preventable child deaths from pneumonia and diarrhoea by 2025. The integrated Global Action Plan for Pneumonia and Diarrhoea (GAPPD); 2013. Available from: http://www.who.int/maternal_child_adolescent/documents/global_action_plan_pneumonia_diarrhoea/en/ [Accessed 10 July 2016].

i United Nations. Transforming our world: the 2030 Agenda for Sustainable Development Goals. Available from <https://sustainabledevelopment.un.org/post2015/transformingourworld> [Accessed 13 July 2016].

j World Health Organization. Guideline: vitamin A supplementation in infants and children 6–59 months of age. Geneva: WHO; 2011. Available from: www.who.int/entity/nutrition/publications/micronutrients/guidelines/vas_6to59_months/en/ [Accessed 19 July 2015].

k Imdad A, Herzer K, Mayo-Wilson E, Yakoob MY, Bhutta ZA. Vitamin A supplementation for preventing morbidity and mortality in children from 6 months to 5 years of age. *Cochrane Database of Systematic Reviews* 2010, Issue 12. Art. No.: CD008524.

l World Health Organization. Xerophthalmia and night blindness for the assessment of clinical vitamin A deficiency in individuals and populations. Vitamin and Mineral Nutrition Information System. Geneva: WHO; 2014. Available from: http://apps.who.int/iris/bitstream/10665/133705/1/WHO_NMH_NHD_EPG_14.4eng.pdf?ua=1 [Accessed 8 July 2016].

m World Health Organization. Serum retinol concentrations for determining the prevalence of vitamin A deficiency in populations. Vitamin and Mineral Nutrition Information System. Geneva: WHO; 2011. Available from: <http://www.who.int/vmnis/indicators/retinol.pdf> [Accessed 28 July 2015].

Survey (SANHANES)ⁿ report, 43.6% of children under 5 years of age have VAD. However, care needs to be taken when providing vitamin A supplementation^o as there is a risk of harm if children with adequate vitamin A levels receive vitamin A supplementation.

In South Africa, the vitamin A supplementation programme was launched in 2001, and was implemented mainly in health facilities through the Expanded Programme on Immunization (EPI) and Integrated Management of Childhood Illness (IMCI) programmes in health facilities. Subsequently, in 2008 and 2009 the National Department of Health (NDoH) introduced campaigns and the national Integrated Child Health Weeks (ICHWs) which delivered an integrated package of services including vitamin A and de-worming.^p This aimed to optimise access and coverage to children not reached by routine vitamin A supplementation. In 2011, vitamin A policy guidelines in South Africa permitted community health workers, dieticians and nutritionists to administer vitamin A during ward-based outreach services under direct or indirect supervision by a professional nurse. The 2014/15 *District Health Barometer*^q reported that vitamin A coverage among children aged 12–59 months had remained persistently below 50% in the country since 2004/05.

Table 1 shows a remarkable success story, with vitamin A coverage more than doubling over the past 10 years, from 25.1% in 2006/07 to 57.0% in 2015/16. Overall, an increasing trend has been sustained annually, except in 2012/13 when a very small decline of 1.1 percentage points was observed due to changes in the target population estimates.^q The biggest coverage increase took place during the past five years, from 34.6% in 2010/11 to the current 57.0% in 2015/16. A 4.8 percentage point increase was observed in the past year, raising the current vitamin A coverage rate to 52.2%. The number of provinces that reached at least 50% coverage increased from six in 2014/15 to seven in 2015/16, with coverage increasing in all these provinces. Free State (FS) was the only province with a coverage rate above 50% during the past five years, although it plateaued and did not improve much during this time.

KwaZulu-Natal (KZN) (63.8%) and the Eastern Cape (EC) (63.7%) had the highest coverage rates in 2015/16, while the Western Cape (WC) (47.3%) and Northern Cape (NC) (47.0%) had the lowest coverage rates (Figure 1).

Table 1: National and provincial vitamin A coverage 12–59 months, 2006/07–2015/16 (%)

	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EC	19.7	23.0	31.6	36.6	36.5	41.8	40.1	44.7	53.0	63.7
FS	36.3	36.8	41.6	38.0	39.1	57.8	59.3	54.8	58.7	58.7
GP	27.8	30.3	34.8	40.8	43.7	47.1	45.6	49.9	56.6	58.8
KZN	24.4	29.5	27.3	30.3	32.8	41.1	41.4	47.8	54.5	63.8
LP	24.7	25.1	38.3	30.6	30.3	42.9	35.8	33.8	44.4	50.0
MP	22.5	23.2	25.8	27.8	29.1	34.2	34.8	36.0	50.0	51.4
NC	31.8	28.4	32.8	27.2	26.2	31.9	34.7	38.7	45.3	47.0
NW	20.6	23.5	30.9	26.1	27.0	34.0	32.2	39.3	52.2	52.4
WC	26.5	33.6	32.0	38.2	32.3	36.3	37.8	44.4	47.4	47.3
SA	25.1	28.1	32.2	33.9	34.6	41.6	40.5	44.3	52.2	57.0

Source: DHIS.

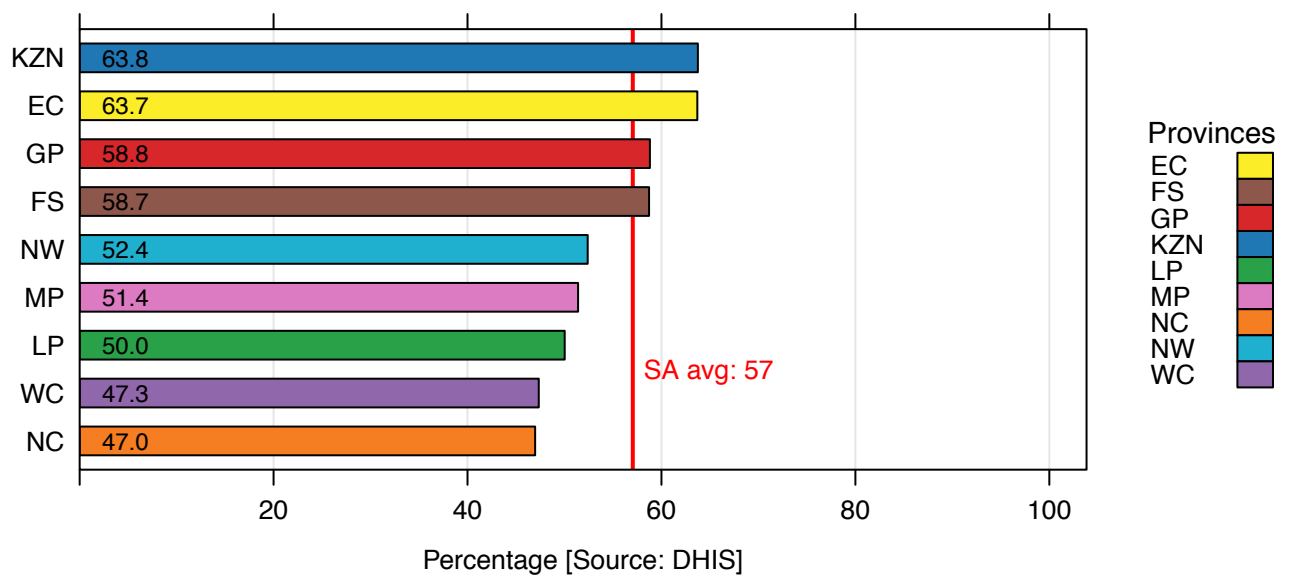
n Shisana O, Labadarios D, Rehle T, Simbayi L, Zuma K, Dhansay A, et al. & SANHANES-1 Team. South African National Health and Nutrition Examination Survey (SANHANES-1). Cape Town: HSRC Press; 2014.

o Schoeman SE, Van Stuijvenberg ME, Dhansay MA. Is prophylactic vitamin A supplementation justified in areas where liver is frequently eaten? MRC Policy Brief; February 2012.

p National Department of Health. National Vitamin A Supplementation Policy for South Africa, 2012. Available from: <http://www.health.gov.za> [Accessed 28 July 2015].

q Massyn N, Peer N, Padarath A, Barron P, Day C, editors. District Health Barometer 2014/15. Durban: Health Systems Trust; October 2015.

Figure 1: Vitamin A coverage 12–59 months by province, 2015/16



Map 1 highlights the distribution of high-performing and low-performing districts and sub-districts. District coverage range was very high, from 94.4% in Xhariep (FS) to 37.4% in Pixley Ka Seme (NC). Within provinces there were also wide variations in inter-district coverage rates. Examples include Xhariep (94.4%) versus Fezile Dabi (55.0%) in the Free State; Amathole (91.5%) versus N Mandela Bay (52.3%) in the Eastern Cape; and Sedibeng (71.4%) versus Tshwane (45.7%) in Gauteng Province (GP).

In 2015/16, the three districts with the highest vitamin A coverage 12–59 months were Xhariep (FS), Amathole (EC) and Uthukela (KZN), while the three with the lowest coverage were Cape Town (WC), Waterberg (Limpopo (LP)) and Pixley ka Seme (NC). In all provinces, except Mpumalanga (MP) and the Northern Cape, at least one district achieved the national average (Figure 2).

Over the last three years, Xhariep and Lejweleputswa (FS) have been among the five best-performing districts for this indicator, while Pixley ka Seme (NC) and Waterberg (Limpopo (LP)) were the worst-performing districts in 2014/15 and 2015/16. The poorest-performing district, Pixley ka Seme, is also a National Health Insurance (NHI) district.

Map 1: Vitamin A coverage 12–59 months by sub-district, 2015/16

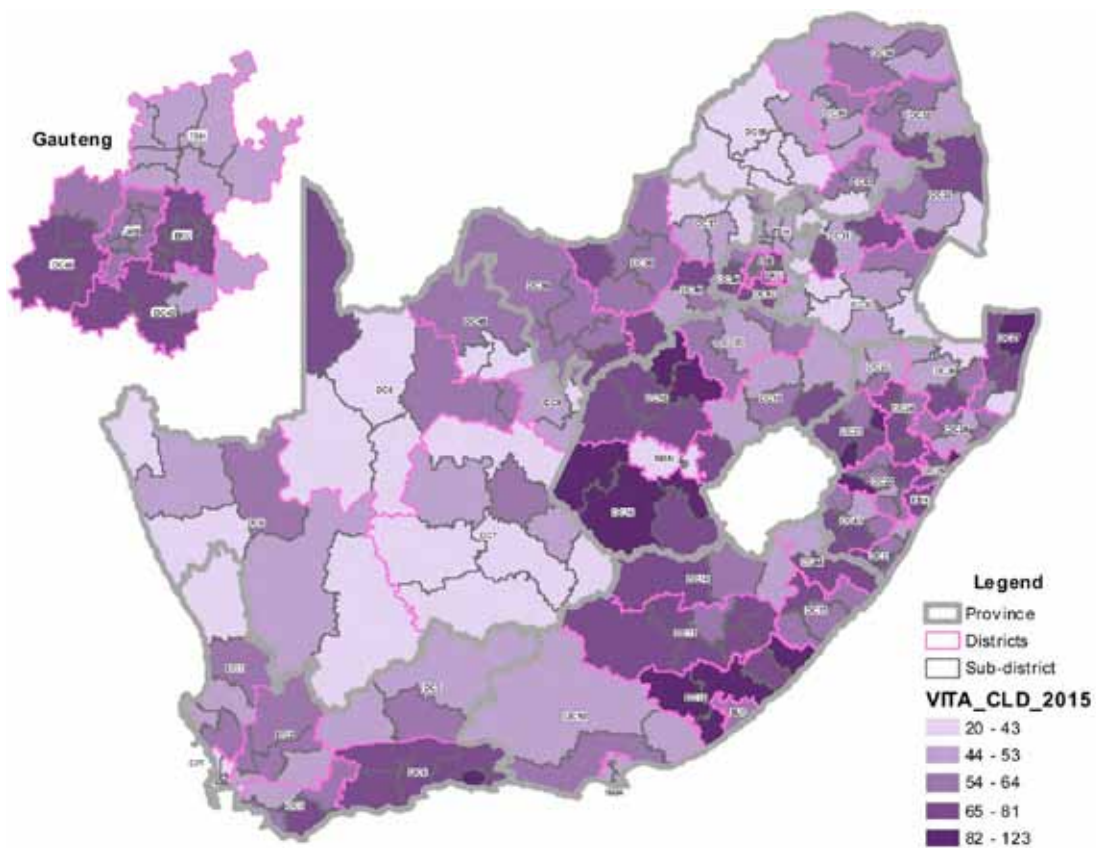


Figure 2: Vitamin A coverage 12–59 months by district, 2015/16

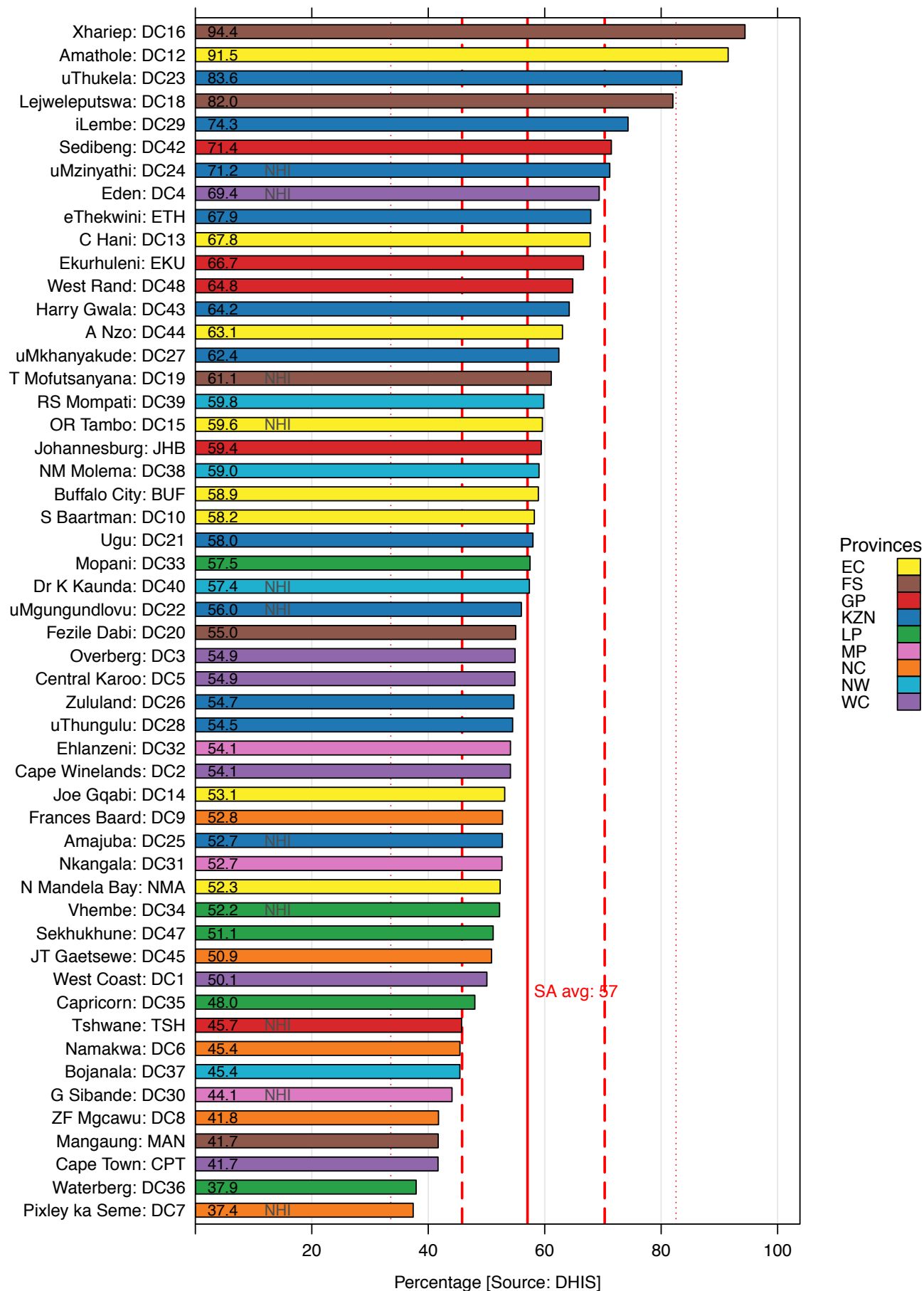


Figure 3 shows vitamin A coverage in the NHI districts. Only five of the NHI districts achieved the national average of 57.0%. uMzinyathi (KZN) achieved the highest coverage, while Pixley ka Seme (NC) had the lowest.

Figure 3: Vitamin A coverage 12–59 months by National Health Insurance district, 2015/16

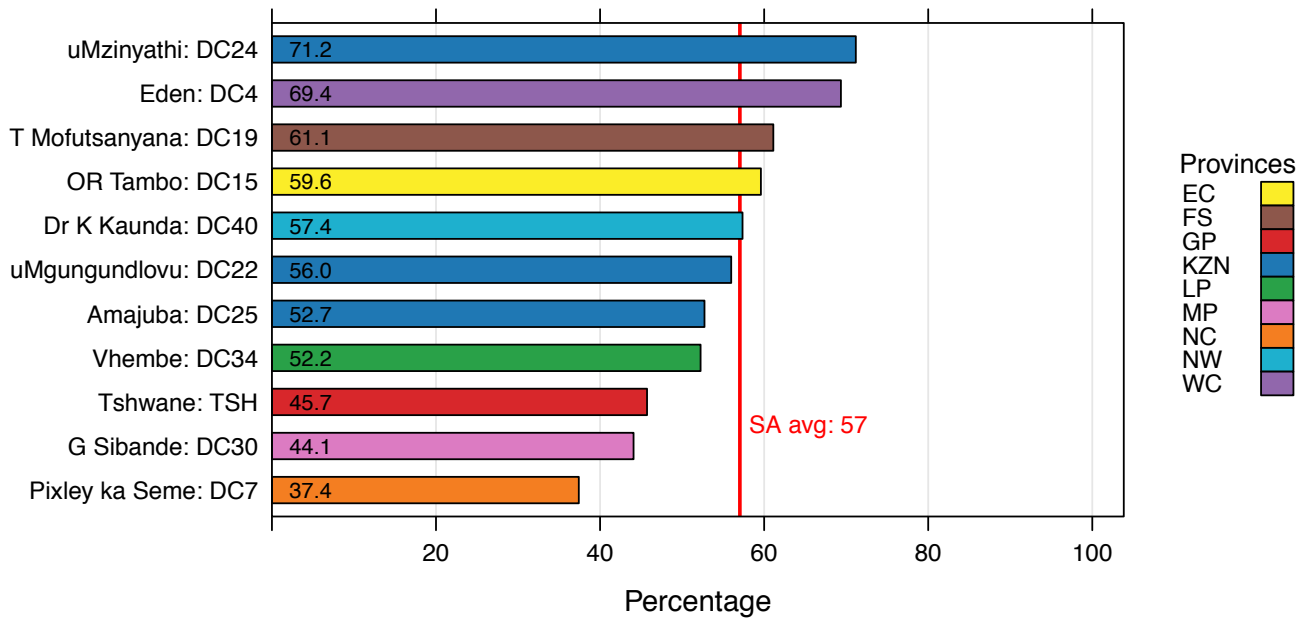
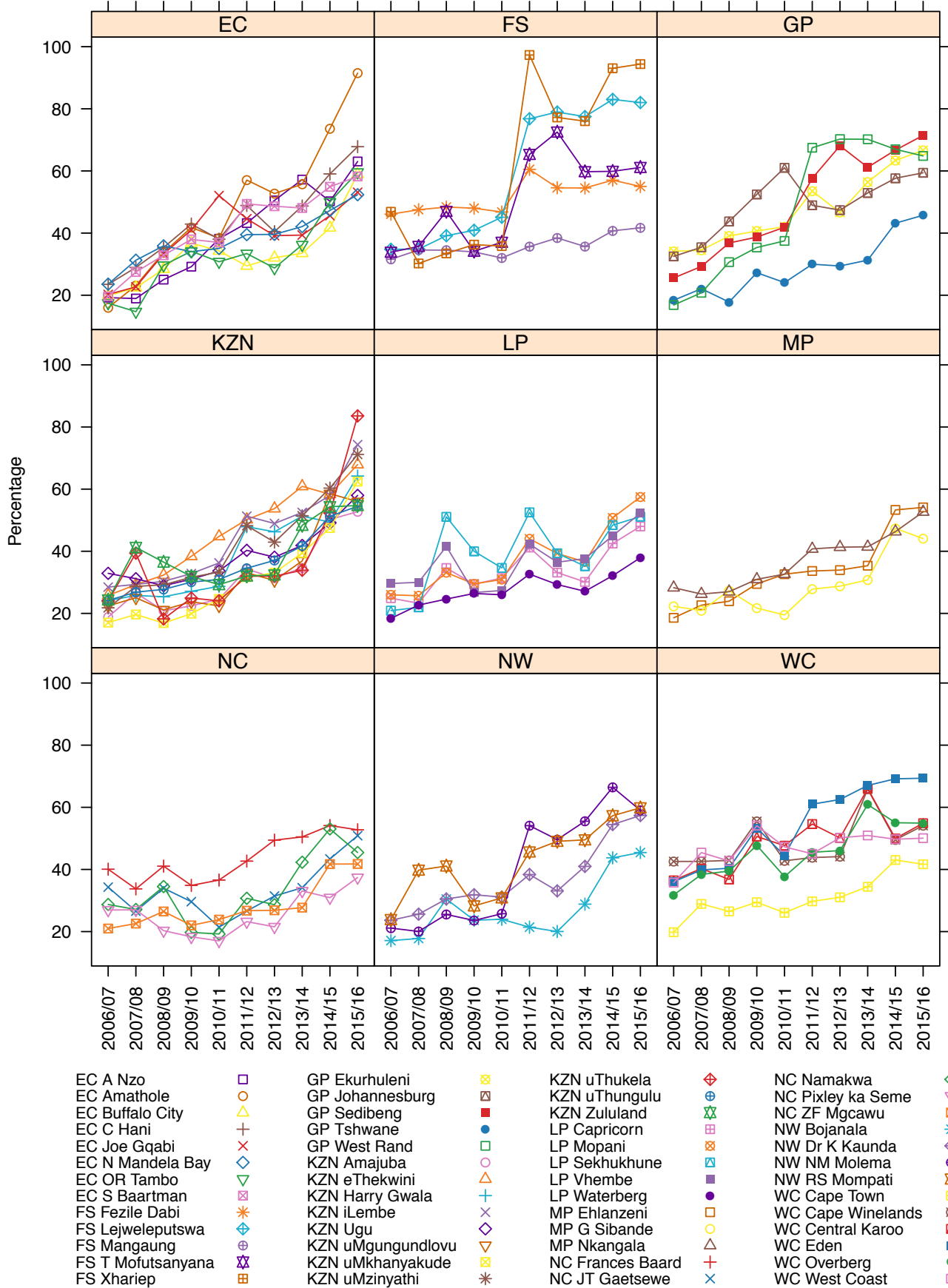


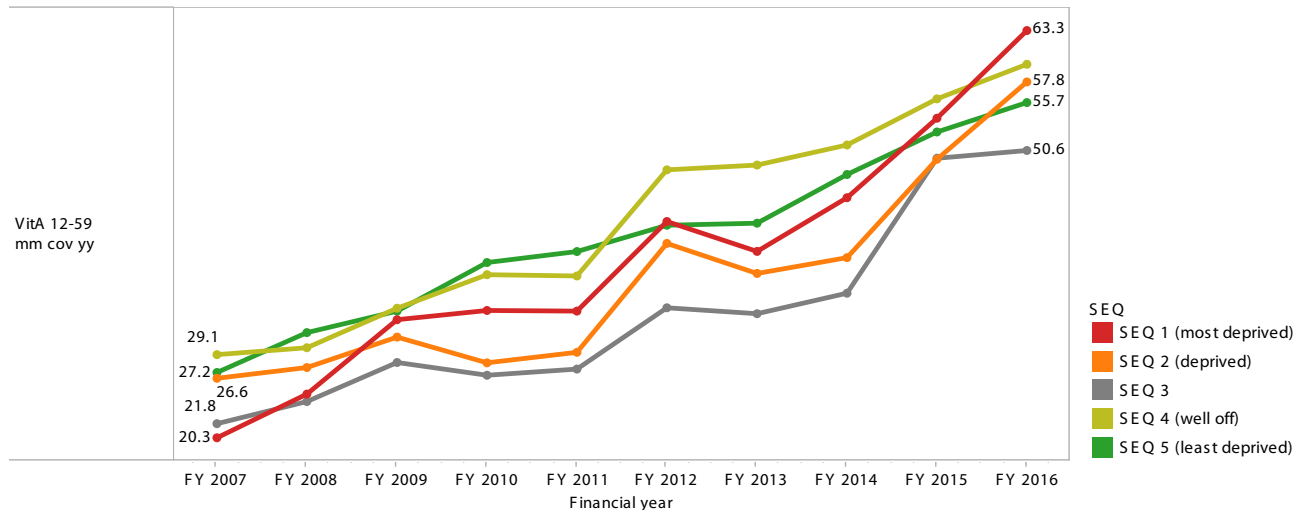
Figure 4 shows trends in district coverage over the 10-year period from 2006/07 to 2015/16. Most districts, except those in the Eastern Cape and Gauteng, progressed poorly in the first five years, without any obvious increase in vitamin A coverage. Increases in coverage became more apparent after 2012/13, with very clear upward trends for 30 districts. By 2015/16, 43 districts were showing an increase, while nine districts showed a decline for this indicator. This was similar to 2014/15. During the past two years, two districts in the Free State and two in the Western Cape showed a decline in coverage. Eastern Cape and Limpopo districts had no decline in coverage, while one district in each of the remaining five provinces experienced a drop in coverage in 2015/16.

Figure 4: Annual trends for vitamin A coverage 12–59 months



The biggest increase in vitamin A coverage took place during the period from 2013/14 to 2015/16 in all socio-economic quintiles (SEQs), with the most increase happening in the two lowest SEQs (Figure 5). By 2015/16, all SEQs had achieved coverage rates above 50%. It is difficult to interpret the trends over time as coverage rates have changed significantly. However, SEQ3 has consistently had the lowest coverage rates.

Figure 5: Trends in average district values by socio-economic quintile for vitamin A coverage 12–59 months



Key findings

- ◆ There has been sustained improvement in provincial trends for vitamin A coverage 12–59 months over the past three years.
- ◆ There are wide variations in coverage among districts in different provinces, as well as among districts within the same province. This suggests that opportunities to scale up vitamin A coverage exist but need to be enhanced through sharing of good practices between districts within each province.
- ◆ The majority of NHI districts performed below the national average.
- ◆ Substantial improvements occurred in vitamin A coverage for SEQ1 and SEQ2 over the past three years.
- ◆ These improvements could have been influenced by implementation of the 2012 National Vitamin A Supplementation Policy for South Africa^P and the Primary Health Care Re-engineering Strategy.^F

Recommendations

- ◆ Lessons learned, and good practices from high-performing districts, should be shared at all levels.
- ◆ Multiple approaches should be implemented to scale up coverage (such as at routine health and immunisation visits, and using community-based outreach activities), and all data should be reported in the District Health Information Software (DHIS).
- ◆ Vitamin A targets should be set and included in District Health Plans.
- ◆ Research is still needed to evaluate: (i) the impact of Ward-Based Outreach Teams on vitamin A coverage; (ii) the effect of implementing the National Vitamin A Supplementation Policy on populations with adequate dietary intake of vitamin A; and (iii) the prevalence of night blindness among children who have not received vitamin A supplementation.

6.2 Child under 5 years diarrhoea case fatality rate

Vuyolwethu Magasana and Witness Chirinda

Child under 5 years diarrhoea case fatality rate (CFR) refers to the proportion of all children under 5 years admitted to hospital with diarrhoeal disease who die during admission. Case fatality rates only indicate the number of deaths that occur in facility; deaths that occur outside facilities are excluded. While CFR is a good monitoring tool, it should be applied with caution as it tends to mask substantial increases and decreases in the number of admissions and deaths. Following the Millennium Development Goal (MDG) 4 target to reduce the under-5 mortality rate by two-thirds, the Integrated Global Action Plan for the Prevention and Control of Pneumonia and Diarrhoea (GAPPD) was launched in April 2013, with the aim to reduce pneumonia deaths to fewer than 3 children per 1 000 live births and diarrhoea deaths to less than 1 per 1 000 live births by 2025.^h

Diarrhoea is a leading cause of morbidity and mortality among children under 5 years in low- and middle-income countries, accounting for about 9% of all child under-5 deaths.⁵ The risk factors for diarrhoea include HIV, poverty, undernutrition, poor hygiene, underprivileged household conditions, and poor access to appropriate care.^{h,r} Due to global socio-economic inequities, these risk factors are more prevalent in under-resourced settings. As a result, children living in low- and middle-income countries are more vulnerable to diarrhoea and dehydration than their more affluent counterparts.^t Over the past 20 years, under-5 mortality has decreased substantially; however, the overall disease burden remains unacceptably high, particularly in low- and middle-income countries.^u

Certain known interventions and strategies are effective in the prevention and management of diarrhoeal diseases. South Africa has implemented these strategies to decrease under-5 diarrhoea mortality rates; policies have been revised and health care delivery has been improved. Examples include revision of the prevention of mother-to-child transmission of HIV (PMTCT) policy, and the breastfeeding policy to promote exclusive breastfeeding practices; introduction of vitamin A supplementation; and improved access to clean water and sanitation services.^{v,w} Moreover, since 2009 South Africa has been the first country in sub-Saharan Africa to include the rotavirus vaccine (which is effective in preventing severe diarrhoea) in routine child immunisations.^x National CFRs for diarrhoea in children under 5 have declined steadily since 2010/11 (from 7.0% in 2010/11 to 2.2% in 2015/16), and the number of deaths due to diarrhoea has more than halved in the past six years (from 2 558 in 2010/11 to 1 049 in 2015/16). There has also been an increase in the number of diarrhoea admissions since 2012/13 (Table 2).

Table 2: National diarrhoea admissions, deaths and case fatality rates in children under 5 years, 2010/11–2015/16

	Admissions (N)	Deaths (N)	Case fatality rate (%)
2010/11	36 802	2 558	7.0
2011/12	33 966	1 550	4.6
2012/13	35 692	1 526	4.3
2013/14	45 880	1 775	3.9
2014/15	45 787	1 513	3.3
2015/16	47 758	1 049	2.2

Source: DHIS.

Table 3 and Figure 6 show provincial CFRs for diarrhoea. Seven provinces reported CFRs below the national target of 3.2%. North West (NW) and the Eastern Cape remained above the national target (4.0% and 3.6% respectively). KwaZulu-Natal admitted the most children with diarrhoea, and the Eastern Cape had the most deaths for children under 5 years due to diarrhoea.

s United Nations Children's Fund. Pneumonia and diarrhoea: tackling the deadliest diseases for the world's poorest children. New York: UNICEF; 2012.

t United Nations Children's Fund. Every Child Counts: The State of the World's Children. New York: UNICEF; 2014.

u Liu L, Johnson HL, Cousens S, Perin J, Scott S, Lawn JE, et al. Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000. *Lancet*. 2012; 379(9832):2151–61.

v Statistics South Africa. Levels and trends of morbidity and mortality among children aged under-five years in South Africa, 2006–2010. Pretoria: Statistics South Africa; 2012.

w Statistics South Africa. Water and sanitation 2002–2010: in-depth analysis of the General Household Survey data. Pretoria: Statistics South Africa; 2011.

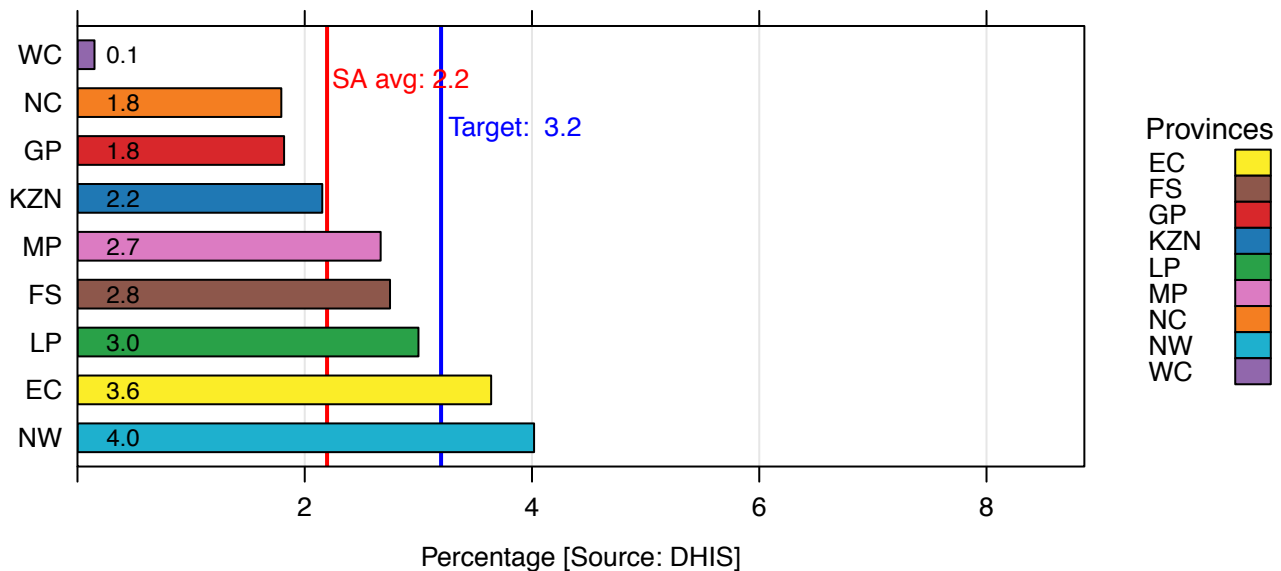
x Madhi SA, Cunliffe NA, Steele D, Witte D, Kirsten M, Louw C, et al. Effect of Human Rotavirus Vaccine on Severe Diarrhea in African Infants. *N Engl J Med*. 2010; 362(4):289–98.

Table 3: Diarrhoea admissions, deaths and case fatality rates in children under 5 years by province, 2015/16

	Admissions (N)	Deaths (N)	Case fatality rate (%)
Eastern Cape	7 032	256	3.6
Free State	2 254	62	2.8
Gauteng	6 435	117	1.8
KwaZulu-Natal	10 259	221	2.2
Limpopo	5 132	154	3.0
Mpumalanga	3 373	90	2.7
Northern Cape	2 174	39	1.8
North West	2 414	97	4.0
Western Cape	8 685	13	0.1
South Africa	47 758	1 049	2.2

Source: DHIS.

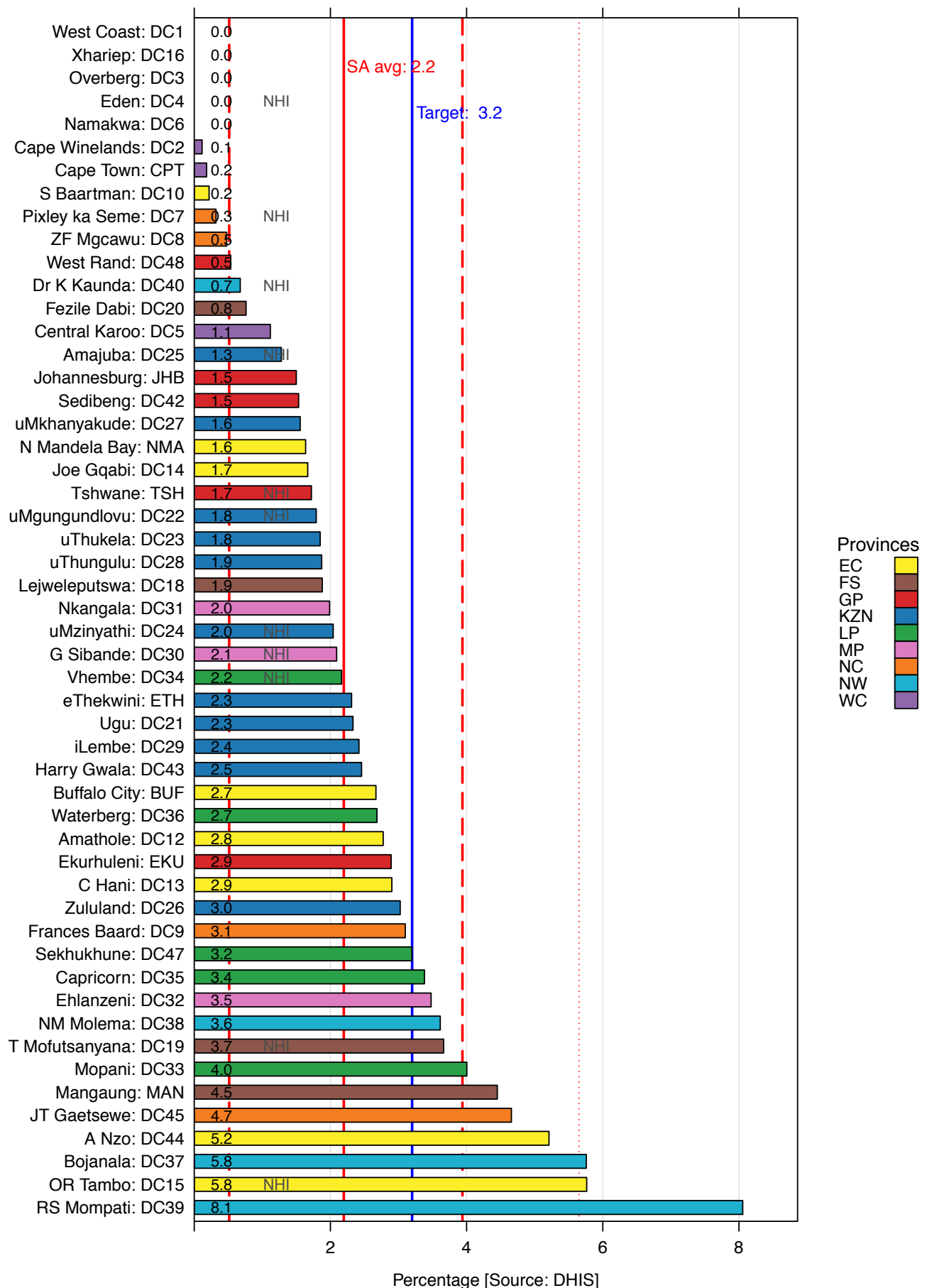
Figure 6: Child under 5 years diarrhoea case fatality rate by province, 2015/16



All provinces except North West showed declines in CFR between 2014/15 and 2015/16. North West’s increased CFR (4.0% in 2015/16 compared with 3.4% in 2014/15) is of particular concern. Four provinces (Gauteng, Western Cape, Eastern Cape, and Northern Cape) reported significant increases in the number of admissions, while the other provinces reported modest declines.

The district rankings are shown in Figure 7 and Map 2. Forty-one of the 52 districts reported CFRs below the national target of 3.2%. All districts in the Western Cape, Gauteng and KwaZulu-Natal achieved the national target. No deaths were reported in three Western Cape districts (Overberg, West Coast and Eden). One district in the Northern Cape (Namakwa) and Free State (Xhariep) reported one death each. Eight additional districts, namely the Cape Winelands (WC), Cape Town (WC), S Baartman (EC), Pixley ka Seme (NC), ZF Mgcawu (NC), West Rand (GP), Dr K Kaunda (NW) and Fezile Dabi (FS) reported CFRs below 1%. RS Mompoti (NW) reported the highest CFR (8.1%). Case fatality rates decreased in 36 districts and increased in three districts, with RS Mompoti (NW) reporting the highest increase (35%). Of the five worst-performing districts, four had improved rates compared with rates in the previous financial year; these districts were OR Tambo (EC), Mopani (LP), A Nzo (EC), and J T Gaetsewe (NC).

Figure 7: Child under 5 years diarrhoea case fatality rate by district, 2015/16



Map 2: Child under 5 years diarrhoea case fatality rate by district, 2015/16

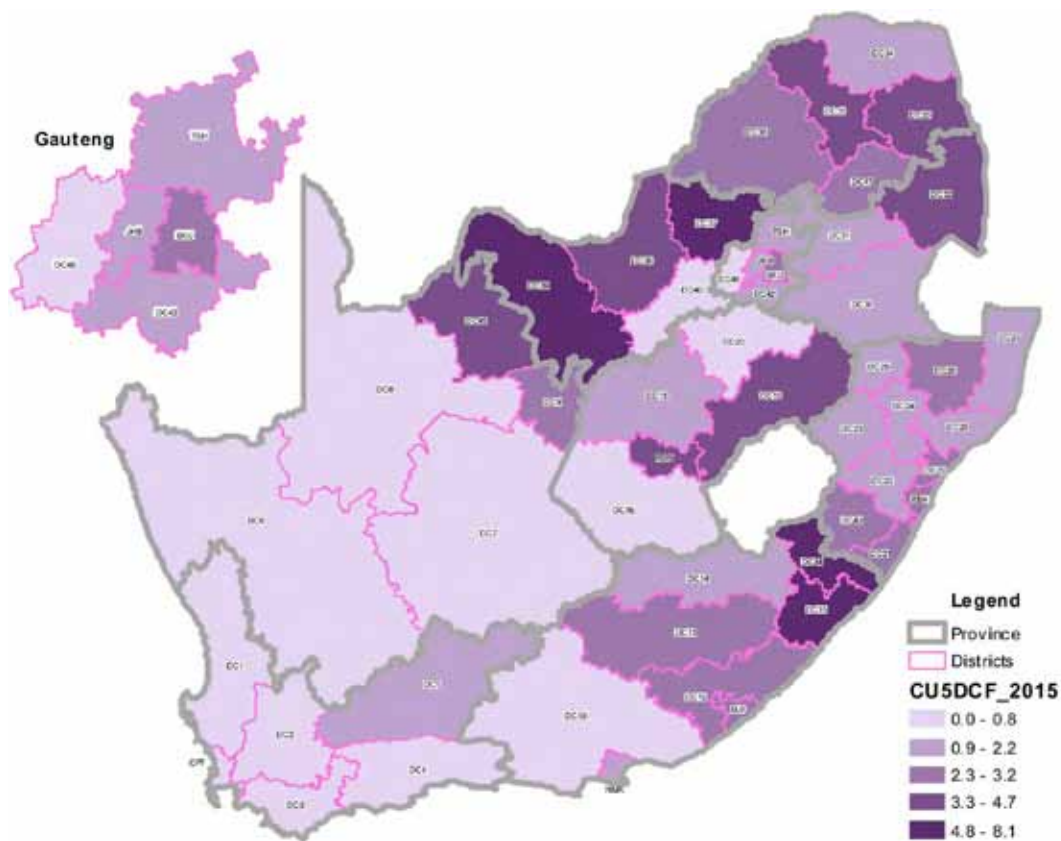


Table 4 shows districts with the highest number of deaths due to diarrhoea. These districts accounted for 31.5% of all diarrhoea deaths in children under 5 years of age in South Africa.

Table 4: Districts with the highest numbers of deaths due to diarrhoea in children under 5 years of age, 2015/16

	Deaths (N)	Case fatality rate (%)	Socio-economic quintile
OR Tambo (EC)	129	5.8	1
eThekweni (KZN)	62	2.3	5
Ehlanzeni (MP)	51	3.5	3
Mopani (LP)	45	4.0	2
Ekurhuleni (GP)	43	2.9	5
Total for 5 districts	330		
% of all deaths	31.5%		

Figure 8 shows that nine of the NHI districts reduced under-5 diarrhoea CFRs to less than the national target, but the other two districts, T Mofutsanyana (FS) and OR Tambo (EC), remained above the national target.

Figure 8: Child under 5 years diarrhoea case fatality rate by National Health Insurance district, 2015/16

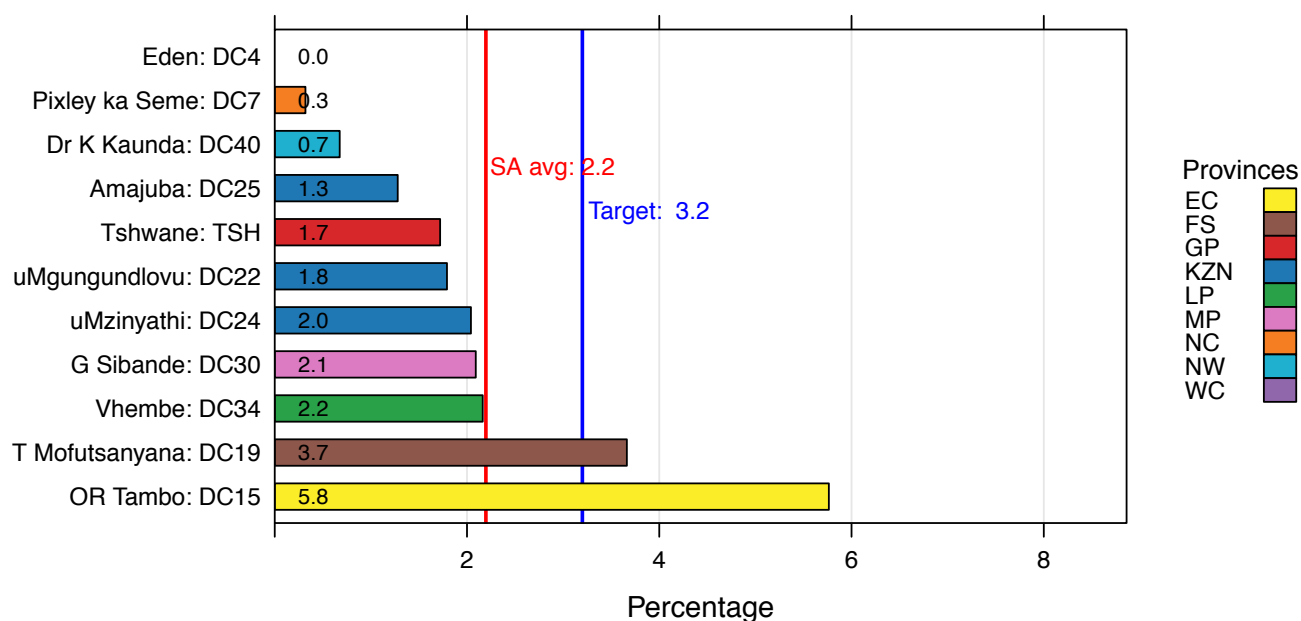
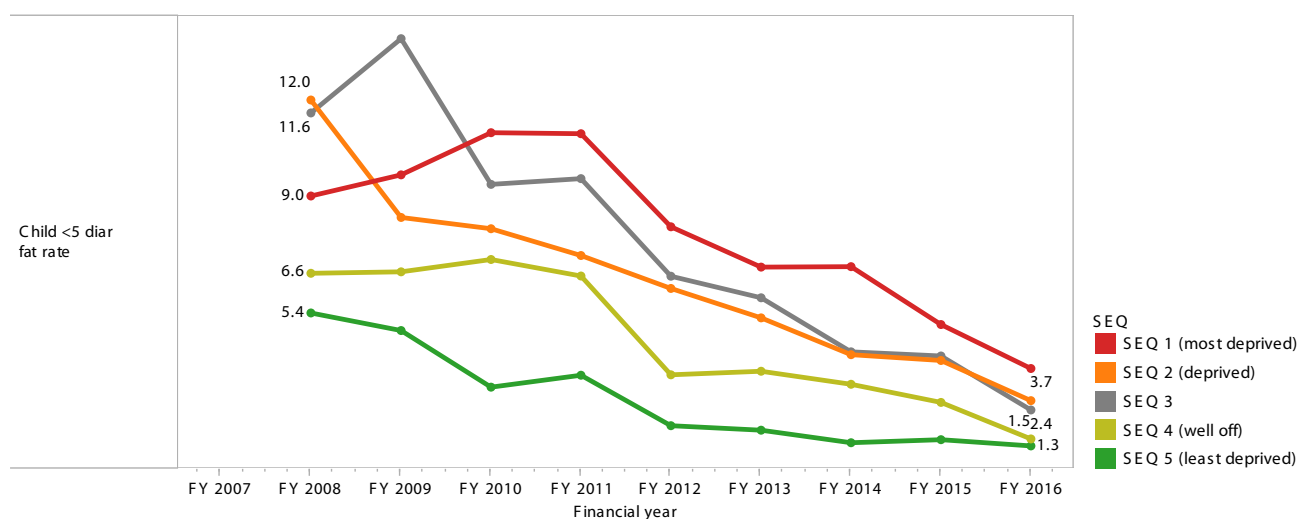


Table 5 and Figure 9 show that the lower the socio-economic quintile (SEQ), the higher the under-5 diarrhoea CFR. Districts in SEQ1 reported a CFR of 3.7% compared with 1.3% in SEQ5. Also, more than one-third (34%) of all diarrhoeal deaths occurred in districts in the lowest SEQ, namely SEQ1. However, the gap between the SEQs has decreased substantially over the last five years.

Table 5: Diarrhoea admissions, deaths and case fatality rates in children under 5 years by socio-economic quintile, 2015/16

	SEQ 1 Most-deprived	SEQ 2 Deprived	SEQ 3 Average	SEQ 4 Less-deprived	SEQ 5 Least-deprived	Total
Admissions (N)	9 812	8 283	6 903	5 166	17 594	47 758
Deaths (N)	361	222	165	77	224	1 049
Case fatality rate (%)	3.7	2.7	2.4	1.5	1.3	2.2

Figure 9: Trends in average district values by socio-economic quintile for child under 5 years diarrhoea case fatality rate



Key findings

Substantial progress has been made in South Africa in the prevention of both malnutrition and mother-to-child transmission of HIV, in immunisation coverage, and in access to free healthcare facilities. However, current levels of under-5 mortality in the country are still far higher than the SDG target for South Africa, namely less than 25 deaths per 1 000 live births by 2030. The United Nations Children's Fund (UNICEF) and the WHO have stressed the importance of well-known interventions to reduce the global burden of childhood diarrhoea.⁵

Recommendations

- ◆ All healthcare workers must be able to identify and manage children with diarrhoea correctly.
- ◆ Districts with high diarrhoea CFRs should identify hospitals with the highest CFRs and implement plans to address the problem.

6.3 Child under 5 years pneumonia case fatality rate

Yages Singh and Witness Chirinda

Globally, pneumonia kills nearly 1 million children under the age of 5 years annually, causing more deaths than HIV and AIDS, diarrhoea and malaria combined. However, progress in the fight against the disease has been slow.^y

Pneumonia is the largest single cause of child mortality outside of the neonatal period, accounting for 15% of the approximately 6.3 million global child deaths each year.^z Pneumonia affects children and families everywhere, but is most prevalent in South Asia and sub-Saharan Africa.^{aa} In January 2016, UNICEF issued a press release indicating that pneumonia kills half a million children under 5 in sub-Saharan Africa each year, and a campaign was launched to increase pneumonia interventions and adopt policy changes to strengthen treatment.^y The burden is disproportionately high in African children, with 36 million pneumonia cases and 600 000 pneumonia-associated deaths annually.^{aa}

The indicator 'child under 5 years pneumonia case fatality rate' measures the number of children who died from pneumonia as a proportion of the number of children who were admitted with pneumonia. The numerator is the total number of children who died and the denominator is the total number of children under 5 years who were admitted. An increased numerator value could mean that there is a lack of facilities or inadequate care at health facilities for children who were admitted. It could also mean that deaths were under-recorded or under-reported. On the other hand, a decreased numerator value could mean that care has improved in health facilities where children are hospitalised or that mothers referred from facilities for specialised care are now accessing health care services.

An increase in the denominator could be due to an increase in the number of severe cases of pneumonia infection, or could be due to misdiagnosis or misclassification. A decrease in the denominator shows that there are fewer cases, implying that children are generally healthier (e.g. because of better nutrition), or it may be that primary health care facilities are not diagnosing pneumonia adequately or not referring when necessary.

In South Africa, there is no single accurate, complete data system for the evaluation of child mortality.^{ab} The analysis of routinely collected health systems data indicates the number of childhood pneumonia cases and may be useful in defining the burden disease in a district.^z However, the Child Healthcare Problem Identification Programme (Child PIP), the vital registration data, Local Mortality Surveillance System (LMSS) and the Perinatal Problem Identification Programme (PPIP) also capture data on childhood diseases.^{ab}

Two studies^{z,ab} have shown variations in the number of pneumonia deaths recorded by the DHIS, vital registration data, Child PPIP and LMSS.

One study^{ab} showed that 5% of children who died out of hospital had visited a public health care facility during the week prior to their death. Most of the children in the group were 2–3 months of age and died of pneumonia or gastroenteritis. These visits represent missed opportunities for the health system to recognise severity of illness in young babies, encourage routine follow-up, and counsel caregivers with regard to danger signs of illness.

y United Nations Children's Fund (UNICEF). Press release: Pneumonia kills half a million children under five in sub-Saharan Africa, UNICEF says it launches campaign to curb the disease. January 2016. Available from: http://www.unicef.org/media/media_89995.html [Accessed 28 July 2015].

z le Roux DM, Myer L, Nicol MP, Zar HJ. Incidence of childhood pneumonia: facility-based surveillance estimate compared to measured incidence in a South African birth cohort study. *BMJ Open* 2015; 5: e009111. doi:10.1136/bmjopen-2015-009111.

aa World Health Organization. WHO fact sheet no. 331; November 2015. Available from: <http://www.who.int/mediacentre/factsheets/fs331> [Accessed 28 July 2015].

ab Reid AE, Hendricks MK, Groenewald P, Bradshaw D. Where do children die and what are the causes? Under-5 deaths in the Metro West geographical service area of the Western Cape, South Africa, 2011. *S Afr Med J*. 2016 Mar 6;106(4):51. doi: 10.7196/SAMJ.2016.v106i4.10521.

Mortality due to childhood pneumonia is strongly linked to poverty-related factors such as undernutrition, lack of safe water and sanitation, indoor air pollution and inadequate access to health care.^{ab} Thus pneumonia can be prevented by means of immunisation, adequate nutrition and by addressing environmental factors. The WHO GAPD aims to accelerate pneumonia control with a number of interventions. The fight against pneumonia-related deaths in children relies on prevention and protection, and when infections occurs, on better treatment. Pneumonia can be treated with low-cost medication and care. Despite the decline in child deaths due to pneumonia, there is still a need for an integrative approach to tackle this important public health issue.^z It is important to understand the incidence and severity of pneumonia in order to identify preventive interventions, plan health systems, and make projections on burden of disease.^z

No official target was set for this indicator in 2014/15. In 2015/16, the national target for child under 5 years pneumonia case fatality rate was set at 3%. This was achieved. In the past five years there has been a substantial increase in the number of hospital admissions for children with pneumonia, as well as a year-on-year decrease in the CFR, which has more than halved from 5.8% in 2010/11 to 2.3% 2015/16, as shown in Table 6. However, the number of admissions has also increased during this time.

Table 6: National pneumonia admissions, deaths and case fatality rates in children under 5 years, 2010/11–2015/16

Years	Admissions (N)	Deaths (N)	Case fatality rate (%)
2010/2011	39 465	2 287	5.8
2011/2012	43 078	1 796	4.2
2012/2013	36 444	1 395	3.8
2013/2014	43 445	1 532	3.5
2014/2015	48 393	1 411	2.9
2015/2016	53 343	1 240	2.3

Figure 10 shows provincial data for 2015/16. The national target of 3% pneumonia CFR in children under 5 was reached by five provinces, with the lowest CFR in the Western Cape (0.3%). The Eastern Cape and Mpumalanga had the highest rate at 3.7%.

Figure 10: Child under 5 years pneumonia case fatality rate by province, 2015/16

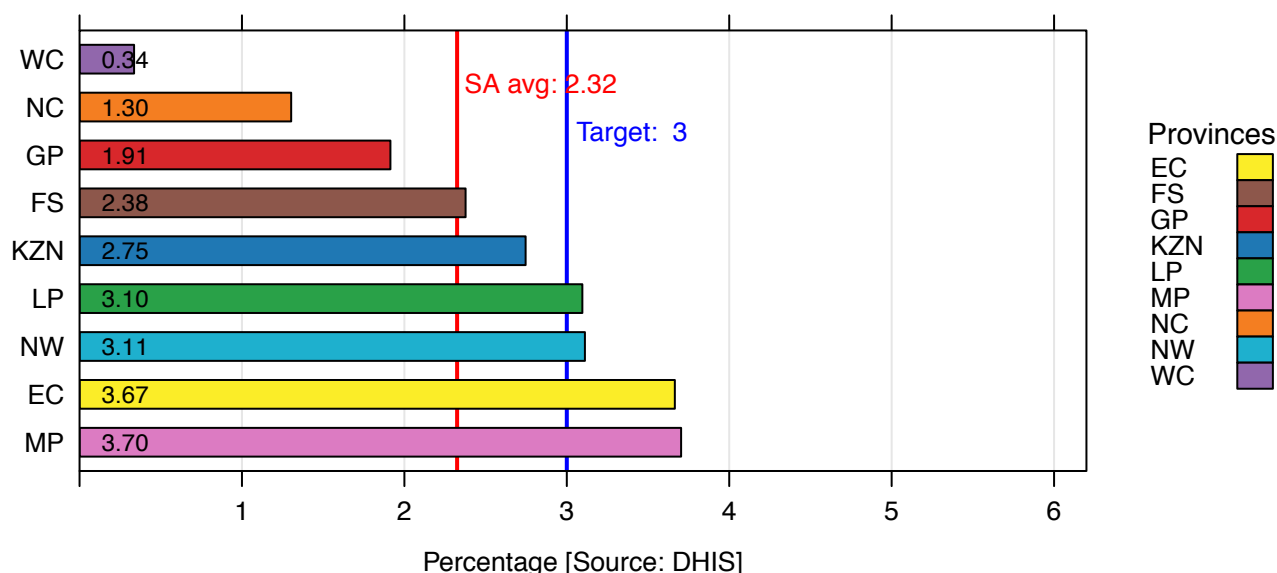


Table 7 shows that KwaZulu-Natal had the highest number of admissions and deaths during 2015/16, with a CFR of 2.8%.

Table 7: Pneumonia admissions, deaths and case fatality rates in children under 5 years by province, 2015/16

Province	Admissions (N)	Deaths (N)	Case fatality rate (%)
Northern Cape	1 323	20	1.5
Free State	2 313	55	2.4
North West	2 539	79	3.1
Mpumalanga	4 050	150	3.7
Limpopo	5 750	178	3.1
Eastern Cape	7 012	257	3.7
Gauteng	8 203	157	1.9
Western Cape	10 726	36	0.3
KwaZulu-Natal	11 215	308	2.8

Source: DHIS

Figure 11 shows the district trends for this indicator, grouped by province.

Figure 11: Annual trends for child under 5 years pneumonia case fatality rate

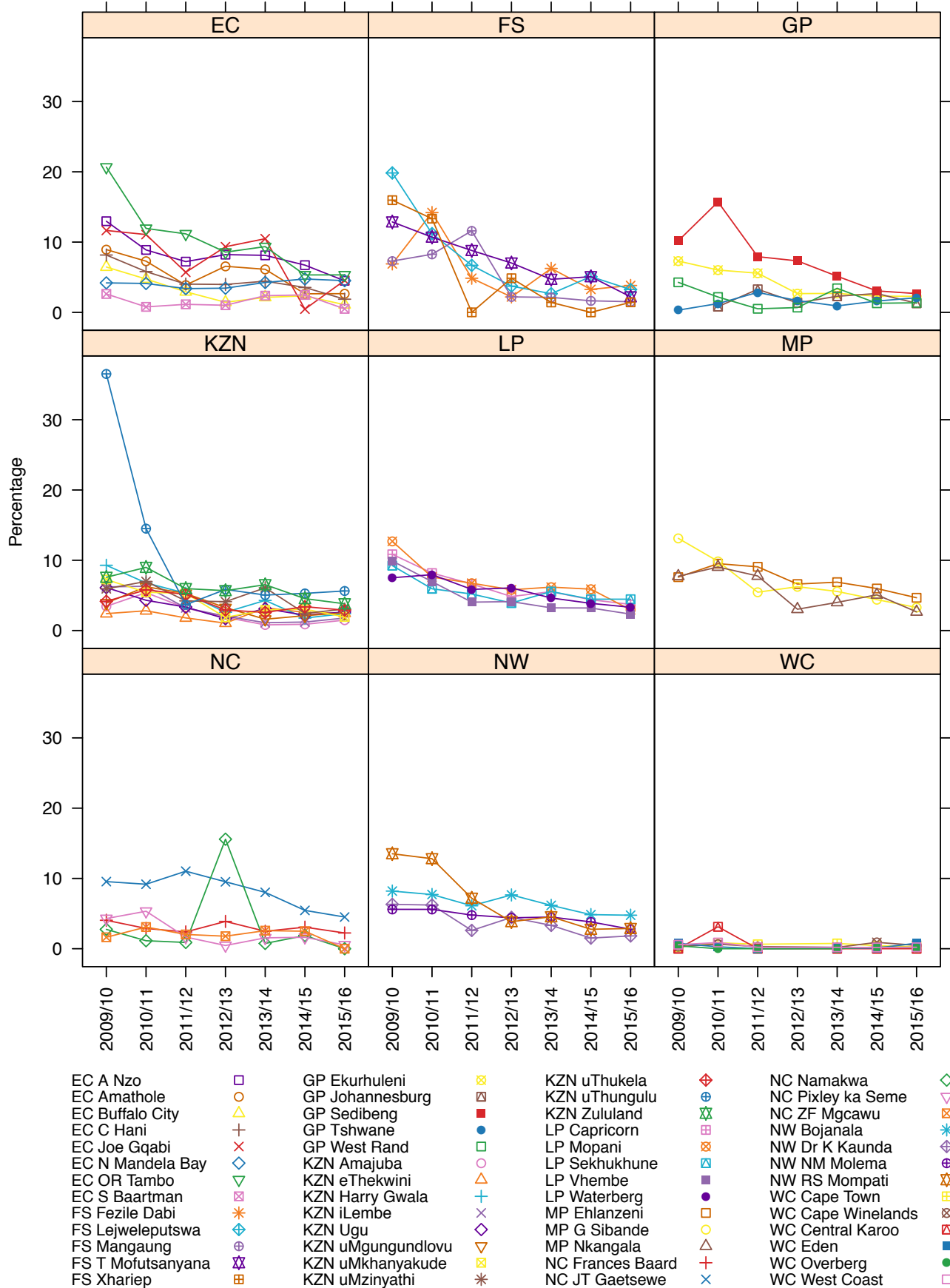
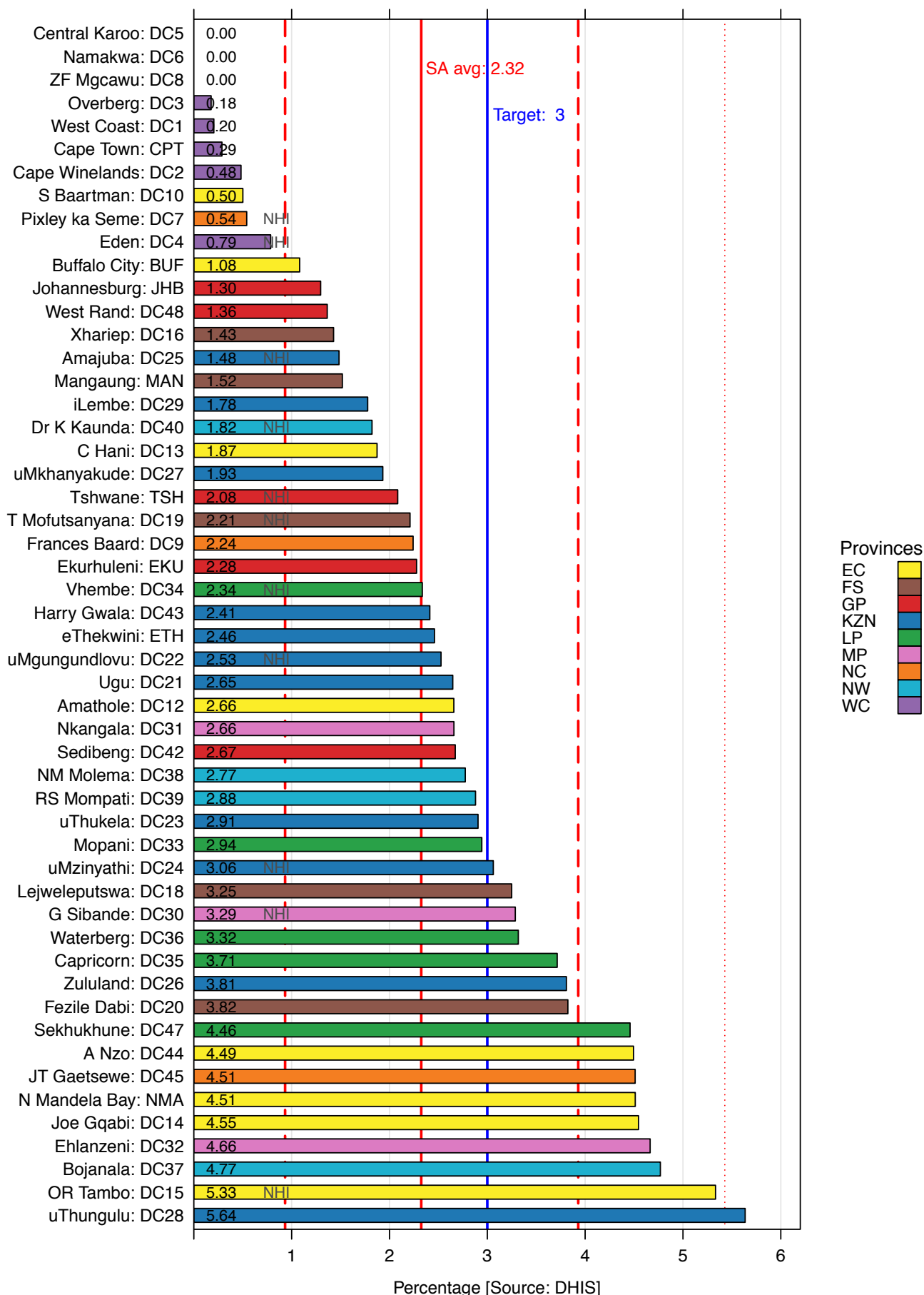
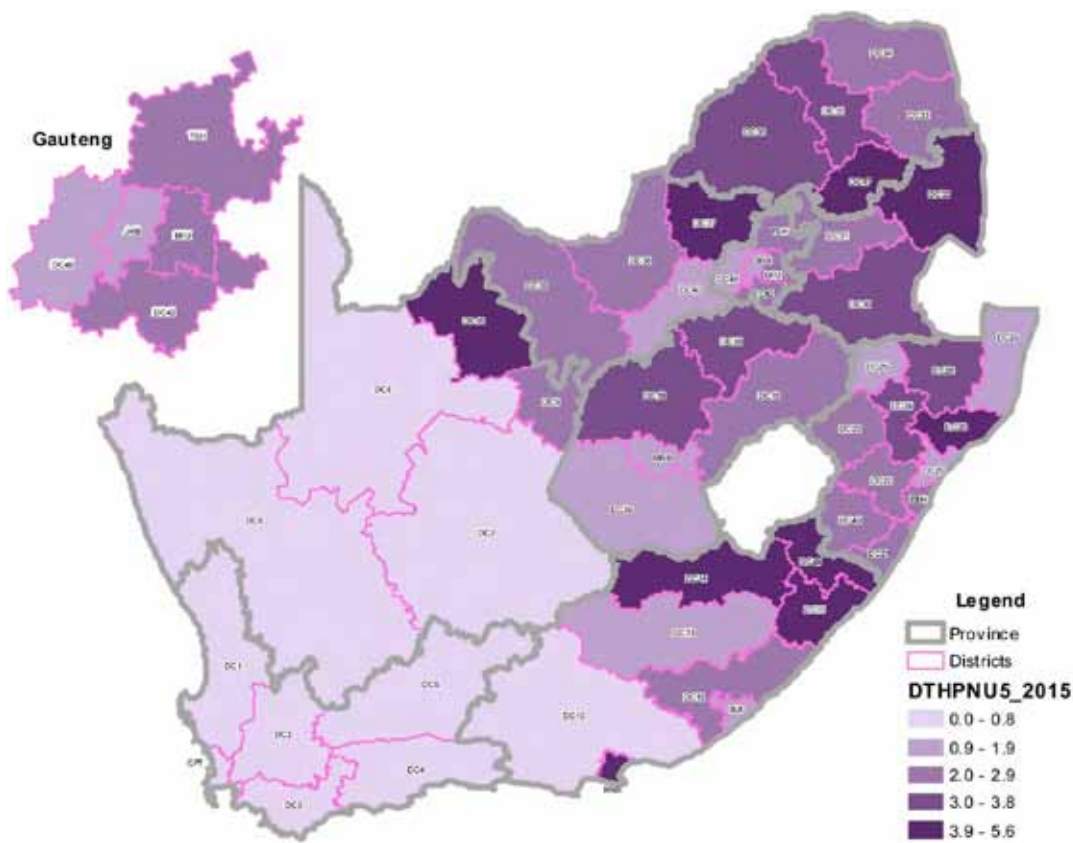


Figure 12 and Map 3 show the district CFRs. Three districts, namely Central Karoo (WC), Namakwa (NC) and ZF Mgcawu (NC) had no pneumonia deaths among children under 5 years, while another seven districts, namely Overberg, West Coast, Cape Town, Cape Winelands and Eden (all WC), S Bartaan (EC), and Pixley Ka Seme (NC), all achieved CFRs under 1%. A further 26 districts achieved the national target. Nine districts did not meet the national target, with uThungulu (KZN) having a CFR of 5.6%, nearly twice the national target.

Figure 12: Child under 5 years pneumonia case fatality rate by district, 2015/16

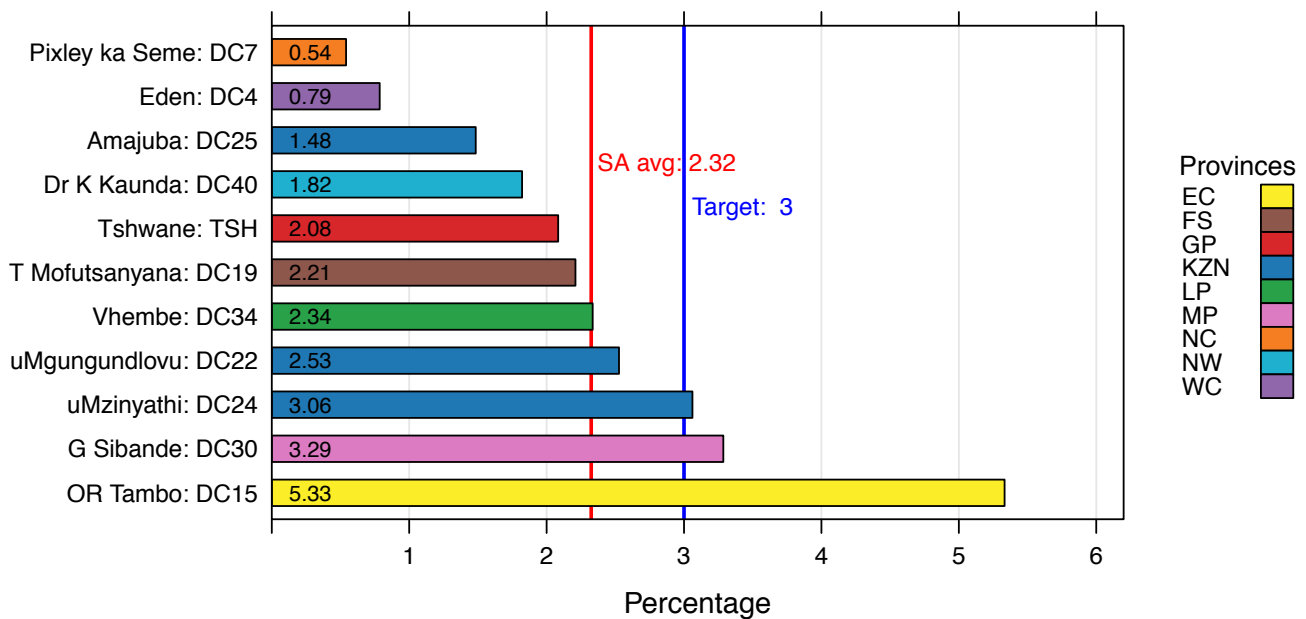


Map 3: Child under 5 years pneumonia case fatality rate by district, 2015/16



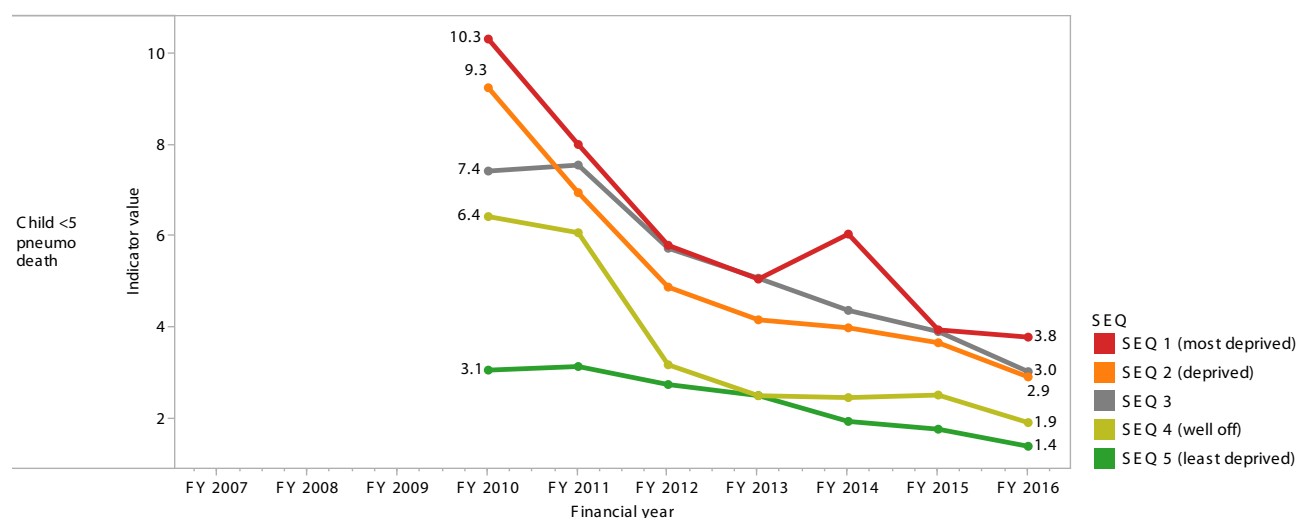
Eight of the 11 NHI districts achieved the national target of under 3% for this indicator (Figure 13). However, OR Tambo (EC) had a CFR of 5.3%, substantially above the national target rate of 3%.

Figure 13: Child under 5 years pneumonia case fatality rate by National Health Insurance district, 2015/16



The child under 5 years pneumonia CFR was highest in the most deprived socio-economic quintile (SEQ1) districts at 3.8%, followed by SEQ3 (3.0%) and SEQ2 (2.9%), and it was lowest in SEQ5 districts (1.4%) (Figure 14). Although there was an overall decline across all SEQs over the period 2010/11–2015/16, there was still a substantial gap between rates in SEQ1 and SEQ5.

Figure 14: Trends in average district values by socio-economic quintile for child under 5 years pneumonia case fatality rate



Key findings

- ◆ There has been a steady downward trend in the child under 5 years pneumonia CFR over the last five years, with the national target being achieved and surpassed. During this time there has also been an increase in the number of pneumonia admissions. This could be the result of many different factors, including greater awareness of the importance of early referral resulting in earlier and more successful treatment. Further understanding is needed at local level to determine the exact reason for the increase in admissions.
- ◆ The decrease in child under 5 years pneumonia CFR could also be attributed to an improvement in the quality of care or an increase in immunisation rates against pneumonia. Data quality has always been a challenge. This includes under-reporting of pneumonia incidence and death in children. Despite the challenge of quality data reporting by facilities, the number of children dying from pneumonia continues to decline.

Recommendations

In order to sustain the improvement on this indicator in the long term, the following recommendations are made:

- ◆ Use of the Child PIP in all hospitals in South Africa should be improved, and consistency between Child PIP and the DHIS should be ensured. This will go a long way towards improving data quality and accuracy, and thus improving health system planning.
- ◆ Health services need to ensure that all children are fully immunised and receive other routine services. In particular, they need to ensure that the Road-to-Health booklet is consistently and adequately used at every child encounter with health services.
- ◆ Effective case management must be adopted at community and health facility levels.
- ◆ Infant feeding practices should be improved, especially exclusive breastfeeding for at least six months as this is effective in preventing pneumonia, whereafter complementary feeds should be introduced.
- ◆ Environmental factors such as indoor air pollution must be addressed.
- ◆ Good hygiene must be encouraged, especially in crowded homes.
- ◆ Pneumonia treatment should focus on ensuring that every sick child has access to the right kind of care from both community-based health services and health facilities.

6.4 Child under 5 years severe acute malnutrition case fatality rate

Lesley Bamford

The child under 5 years severe acute malnutrition (SAM) case fatality rate is calculated by dividing the number of deaths among children under 5 years where severe acute malnutrition was documented as the cause of death by the number of children under 5 years admitted with SAM. Severe acute malnutrition is defined as severe wasting (a weight-for-height below two standard deviations from the mean, or a mid-upper arm circumference (MUAC) less than 11.5 cm), or the presence of nutritional oedema.^{ac}

High CFRs reflect poor case management of children with SAM. High CFRs may also be due to late identification of the condition or late presentation of children with SAM to health facilities. Conversely, a declining CFR suggests better management of children with SAM who present to health facilities, and/or earlier presentation, i.e. children are less ill at the time of presentation and therefore more likely to respond to standard treatment.

While ensuring adequate nutrition for children (especially those under 5 years of age) has always been a cornerstone of child health, a falling child mortality rate serves to focus attention even more on ensuring that all children are well-nourished, for two reasons. Firstly, further reductions in child mortality will be difficult to achieve without addressing undernutrition, and secondly, more attention is now being paid to ensuring that children reach their full potential, with adequate nutrition being critical to achievement of this goal.

The increased focus on child nutrition is reflected in the Sustainable Development Goals, which call not only for reduction in child mortality, but also for substantial reductions in both stunting (reduced height) and wasting (reduced weight-for-height). Wasting reflects acute malnutrition, which is associated with increased mortality. Children with SAM are nine times more likely to die than well-nourished children.^{ad} Stunting in children suggests that they have not received adequate nutrition to reach their full height, and by inference their full intellectual development. However, wasting and stunting are two sides of one coin and require similar responses, particularly the protection, promotion and support of optimal breastfeeding and complementary feeding practices, and provision of appropriate micronutrient interventions for mothers and children.^{ae} It is therefore important to address episodes of acute malnutrition as this will reduce child mortality and contribute to a reduction in the prevalence of stunting.^{af}

In response to the high mortality rate associated with SAM, the WHO has developed the Ten Steps for the Management of Severe Malnutrition which have been shown to reduce inpatient mortality associated with SAM.^{ag,ah} The 10 steps have been incorporated into all national paediatric and child health guidelines, and should be implemented in all hospitals and other health care facilities.

It should be noted that although the SAM CFR provides useful information on the outcome of children with SAM, it provides little information on the contribution of SAM to mortality. Mortality review data collected through the Child PIP show that approximately 30% of children who die in South African hospitals have severe malnutrition, while a further 29.2% have evidence of less severe undernutrition. These proportions have remained relatively constant since child mortality data were first collated in 2005.^{ai} The contribution of severe malnutrition is greatest in children aged 1–5 years; the condition is evident in 42% of children who die in this age group.^{aj}

Table 8 shows the national child under 5 years SAM CFR. The CFR declined from 13.3% in 2011/12 to 8.9% in 2015/16. This is clearly a success story, with a one-third decrease over four years. In 2015/16, the national target for the year (10%) was achieved, but there is still much to do to get this rate closer to zero.

This decline in CFR was previously associated with an increase in the number of deaths and admissions. It is unclear whether this reflects a real increase in the number of deaths or better identification and reporting of SAM cases. However, the decline in the SAM CFR from 11.6% in 2014/15 to 8.9% in 2015/16 was associated with a decrease in both the number of SAM admissions and SAM deaths. While there is no obvious reason to suggest that the declines are due to a drop in reporting rates, it will be important to monitor these data over a number of years to ensure that the decline continues.

ac National Department of Health. 2013 National Indicator Data Set. NDoH. Pretoria. April 2013.

ad United Nations Children's Fund (UNICEF). Management of Severe Acute Malnutrition in Children: Working towards results at scale. New York: UNICEF; 2015.

ae United Nations Children's Fund (UNICEF). Committing to Child Survival: A Promise Renewed. Progress Report 2015. New York: UNICEF; 2015.

af World Health Organization. WHO Global Nutrition Targets 2025: Stunting Policy Brief. Available from: http://www.who.int/nutrition/topics/globaltargets_stunting_policybrief.pdf [Accessed 29 July 2016].

ag Khanum S, Ashworth A, Huttly SRA. Controlled trial of three approaches to the treatment of severe malnutrition. *Lancet* 1994; 344:1728–32.

ah Ashworth A, Chopra M, McCoy D, Sanders D, Jackson D, Karaolis N, et al. WHO guidelines for management of severe malnutrition in rural South African hospitals: effect on case fatality and the influence of operational factors. *Lancet*. 2004; 363(9415):1110–5.

ai Patrick ME, Stephen CR, editors. Saving Children 2005: A survey of child healthcare in South Africa. Tshepesa Press; 2016.

aj Harper K. An Overview of Child PIP National Data 2012–2013. In: Stephen CR, editor. Saving Children 2012–2013. An eighth survey of child healthcare in South Africa. Pretoria: Tshepesa Press; 2016.

Table 8: Child under 5 years severe acute malnutrition case fatality rate (national), 2011/12–2015/16

	Deaths (N)	Admissions (N)	Case fatality rate (%)
2011/12	1 605	12 094	13.3
2012/13	1 642	12 911	12.7
2013/14	1 672	14 847	11.3
2014/15	1 852	15 910	11.6
2015/16	1 380	15 537	8.9

Source: DHIS.

Provincial figures are shown in Table 9 and Figure 15. The number of deaths due to SAM and the CFRs fell in all provinces, although CFRs remained high in a number of provinces, namely Mpumalanga (12.5%), North West (12.3%), Limpopo (11.6%) and the Eastern Cape (10.1%). The number of admissions declined modestly in most provinces, with the exception of Gauteng and the Western Cape where the number of admissions increased. As highlighted above, it is not clear whether increases in the number of admissions in these provinces indicates a real increase in the number of children admitted with SAM, or whether it indicates better identification and reporting. The achievement of the Western Cape in getting their CFR below 1% has clearly set the gold standard for other provinces to achieve.

Table 9: Child under 5 years severe acute malnutrition case fatality rate by province, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)
Eastern Cape	356	2 534	14.0	339	2 867	11.8	284	2 819	10.1
Free State	132	1 111	11.9	148	1 212	12.2	91	1 118	8.1
Gauteng	82	1 350	6.1	126	1 350	9.3	113	1 512	7.5
KwaZulu-Natal	337	3 463	9.7	405	3 880	10.4	281	3 664	7.7
Limpopo	288	1 880	15.3	291	1 950	14.9	222	1 919	11.6
Mpumalanga	144	1 126	12.8	233	1 219	19.1	146	1 169	12.5
Northern Cape	68	576	11.8	67	617	10.9	49	589	8.3
North West	251	2 173	11.6	225	1 829	12.3	183	1 493	12.3
Western Cape	14	634	2.2	18	986	1.8	11	1 254	0.9
South Africa	1 672	14 847	11.3	1 852	15 910	11.6	1 380	15 537	8.9

Source: DHIS.

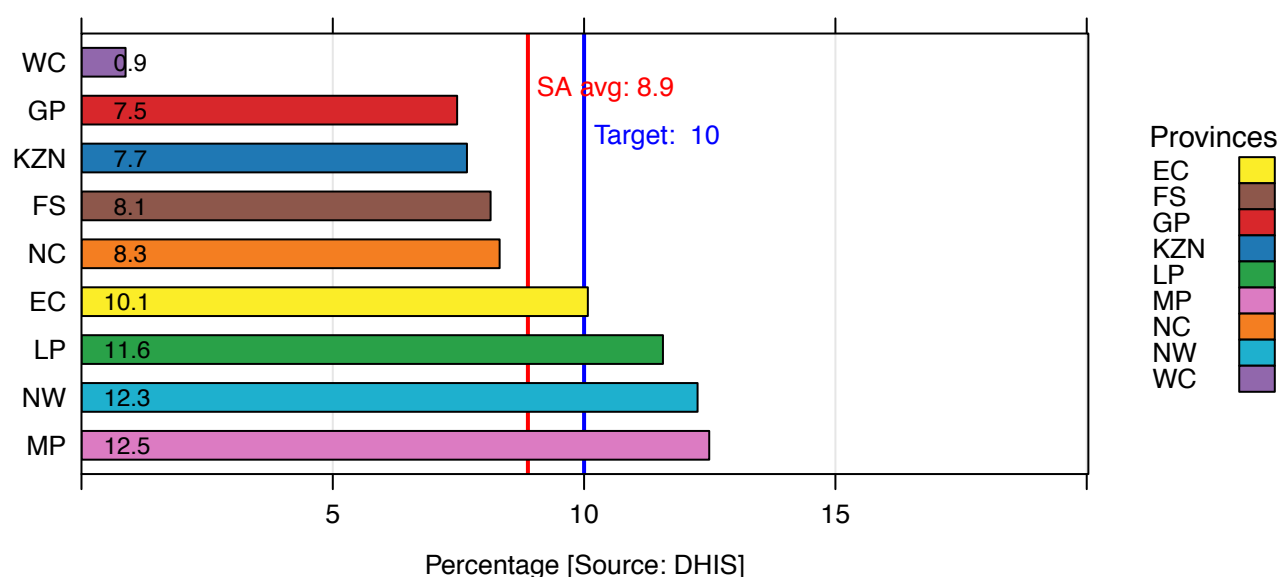
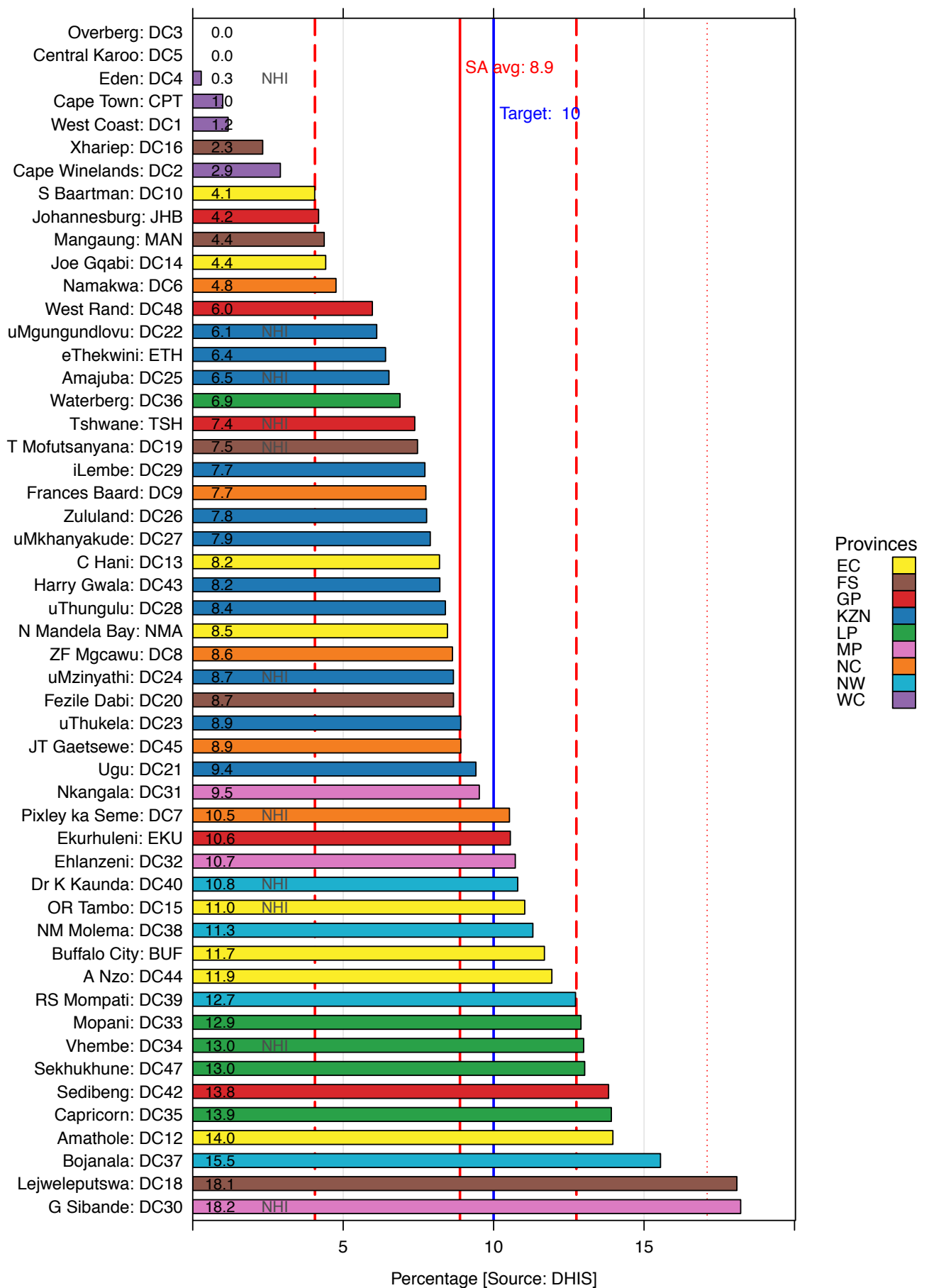
Figure 15: Child under 5 years severe acute malnutrition case fatality rate by province, 2015/16

Figure 16 shows the child under 5 years SAM CFRs for each district during 2015/16. Thirty-four districts achieved a SAM CFR below 10%, which is in line with the national target, including all districts in the Western Cape and KwaZulu-Natal. Two districts, Overberg and Central Karoo (both WC) reported no SAM deaths in children under 5 years of age during this time. All four districts in North West reported CFRs above 10%, while three districts reported rates above 15%, namely G Sibande (MP) (18.2%), Lejweleputswa (FS) (18.1%) and Bojanala (NW) (15.5%).

In 2015/16, the highest number of SAM deaths was reported in OR Tambo (EC) (128 deaths compared with 119 in 2014/15, which was also the highest number for that year). Six other districts reported 50 or more SAM deaths in children under 5 years of age. These were: Vhembe (LP) (79 deaths), Ehlanzeni (MP) (67 deaths), NM Molema (NW) (65 deaths), G Sibande (MP) (57 deaths), eThekweni (KZN) (53 deaths) and RS Mompoti (NW) (50 deaths). Deaths in these seven districts accounted for 36% of all deaths reported.

Of the 50 districts that reported under-5 SAM deaths in 2015/16, 39 had a lower CFR than in 2014/15. Seven districts halved their rates. These were Xhariep (FS) (from 9.3% to 2.3%), Namakwa (NC) (from 14.3% to 4.8%), Cape Winelands (WC) (from 8.4% to 2.9%), Zululand (KZN) (from 20.3% to 7.8%), Joe Gqabi (EC) (from 11.3% to 4.4%), Fezile Dabi (FS) (from 20.5% to 8.7%) and uThungulu (KZN) (from 16.9% to 8.4%).

Figure 16: Child under 5 years severe acute malnutrition case fatality rate by district, 2015/16



Section A: Child health

Eleven districts reported higher CFRs in 2015/16 than 2014/15. Although the increases were generally small, three districts reported increases of more than 20%, namely Capricorn (LP) (from 9.4% to 13.9%), Buffalo City (EC) (from 9.5% to 11.7%) and Sedibeng (GP) (from 11.3% to 13.8%).

Figure 17 shows SAM CFRs in the NHI districts, with rates ranging from 0.3% in Eden (WC) to 18.2% in G Sibande (MP). Overall, CFRs were higher in NHI districts than non-NHI districts (9.6% versus 8.6%) (Table 10). Six of the 11 NHI districts achieved the national target of 10% or lower, while three of the seven districts that reported 50 or more deaths were NHI pilot districts (OR Tambo (EC), G Sibande (MP) and Vhembe (LP)).

Figure 17: Child under 5 years severe acute malnutrition case fatality rate by National Health Insurance district, 2015/16

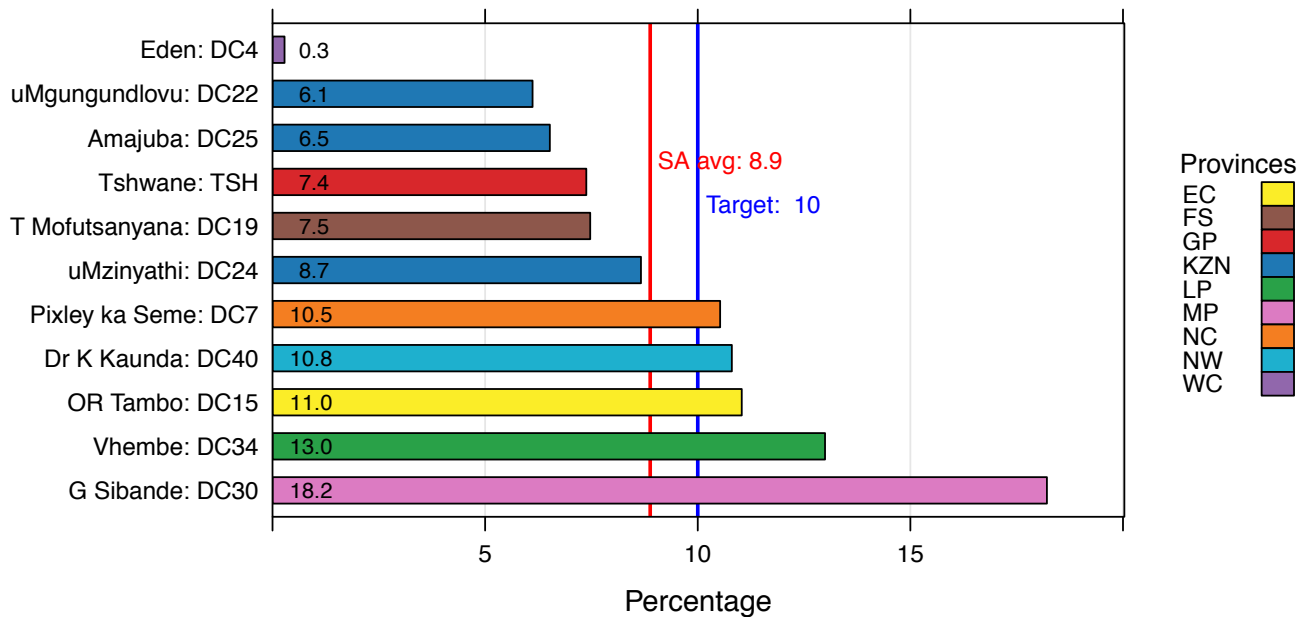


Table 10: Child under 5 years severe acute malnutrition case fatality rate – National Health Insurance (NHI) districts versus non-NHI districts, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	CFR (%)	Deaths (N)	Admissions (N)	CFR (%)	Deaths (N)	Admissions (N)	CFR (%)
NHI	449	3 472	12.9	486	4 119	11.8	410	4 259	9.6
Non-NHI	1 223	11 375	10.8	1 366	11 791	11.6	970	11 278	8.6
South Africa	1 672	14 847	11.3	1 852	15 910	11.6	1 380	15 537	8.9

Source: DHIS.

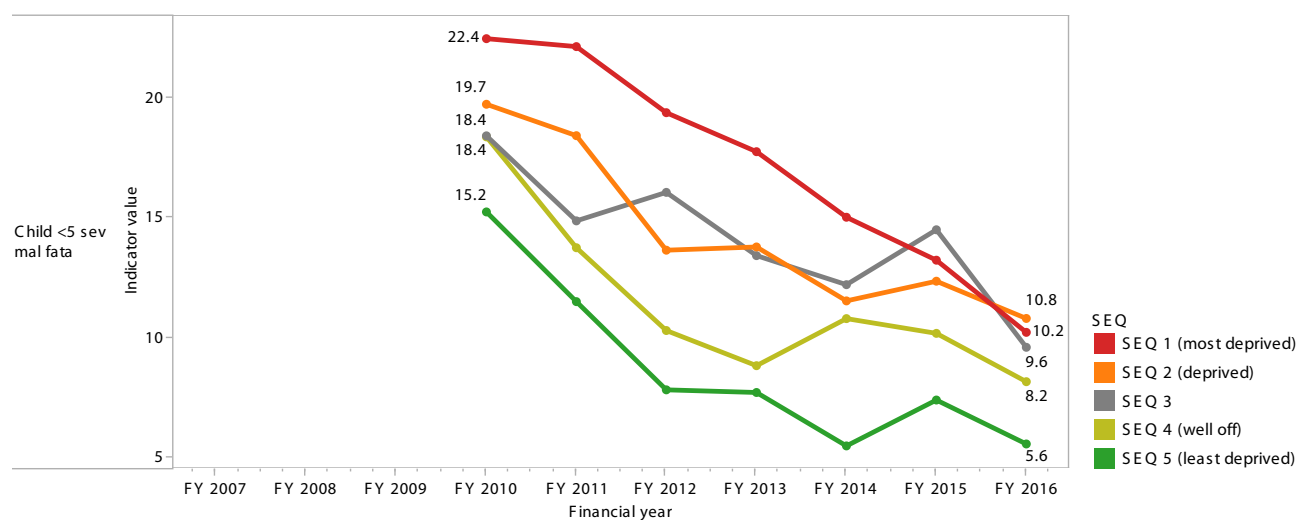
Table 11 shows SAM CFRs across the socio-economic quintiles. A clear gradient is apparent, with the highest rates being experienced in the lower two socio-economic quintiles. The SAM CFR in districts in SEQ1 was almost double that in districts in SEQ5, and although all CFRs are falling, the gap between the worst and best rates has remained large (Figure 18).

Table 11: Child under 5 years severe acute malnutrition case fatality rate by socio-economic quintile, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)
SEQ1	522	3 479	15.0	512	3 874	13.2	406	3 976	10.2
SEQ2	443	3 845	11.5	456	3 695	12.3	347	3 216	10.8
SEQ3	352	2 886	12.2	429	2 962	14.5	268	2 795	9.6
SEQ4	205	1 901	10.8	210	2 065	10.2	158	1 937	8.2
SEQ5	150	2 736	5.5	245	3 314	7.4	201	3 613	5.6
South Africa	1 672	14 847	11.3	1 852	15 910	11.6	1 380	15 537	8.9

Source: DHIS.

Figure 18: Trends in average district values by socio-economic quintile for child under 5 years severe acute malnutrition case fatality rate



Far lower CFRs were reported in metro municipalities than non-metro municipalities (5.9% versus 9.7%). This difference also appears to be declining over time (Table 12).

Table 12: Child under 5 years severe acute malnutrition case fatality rate by metro (A) and non-metro (C) municipalities, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	CFR (%)	Deaths (N)	Admissions (N)	CFR (%)	Deaths (N)	Admissions (N)	CFR (%)
A	150	2 357	6.4	232	3 084	7.5	207	3 492	5.9
C	1522	12 490	12.2	1 620	12 826	12.6	1 173	12 045	9.7
South Africa	1 672	14 847	11.3	1 852	15 910	11.6	1 380	15 537	8.9

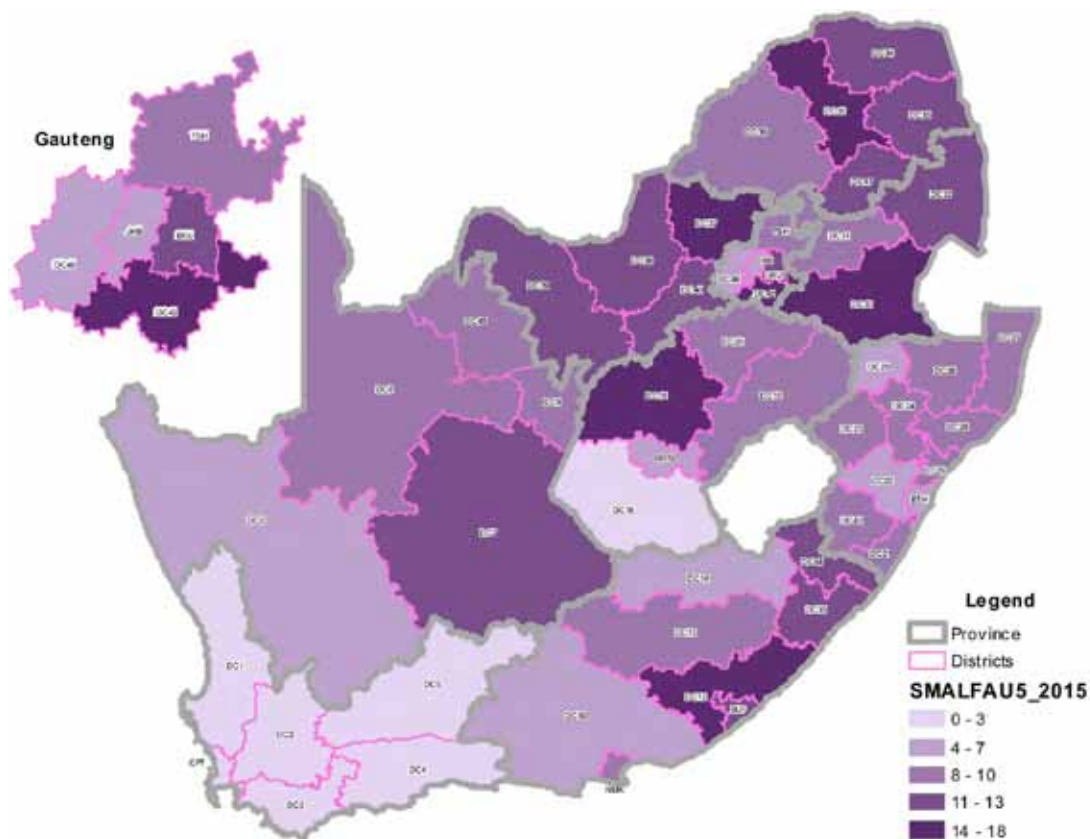
Source: DHIS.

Ten sub-districts reported CFRs greater than 20% (Table 13 and Map 4). Some of these very high CFRs were due to small actual numbers of deaths.

Table 13: Sub-districts with child under 5 years severe acute malnutrition case fatality rates greater than 20%, 2015/16

Sub-district	District	Deaths (N)	Case fatality rate (%)
Siyathemba Local Municipality	Pixley ka Seme	1	33.3
Moqhaka Local Municipality	Fezile Dabi	11	32.4
Mkhondo Local Municipality	G Sibande	14	28.6
Lesedi Local Municipality	Sedibeng	3	27.3
Moses Kotane Local Municipality	Bojanala	14	24.6
Aganang Local Municipality	Capricorn	4	23.5
Tswelopele Local Municipality	Lejweleputswa	3	23.1
Matjhabeng Local Municipality	Lejweleputswa	31	22.1
Ephraim Mogale Local Municipality	Sekhukhune	6	20.0
Emthanjeni Local Municipality	Pixley ka Seme	2	20.0

Map 4: Child under 5 years severe acute malnutrition case fatality rate by district, 2015/16



Key findings

- ◆ The decline in the child under 5 years SAM CFR and associated number of deaths is encouraging. However, the number of SAM deaths remains unacceptably high for a middle-income country such as South Africa, with the majority of deaths occurring among children in more disadvantaged districts.
- ◆ It should be noted that a number of problems have persisted with regard to correct identification and reporting of admissions and deaths among children with SAM. These include:
 - Cases of SAM may not be recognised and reported, which affects both the number of admissions and number of deaths. Children with more subtle signs of SAM are only identified through routine measurement and assessment. Failure to identify such children will result in a lower number of admissions, but may result in falsely high CFRs being reported.
 - Even when a child has been identified as having SAM, methods for deciding whether the death resulted from SAM or another cause are not standardised. As indicated above, diarrhoea and pneumonia are important causes of death in children with SAM. When a child with SAM and pneumonia dies, the child may be recorded as 'death due to pneumonia', 'death due to SAM', or as both.
 - Although reporting through the DHIS has improved substantially, under-reporting remains a challenge, with some facilities (especially large hospitals) continuing to report implausibly low numbers of admissions and deaths from common childhood illnesses like diarrhoea, pneumonia and SAM.
 - While it is important to monitor the SAM CFR, tracking the absolute number of deaths is also important as it provides an indication of the contribution of SAM to overall child mortality. As noted above, Child PIP provides data on the proportion of children admitted with SAM, as well as the proportion of children that die who have SAM. This provides a better picture of the contribution of malnutrition to child mortality.

Recommendations

Efforts to reduce the number of children who die from SAM will require the following:

- ◆ Primary prevention through improved infant feeding practices, especially improved exclusive breastfeeding for the first six months of life, as well as ongoing breastfeeding with the introduction of appropriate complementary feeds after six months of age.
- ◆ Early identification and intervention in the case of growth faltering and moderate-acute malnutrition through improved use of the Road-to-Health booklet as one of the basic steps to be used at each and every encounter with a child.
- ◆ Early identification of children with SAM. This requires routine assessment of MUAC, which can be done at community level by Ward-based Outreach Teams or as part of growth monitoring at primary health care facilities. It should be noted that this may result in more children being identified with SAM, but appropriate early management will result in fewer deaths.
- ◆ Early identification and correct management of children with SAM should be implemented using the WHO Ten Steps for the Management of Severe Malnutrition. Availability of equipment and nutritional supplements should be monitored in all health facilities on a regular basis.
- ◆ Attention should also be paid to ensuring complete and accurate reporting of data on admissions and deaths due to SAM from all health facilities. Harmonisation of data from different sources (especially routine DHIS data and mortality review data from Child PIP) should also be encouraged. Child PIP should also be extended to cover all hospitals in South Africa.

6.5 Inpatient death under 5 years rate

Lesley Bamford

The inpatient death under 5 years rate is calculated by dividing the number of inpatient deaths in children under 5 years of age by the number of separations (discharges, transfers out and deaths) in children under 5 years of age. Expressed as a percentage, it reflects the proportion of children who die during admission to a facility. It should be noted that the DHIS collects the number of child deaths in four age categories, namely 0–7 days, 8–28 days, 29 days up to 1 year, and 1–5 years. These four data elements are then summed to give the total number of deaths in children under 5 years of age. In contrast, separations in children under 5 years of age are collected as one data element; thus it is not possible to calculate the inpatient death rate for different age categories.

It should also be noted that completeness of reporting by hospitals has improved substantially in recent years; thus an apparent increase in the number of admissions and deaths may represent better reporting rather than a real increase in admissions. In addition, many hospitals have historically not formally admitted newborns even when they were ill and cared for in a neonatal unit. This results in a falsely elevated inpatient death rate, as neonatal deaths contribute to the numerator, but newborns are not counted in the denominator. This problem is being addressed, but it is currently unclear as to whether all hospitals are now formally admitting newborns.

Finally it should be noted that deaths are recorded against the facility (and therefore district) where the death occurs, and not where the child resides, or where s/he was admitted to hospital. It would therefore be expected that districts with referral hospitals would have a higher number of deaths and a higher inpatient death under 5 year rate.

Reduced child mortality is an important outcome for the health sector and society as a whole, and an important goal in global and national commitments that aim to address poverty, inequality and underdevelopment. The Sustainable Development Goals call for an end to preventable deaths in newborns and children; they set the target of achieving a neonatal mortality rate of less than 12 per 1 000 and an infant mortality rate of less than 25 per 1 000 live births in all countries by 2030, while the National Development Plan requires that under-5 mortality be reduced to below 30 per 1 000 live births and infant mortality to below 20 per 1 000 live births by 2030.^{ak}

Child mortality rates fell rapidly between 2010 and 2011, but have stagnated in recent years. The rates reported through Rapid Mortality Surveillance^{al} are shown in Table 14.

ak National Planning Commission. National Development Plan 2030. Our future – make it work: Executive Summary. Pretoria: National Planning Commission; August 2012.

al Dorrington RE, Bradshaw D, Laubscher R, Nannan N. Rapid Mortality Surveillance Report 2014. Cape Town: South African Medical Research Council; 2015.

Table 14: National child mortality rates, 2010–2014 (per 1 000 live births)

	2010	2011	2012	2013	2014
Neonatal mortality rate	14	13	11	11	11
Infant mortality rate	35	28	27	29	28
Under-5 mortality rate	52	40	41	41	39

Source: Rapid Mortality Surveillance data^{al}

While it is important to monitor both the number of child deaths and the inpatient death under 5 year rate, it should be remembered that a high proportion of child deaths occur outside of health facilities. For example, in 2011, 45.5% of child deaths that were registered occurred in health facilities. As would be expected, this figure was higher during the neonatal period, with 67.5% of deaths occurring in health facilities. Only 37.1% of deaths in the post-neonatal period (1 month–1 year) occurred in health facilities, while 35.6% of deaths in children 1–4 years of age occurred in health facilities.^{am}

The national inpatient death under 5 year rate was 4.7% in 2015/16, compared with 5.7% in 2014/15 and 5.5% in 2013/14 (Table 15). The actual number of deaths increased from 19 904 in 2013/14 to 20 915 in 2014/15, but then declined to 18 345 in 2015/16. Deaths in the neonatal period remained relatively constant, but deaths outside of the neonatal period decreased by 24%, with values of 8 628 in 2014/15 and 6 549 in 2015/16. The number of separations continued to increase, from 362 684 in 2013/14 to 368 637 in 2014/15 and 386 372 in 2015/16. This increase is probably at least partly due to neonatal separations being included, and therefore does not necessarily mean that more children were admitted to hospital during this period.

As this indicator was not included in the NDoH's Annual Performance Plan, a formal target for 2015/16 was not in place. However, the National Child, Youth and School Health Chief Directorate aimed to achieve a level below 5.1%, which represented a 10% reduction of the rate achieved in the previous financial year.

Table 15: Inpatient deaths by age category, separations and rate in children under 5 years, 2013/14–2015/16

	Deaths					Separations (N)	Rate (%)
	0–28 days (N)	29 days–1 year (N)	1–5 years (N)	29 days–5 years (N)	All (N)		
2013/14	11 620	4 757	3 527	8 284	19 904	362 684	5.5
2014/15	12 287	5 032	3 596	8 628	20 915	368 637	5.7
2015/16	11 796	3 794	2 755	6 549	18 345	386 372	4.7

Source: DHIS.

Provincial figures are shown in Table 16 and Figure 19. Rates were lower in all provinces in 2015/16 than those reported in the previous two financial years. All provinces reported fewer deaths in 2015/16 than in 2014/15, and the majority reported fewer deaths than in 2013/14 when, as discussed above, under-reporting was likely to have been a problem.

The number of admissions showed inconsistent trends, suggesting that attention still needs to be paid to ensuring consistent and standardised reporting of admissions. The Western Cape reported a substantial increase in the number of admissions in 2015/16, following an already high per capita number of admissions in 2013/14 and 2014/15. The highest number of deaths were reported in KwaZulu-Natal (N = 4 063), Gauteng (N = 3 624) and the Eastern Cape (N = 2 899).

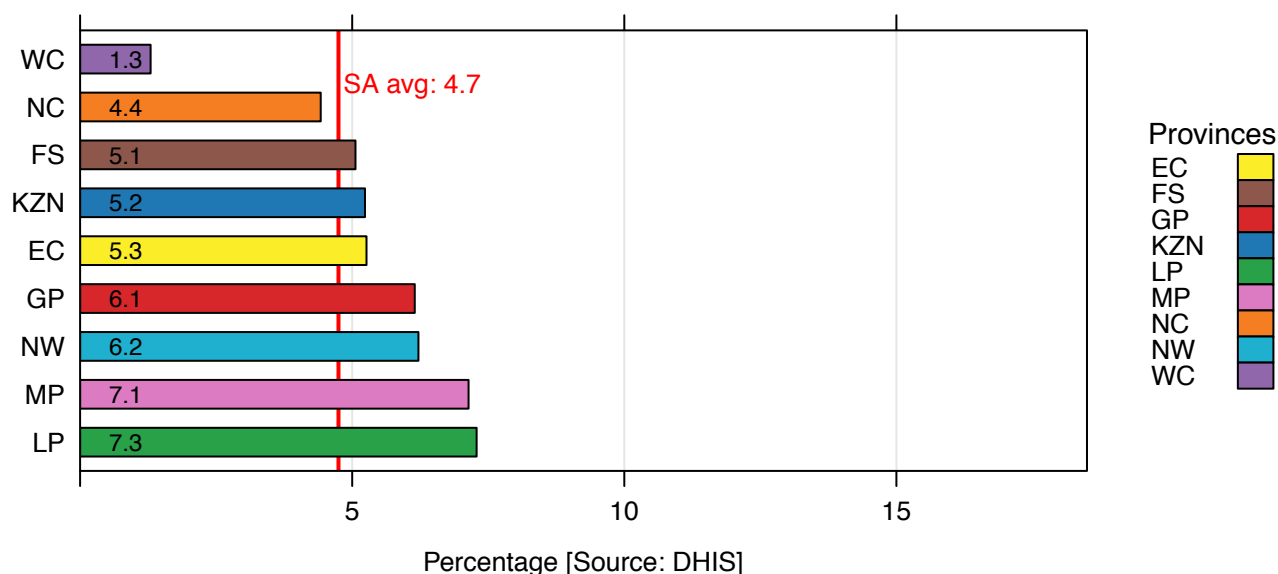
Table 16: Inpatient deaths and inpatient death rate in children under 5 years by province, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	Rate (%)	Deaths (N)	Admissions (N)	Rate (%)	Deaths (N)	Admissions (N)	Rate (%)
Eastern Cape	3 585	57 122	6.3	3 615	58 397	6.2	2 899	55 085	5.3
Free State	1 182	16 427	7.2	977	19 113	5.1	913	18 043	5.1
Gauteng	3 012	48 420	6.2	3 730	47 518	7.8	3 624	58 933	6.1
KwaZulu-Natal	4 670	81 522	5.7	4 851	82 760	5.9	4 063	77 614	5.2
Limpopo	2 913	32 825	8.9	2 856	35 063	8.1	2 655	36 438	7.3
Mpumalanga	1 562	20 029	7.8	1 640	19 845	8.3	1 413	19 795	7.1
Northern Cape	790	10 222	7.7	803	10 681	7.5	508	11 489	4.4
North West	1 053	16 029	6.6	1 165	15 083	7.7	1 084	17 435	6.2
Western Cape	1 137	80 088	1.4	1 278	80 177	1.6	1 186	91 540	1.3
South Africa	19 904	362 684	5.5	20 915	368 637	5.7	18 345	386 372	4.7

Source: DHIS.

^{am} National Department of Health. 2nd Triennial Report of the Committee on Morbidity and Mortality in Children Under 5 Years (CoMMiC): Triennium 2011–2013. Pretoria: NDoH; 2015.

Figure 19: Inpatient death under 5 years rate by province, 2015/16



At national level, neonatal deaths accounted for 64.3% of under-5 deaths; deaths in infants (29 days–1 year) accounted for an additional 20% of deaths; and deaths in children aged 1–5 years accounted for the remaining 15% of deaths. The proportion of neonatal deaths was highest in Gauteng (72.2%) and the Western Cape (70.3%), and lowest in Mpumalanga (56.1%) and the Eastern Cape (58.6%) (Table 17).

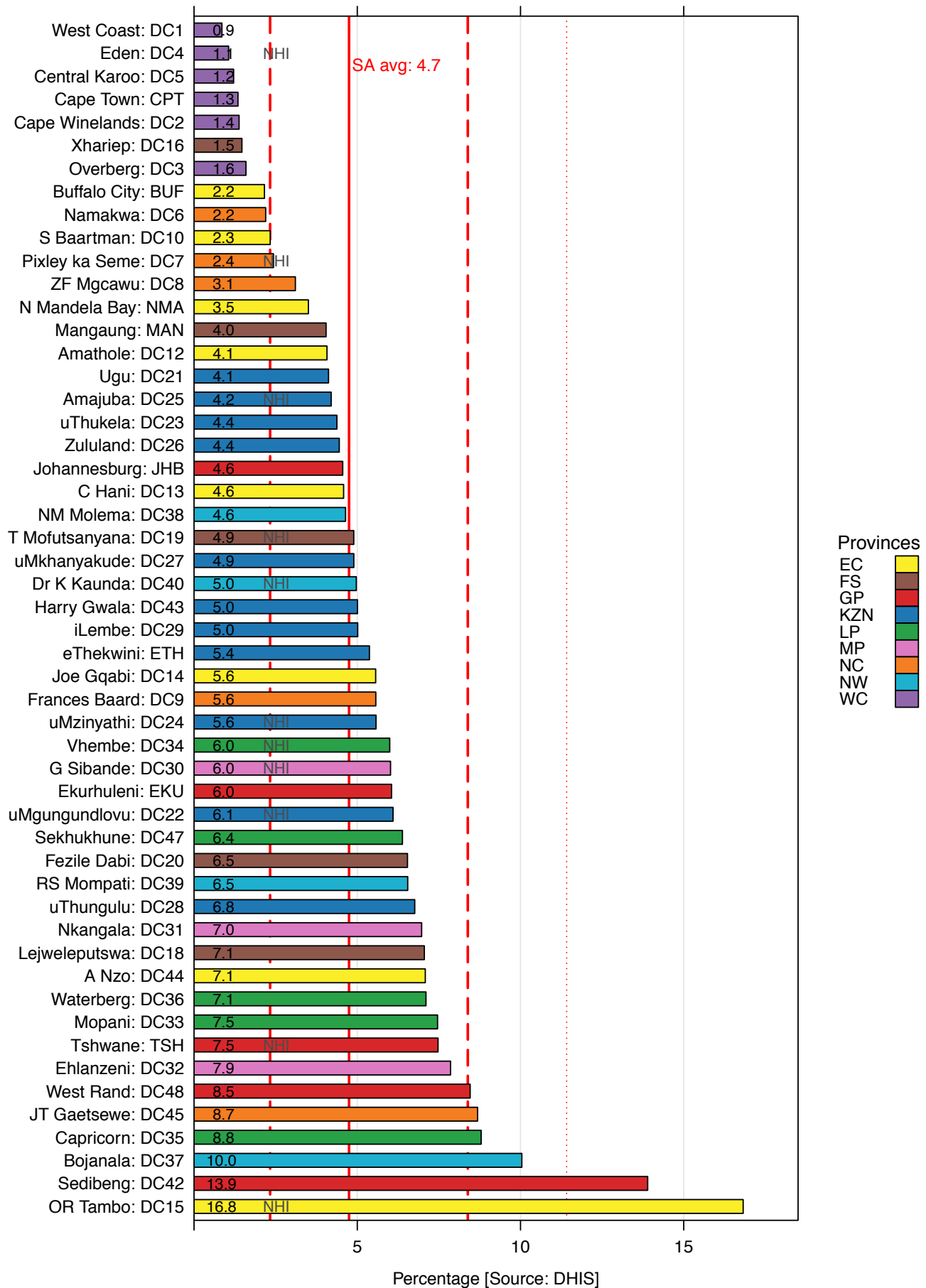
Table 17: Inpatient deaths under 5 years by age category and province, 2015/16

	0–28 days		29 days–1 year		1–5 years		29 days–5 years		All N
	N	%	N	%	N	%	N	%	
Eastern Cape	1 698	58.6	709	24.5	492	17.0	1 201	41.4	2 899
Free State	596	65.3	182	19.9	135	14.8	317	34.7	913
Gauteng	2 616	72.2	579	16.0	429	11.8	1 008	27.8	3 624
KwaZulu-Natal	2 529	62.2	900	22.2	634	15.6	1 534	37.8	4 063
Limpopo	1 718	64.7	486	18.3	451	17.0	937	35.3	2 655
Mpumalanga	793	56.1	375	26.5	245	17.3	620	43.9	1 413
Northern Cape	666	68.1	241	17.1	177	14.8	418	31.9	508
North West	346	61.4	87	22.2	75	16.3	162	38.6	1 084
Western Cape	834	70.3	235	19.8	117	9.9	352	29.7	1 186
South Africa	11 796	64.3	3 794	20.7	2 755	15.0	6 549	35.7	18 345

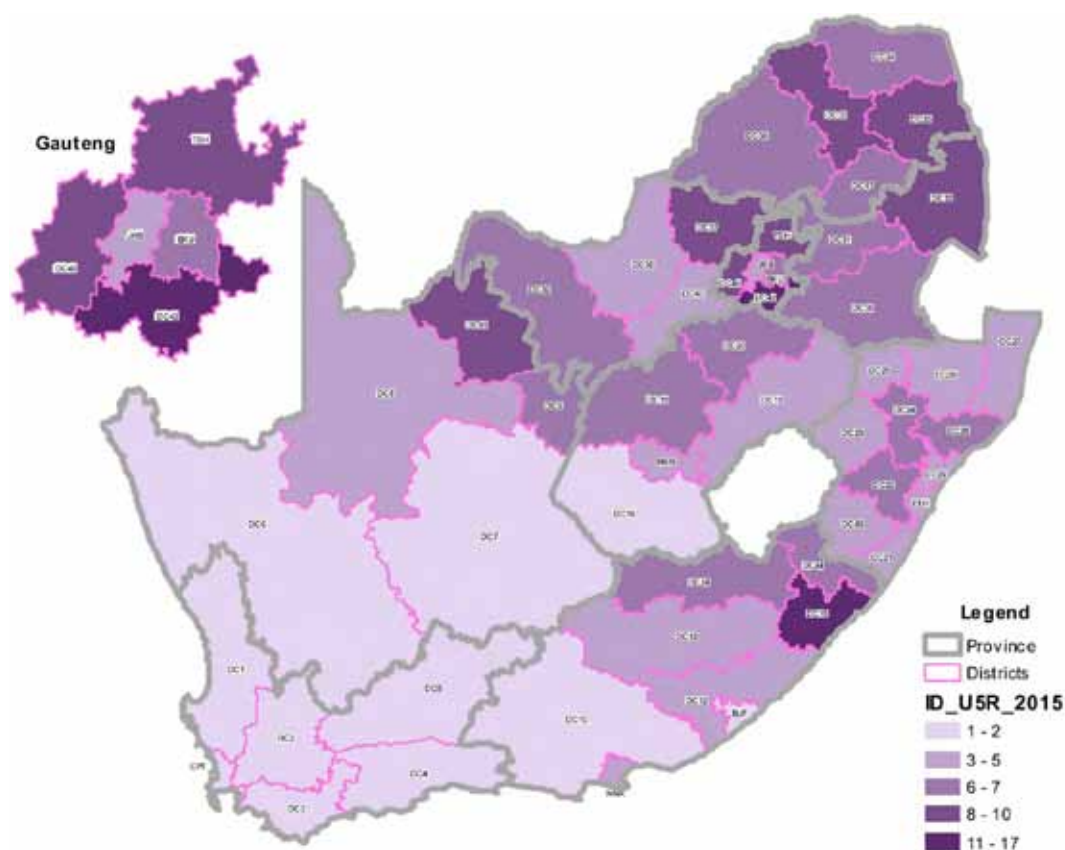
Source: DHIS.

Figure 20 and Map 5 show the inpatient death under 5 year rate by district. Rates ranged from 0.9% in West Coast (WC) to 16.8% in OR Tambo (EC). Twenty-seven districts achieved the target, namely a rate below 5.1%, with 25 districts reporting levels of 5.1% or more. All districts in the Western Cape reported rates in line with this target, while no districts in Limpopo and Mpumalanga achieved a rate below the target.

Figure 20: Inpatient death under 5 years rate by district, 2015/16



Map 5: Inpatient death under 5 years rate by district, 2015/16



The inpatient death rate increased in nine districts and declined in the remaining 43. The increases were generally small, with only two districts reporting increases of 25% or more. These were Mangaung (FS) (from 3.0% to 4.0%) and Sedibeng (GP) (from 11.0% to 13.9%). Three districts reported improvements of more than 40%, namely Frances Baard (NC) (from 10.8% to 5.6%), NM Molema (NW) (from 8.6% to 4.6%) and Tshwane (GP) (from 13.4% to 7.5%).

Table 18 shows the 10 districts with the highest number of deaths. These districts accounted for 51% of all deaths in children under 5 years, which is not surprising given their large under-5 populations. The districts include the five largest metros.

Table 18: Districts with the highest number of inpatient deaths under 5 years, 2015/16

District	Deaths (N)	Population under 5 years (N)	Inpatient death rate (%)
eThekweni (KZN)	1 414	1 251 573	5.4
OR Tambo (EC)	1 244	705 781	16.8
Johannesburg (GP)	1 123	1 546 316	4.6
Tshwane (GP)	1 047	1 031 174	7.5
Capricorn (LP)	989	593 246	8.8
Ekurhuleni (GP)	944	985 074	6.0
Cape Town (WC)	781	1 343 191	1.3
Ehlanzeni (MP)	752	838 649	7.9
Vhembe (LP)	543	627 273	6.0
uThungulu (KZN)	530	481 379	6.8
	9 367		

Table 19 compares deaths in NHI and non-NHI districts. The inpatient death rate was higher in NHI than non-NHI districts (6.4% versus 4.4%).

Table 19: Inpatient deaths and inpatient death rates in children under 5 years by National Health Insurance (NHI) and non-NHI district, 2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)
NHI	4 534	58 430	7.8	4 874	62 678	7.8	4 531	70 404	6.4
Non-NHI	15 370	304 254	5.1	16 041	305 959	5.2	13 814	315 968	4.4
South Africa	19 904	362 684	5.5	20 915	368 637	5.7	18 345	386 372	4.7

Source: DHIS.

Table 20 shows inpatient deaths and inpatient death rates in children under 5 years across the socio-economic quintiles. A clear gradient is apparent, with the highest rates being experienced in the lower socio-economic quintiles.

Table 20: Inpatient deaths and inpatient death rates in children under 5 years by socio-economic quintile, 2013/14–2014/15

	2013			2014			2015		
	Deaths (N)	Admissions (N)	Rate (%)	Deaths (N)	Admissions (N)	Rate (%)	Deaths (N)	Admissions (N)	Rate (%)
SEQ1	4 133	47 657	8.7	4 318	48 323	8.9	3 463	49 411	7.0
SEQ2	4 061	55 308	7.3	3 964	56 189	7.1	3 620	58 877	6.1
SEQ3	2 975	41 582	7.2	2 916	41 925	7.0	2 752	44 951	6.1
SEQ4	2 670	49 563	5.4	2 505	49 732	5.0	1 859	49 227	3.8
SEQ5	6 065	168 574	3.6	7 212	172 468	4.2	6 651	183 906	3.6
South Africa	19 904	362 684	5.5	20 915	368 637	5.7	18 345	386 372	4.7

Source: DHIS.

Far lower inpatient death rates were reported in metro municipalities than non-metro municipalities (5.9% versus 9.7%) (Table 21). However, this difference appears to be declining over time.

Table 21: Inpatient deaths and inpatient death rates in children under 5 years by metro (A) and non-metro (C) municipalities, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)	Deaths (N)	Admissions (N)	Case fatality rate (%)
A	6 074	164 551	3.7	7 077	169 036	4.2	6 414	175 126	3.7
C	13 830	198 133	7.0	13 838	199 601	6.9	11 931	211 246	5.6
South Africa	19 904	362 684	5.5	20 915	368 637	5.7	18 345	386 372	4.7

Source: DHIS.

Key findings

- ◆ The inpatient under 5 years death rate declined in 2015/16 compared with previous years. As noted above, this decline reflected a decrease in the number of deaths, but an increase in the number of admissions recorded. The reason for the latter could be because more admissions occurred or because there was improved recording. A decline in the inpatient rate was noted in all provinces and in the majority of districts.
- ◆ The decline in number of deaths is promising, but difficult to interpret. The number of neonatal deaths remained relatively constant, while 24% fewer deaths were reported in the post-neonatal period. However, a high proportion of deaths in the post-neonatal group occurred outside of health facilities. While the decline is sizeable enough to suggest that it may reflect an overall decline in child deaths (in and out of facilities), it would be premature to conclude before data from other sources (for example Rapid Mortality Surveillance and Statistics SA) are available for 2015.
- ◆ The increased number of admissions is also difficult to interpret. It is most likely to represent improved reporting, with a higher proportion of neonatal admissions being captured correctly. However, it may represent a real increase in the number of admissions, which would in turn reflect better access to health facilities.

- ◆ Patterns of inequality are still present, with inpatient death rates being higher in rural (non-metro) municipalities and in districts in the lower socio-economic quintiles. National Health Insurance districts reported higher inpatient under-5 death rates than non-NHI districts.

Recommendations

- ◆ Ongoing efforts are required to ensure complete and accurate reporting from all facilities. Child mortality audits are an important tool not only for collecting data on child deaths, but in identifying and addressing modifiable factors. Efforts to harmonise data collected through the DHIS and the Child Healthcare Problem Identification Programme will reduce duplication and improve the quality of data. Although the data suggest that many more hospitals are counting neonatal admissions in the denominator for this indicator, attention should be paid to ensuring that this is done by all hospitals.
- ◆ The majority of child deaths are due to a small number of conditions that are largely preventable and treatable. All hospitals should review all child deaths on a regular basis in order to identify and address modifiable and avoidable factors. This is one of the main functions of the District Clinical Specialist Teams (DCSTs). National and provincial programmes should work with DCSTs to identify areas with avoidable factors and intervene to address them. This is especially important in districts that report high inpatient death rates, or that have a high number of child deaths compared with their under-5 population.
- ◆ Although improved care in health facilities will undoubtedly translate into fewer child deaths, further substantial reductions in child mortality will require that social determinants of health be addressed. Community interventions, especially deployment of ward-based outreach teams (WBOTs) can play an important role, and more attention should be paid to ensuring that WBOTs are providing a standardised package of quality child health services.

6.6 School Grade 1 screening coverage

Lesley Bamford

School Grade 1 screening coverage measures the proportion of Grade 1 learners who have been screened by school health teams as part of the Integrated School Health Programme^{an} (ISHP). Coverage is calculated by dividing the number of Grade 1 learners screened by the total number of Grade 1 learners. Data are entered for each school. Thus data on screening coverage are available for each school, and at sub-district, district and provincial levels.

Strengthening of school health services represents one of the three strands of primary health care re-engineering; thus extending school health coverage represents an important health sector outcome. School Grade 1 screening coverage and School Grade 8 screening coverage are the two school health indicators included in the national and provincial Departments of Health Annual Performance Plans.^{ao} As such they are used to monitor performance of the ISHP at district, provincial and national levels.

The 2015/16 target was for 25% of Grade 1 learners to be reached. It should be noted that up until 2013/14, screening coverage targets included only SEQ1 and SEQ2 schools. In the past two financial years (2014/15 and 2015/16), coverage targets included learners attending all public schools (SEQ 1–5 and special schools). However, school health teams are still expected to prioritise learners in SEQ1 and SEQ2 schools.

A recent global review of school health services highlighted the fact that school health is being increasingly recognised for its contribution to the health and education status of children. School health is seen as an important vehicle for achieving a number of objectives, namely helping children to enter school at the right age by addressing health barriers to school entry; helping children to stay in school until completion; reducing absenteeism due to health reasons; and contributing to educational performance by minimising health barriers to learning.^{ap}

In South Africa, strengthening of school health services aims to bring quality health services closer to users. The Integrated School Health Policy launched by the Departments of Basic Education and Health in 2012 aims to:^{an}

- ◆ Improve collaboration between key role-players, namely the departments of Health, Basic Education and Social Development.
- ◆ Provide a more comprehensive package of services.
- ◆ Provide services to learners in all educational phases.
- ◆ Place more emphasis on provision of health services (as opposed to screening and referral).

an Departments of Basic Education and Health. The Integrated School Health Policy. Pretoria: National Department of Health; 2012.

ao National Department of Health. Annual Performance Plan 2016/17–2018/19. Pretoria: NDoH; 2016.

ap Bundy D. Rethinking School Health: A Key Component of Education for All. Washington, DC: World Bank; 2011.

Section A: Child health

- ◆ Ensure that learners assessed as requiring additional services receive these services.
- ◆ Provide school health services to all learners (starting in SEQ1 and SEQ2 schools).

While monitoring of screening coverage is a useful tool to measure the performance of the ISHP, it should be remembered that “school health is a complex programme. It addresses multiple health needs of school-aged children across an age-span of 12 years and encompasses many different kinds of health interventions. Its successful implementation is dependent on the integral collaboration of multiple sectors, and manifold levels and components of the health system – a feat that requires skilful management and leadership.”^{aq}

The 2014/15 *District Health Barometer*^{ar} included four recommendations to improve School Grade 1 screening coverage. These are shown in Box 1. In presenting the data in this section, particular attention will be paid to identifying progress on these recommendations.

Box 1: Recommendations on school Grade 1 screening coverage from the 2014/15 *District Health Barometer*

- ◇ All school health teams should set realistic coverage targets (based on the national norm of 2 000 targeted learners per school health team). District management teams should then ensure that the teams are provided with the necessary resources and have support to reach the targeted learners.
- ◇ School health teams should work more closely with Ward-Based Outreach Teams (WBOTs). Successful models that facilitate the reach of the school health programme through collaboration with WBOTs should be identified and shared with other districts. The role of educators should also be explored.
- ◇ Monitoring of school health data should focus on ensuring completeness of reporting. More attention should be paid to using data to measure and improve efficiency through linking coverage to inputs (i.e. the number of school health teams in a district or sub-district).
- ◇ Coverage should also be disaggregated by school quintile in order to monitor whether school health services are reaching learners in the most disadvantaged schools.

Data on school health services coverage have been available through the DHIS since 2013/14. National school Grade 1 screening coverage (Table 22) increased from 17.2% in 2013/14, to 23.2% in 2014/15, and to 28.9% in 2015/16. During 2015/16, 339 474 Grade 1 learners were screened and the national target was achieved, viz. to screen 25% of Grade 1 learners during 2015/16.

Table 22: National school Grade 1 screening coverage, 2013/14–2014/15

	Number of Grade 1 learners screened	Total number of Grade 1 learners	Screening coverage (%)
2013/14	201 824	1 175 390	17.2
2014/15	272 343	1 175 390	23.2
2015/16	339 474	1 175 256	28.9

Source: DHIS.

It should be noted that a number of challenges have persisted with regard to ensuring that the correct denominator is used when calculating this indicator. Ideally the number of learners per grade per school should be used. However, accurate, validated figures are not always available timeously. It should also be noted that because learner numbers are provided by calendar year, the denominator changes over the course of one financial year. While the DHIS accommodates this through the use of annualised figures, the resulting complexity acts as a further barrier to analysis and use of data for managing health services at local level.

Provincial screening rates are shown below in Table 23 and Figure 21. During 2015/16 coverage improved in all provinces, but improvements were more pronounced in provinces that were already achieving relatively high coverage, resulting in further widening of the gap between provinces with high coverage and those with low coverage. The provinces with the highest coverage in 2014/15, namely North West (38.2%) and the Western Cape (36.6%) improved coverage in 2015/16 to 53.0% and 52.1% respectively. In contrast, the provinces with the lowest coverage in 2014/15, namely the Northern Cape (11.3%) and Mpumalanga (12.4%), showed only modest improvements to 12.9% and 13.3% respectively in 2015/16.

aq Shung King M, Orgill M, Slemming W. School Health in South Africa: reflections on the past and prospects for the future. In: Padarath A, English R, editors. *South African Health Review 2013/14*. Durban: Health Systems Trust; 2014.

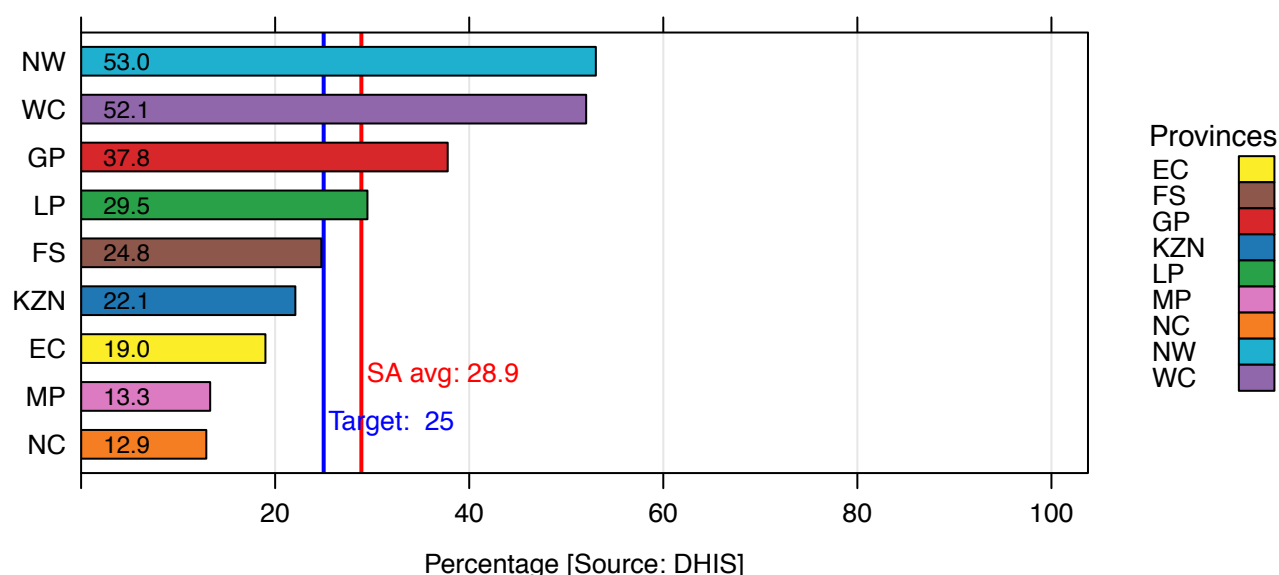
ar Massyn N, Peer N, Padarath A, Barron P, Day C, editors. *District Health Barometer 2014/15*. Durban: Health Systems Trust; October 2015.

Table 23: School Grade 1 screening coverage by province, 2013/14–2015/16

	2013/14			2014/15			2015/16		
	Number screened	Total number	Coverage (%)	Number screened	Total number	Coverage (%)	Number screened	Total number	Coverage (%)
Eastern Cape	33 735	197 378	17.1	26 531	197 378	13.4	37 431	197 039	19.0
Free State	13 953	66 292	21.0	16 176	66 292	24.4	16 413	66 292	24.8
Gauteng	63 033	191 563	32.9	59 553	191 563	31.1	72 376	191 563	37.8
KwaZulu-Natal	25 135	268 438	9.4	55 529	268 438	20.7	59 218	268 182	22.1
Limpopo	31 981	145 069	22.0	32 158	145 069	22.2	42 808	145 069	29.5
Mpumalanga	14 694	98 753	14.9	12 243	98 753	12.4	13 157	98 909	13.3
Northern Cape	3 914	28 248	13.9	3 194	28 248	11.3	3 645	28 248	12.9
North West	15 379	76 005	20.2	29 064	76 005	38.2	40 319	76 005	53.0
Western Cape	0	103 644	0.0	37 895	103 644	36.6	54 107	103 949	52.1
South Africa	201 824	1 175 390	17.2	272 343	1 175 390	23.2	339 474	1 175 256	28.9

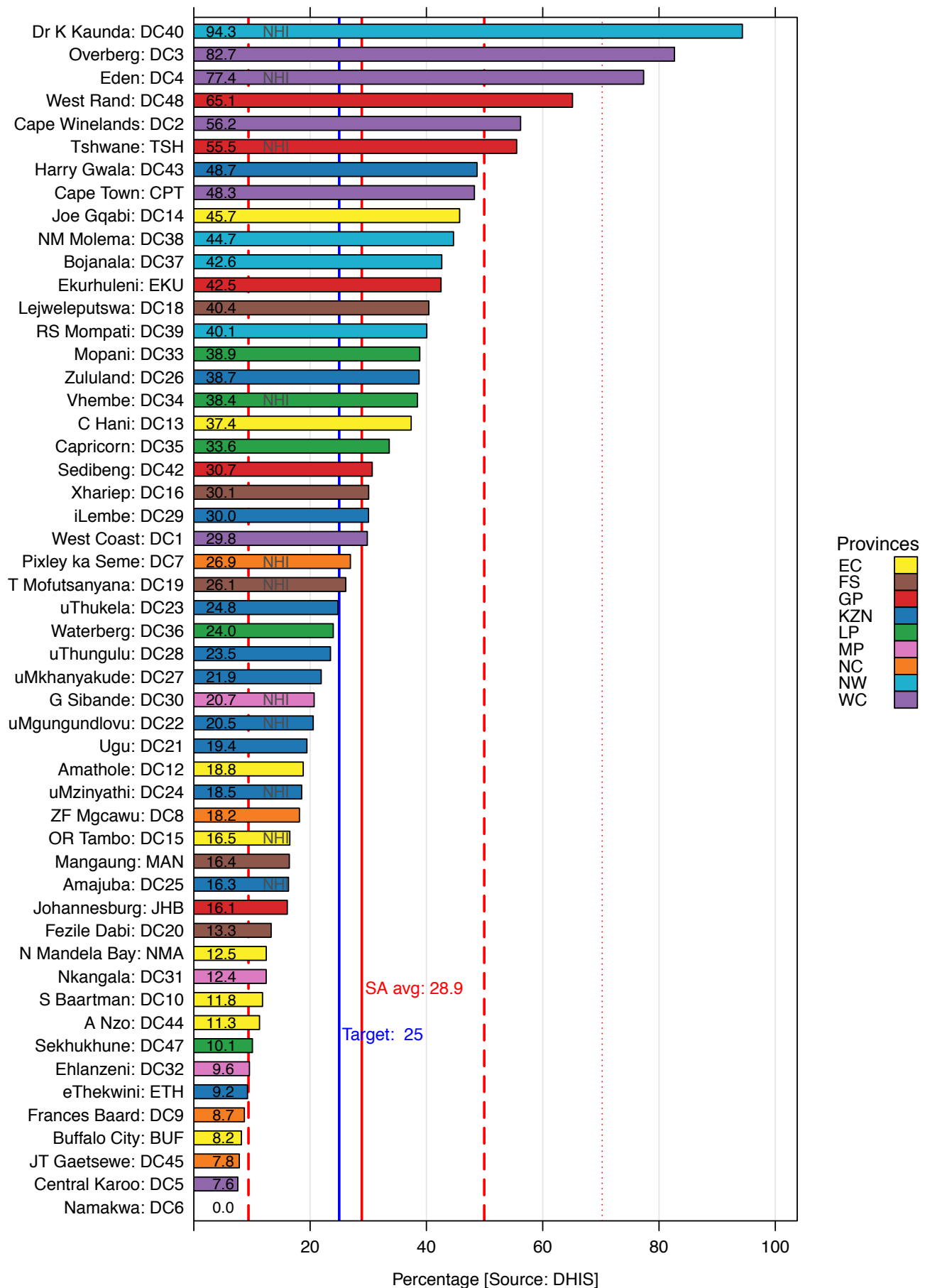
Source: DHIS.

Figure 21: School Grade 1 screening coverage by province, 2015/16

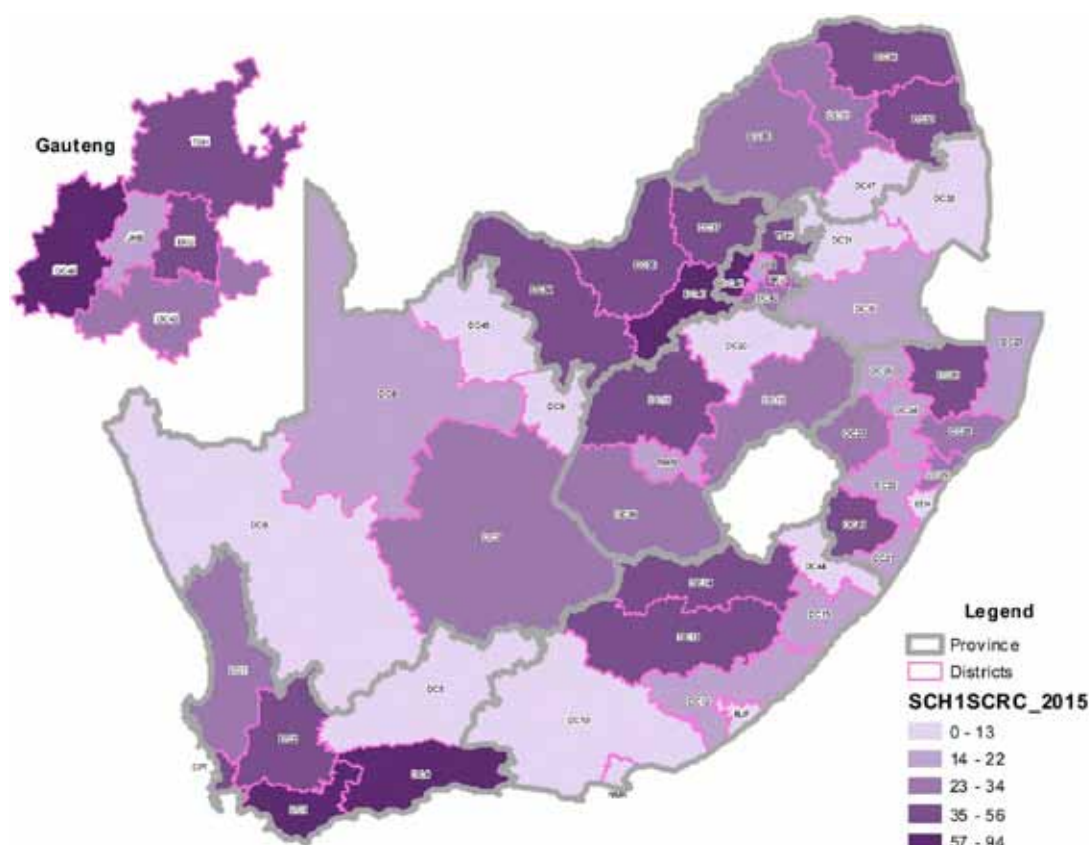


District coverage (shown in Figure 22 and Map 6) ranged from 94.3% in Dr K Kaunda (NW) to 0% in Namakwa (NC). Twenty-five districts achieved coverage above the national target of 25%. This included all four districts in North West, five of the six districts in the Western Cape, and four of Gauteng's five districts. In contrast, six out of eight Eastern Cape districts and none of the three districts in Mpumalanga reached the target of 25%.

Figure 22: School Grade 1 screening coverage by district, 2015/16



Map 6: School Grade 1 screening coverage by district, 2015/16



In 2015/16, school Grade 1 screening coverage increased in 38 districts and decreased in 13 districts compared with rates reported in 2014/15. No school health services were provided in Namakwa in both years. Five districts more than doubled coverage, namely: A Nzo (EC) (from 3.2% to 11.3%); Mopani (LP) (from 17.5% to 38.9%); uMkhanyakude (KZN) (from 10.7% to 21.9%); Dr K Kaunda (NW) (from 46.7% to 94.3%); and Cape Town (WC) (from 24.0% to 48.3%).

As noted above, coverage declined in 13 districts. The decreases were generally modest, but substantial declines were noted in a number of districts, especially the Central Karoo (WC) where coverage dropped from 113.8% to 7.6% and eThekweni (KZN) where coverage dropped from 21.2% to 9.2%. Less dramatic but nevertheless substantial declines were also reported in Frances Baard (NC) (from 14.3% to 8.7%) and Amajuba (KZN) (from 25.2% to 16.3%).

The wide interprovincial variation in coverage was mirrored by intra-provincial variation. Table 24 shows provincial coverage and the districts with the highest and lowest coverage in each province. It is not immediately apparent why districts within the same province and with similar demographic and resource profiles displayed such variation in coverage, e.g. Lejweleputswa and Fezile Dabi in the Free State, Overberg and Central Karoo in the Western Cape and Mopani and Sekhukhune in Limpopo.

Table 24: Districts with highest and lowest school Grade 1 screening coverage, by province, 2015/16

Provincial coverage (%)	Highest district coverage (%)	Lowest district coverage (%)
Eastern Cape	Joe Gqabi 45.7	Buffalo City 8.2
Free State	Lejweleputswa 40.4	Fezile Dabi 13.3
Gauteng	West Rand 65.1	Johannesburg 16.1
KwaZulu-Natal	Harry Gwala 48.7	eThekweni 9.2
Limpopo	Mopani 38.9	Sekhukhune 10.1
Mpumalanga	G Sibande 20.7	Ehlanzeni 9.6
Northern Cape	Pixley ka Seme 26.9	Namakwa 0
North West	Dr K Kaunda 94.3	RS Mompoti 40.1
Western Cape	Overberg 82.7	Central Karoo 7.6

Source: DHIS.

Section A: Child health

No school health services were provided in Namakwa's six sub-districts as well as in an additional 12 sub-districts (Table 25).

Table 25: Sub-districts where no Grade 1s were screened, 2015/16

District	Sub-districts
uMgungundlovu (KZN)	Mpofana LM
Ehlanzeni (MP)	Bushbuckridge LM
G Sibande (MP)	Emakhazeni LM, Steve Tshwete LM
Frances Baard (NC)	Magareng LM, Phokwane LM
Pixley ka Seme (NC)	Kareeberg LM, Siyathemba LM, Umsobomvu LM
ZF Mgcawu (NC)	Kgatelopele LM, Mier LM, Tsantsabane LM
Namakwa (NC)	Hantam LM, Kamiesberg LM, Karoo Hoogland LM, Khâi-Ma LM, Nama Khoi LM, Richtersveld LM

Source: DHIS.

Coverage in NHI pilot districts also showed wide variation (Table 26 and Figure 23). Coverage was higher in NHI districts than in non-NHI districts (35.3% versus 27.1%); however, this was chiefly due to high coverage in a few districts, namely Dr K Kaunda (NW) (94.3%), Eden (WC) (77.4%) and Tshwane (GP) (55.5%). Seven NHI pilot sites reported coverage below the national average, with five of these districts failing to reach the national target of 25%, namely Amajuba (KZN) (16.3%), OR Tambo (EC) (16.5%), uMzinyathi (KZN) (18.5%), uMgungundlovu (KZN) (20.5%) and G Sibande (MP) (20.7%).

Table 26: School Grade 1 screening coverage by National Health Insurance district, 2013/14–2015/16

	2013/14		2014/15		2015/16	
	Number screened	Coverage (%)	Number screened	Coverage (%)	Number screened	Coverage (%)
NHI	58 487	22.4	64 686	24.8	92 122	35.3
Non-NHI	143 337	15.7	207 657	22.7	247 352	27.1
South Africa	201 824	17.2	272 343	23.2	339 474	28.9

Source: DHIS.

Figure 23: School Grade 1 screening coverage by National Health Insurance district, 2015/16

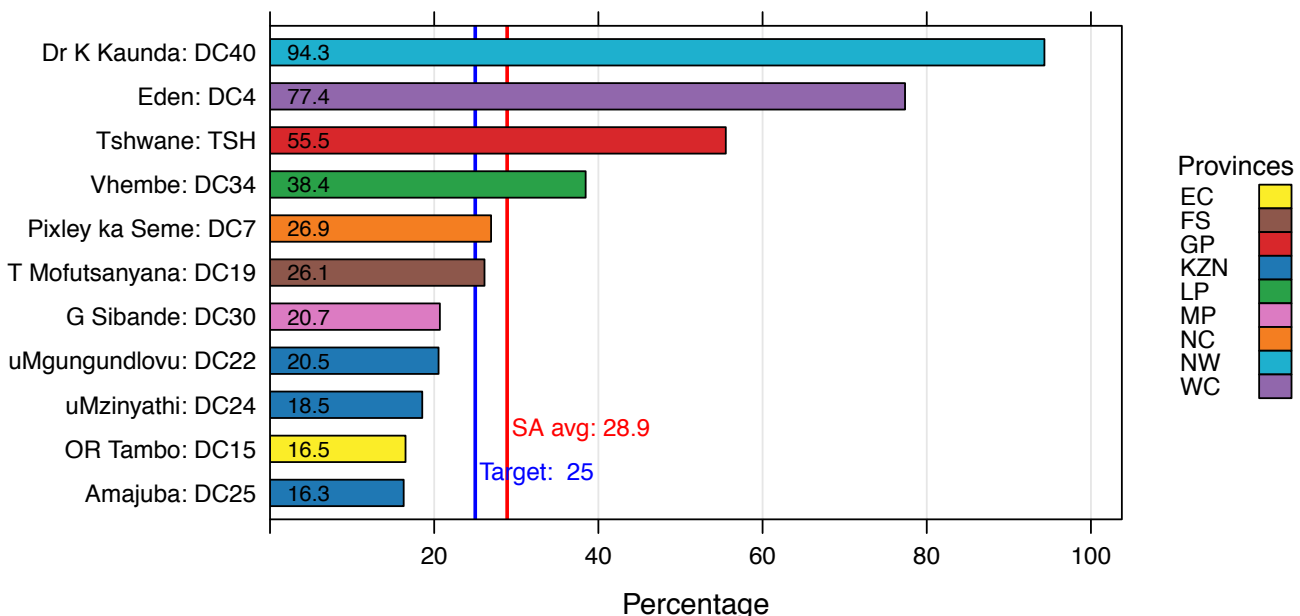


Table 27 shows coverage in metro and non-metro municipalities. Coverage was slightly higher in metros than non-metros (29.5% versus 28.6%). However, wide variation was again apparent, with three metros contributing disproportionately to the relatively good performance of the metros; these were Tshwane (GP) (55.5%), Cape Town (WC) (48.3%) and Ekurhuleni (GP) (42.5%). The remaining five metros did not achieve the national target and were among the 16 districts with lowest coverage; these metros were Buffalo City (EC) (8.2%), eThekweni (KZN) (9.2%), N Mandela Bay (EC) (12.5%), Johannesburg (GP) (16.1%) and Mangaung (FS) (16.4%).

Table 27: School Grade 1 coverage by metro (A) and non-metro (C) municipalities, 2013/14–2015/16

	2013/14		2014/15		2015/16	
	Number screened	Coverage (%)	Number screened	Coverage (%)	Number screened	Coverage (%)
A	58 206	16.7	85 372	24.5	102 673	29.5
C	143 618	17.4	186 971	22.6	236 801	28.6
South Africa	201 824	17.2	272 343	23.2	339 474	28.9

Source: DHIS.

Tables 28, 29 and 30 show data on Grade 1 screening coverage by school quintile; these data reveal the extent to which the most disadvantaged learners are receiving services. Although the greatest number of learners were from SEQ1 schools, coverage among this group of learners was below both the national average and the coverage for learners from SEQ 2–4 schools.

In reviewing these data, it should be noted that the quintile classification is based on the classification provided by the National Department of Basic Education. The classification of some schools is disputed and may in certain instances be adjusted at district level.

Table 28: National Grade 1 screening coverage by school quintile, 2015/16

	Total number of learners	Proportion of total learners (%)	Coverage (%)
Quintile 1	87 246	25.7	28.6
Quintile 2	83 439	24.6	30.7
Quintile 3	86 869	25.6	28.9
Quintile 4	49 050	14.4	30.6
Quintile 5	25 454	7.5	21.2
Quintile unknown	7 416	2.2	-
South Africa	339 474	100.0	28.9

Source: DHIS.

Table 29 shows coverage by school quintile at provincial level. Coverage among learners in SEQ1 schools ranged from 9.5% in the Northern Cape to 70.2% in the Western Cape, while coverage among learners in SEQ2 schools ranged from 14.2% in Mpumalanga to 58.3% in the Western Cape. More than three-quarters of all learners screened (75.9%) were in SEQ 1–3, indicating that school health teams were prioritising learners from disadvantaged backgrounds. However, in North West, Limpopo and the Western Cape, SEQ 2–4 schools had higher averages than the provincial average, meaning that prioritisation had not generally taken place in these provinces.

Table 30 shows coverage by school quintile at district level. Only 11 districts reported coverage of 50% or more among SEQ1 learners and 10 districts reported coverage of 50% or more among SEQ2 learners. The majority of the 25 454 SEQ5 learners who were screened were from metros.

Table 29: Provincial Grade 1 screening coverage by school quintile, 2015/16

	Quintile 1		Quintile 2		Quintile 3		Quintile 4		Quintile 5		Quintile unknown	All	
	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	No. of learners	Rate (%)
Eastern Cape	10 990	15.6	9 256	23.7	15 217	20.2	651	14.5	396	5.3	921	37 431	19.0
Free State	7 499	35.5	7 241	44.0	1 391	8.3	141	2.6	0	0.0	141	16 413	24.8
Gauteng	11 799	46.2	9 571	35.1	23 690	45.6	15 237	33.2	10 081	26.9	1 998	72 376	37.8
KwaZulu-Natal	17 621	28.0	19 983	29.6	12 907	19.2	5 495	12.7	2 688	10.2	524	59 218	22.1
Limpopo	11 800	24.8	12 340	30.1	12 405	34.7	3 751	46.3	520	14.5	1 992	42 808	29.5
Mpumalanga	5 871	16.4	6 069	14.2	379	5.1	502	7.1	0	0.0	336	13 157	13.3
Northern Cape	624	9.5	1 652	22.0	689	11.1	510	10.3	145	4.9	25	3 645	12.9
North West	12 569	53.2	8 311	54.5	11 142	46.5	7 070	61.9	593	42.7	634	40 319	53.0
Western Cape	8 473	70.4	9 016	58.3	9 049	55.5	15 693	52.8	11 031	36.7	845	54 107	52.1
South Africa	87 246	28.6	83 439	30.7	86 869	28.9	49 050	30.6	25 454	21.2	7 416	33 9474	28.9

Source: DHIS.

Section A: Child health

Table 30: District Grade 1 screening coverage by school quintile, 2015/16

	Quintile 1		Quintile 2		Quintile 3		Quintile 4		Quintile 5		Quintile unknown	All	
	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	Rate (%)	No. of learners	No. of learners	Rate (%)
Eastern Cape													
A Nzo	1 755	9.2	795	9.5	463	15.9	-	-	-	-	437	3 450	11.3
Amathole	1 626	16.7	1 720	21.0	1 898	19.4	63	18.7	-	-	-	5 307	18.8
Buffalo City			46	3.3	1 262	10.9	-	-	-	-	46	1 354	8.2
C Hani	2 543	26.9	2 494	39.9	4 488	45.6	129	34.8	-	-	184	9 838	37.4
Joe Gqabi	702	24.9	1 184	38.4	2 861	61.3	179	84.0	67	79.8	44	5 037	45.7
NM Bay	17	100.0	225	138.0	2 255	11.8	140	14.7	329	8.5	58	3 024	12.5
OR Tambo	4 347	14.9	2 363	23.0	1 188	13.7	109	10.5	-	-	152	8 159	16.5
S Baartman	-	-	429	34.4	802	9.3	31	9.8	-	-	-	1 262	11.8
Free State													
Fezile Dabi	767	37.0	701	20.4	66	1.5	-	-	-	-	-	1 534	13.3
Lejweleputswa	2 379	53.4	3 249	70.2	123	4.6	11	2.5	-	-	-	5 762	40.4
Mangaung	854	32.0	1 572	43.1	275	6.3	63	2.0	-	-	-	2 764	16.4
T Mofutsanyana	2 937	28.5	1 235	39.0	720	16.4	24	2.5	-	-	141	5 057	26.1
Xhariep	562	34.8	484	30.7	207	23.2	43	20.0	-	-	-	1 296	30.1
Gauteng													
Johannesburg	1 126	17.7	1 118	8.8	2 606	18.9	2 718	15.8	1 735	15.5	687	9 990	16.1
Tshwane	5 789	54.0	4 041	63.8	7 374	80.4	4 141	52.8	4 114	35.5	410	25 869	55.5
Ekurhuleni	1 263	38.1	1 854	48.9	8 414	47.6	5 561	37.0	4 093	38.5	901	22 086	42.5
Sedibeng	1 246	37.5	824	36.9	2 148	33.9	693	31.7	139	6.0	-	5 050	30.7
West Rand	2 375	128.3	1 734	78.6	3 148	63.1	2 124	58.6	-	-	-	9 381	65.1
KwaZulu-Natal													
Amajuba	116	17.2	562	23.2	965	20.2	284	9.4	-	-	-	1 927	16.3
eThekweni			919	25.9	2 516	13.1	968	4.0	1 553	9.3	-	5 956	9.2
Harry Gwala	2 237	42.1	3 516	48.3	597	58.3	549	50.9	41	25.6	346	7 286	48.7
iLembe	1 685	34.2	1 597	33.0	1 183	25.6	425	20.8	137	43.5	-	5 027	30.0
Ugu	718	17.5	1 782	19.5	695	16.8	271	16.7	442	32.5	57	3 965	19.4
uMgungundlovu	638	37.2	1 571	41.6	1 736	17.8	501	13.4	115	3.5	25	4 586	20.5
Umkhanyakude	2 698	24.1	2 196	20.9	373	19.4	52	8.1	-	-	-	5 319	21.9
Umzinyathi	1 711	14.9	934	22.3	173	11.3	639	37.5	63	22.2	40	3 560	18.5
Uthukela	1 540	33.9	2 086	41.2	197	14.8	-	-	160	23.7	-	4 983	24.8
Uthungulu	1 429	18.7	2 028	24.2	1 798	26.6	1142	42.7	149	6.5	-	6 546	23.5
Zululand	4 849	44.3	2 792	33.7	1 674	31.2	664	67.8	28	8.8	56	10 063	38.7
Limpopo													
Capricorn	1 354	20.7	4 733	35.1	2 319	32.0	1 364	49.4	417	36.8	307	10 494	33.6
Mopani	5 899	41.3	1 098	20.8	2 832	38.8	1 393	57.0	94	14.3	353	11 669	38.9
Sekhukhune	2 151	10.2	340	15.5	83	5.4	-	-	-	-	736	3 310	10.1
Vhembe	1 476	46.1	4 544	36.5	6 453	36.1	581	42.0	-	-	539	13 593	38.4
Waterberg	920	36.0	1 625	21.4	718	41.3	413	27.2	9	0.7	57	3 742	24.0
Mpumalanga													
Ehlanzeni	2 122	11.0	1 766	9.4	118	8.2	298	8.4	-	-	-	4 304	9.6
G Sibande	2 898	23.2	2 343	22.8	-	-	74	6.1	-	-	66	5 381	20.7
Nkangala	851	22.0	1 960	14.4	261	4.4	130	5.5	-	-	270	3 472	12.4
Northern Cape													
Frances Baard	139	8.4	220	9.5	412	14.4	-	-	-	-	-	771	8.7
JT Gaetsewe	181	4.8	182	16.2	155	9.3	-	-	-	-	25	543	7.8
Namakwa	-	-	-	-	-	-	-	-	-	-	-	-	-
Pixley ka Seme	153	28.1	927	38.7	-	-	327	30.2	-	-	-	1 407	26.9
ZF Mgqawu	151	27.3	323	23.6	122	20.5	183	10.2	145	18.8	-	924	18.2
North West													
Bojanala Platinum	4 242	69.7	1 705	53.3	2 608	21.6	2 542	49.1	53	10.8	388	11 538	42.6
Dr K Kaunda	2 300	79.9	2 093	99.9	5 110	97.6	3 959	92.2	540	122.7	246	14 248	94.3
RS Mompoti	1 679	34.7	1 385	36.7	1 596	48.2	403	55.6	-	-	-	5 063	40.1
NM Molema	4 348	44.2	3 128	50.6	1 828	54.7	166	13.6	-	-	-	9 470	44.7
Western Cape													
Cape Winelands	3 735	71.7	2 039	74.6	559	36.7	941	40.7	982	34.1	12	8 268	56.2
Central Karoo	82	19.2	34	15.3	-	-	-	-	-	-	-	116	7.6
Cape Town	867	124.4	4 187	50.2	5 409	56.3	12 439	56.1	8 421	34.5	307	31 630	48.3
Eden	1 767	66.2	2 064	76.0	1 555	71.8	1 452	78.9	1 074	77.6	423	8 335	77.4
Overberg	794	79.0	291	33.8	1 396	82.6	594	111.7	521	136.0	103	3 699	82.7
West Coast	1 228	60.5	401	68.0	130	23.7	267	9.5	33	3.6	-	2 059	29.8

Source: DHIS.

Key findings

- ◆ School Grade 1 screening coverage has continued to increase. However, as noted in the 2014/15 *District Health Barometer*, it is unlikely that the number of school health teams will increase substantially, and further increases in coverage will depend on better utilisation of existing school health teams and collaboration with other role-players including WBOT members and educators.
- ◆ Educators were directly involved in provision of school health services for the first time during the De-worming Campaign, which took place in conjunction with the first round of the HPV immunisation campaign in February 2016. All Grade 1–7 learners in school quintiles 1–3 were targeted to receive de-worming medication (mebendazole), with the medication being administered by educators. Although challenges were experienced in some areas, a substantial number of learners were reached. The campaign will be repeated in future years, and provides an important opportunity to strengthen collaboration between educators and school health teams.
- ◆ However, the data also reveal a number of worrying trends. The increasing disparity in screening rates across the provinces is of concern, including the low coverage in two provinces (Northern Cape and Mpumalanga). Screening rates in provinces where the majority of learners are in quintile 1 and 2 schools (KwaZulu-Natal, Eastern Cape and Limpopo) also remained modest, with only Limpopo reaching the coverage target of 25%.
- ◆ Further causes for concern are the wide intra-provincial variation, the drop in coverage in a number of districts, and failure to prioritise the most disadvantaged learners adequately. As noted above, providing school health services is a complex task that requires adequate leadership, as well as optimal allocation and efficient use of human and other resources. Anecdotal evidence suggests that low screening coverage reflects poor leadership and management, as well as inadequate resource allocation and inefficient use of resources. More attention needs to be paid to identifying and addressing barriers to achieving adequate coverage in provinces and districts with low screening coverage.
- ◆ The need to disaggregate data according to quintiles and to use these data for management purposes must be reiterated.

Recommendations

- ◆ Strengthening of school health services remains a health system priority, and provinces and districts need to ensure that the reach of the school health programme continues to increase. Reasons for progress being stalled need to be identified and remedial action must be taken. In order to increase coverage substantially, some districts will require additional investment (primarily additional school health teams), while other districts could improve coverage through more rational and efficient planning and scheduling.
- ◆ However, better planning and monitoring of school health services is required at all levels, and provinces need to play a greater role in ensuring that school health services are being provided in all sub-districts and that adequate screening rates are being achieved. In particular, provinces and districts need to ensure that they are reaching the most disadvantaged learners (those in quintile 1 and 2 schools). This needs to be monitored on a regular basis at national, provincial and district levels.
- ◆ Different models of providing school health services should be considered, particularly in sparsely populated areas such as districts like Namakwa and Central Karoo, which reported the lowest coverage during 2015/16. In these areas it is more practical for learners to be seen by PHC nurses (either in their schools or at the local facility). This model is already used in a number of sparsely populated areas and has the potential to improve coverage significantly without the need for additional resources.
- ◆ The importance of collaborating with other role-players remains critical. This includes working with WBOTs and with a variety of other partners. As noted above, the de-worming campaign provides a platform to foster closer collaboration between school health teams and educators.

7 Immunisation

Trisha Ramraj and Witness Chirinda

7.1 Immunisation coverage under 1 year

Immunisation coverage under 1 year measures the percentage of children under 1 year of age who have received all the following immunisations:

- ◆ At birth: OPV^a (0), BCG^b
- ◆ 6 weeks: OPV (1), DTaP-IPV/Hib^c (1), Hep B^d (1), PCV^e (1), RV^f (1)
- ◆ 10 weeks: DTaP-IPV/Hib (2), Hep B (2)
- ◆ 14 weeks: DTaP-IPV/Hib (3), Hep B (3), (3), PCV (2) RV (2)
- ◆ 9 months: Measles vaccine (1), PCV (3)

The indicator is calculated as the total number of children under 1 year old that have received all these vaccines, divided by the target population of children under 1 year old. Data from the District Health Information Software (DHIS) was used to calculate this indicator. Although the Expanded Programme on Immunisation (EPI) schedule changed in December 2015, the data element definition for the numerator remained the same.

Immunisation coverage levels and trends are used as follows: (i) to monitor the performance and trends of immunisation services at district, provincial, national and international levels; (ii) to guide strategies for the control and subsequent elimination of vaccine-preventable diseases; (iii) to identify districts or provinces that may need investment of additional resources to improve coverage; and (iv) to evaluate the need to update the EPI schedule by introducing new vaccines into the immunisation programme.⁹

It is important to note that this indicator is very sensitive to changes in the denominator (population estimates) and that following the Census in 2011, Statistics South Africa revised the population figures, particularly the under 1 year population figures. Due to these changes, immunisation coverage that had been previously calculated using the old population estimates was amended, and immunisation coverage in the *District Health Barometer* (DHB) has been updated retrospectively.

The EPI is one of the most successful and cost-effective public health initiatives to reduce infant morbidity and mortality from vaccine-preventable diseases.^h

The benefits of immunisation are so immense that in 2011 the World Health Assembly took a resolution to declare the decade from 2011 to 2020 a Decade of Vaccines.ⁱ Furthermore, target 3.8 of the Sustainable Development Goals (SDGs) emphasises the importance of immunisation and as such calls for “access to safe, effective, quality and affordable medicines and vaccines for all” by 2030. Improved coverage of early childhood immunisation is essential to achieving SDG goal 3.8, and as such the global Vaccine Alliance (Gavi) is calling for a universally applicable vaccine indicator to “reach and sustain 90% national coverage and 80% in every district with all vaccines in national programmes” and for this indicator to be one of the measures of target 3.8.^j

Worldwide, about 2–3 million deaths from diphtheria, tetanus, pertussis and measles are prevented annually due to immunisation. However, approximately 18.7 million infants under 1 year of age from the global population still do not receive the basic vaccines.¹ Globally, approximately 86% of infants (n = 115 million) receive three doses of the diphtheria-tetanus-pertussis (DTP3)-containing vaccine. According to the World Health Organization (WHO), the 10 countries with most unvaccinated children include: India, Nigeria, Pakistan, Indonesia, Ethiopia, Democratic Republic of Congo,

a OPV = oral polio vaccine.

b BCG = bacille Calmette-Guérin.

c DTaP-IPV/Hib = Diphtheria, tetanus and acellular pertussis vaccine + inactivated polio vaccine + Haemophilus influenzae type B vaccine combined.

d HepB = Hepatitis B.

e PCV = Pneumococcal conjugate vaccine.

f RV = Rotavirus vaccine.

g Burton A, Monasch R, Lautenbach B, et al. WHO and UNICEF estimates of national infant immunization coverage: methods and processes. *Bull World Health Organ.* 2009; 87:535-41. doi: 10.2471/BLT.08.053819.

h World Health Organization. Immunization coverage fact sheet. Available from: <http://www.who.int/mediacentre/factsheets/fs378/en/> [Accessed 11 July 2016].

i Strategic Advisory Group of Experts on Immunization (SAGE). 2015 Assessment report of the global vaccine action plan. Available from: http://who.int/immunization/global_vaccine_action_plan/SAGE_GVAP_Assessment_Report_2015_EN.pdf?ua=1&ua=1 [Accessed 11 July 2016].

j GAVI brief on the vaccine indicator for the SDG monitoring framework. Available from: <http://www.gavi.org/library/gavi-documents/advocacy/gavi-brief-on-the-vaccine-indicator-for-the-sdg-monitoring-framework/> [Accessed 11 July 2016].

Philippines, Iraq, Uganda and South Africa.ⁱ It is likely that in the case of South Africa, these WHO estimates are based on outdated data.

The factors contributing to missed opportunities for immunisation occur at multiple levels. At a health-system level these include: logistical factors (vaccine stock-outs or poor stock control, immunisation not offered on every clinic day, immunisations not offered routinely at secondary and tertiary hospitals, cold chain failures); poor knowledge of immunisation procedures (poor staff training on immunisations, poor management of adverse events, and failure to check or document immunisations in the Road to Health Book (RtHB)); and inadequate resources (staff shortages, high workloads, and lack of resources, e.g. no EPI fridge).^{k,l} At a parental level, these factors include: failure to carry the RtHB or to report lost books, lack of knowledge of EPI, lack of reminders of clinic visits, and cultural beliefs and economic barriers (cost of transport to clinic and loss of a day's pay).^{k,l}

Currently the EPI schedule in South Africa has 11 antigens. These include vaccines against polio, measles, tuberculosis, diphtheria, pertussis, tetanus, Haemophilus influenzae type B, hepatitis B, rotavirus and pneumococcal infection, which are provided free of charge at all public health facilities. The human papillomavirus vaccine is administered via the integrated school health programme.^m As of 1 December 2015, the measles vaccination product and EPI schedule were updated. The measles vaccine will be administered at the ages of 6 and 12 months, thus two additional visits have been added to the EPI schedule.ⁿ

According to the old EPI schedule, the first measles vaccine was given at 9 months of age and the second dose was given at 18 months. The reason for the change includes the recommendation to vaccinate infants against measles as early as 6 months of age to prevent the high morbidity and mortality rates associated with the disease. Since vaccine efficacy becomes optimal after 1 year of age, a second dose at 12 months is recommended to ensure increased population immunity rates.^m The new South African EPI schedule is shown in Table 1.ⁿ

Table 1: Expanded Programme on Immunisation (EPI) South Africa – Revised immunisation schedule from December 2015

Age of child	Vaccines needed
At birth	BCG
	OPV (0)
6 weeks	OPV (1)
	RV (1)
	DTaP-IPV-Hib-HBV (1) ^o
	PCV (1)
10 weeks	DTaP-IPV-Hib-HBV (2)
14 weeks	RV (2)
	DTaP-IPV-Hib-HBV (3)
	PCV (2)
6 months	Measles vaccine (1)
9 months	PCV (3)
12 months	Measles vaccine (2)
18 months	DTaP-IPV-Hib-HBV (4)
6 years	Td vaccine ^p
12 years	Td vaccine

Source: National Institute for Communicable Diseases (NICD), 2016.ⁿ

During 2015/16, immunisation coverage nationally was 89.2%, marginally below the national target of 90%. This was a 0.6 percentage point reduction from the immunisation coverage of 89.8% reported in 2014/15. Over the past years there has been a general upward trend, with immunisation coverage increasing from 80.8% in 2010/11 to 89.2% in 2015/16 (Table 2). This increased coverage may be attributed to the intense efforts implemented to improve the functioning of the immunisation programme.

k Sridhar S, Maleq N, Guillermet E, et al. A systematic literature review of missed opportunities for immunization in low- and middle-income countries. *Vaccine*. 2014; 32(51):6870-9. <http://dx.doi.org/10.1016/j.vaccine.2014.10.063>.

l Jacob N, Coetzee D. Missed opportunities for immunisation in health facilities in Cape Town, South Africa. *S Afr Med J*. 2015; 105(11):917-21. doi:10.7196/SAMJ.2015.v105i11.10194.

m World Health Organization. Expanded Programme on Immunisation (EPI), South Africa. Available from: <http://www.afro.who.int/en/south-africa/country-programmes/4245-expanded-program-on-immunization-epi.html> [Accessed 11 July 2016].

n National Institute for Communicable Diseases. Communicable Diseases Communiqué, January 2016, Vol. 15(1). Available from: http://www.nicd.ac.za/assets/files/NICD%20Communicable%20Diseases%20Communique_Jan2016_final%20pdf.pdf [Accessed 11 July 2016].

o DTaP-IPV-Hib-HBV = Diphtheria, tetanus, acellular pertussis + Inactivated polio vaccine + Haemophilus influenzae type B + Hepatitis B combined.

p Td vaccine = Tetanus and reduced-strength diphtheria vaccine.

Section A: Immunisation

Table 2: National immunisation coverage under 1 year, 2010/11–2015/16 (%)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
SA	80.8	83.9	83.6	84.4	89.8	89.2

Source: DHIS.

Figure 1 shows immunisation coverage by province. Provincial variation in immunisation coverage ranged from 79.2% in Limpopo (LP) to 106.4% in Gauteng (GP). Table 3 outlines immunisation coverage at provincial level for the period 2010/11–2015/16. While most provinces (namely the Eastern Cape (EC), Limpopo, Mpumalanga (MP), North West (NW) and the Western Cape (WC)) improved on the immunisation coverage reported in 2013/14, immunisation coverage declined in some provinces (Free State (FS), Gauteng, KwaZulu-Natal (KZN) and the Northern Cape (NC)) from the 2013/14 figure. The five provinces showing the biggest improvement in this indicator between 2013/14 and 2015/16 were the Eastern Cape (14.5 percentage points), Limpopo (8.9 percentage points), Mpumalanga (16.1 percentage points), North West (9.0 percentage points) and the Western Cape (4.4 percentage points). However, in the 2014/15–2015/16 period, immunisation coverage reduced by 3.9 percentage points in the Free State, 1.3 in Gauteng, 4.9 in KwaZulu-Natal, 3.0 in Limpopo, 2.1 in the Northern Cape and 1.6 percentage points in the Western Cape.

Figure 1: Immunisation coverage under 1 year by province, 2015/16

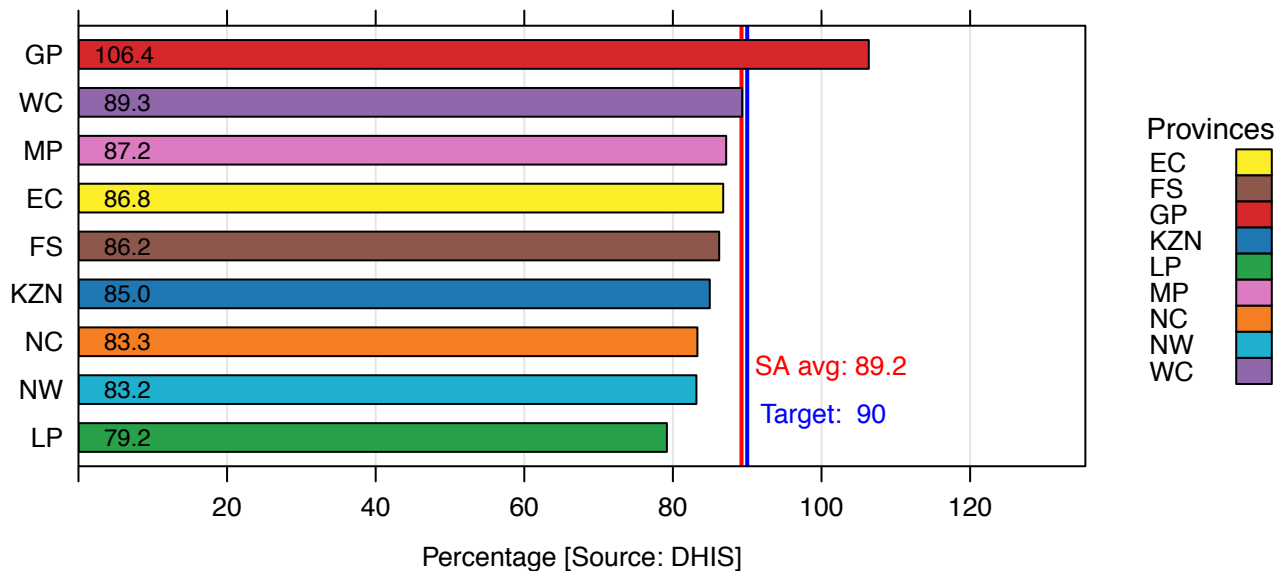


Table 3: Provincial immunisation coverage under 1 year, 2010/11–2015/16 (%)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EC	69.2	71.7	72.3	72.3	80.9	86.8
FS	94.3	96.6	96.2	86.6	90.1	86.2
GP	105.3	106.5	102.6	109.0	107.7	106.4
KZN	77.8	87.5	85.6	85.8	89.9	85.0
LP	76.9	74.7	71.1	70.3	82.2	79.2
MP	58.3	58.9	67.8	71.1	80.1	87.2
NC	85.8	88.5	86.6	84.9	85.4	83.3
NW	66.5	68.2	72.4	74.2	82.1	83.2
WC	85.0	86.2	88.8	84.9	90.9	89.3

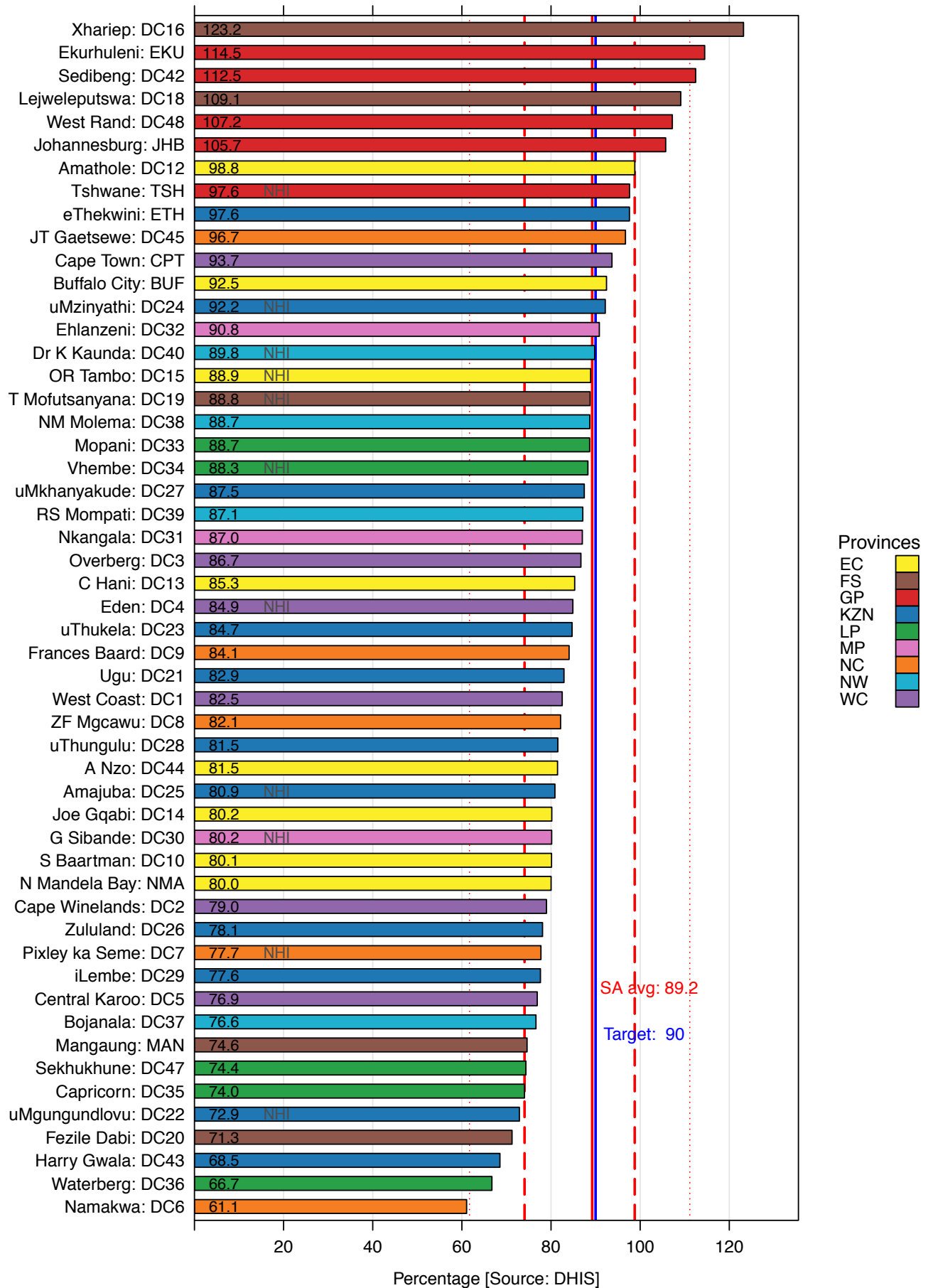
Source: DHIS.

In 2015/16, all provinces except Gauteng (106.4%) were below the national target of 90% immunisation coverage for children under 1 year of age. Seven provinces had immunisation coverage rates below the national average, although the high rate in Gauteng raised the level. The most likely reason for Gauteng exceeding 100% was in-migration of mothers with infants under 1 year of age born elsewhere, as they would have increased the numerator but not been included in the denominator. Other reasons include errors in the numerator or denominator; a change in the population estimate for that age group; and children who were older than the target age group being included in the numerator.¹

Figure 2 shows the wide variation in immunisation coverage across districts, which is further illustrated in Map 1. At district level, immunisation coverage ranged from 61.1% in Namakwa (NC) to 123.2% in Xhariep (FS).

Fourteen districts exceeded the national target of 90%. Overall, 38 of the 52 districts (73.1%) reported immunisation coverage below the national target.

Figure 2: Immunisation coverage under 1 year by district, 2015/16



Map 1: Immunisation coverage under 1 year by sub-district, 2015/16

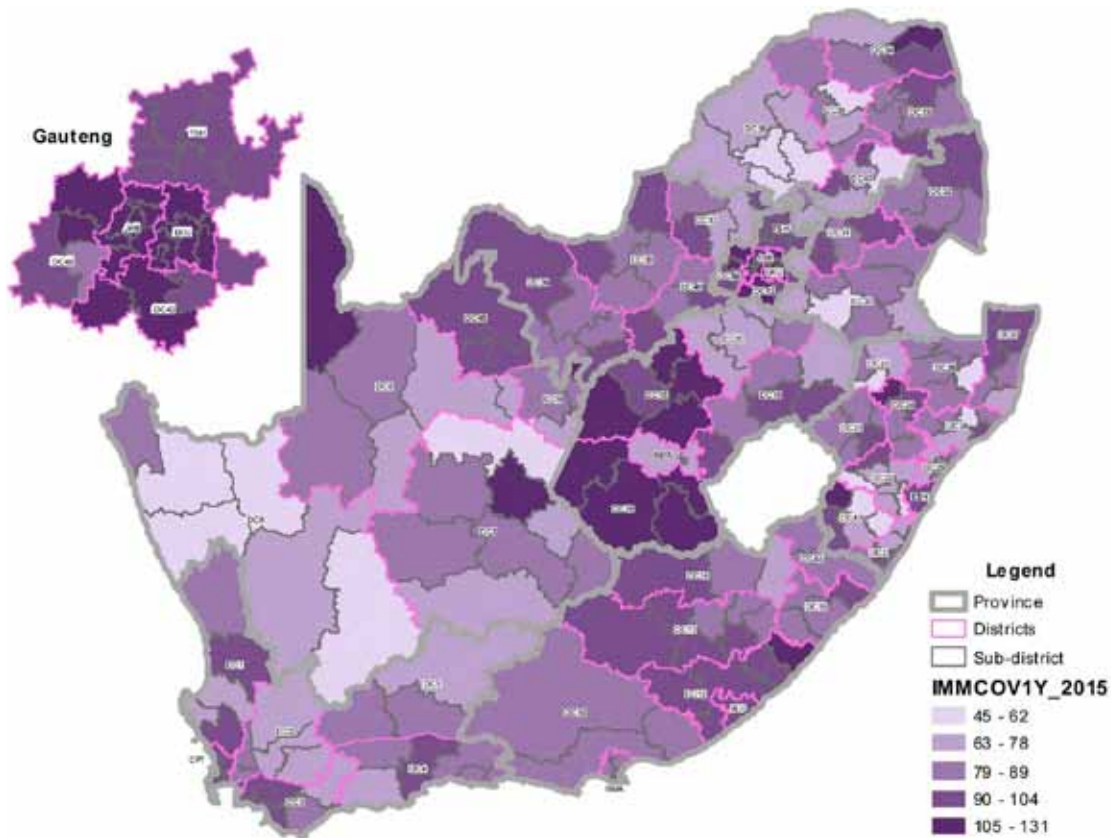


Table 4 shows immunisation coverage for the period 2014/15–2015/16. In the Eastern Cape, all districts except Buffalo City and N Mandela Bay showed an increase in coverage from 2014/15. Although Buffalo City showed a 4.0% decrease, immunisation coverage remained above the national target. In the Free State, Fezile Dabi, Mangaung and T Mofutsanyana districts showed decreases in coverage (8.4, 8.0 and 3.7 percentage point decreases respectively).

Four districts in Gauteng (Ekurhuleni, Sedibeng, West Rand and Johannesburg) had immunisation coverage exceeding 100%; however, Johannesburg, Tshwane and West Rand districts showed a decrease from the coverage reported in 2014/15. In KwaZulu-Natal, seven out of 11 districts showed a decreasing trend in immunisation coverage. Most notable in the province, the uMgungundlovu district showed an 18.3 percentage point decrease (from 91.2% in 2014/15 to 72.9% in 2015/16), while the uMzinyathi district showed a 10.6 percentage point increase (from 81.5% in 2014/15 to 92.2% in 2015/16). In 2014/15, the Mopani and Vhembe districts in Limpopo had immunisation coverage above the national target (90.5% and 94.5% respectively), but in 2015/16 coverage decreased to below the national target. Decreased coverage was also noted in the Capricorn and Sekhukhune districts (both LP).

It is encouraging that all three districts in Mpumalanga showed an increase in immunisation coverage in the 2014/15–2015/16 period. An increase of 8.2 percentage points was reported in the Ehlanzeni district, which exceeded the national target in 2015/16. In the Northern Cape, increased coverage was noted in JT Gaetsewe and ZF Mgcawu districts, whereas Frances Baard, Namakwa and Pixley ka Seme (all NC) showed decreases of 9.6, 7.2 and 2.3 percentage points respectively. Namakwa was the worst-performing district in 2015/16, with 61.1% coverage. Between 2014/15 and 2015/16, two districts in North West showed increases (Dr K Kaunda 3.0 percentage point increase and NM Molema 5.9 percentage point increase), while two districts showed decreases (RS Mompoti 0.4 percentage point decrease and Bojanala 1.5 percentage point decrease). In the Western Cape, four out of six districts showed a decrease in immunisation coverage, ranging from 0.9 percentage points in Eden to 3.7 percentage points in Cape Town. The Overberg and West Coast districts showed improvements of 6.8 and 7.4 percentage points respectively between 2014/15 and 2015/16.

Table 4: Immunisation coverage under 1 year by district, 2014/15 to 2015/16

Province	District	2014/15	2015/16	% change from 2014/15 – 2015/16
EC	A Nzo: DC44	72.3	81.5	9.2
	Amathole: DC12	86.6	98.8	12.2
	Buffalo City: BUF	96.4	92.5	-4.0
	C Hani: DC13	83.6	85.3	1.7
	Joe Gqabi: DC14	73.9	80.2	6.2
	N Mandela Bay: NMA	87.6	80.0	-7.5
	OR Tambo: DC15	74.9	88.9	13.9
	S Baartman: DC10	80.1	80.1	0.0
EC Total		80.9	86.8	5.9
FS	Fezile Dabi: DC20	79.6	71.3	-8.4
	Lejweleputswa: DC18	100.7	109.1	8.4
	Mangaung: MAN	82.6	74.6	-8.0
	Xhariep: DC16	112.7	123.2	10.5
	T Mofutsanyana: DC19	92.5	88.8	-3.7
FS Total		90.1	86.2	-3.9
GP	Ekurhuleni: EKU	111.0	114.5	3.5
	Johannesburg: JHB	109.1	105.7	-3.4
	Sedibeng: DC42	104.6	112.5	7.9
	Tshwane: TSH	101.9	97.6	-4.3
	West Rand: DC48	111.6	107.2	-4.4
GP Total		107.7	106.4	-1.3
KZN	Amajuba: DC25	79.2	80.9	1.7
	eThekwin: ETH	106.5	97.6	-8.9
	iLembe: DC29	81.0	77.6	-3.4
	Ugu: DC21	78.3	82.9	4.6
	uMgungundlovu: DC22	91.2	72.9	-18.3
	uMkhanyakude: DC27	83.0	87.5	4.5
	uMzinyathi: DC24	81.5	92.2	10.6
	uThukela: DC23	86.0	84.7	-1.3
	uThungulu: DC28	88.5	81.5	-7.0
	Zululand: DC26	87.9	78.1	-9.8
	Harry Gwala: DC43	77.0	68.5	-8.5
KZN Total		89.9	85.0	-5.0
LP	Capricorn: DC35	79.0	74.0	-4.9
	Mopani: DC33	90.5	88.7	-1.8
	Vhembe: DC34	94.5	88.3	-6.2
	Waterberg: DC36	63.4	66.7	3.3
	Sekhukhune: DC47	75.6	74.4	-1.2
LP Total		82.2	79.2	-3.0
MP	Ehlanzeni: DC32	82.6	90.8	8.2
	G Sibande: DC30	79.0	80.2	1.2
	Nkangala: DC31	77.4	87.0	9.6
MP Total		80.1	87.2	7.0
NC	Frances Baard: DC9	93.6	84.1	-9.6
	JT Gaetsewe: DC45	93.1	96.7	3.6
	Namakwa: DC6	68.3	61.1	-7.2
	Pixley ka Seme: DC7	80.0	77.7	-2.3
	ZF Mgcau: DC8	77.7	82.1	4.4
NC Total		85.4	83.3	-2.1
NW	Bojanala: DC37	78.1	76.6	-1.5
	Dr K Kaunda: DC40	86.8	89.8	3.0
	NM Molema: DC38	82.8	88.7	5.9
	RS Mompoti: DC39	87.5	87.1	-0.4
NW Total		82.1	83.2	1.1
WC	Cape Town: CPT	97.3	93.7	-3.7
	Cape Winelands: DC2	80.0	79.0	-1.1
	Central Karoo: DC5	78.7	76.9	-1.8
	Eden: DC4	85.8	84.9	-0.9
	Overberg: DC3	79.9	86.7	6.8
	West Coast: DC1	75.1	82.5	7.4
WC Total		90.9	89.3	-1.6
SA Total		89.8	89.2	-0.6

Source: DHIS

Section A: Immunisation

Immunisation coverage in nine of the 11 National Health Insurance (NHI) districts was below the national target (Figure 3). The immunisation coverage declined between 2014/15 and 2015/16 in the following NHI districts: Tshwane (GP), T Mofutsanyana (FS), Vhembe (LP), Eden (WC), Pixley ka Seme (NC) and uMgungundlovu (KZN).

Figure 3: Immunisation coverage under 1 year by National Health Insurance district, 2015/16

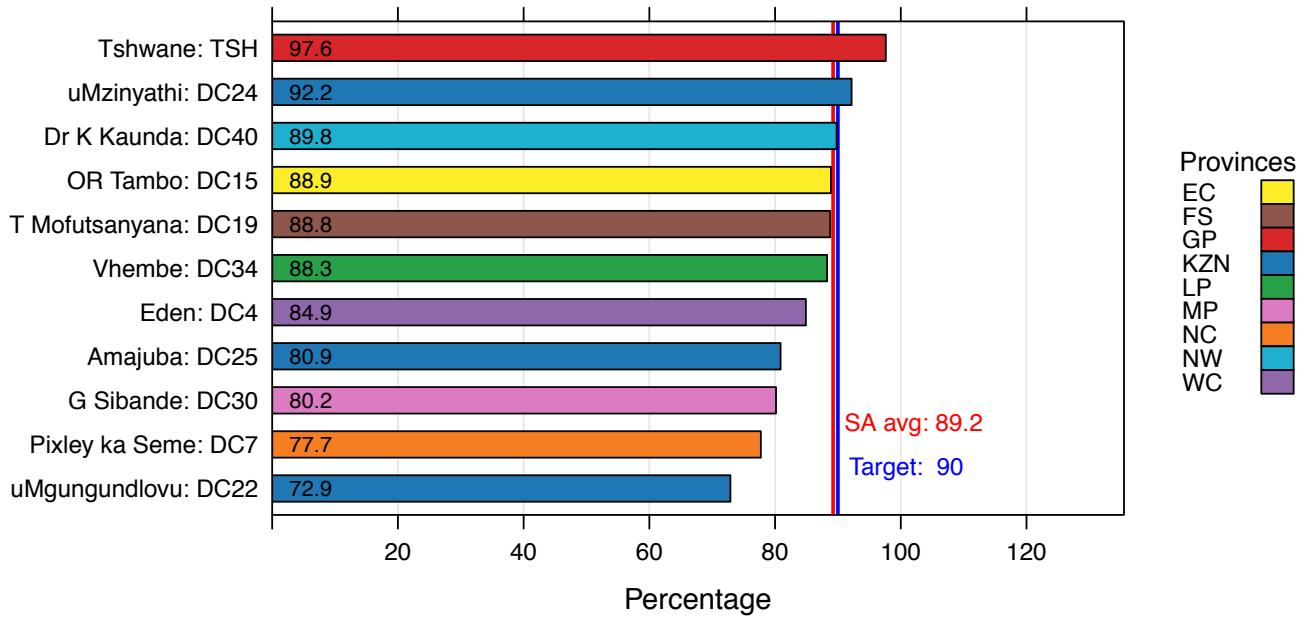
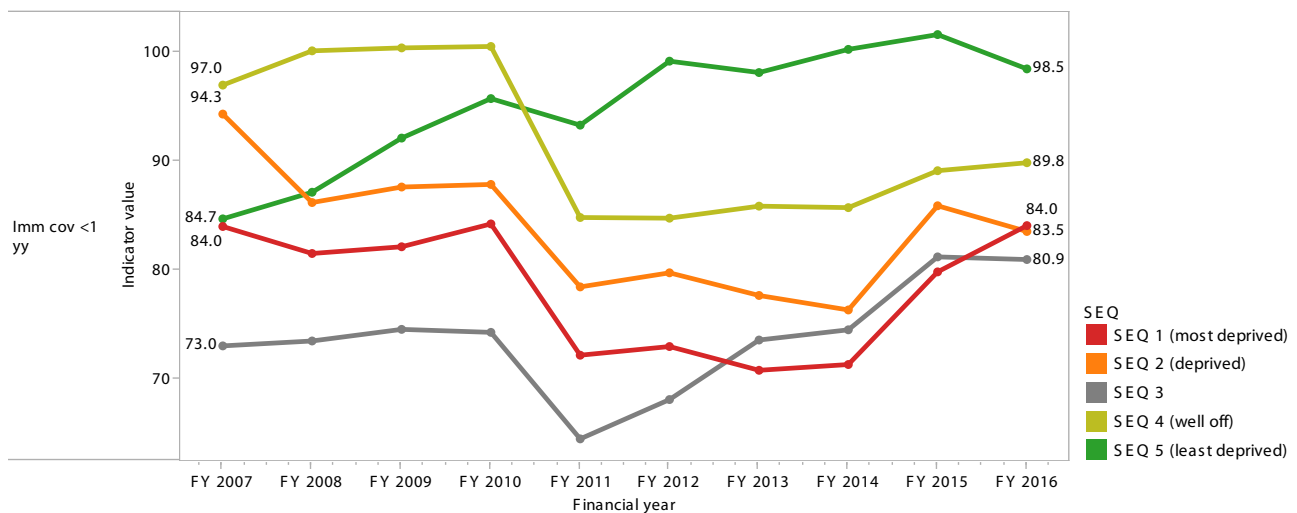


Figure 4 shows the average immunisation coverage over the past ten years by socio-economic quintile (SEQ). An inequitable trend is noted, with coverage highest in SEQ5 (least-deprived) and SEQ4, and lowest in SEQ3. There was a trend of increasing immunisation coverage in SEQ1 (most-deprived) between 2014/15 and 2015/16.

Figure 4: Trends in average district values for immunisation coverage under 1 year by socio-economic quintile



7.2 Measles 2nd dose coverage

Measles 2nd dose coverage measures the proportion of children aged 1 year (12–23 months) who received measles 2nd dose coverage, normally at 18 months.

In 2015/16, the measles 2nd dose coverage in South Africa was 84.8%. This was above the national target of 83% and a 2.0 percentage point improvement from 2014/15.

Table 5 illustrates the trends in national and provincial measles 2nd dose coverage for the period 2010/11–2015/16. All provinces showed a substantial increase in coverage between 2013/14 and 2014/15. For the period 2014/15–2015/16, measles 2nd dose coverage increased by 11 percentage points in the Free State, by 9.9 percentage points in the Western Cape, 7.5 percentage points in the Eastern Cape, 4.7 percentage points in Limpopo, and 4.1 percentage points in Mpumalanga. During the same period, coverage in Gauteng, KwaZulu-Natal, the Northern Cape and North West decreased by 2.8, 3.7, 0.1 and 1.7 percentage points respectively.

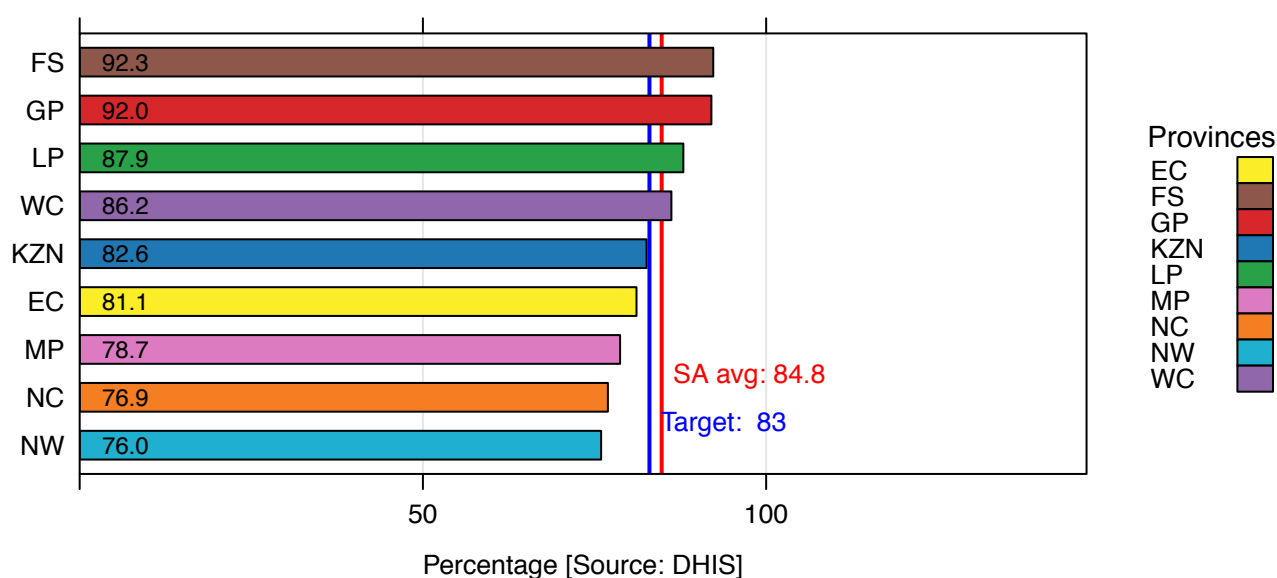
Table 5: National and provincial measles 2nd dose coverage, 2010/11–2015/16 (%)

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
EC	78.1	80.0	65.6	67.6	73.6	81.1
FS	75.4	82.4	85.8	80.0	81.3	92.3
GP	91.4	91.3	86.8	85.1	94.9	92.0
KZN	76.8	90.5	78.1	77.0	86.3	82.6
LP	91.2	94.2	72.4	73.5	83.3	87.9
MP	74.3	76.2	67.0	69.6	74.6	78.7
NC	82.5	83.1	77.2	75.7	77.1	76.9
NW	73.7	74.1	62.9	66.3	77.7	76.0
WC	78.7	77.0	70.1	71.2	76.3	86.2
SA	81.3	85.4	74.9	75.0	82.8	84.8

Source: DHIS.

In 2015/16, the national target of 83% and the national average of 84.8% were surpassed by four provinces, with Free State attaining the highest rate (92.3%). (Figure 5). The worst-performing province was North West with a coverage of 76.0%.

Figure 5: Measles 2nd dose coverage by province, 2015/16



The wide variation in measles 2nd dose coverage among districts can be seen in Figure 6 and Map 2. At district level, measles 2nd dose coverage ranged from 66.4% in Waterberg (LP) to 133.3% in Xhariep (FS).

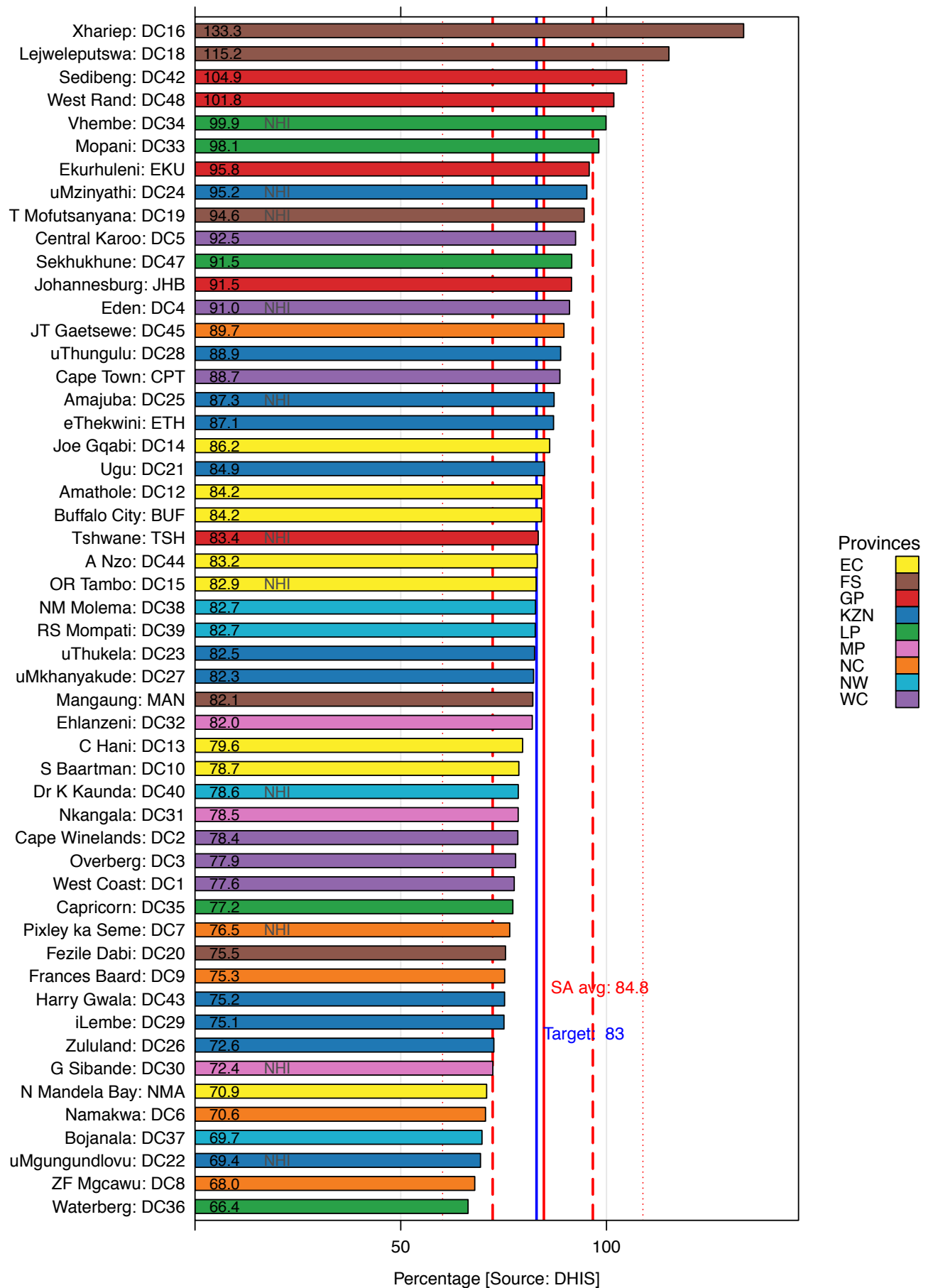
Twenty districts exceeded the national average of 84.8%, while 24 districts exceeded the national target of 83%. Four districts reported coverage below 70%, namely Bojanala (NW) (69.7%), uMgungundlovu (KZN) (69.4%), ZF Mgcawu (NC) (68.0%) and Waterberg (LP) (66.4%).

Among the metro districts, Mangaung (FS) (82.1%) and N Mandela Bay (EC) (70.9%) had coverage below the national average and target, while Ekurhuleni (GP) (95.8%), Johannesburg (GP) (91.5%), Cape Town (WC) (88.7%) and eThekweni (KZN) (87.1%) metro districts reported coverage above the national average and target.

Five NHI districts did not meet the national target. The best-performing NHI district was Vhembe (LP) (99.9%) and the worst-performing was uMgungundlovu (KZN) (69.4%).

The majority of districts showed an increase in measles 2nd dose coverage over the past three years. Districts that showed an improvement of more than 20 percentage points between 2013/14 and 2015/16 include: Joe Gqabi (EC) (24.5 percentage points increase), OR Tambo (EC) (23.3 percentage points increase), Xhariep (FS) (40.4 percentage points increase), Amajuba (KZN) (28.1 percentage points increase) and Mopani (LP) (20.2 percentage points increase). Only one district (Frances Baard (NC)) showed a decrease of more than 10 percentage points from 2013/14.

Figure 6: Measles 2nd dose coverage by district, 2015/16



Map 2: Measles 2nd dose coverage by sub-district, 2015/16

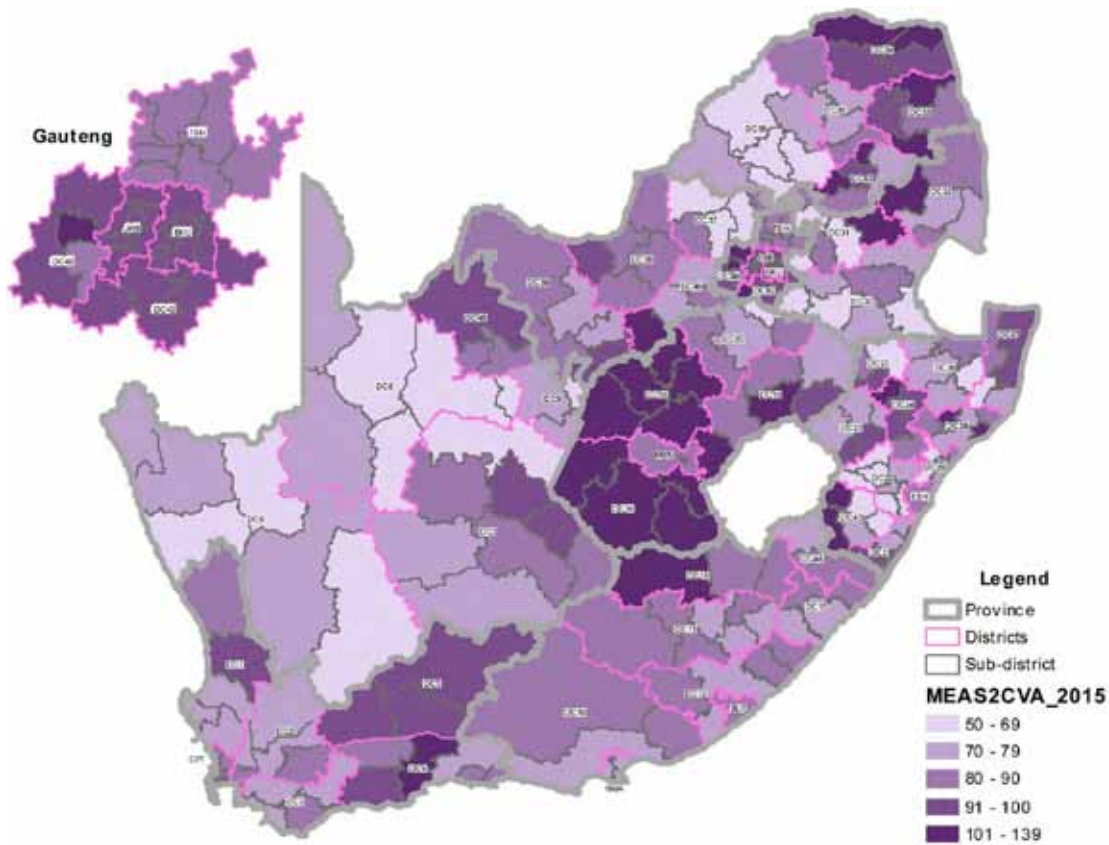
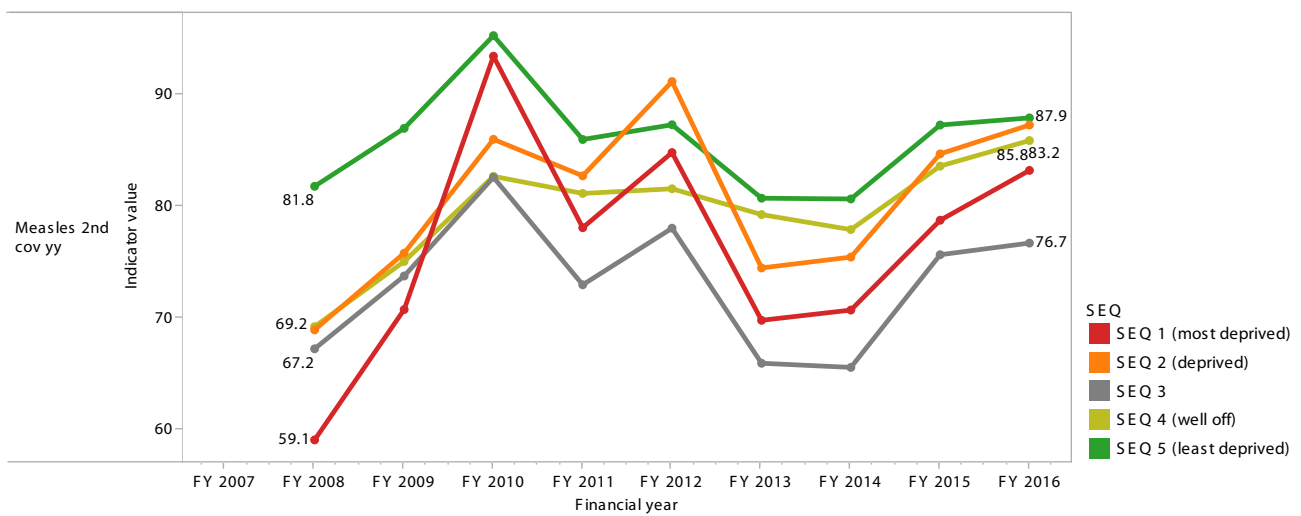


Figure 7 shows the average measles 2nd dose coverage by SEQ. Coverage of 87.9% was noted in SEQ5. Coverage in SEQ1 increased from 59.1% in 2008/09 to 85.9% in 2015/16.

Figure 7: Trends in average district values by socio-economic quintile for measles 2nd dose coverage



Key findings

Immunisation coverage under 1 year

- ◆ In 2015/16, immunisation coverage varied widely across the country. Only Gauteng met the national target of 90%. Since the previous reporting period, decreases in immunisation coverage have been noted in five provinces.
- ◆ There was a 27.2 percentage point difference between the best-performing province (GP) and the worst-performing province (LP).
- ◆ Nearly three-quarters of districts (73.1%) did not meet the national target, and 71.2% did not meet the national average.
- ◆ Additionally, 54% of districts showed a decrease in immunisation coverage since 2014/15.
- ◆ There was a 62.1 percentage point difference between the best-performing district (Xhariep, FS) and the worst-performing district (Namakwa, NC).

Measles 2nd dose coverage

- ◆ Four provinces and 24 districts attained the national target of 83% for measles 2nd dose coverage.
- ◆ There was a 16.3 percentage point difference between the best-performing province (FS) and the worst-performing province (NW), and a 66.9% difference between the best-performing district (Xhariep, FS) and the worst-performing district (Waterberg, LP).
- ◆ Despite the profound achievements of the South African immunisation programme over the years, immunisation coverage for preventable diseases remains sub-optimal. The uneven rate of immunisation across provinces and districts implies that immunisation strategies are being applied effectively in some areas while other areas are lagging behind. This variation in immunisation coverage inhibits effective disease control. Therefore the underlying factors associated with low coverage in districts that are performing poorly must be investigated in order to achieve the desired targets and eventual disease elimination.

Recommendations

- ◆ Immunisations should be offered as a service on each day of the week, and not only on dedicated days.
- ◆ Mobile clinics and mass vaccination campaigns should be better utilised to increase immunisation coverage in remote and high-risk areas.
- ◆ Every contact with a child should be used as an opportunity to check his/her RtHB to ensure that he or she is up to date with immunisations. Provision of immunisations must be recorded on the RtHB to allow tracking of the child's immunisation.
- ◆ Community health workers, ward-based outreach teams and community caregivers should be actively utilised to trace children who have missed immunisations.
- ◆ Health workers should ensure that mothers are registered on MomConnect as this will enable mothers to receive reminders of clinic visits.
- ◆ Registers must be completed accurately in real time; and overall data quality should be improved.
- ◆ Visits to verify data should be carried out at all levels by supervisors and managers.
- ◆ Measures to include immunisation data from the private sector should be developed and implemented.

8 Reproductive health

Linda Mureithi

This chapter covers two indicators related to reproductive health, namely 'couple year protection rate' and 'cervical screening coverage'.

8.1 Couple year protection rate

Over the last five years there have been concerted efforts to improve access to contraception among women in South Africa, and a number of policy initiatives have been introduced in this regard. In February 2012, the National Contraception and Fertility Planning Policy and Service Delivery Guidelines was introduced and in 2014 the National Contraception Clinical Guidelines. One of the key intentions of these guidelines was to give all public sector patients access to additional methods of contraception, in particular, to the long-acting hormonal contraceptive subdermal implant. This implant provides contraceptive cover for three years. The couple year protection rate (CYPR) indicator measures the proportion of women aged from 15 to 49 years who are protected against unplanned pregnancies for a year using modern contraceptive methods, including sterilisation. The volume and type of all contraceptives dispensed to clients during a specified period of time (a year) is used to estimate the amount of protection against pregnancy during that particular period. This estimate of protection, the 'contraceptive years dispensed' forms the numerator for the CYPR indicator. Each type of contraceptive method that is distributed is adjusted by a conversion factor (country-specific)^a to yield an estimate of the duration of contraceptive protection. In South Africa, this is calculated automatically in the District Health Information Software (DHIS) as follows:

- ◆ oral pill cycle divided by a factor of 13 (one pack lasts 28 days = 13 per year);
- ◆ medroxyprogesterone injection divided by a factor of 4 (administered every three months);
- ◆ norethisterone enanthate injection divided by a factor of 6 (administered every two months);
- ◆ intrauterine contraceptive device (IUCD) inserted multiplied by a factor of 4 (estimated to provide effective contraception for four years);
- ◆ male condoms distributed divided by a factor of 200 (estimated that they are used 200 times per year);
- ◆ female condoms distributed divided by a factor of 200 (estimated that they are used 200 times per year);
- ◆ male sterilisation multiplied by a factor of 20 (estimated number of years of protection against pregnancy post procedure based on median age at sterilisation);
- ◆ female sterilisation multiplied by a factor of 10 (estimated number of years of protection against pregnancy post procedure based on median age at sterilisation);
- ◆ subdermal implants multiplied by a factor of 3 (estimated to provide effective contraception for three years).

In 2015, the CYP conversion factors were aligned to the international conversion factors. However, the chapter reports on the CYPR as in the DHIS.

The denominator for the CYPR is the 'female target population 15–49 years', where females are used as a proxy for couples. The numerator ('contraceptive years dispensed') is therefore based on an estimation of the extent to which couples would be protected if only one method was used per couple. It does not adjust for methods dispensed but not used (such as condoms or oral pills), methods removed early (such as IUCDs or subdermal implants), or 'dual protection' (the simultaneous use of condoms and hormonal methods). The CYPR is therefore a crude proxy, although it is the best available measure in the absence of regular, disaggregated survey data, which could measure the proportion of women using a modern contraceptive method.

All provinces are now reporting on subdermal implants and female condoms distributed. This is in contrast to the 2014/15 year when only Gauteng (GP), KwaZulu-Natal (KZN), Limpopo (LP) and the Northern Cape (NC) reported on this distribution. However, all three districts in Mpumalanga (MP) did not report data on subdermal implants for the entire 2015/16 year.

Contraception data elements

Table 1 presents the individual contraceptive data elements and total contraceptive years dispensed over the last three years. The total number of contraceptive years dispensed increased by 4.4% from 6.98 million in 2014/15 to 7.28 million in 2015/16. There were some fluctuations in specific data elements. The number of female condoms distributed increased by 28.0% from 2014/15. The number of male condoms distributed increased by 17.9% from 2014/15, and by 40.7% from 2013/14 to 2014/15. Female sterilisations and medroxyprogesterone use showed marginal increases. The most significant

a MEASURE Evaluation. Family planning and reproductive health indicators database. Couple-years of protection (CYP). Available from: http://www.cpc.unc.edu/measure/prh/rh_indicators/specific/fp/cyp [Accessed 24 August 2016].

decline was in the number of IUCDs inserted, a 61.3% decrease from 2014/15. This may have been due to women choosing alternative contraceptive methods such as subdermal implants. The subdermal implant introduced in 2014 also declined, by 50.4%. This could have been due to the fact that it is a long-lasting (three-year) method with trends in utilisation more readily assessed over three-year cycles. There has been a steady decline (31.1%) in the number of male sterilisations over the last three years.

Table 1: Number of contraception methods dispensed, 2013/14–2015/16

Type of contraceptive dispensed	2013/14	2013/14	2014/15	2014/15	2015/16	2015/16	Change 2014/15 to 2015/16 %
	Number	Contraceptive years dispensed	Number	Contraceptive years dispensed	Number	Contraceptive years dispensed	
Female condoms	13 254 328	66 271	21 099 517	105 497	27 005 805	135 029	28.0
IUCD inserted	41 817	167 268	39 168	156 672	15 150	60 600	-61.3
Male condoms	506 431 299	2 532 156	712 387 234	3 561 936	839 874 751	4 199 373	17.9
Medroxyprogesterone	5 762 721	1 440 680	5 510 430	1 377 607	5 578 228	1 394 557	1.2
Norethisterone enanthate	4 277 194	712 865	3 834 005	639 000	3 676 445	621 740	-4.1
Oral pill cycles	3 815 539	293 503	3 560 421	273 878	3 591 382	276 260	0.9
Sterilisation female	31 551	631020	32 074	641 480	33 134	662681	3.3
Sterilisation male	1 120	11 200	877	8 770	772	7 720	-12
Sub-dermal implant inserted			175 948	527 844	87 189*	261 567	-50.4
		5 854 963		7 292 684		7 619 527	4.4

* Sub dermal implants for 2015/16 were reported by only four provinces.

Source: DHIS.

Table 2 shows the contribution of individual contraceptives to total contraceptive years dispensed. Male condom use continued to dominate proportionately (57.6%), up from 45.6% in 2013/14. Although the relative proportion of the medroxyprogesterone injection decreased slightly from 26.0% in 2013/14 to 19.1% in 2015/16, it remained the second leading contributor to total contraceptive years. The newly introduced subdermal implants contributed 3.6%, down from 7.6% in the previous year.

Table 2: Contribution of individual contraceptive methods to total contraceptive years dispensed, 2013/14–2015/16 (%)

Data element	% of contraceptive years dispensed		
	2013/14	2014/15	2015/16
Female condoms	1.2	1.5	1.9
IUCD inserted	3.0	2.2	0.8
Male condoms	45.6	51.0	57.6
Medroxyprogesterone	26.0	19.7	19.1
Norethisterone enanthate	12.8	9.2	8.4
Oral pill cycle	5.3	3.9	3.8
Sterilisation female	5.7	4.6	4.5
Sterilisation male	0.4	0.3	0.2
Subdermal implant	0.0	7.6	3.6
Contraceptive years dispensed	100.0	100.0	100.0

Source: DHIS.

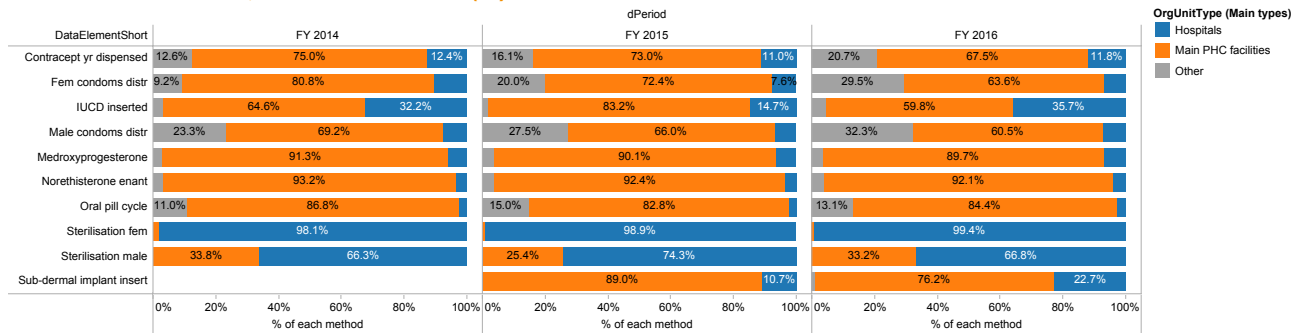
Contraceptive method by facility type

The majority of non-surgical contraceptive methods (67.5%) continue to be dispensed at primary health care (PHC) facilities. However, this proportion decreased from 73.0% in 2014/15. This was matched by an increase in the proportion of contraceptives dispensed by facilities designated as 'other'^b (Figure 1 and Table 3). Interestingly, the proportion of IUCDs inserted in hospitals increased from 14.7% in 2014/15 to 35.7% in 2015/16. This was primarily due to the fact that the number of IUCDs inserted in PHC facilities dropped dramatically, from 32 592 in 2014/15 to 9 060 in 2015/16 (a 72% decrease), although the reason for this is not clear.

^b 'Other' includes all other facility types not clearly hospitals, clinics, community health centres or mobile units.

Section A: Reproductive health

Figure 1: Contraception methods dispensed in hospitals, main primary healthcare facilities and other facilities, 2013/14–2015/16 (%)



Source: DHIS.

Table 3: Methods of contraception by facility type, 2013/14–2015/16 (Number)

Data element	Year	Facility type			Grand total
		Hospitals	Main PHC facilities	Other	
Female condoms distributed	2013/14	1 323 337	10 714 517	1 216 474	13 254 328
	2014/15	1 595 465	15 282 984	4 221 068	21 099 517
	2015/16	1 880 173	17 169 774	7 955 858	27 005 805
IUCD inserted	2013/14	13 456	27 018	1 343	41 817
	2014/15	5 754	32 592	822	39 168
	2015/16	5 403	9 060	687	15 150
Male condoms distributed	2013/14	37 992 451	350 627 661	117 811 187	506 431 299
	2014/15	46 801 575	469 895 456	195 690 203	712 387 234
	2015/16	60 704 778	508 212 961	270 957 012	839 874 751
Medroxyprogesterone	2013/14	331 269	5 262 531	168 921	5 762 721
	2014/15	340 458	4 966 752	203 220	5 510 430
	2015/16	374 442	5 002 741	201 045	5 578 228
Norethisterone enanthate	2013/14	144 439	3 987 169	145 586	4 277 194
	2014/15	137 527	3 541 535	154 943	3 834 005
	2015/16	147 202	3 387 231	142 012	3 676 445
Oral pill cycle	2013/14	82 906	3 312 228	420 405	3 815 539
	2014/15	78 001	2 948 379	534 041	3 560 421
	2015/16	89 890	3 030 352	471 140	3 591 382
Sterilisation female	2013/14	30 942	609		31 551
	2014/15	31 709	346	19	32 074
	2015/16	32 924	198	12	33 134
Sterilisation male	2013/14	742	378		1 120
	2014/15	652	223	2	877
	2015/16	516	256		772
Subdermal implant inserted	2014/15	18 899	156 616	433	175 948
	2015/16	19 750	66 455	984	87 189

Source: DHIS.

The national CYPR for 2015/16 was 48.2%, only marginally higher than the rate in the previous year (46.8%). This was again below the national target of 60%. Figure 2 shows the CYPR by province which ranged from 35.1% in North West (NW) to 58.6% in the Western Cape (WC). The Eastern Cape (EC) and Free State (FS) showed notable increases since 2014/15, namely 14.1 and 13.7 percentage points respectively. Conversely, North West, the Northern Cape and KwaZulu-Natal showed decreases in the CYPR of 7.6, 6.6 and 5.7 percentage points respectively.

Figure 2: Couple year protection rate by province, 2015/16

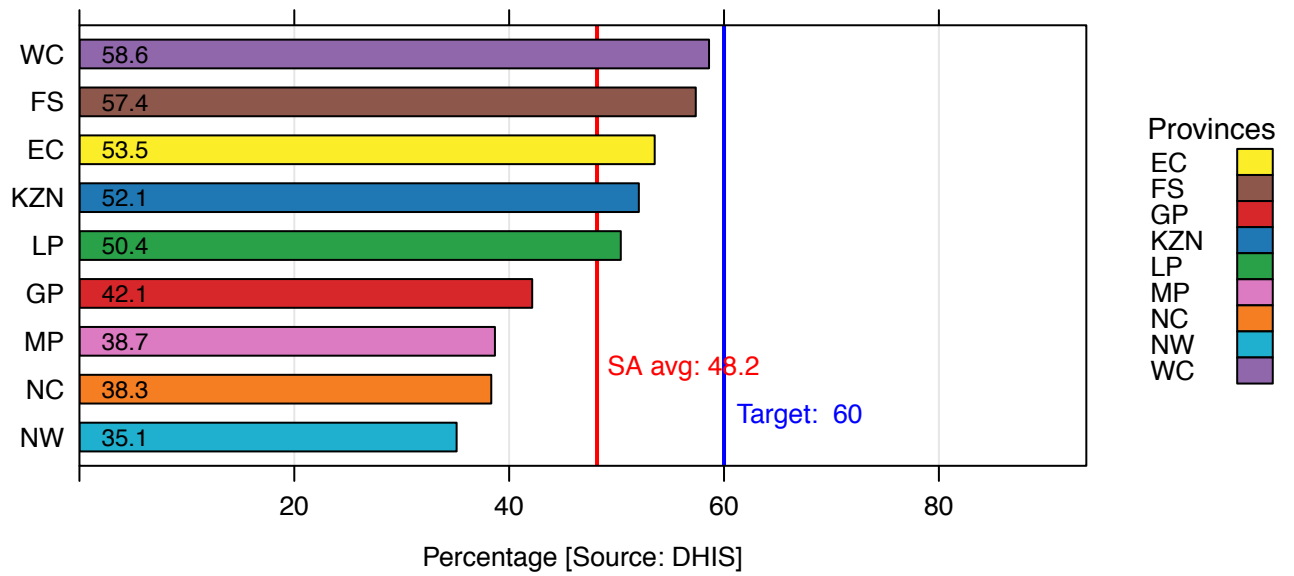
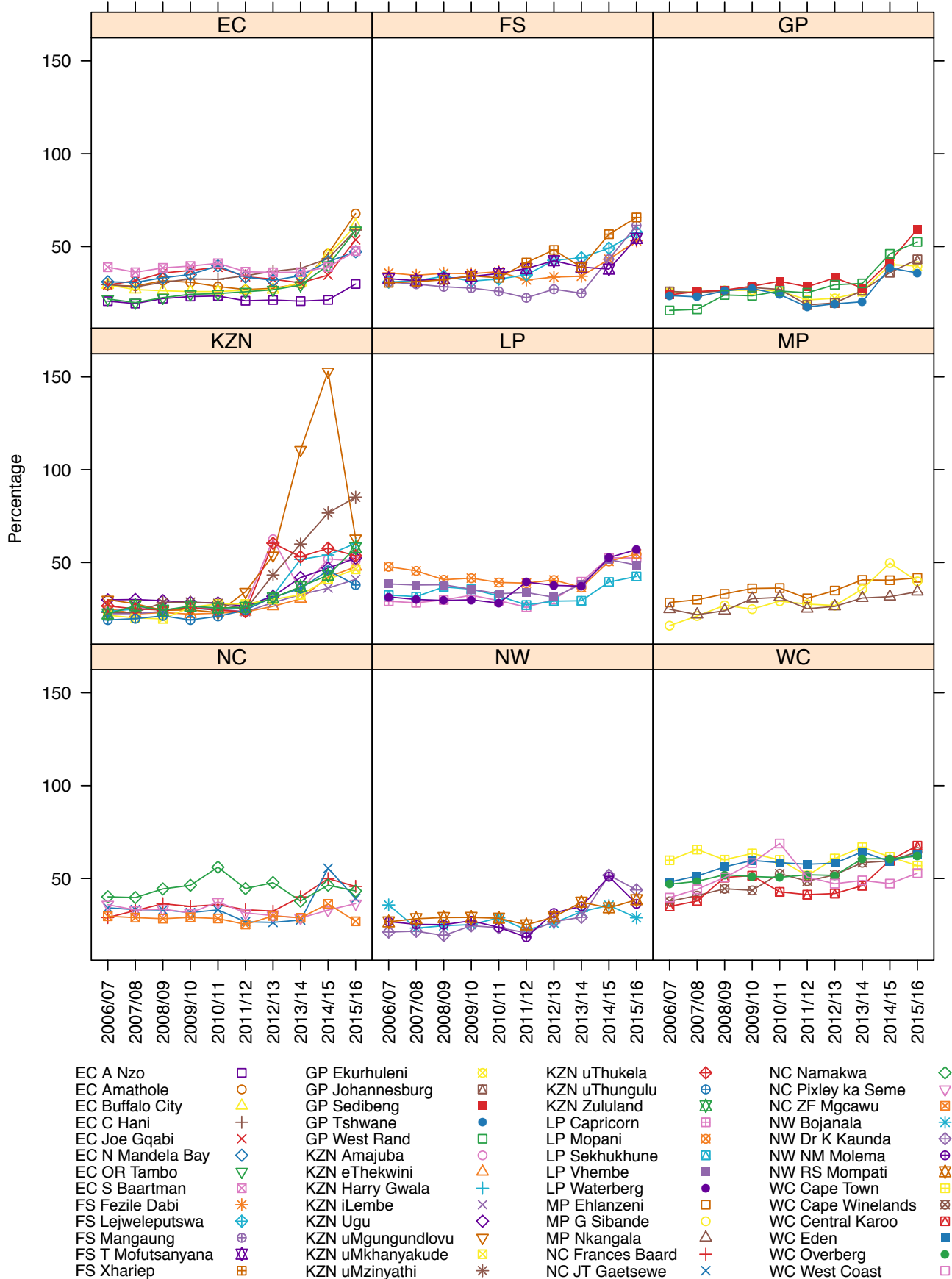


Figure 3 shows the annual trends in CYPR by province.

Figure 3: Annual trends for couple year protection rate



Map 1 and Figure 4 show the CYPR by district. The rate ranged from 26.9% in ZF Mgcawu (NC) to 85.2% in uMzinyathi (KZN). Only 11 of the 52 districts attained the target CYPR of 60%. Most districts (35 of 52) showed an increase in CYPR. The largest increases were seen in Amathole (EC) (21.6 percentage points), Joe Gqabi (EC) (19.0 percentage points), OR Tambo (EC) (18.7 percentage points), Mangaung (FS) (18.1 percentage points), Sedibeng (GP) (17.5 percentage points), T Mofutsanyana (FS) (16.5 percentage points) and Buffalo City (EC) (16.2 percentage points). All districts in the Eastern Cape and Free State showed notable increases in CYPR. Seventeen of the 52 districts showed decreases in CYPR, with the biggest decrease being in uMgungundlovu (KZN) (89.9 percentage points), largely due to the male condoms dropping from 76 million to 26 million. This may have been due to poor data. Other districts with significant decreases included JT Gaetsewe (NC) (16.2 percentage point decrease), NM Molema (NW) (14.6 percentage points), G Sibande (MP) (9.9 percentage points) and ZF Mgcawu (NC) (9.4 percentage points). All three metro districts in Gauteng were below the national average, namely Johannesburg (43.1%), Ekurhuleni (39.5%) and Tshwane (35.8%). However, Johannesburg showed an increase of 7.1 percentage points from 2014/15 (Figure 3).

The CYPR varied widely in the National Health Insurance (NHI) districts, ranging from 35.8% in Tshwane (GP), the fifth-worst performing district in the country, to 85.2% in uMzinyathi (KZN), the best-performing district in the country. Only three of the 11 NHI districts reached the CYPR target of 60%. These were uMzinyathi (KZN), Eden (WC) and uMgungundlovu (KZN).

Map 1: Couple year protection rate by sub-district, 2015/16

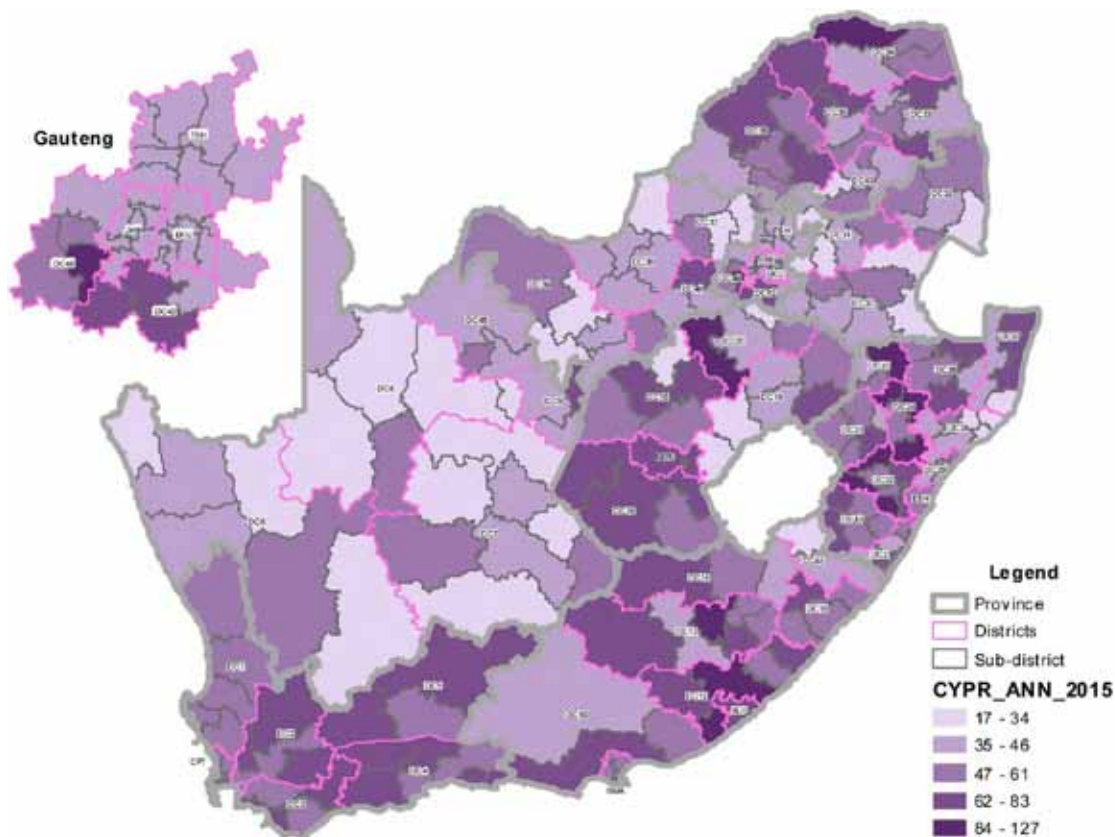
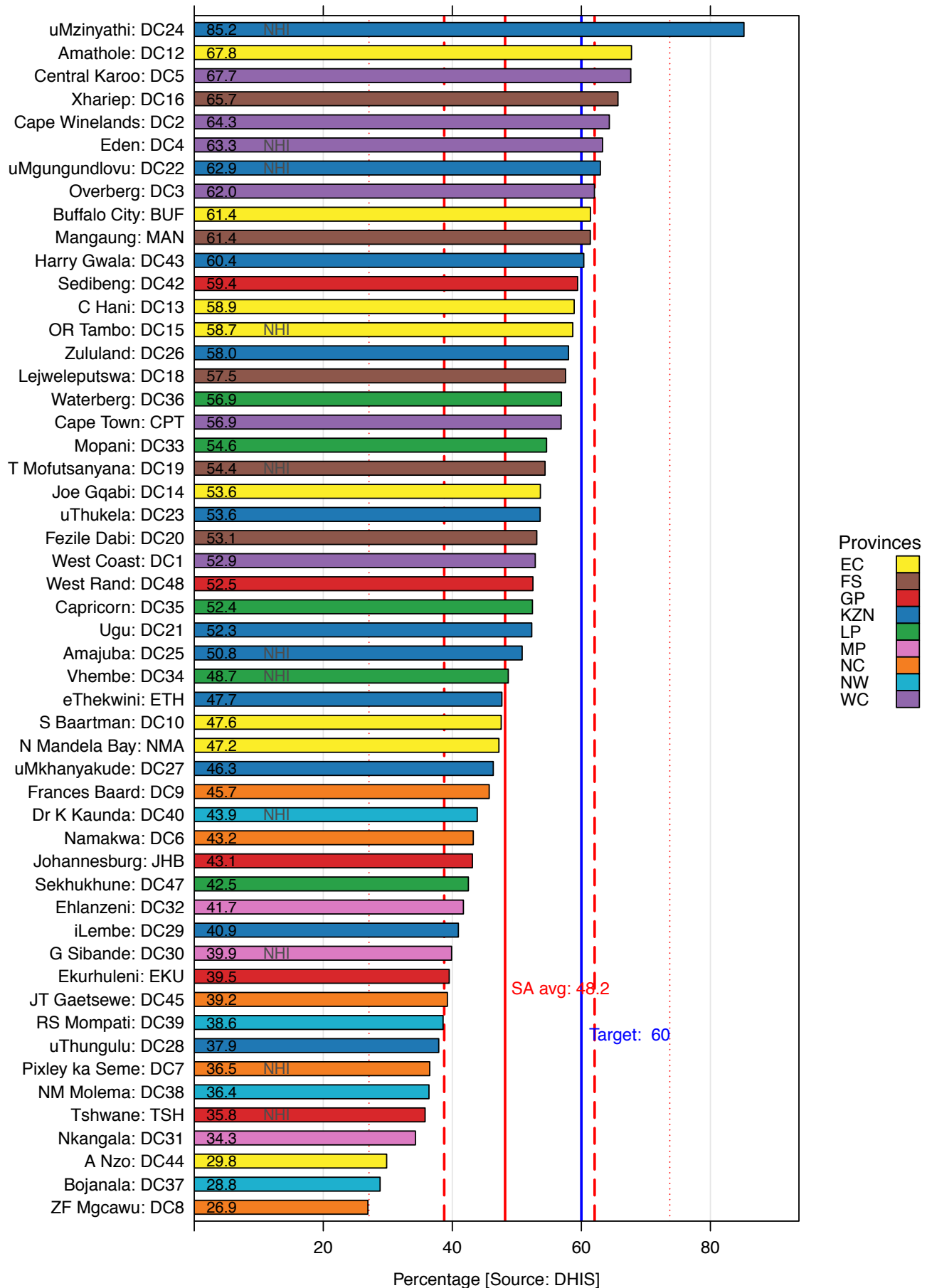
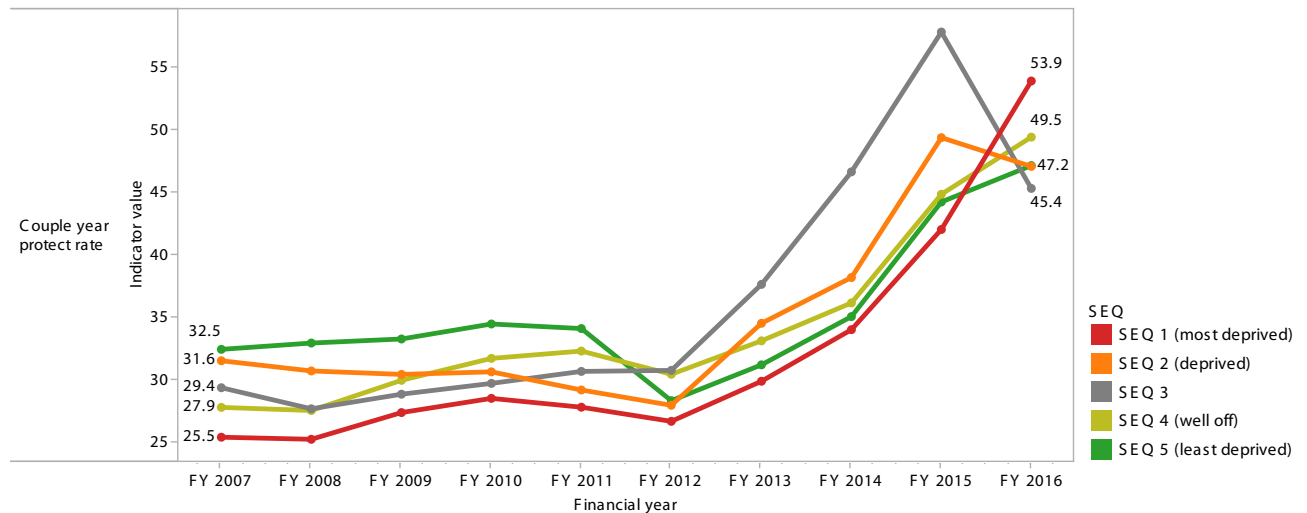


Figure 4: Couple year protection rate by district, 2015/16



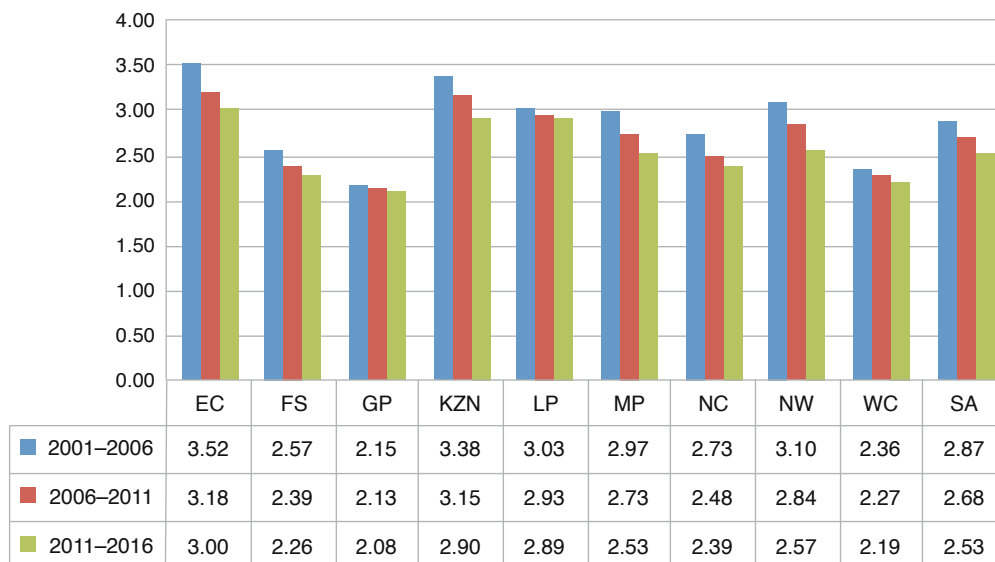
The CYPR fluctuated according to socio-economic quintile (SEQ) (Figure 5). In previous years the weighted average of the CYPR was lowest in SEQ1 and highest in SEQ3; however, in 2015/16 the CYPR was highest in SEQ1 (53.9%) and lowest in SEQ3 (45.4%). Figure 5 shows a constant CYPR from 2007/08 to 2012/13, at around 30%. However, after a slight dip in 2012/13, it increased strikingly year on year, possibly because of the increase in number of condoms distributed over this period.

Figure 5: Trends in average district values by socio-economic quintile for couple year protection rate



Statistics South Africa (StatsSA) data show that total fertility rates in the country have declined consistently, with trend data decreasing from 2.87 children per woman in the 2001–2006 series to 2.53 children per woman in the 2011–2016 series (Figure 6). This is probably due to a decline in the infant and child mortality rates, improved education of women, as well as better access to contraceptives. In 2011–2016, Gauteng had the lowest total fertility rate at 2.08 children per woman, and Eastern Cape the highest at 3.00 children per woman.

Figure 6: Total fertility rates by province, 2001–2016



Source: Statistics South Africa. Mid-year population estimates 2015.^c

^c Statistics South Africa. Mid-year population estimates 2015. Pretoria: StatsSA; 2015. Available from: <https://www.statssa.gov.za/publications/P0302/P03022015.pdf> [Accessed 21 November 2016].

8.2 Cervical screening coverage

In 2014, malignant neoplasms of the female genital organs were ranked the 10th leading cause of death among females in South Africa based on cause of death notifications, accounting for 2.3% of all deaths.^d This was the first time since 1997 that malignant neoplasms were in the top 10 causes of death. Cervical cancer is the second most common cancer in women and the most common cancer in women aged 15–44 years in South Africa.^e Persistent or chronic infection with certain high-risk genotypes of the human papillomavirus (HPV), which is sexually transmitted, has been established as an important causative agent for a significant proportion of cervical cancer.^f

Cervical cancer screening programmes aim to decrease morbidity and mortality through early detection of precursors of cervical cancer in asymptomatic women, with subsequent appropriate timely referral and treatment.^g In South Africa, this is primarily done through Pap smear screening (cytology), which has been shown to reduce occurrence of cervical cancer if coverage is adequate.ⁱ The national policy on cervical cancer screening states that women should have three cervical smears done at 10-yearly intervals starting at the age of 30 years. However, in HIV-positive women, the National Department of Health (NDoH) clinical guidelines for management of HIV and AIDS^h recommend more frequent screening, namely on diagnosis and three-yearly thereafter if normal.

The indicator 'cervical cancer screening coverage' measures the annual number of cervical smears taken in women 30 years and older as a proportion of the female population 30 years and older, factored for one smear every 10 years. The denominator used to calculate the coverage for a particular year is therefore 10% of the female population aged 30 years and older. The numerator is the number of cervical (Pap) smears or visual inspections with acetic acid (VIA) for women 30 years and older conducted for screening purposes. Diagnostic smears or repeat smears are not included in the estimate of the numerator. The smears include those done in antenatal clinics or postnatally or for HIV-positive women, but only if they fall within the definition and are counted once within the 10-year interval.

Inclusion of smears done more than once in 10 years for the same woman; smears done for women under the age of 30; repeat smears (e.g. when the original smear was of insufficient quality); and diagnostic smears in the numerator can result in falsely high estimates of the numerator and coverages. Therefore, a screening coverage of 100% in a particular year means that 10% of women aged 30 and older were screened in that year.

In April 2014, the NDoH started the roll-out of the HPV vaccine in the public sector. This public school-based campaign targets Grade 4 girls, aged nine years and older, who receive two doses of the vaccine six months apart.ⁱ The vaccination is a form of primary prevention that aims to reduce the risk of cervical cancer by reducing the likelihood of infection with high-risk HPV types (types 16 and 18 in particular).^h The impact of this programme in reducing the incidence of cervical cancer will therefore only become evident in the next 20–30 years.

The national cervical screening coverage has increased steadily over the last 10 years, from 32.0% in 2006/07 to 56.6% in 2015/16, although this remains slightly lower than the national target of 60% set for 2015/16.

Provincial coverage ranged from 34.8% in the Northern Cape to 72.7% in KwaZulu-Natal (Figure 7). Three of the nine provinces reached the national target of 60%, namely KwaZulu-Natal, Mpumalanga and North West. The Northern Cape was the worst-performing province; it has had a relatively low cervical cancer screening coverage over the last 10 years, with a low of 30.0% in 2014/15 and a peak of 37.9% in 2010/11. Further exploration is needed to establish reasons for this poor performance. Coverage in KwaZulu-Natal, the best-performing province, has improved markedly over the last decade, from 32.4% in 2006/07 to 72.7% in 2015/16. Reasons for this marked increase in performance should be explored so that the good practices in this province can be identified and shared.

d Statistics South Africa. Mortality and causes of death in South Africa: Findings from death notification, 2014. Pretoria: StatsSA; 2015. Available from: http://www.statssa.gov.za/?page_id=1854&PPN=P0309.3&SCH=6377 [Accessed 24 August 2016].

e Bruni L, Barrionuevo-Rosas L, Albero G, Aldea M, Serrano B, Valencia S, et al. ICO Information Centre on HPV and Cancer (HPV Information Centre). Human Papillomavirus and Related Diseases in South Africa. Summary Report 2016-02-26. Available from: <http://www.hpvcntr.net/statistics/reports/XWX.pdf> [Accessed 29 August 2016].

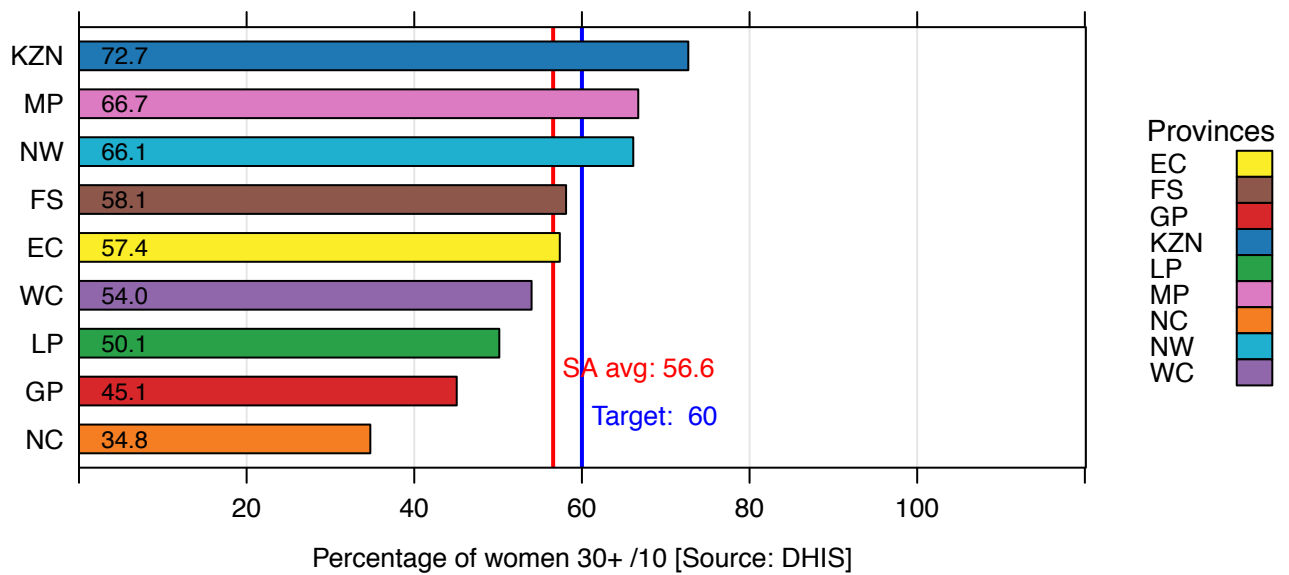
f World Health Organization. Human papillomavirus and cervical cancer fact sheet, 2016. Available from: <http://www.who.int/mediacentre/factsheets/fs380/en/> [Accessed 29 August 2016].

g South African HPV Advisory Board. Cervical cancer and human papillomavirus: South African guidelines for screening and testing. South African Journal of Gynaecological Oncology. 2010; 2(1):23–6. Available from: <http://www.sasog.co.za/images/Guidelines.pdf> [Accessed 24 August 2016].

h South African National Department of Health. National Consolidated Guidelines for the Prevention of Mother-to-child Transmission of HIV (PMTCT) and the Management of HIV in Children, Adolescents and Adults. Pretoria: NDoH; April 2015.

i Botha MH, Richter KL. Cervical cancer prevention in South Africa: HPV vaccination and screening both essential to achieve and maintain a reduction in incidence. S Afr Med J. 2015 Jan; 105(1):33–4.

Figure 7: Cervical cancer screening coverage by province, 2015/16

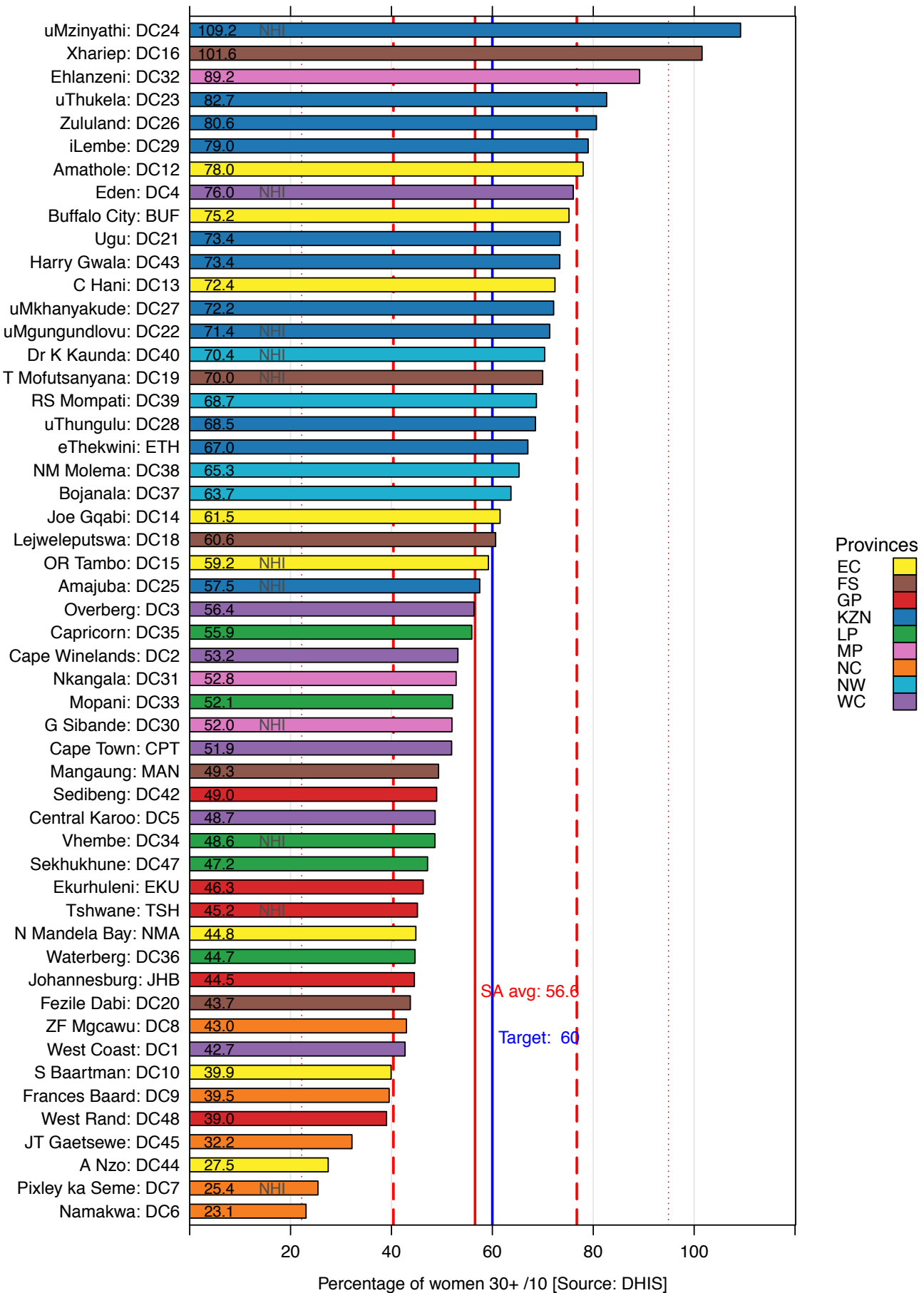


District cervical cancer screening coverage ranged from 23.1% in Namakwa (NC) to 109.2% in uMzinyathi (KZN) (Figure 8 and Map 2). Twenty-three of the 52 districts achieved the target of 60% coverage. Two districts, uMzinyathi (KZN) and Xhariep (FS), had coverage above 100%. This may have been due to Pap smears done more than once every 10 years, as is recommended for HIV-positive women. All districts in the Northern Cape and Gauteng (the second worst-performing province) had coverages below the national average of 56.6%.

Over half of all districts (30 of 52) showed increases in coverage compared with the previous year. The largest increases were seen in uMzinyathi (KZN) (37.6 percentage points), uMkhanyakude (KZN) (28.3 percentage points) and T Mofutsanyana (FS) (26.6 percentage points). Twenty-two of 52 districts showed decreases in coverage from the previous year. The largest decreases were seen in G Sibande (MP) (12.9 percentage points), Amathole (EC) (11.5 percentage points) and eThekweni (KZN) (9.7 percentage points).

Coverage varied notably among the NHI districts, from 25.4% in Pixley ka Seme (NC) to 109.2% in uMzinyathi (KZN). However, five of the NHI districts exceeded the target coverage of 60%, namely uMzinyathi (KZN), Eden (WC), uMgungundlovu (KZN), Dr K Kaunda (NW) and T Mofutsanyana (FS).

Figure 8: Cervical cancer screening coverage by district, 2015/16



Map 2: Cervical cancer screening coverage by sub-district, 2015/16

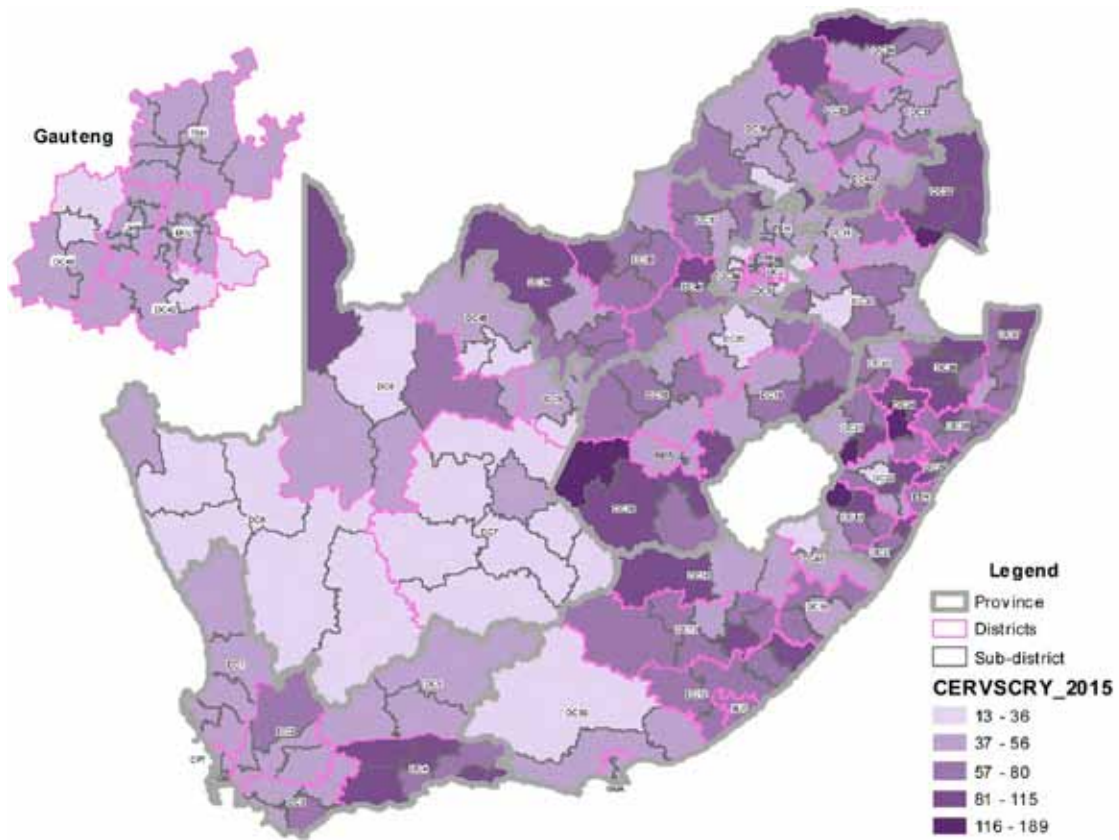
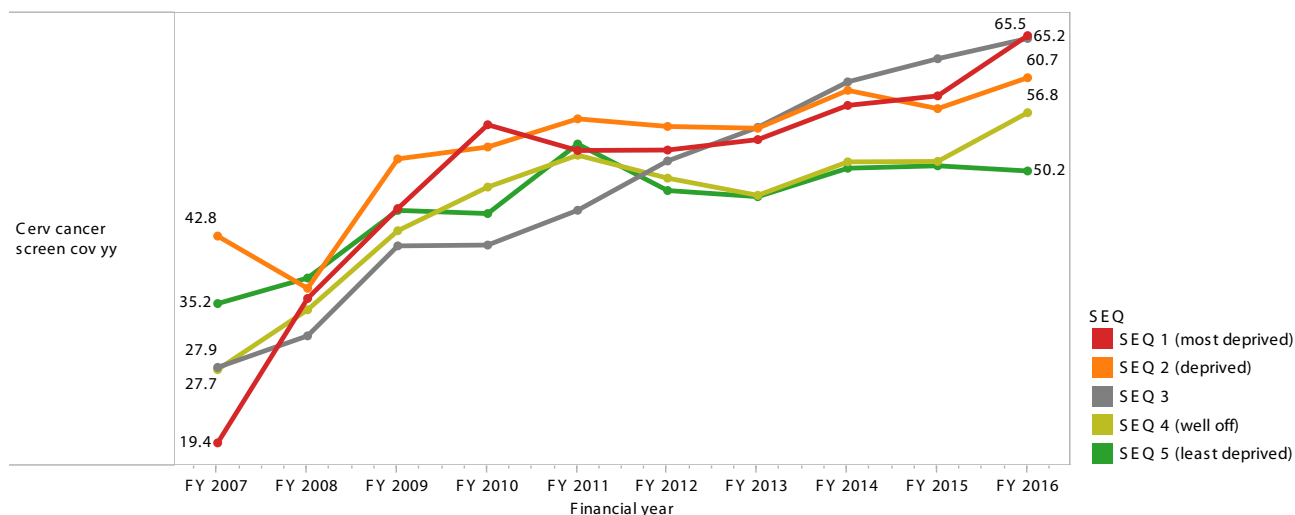


Figure 9 shows cervical cancer screening coverage by socio-economic quintile. It is evident that there have been remarkable gains in coverage, particularly in the most deprived districts. The weighted average of coverage in SEQ1 districts increased from 19.4% in 2007/08 to 65.2% in 2015/16. Overall, there has been an upward trend in coverage in all SEQs. However, coverage in the least-deprived districts (SEQ5) appears to have plateaued over the last four years. It is difficult to say whether this is indicative of an actual decrease in screening as these data exclude private health sector data.

Figure 9: Trends in average district values by socio-economic quintile for cervical cancer screening coverage



The most recent World Health Organization guidelines on cervical cancer control highlight a number of important issues for consideration in the prevention and control of cervical cancer. Firstly, there is a need to take a systems approach to prevention. Secondly, a comprehensive approach needs to include primary, secondary and tertiary prevention. And lastly, it is important to link screening with appropriate treatment and follow-up.^j South Africa has made great strides towards primary prevention through successful implementation of school-based HPV vaccination. However, much more needs to be done to improve screening coverage. Some sources have advocated for future introduction of HPV DNA testing (as a primary screening method) as it is more sensitive than cytology (Pap smear).^{i,k} However, an evaluation of health system and cost implications would need to be done to inform such considerations.

^j World Health Organization. Comprehensive cervical cancer control: A guide to essential practice. 3rd ed. Geneva: WHO; 2014. Available from: <http://www.who.int/reproductivehealth/publications/cancers/cervical-cancer-guide/en/> [Accessed 29 August 2016].

Key findings for couple year protection rate and cervical screening coverage

- ◆ Overall, the CYPR has shown a gradual upward trend, but it is still below the recommended target rate. With time, it is hoped that provision of a wider range of contraceptive methods for women, such as subdermal implants and female condoms, will increase the CYPR and prevent more unplanned pregnancies.
- ◆ The ongoing issues with data quality in a number of districts need to be addressed if uptake of this indicator is to be monitored effectively. It is of importance as family planning is one of the most important public health interventions available. These data provide information that policymakers can use to determine how best to influence family planning policies.
- ◆ Overall, there has been marked improvement in cervical cancer screening coverage over the last decade. However, coverage still remains below levels required to achieve intended impact in terms of decreasing mortality and morbidity through early detection. This is evidenced by the continuing high incidence of late presentation among women with invasive cervical cancer.^k

Recommendations for couple year protection rate and cervical screening coverage

- ◆ Data quality needs to be assessed to address possible under- and over-reporting of both CYPR and cervical screening coverage at district level.
- ◆ Private sector data must be included.
- ◆ The National Contraception and Fertility Planning Policy and Service Delivery Guidelines^a and the National Contraception Clinical Guidelines^b should be followed to improve reproductive services at all facilities.

9 Tuberculosis

Lieve Vanleeuw and Marian Loveday

Introduction

Tuberculosis (TB) remains a major health problem in South Africa. Although TB incidence has been declining in South Africa since 2009 and deaths due to TB have decreased in recent years, TB remains the number one cause of death in this country.^a The Global TB Report 2015 estimated that in 2014 South Africa had the second-highest TB incidence rate in the world, with 834 cases per 100 000 population.^b

In order to meet the Sustainable Development Goals (SDGs) and End TB Strategy targets, South Africa has adopted the 90:90:90 strategy for TB. This involves screening 90% of people in the key populations for TB; starting 90% of those diagnosed with TB on treatment; and ensuring that 90% of those started on treatment, successfully complete their treatment.^c Key populations in South Africa that are particularly vulnerable to TB include: people living with HIV, people with diabetes, household contacts of people with TB, pregnant women and children under the age of five years, miners, former miners and people working and living near mines, healthcare workers, prison inmates and prison employees.^d

Table 1 shows the End TB Strategy key indicators and targets for 2020 together with baseline values from 2014, thus highlighting the gap that needs to be addressed.^e

Table 1: Coverage levels for TB interventions using baseline and target scenarios

	Intervention	Baseline (2014)	90-90-90 (2020)
1. Screen for vulnerable populations TB	Proportion of high risk groups symptom screened for TB: intensified case finding in clinics and other health facilities	20%	90%
	Proportion of high risk groups symptom screened for TB: active case finding in communities, schools, correctional facilities, workplaces, etc.	5%	90%
	If no active TB and eligible for IPT, initiate on IPT	5%	100%
2. Diagnose and treat TB	Proportion of estimated TB cases diagnosed and initiated on treatment	57%	90%
	If HIV co-infection, appropriate treatment includes ART	66%	100%
3. Successfully treat TB	Proportion of drug sensitive TB cases treated successfully	76%	90%
	RIF resistant TB, successful outcome	45%	70%

Source: South African National AIDS Council, 2016.^e

In early 2015, a large-scale TB screening campaign was launched as the first step towards the End TB Strategy targets. In the first year, 70 425 inmates in correctional facilities were tested for TB using the GeneXpert test, and 252 843 people in six peri-mining communities were screened for TB.^f Later in 2016, the second phase of the screening campaign will focus on the metros, which together account for about 40% of the TB burden. In 2017, the final stage will focus on the provinces with the highest TB burdens, namely the Eastern Cape (EC), Gauteng (GP), KwaZulu-Natal (KZN) and Western Cape (WC).^g

In an attempt to assess the true burden of TB in South Africa, a national TB prevalence survey will commence in 2017. The survey will be concluded within two years and the first results, available by 2018, will help to inform the strategy of the national TB programme.

Multidrug-resistant tuberculosis (MDR-TB) (resistance to at least isoniazid and rifampicin, the most effective first-line TB drugs), is a critical threat to global TB control and is associated with high mortality in settings with HIV co-infection.^b Treatment requires the use of second-line drugs, which are less potent and more toxic than first-line medications. Treatment for MDR-TB lasts up to two years, includes a daily intramuscular injection for the first 4–8 months of therapy,

a Statistics South Africa. Mortality and causes of death in South Africa, 2014: Findings from death notification. Pretoria: StatsSA; 2015.

b World Health Organization. Global tuberculosis report 2015. WHO/HTM/TB/2015.22. Geneva: WHO; 2015. Available from: http://www.who.int/tb/publications/global_report/en/. [6 August 2016].

c World Health Organization. The End TB Strategy. WHO/HTM/TB/2015.19. Geneva: WHO; 2015. Available from: http://www.who.int/tb/End_TB_brochure.pdf?ua=1 [6 August 2016].

d Stop TB Partnership. Global Plan to end TB 2016–2020. The paradigm Shift. Geneva: Stop TB Partnership; 2015. Available from: <http://www.stoptb.org/assets/documents/global/plan/plan2/Annexes.pdf> [6 August 2016].

e National Department of Health and South African National AIDS Council. South African HIV and TB Investment Case. Summary Report Phase 1; March 2016.

f South African National AIDS Council. Enhanced Progress Report: National Strategic Plan on HIV, STIs and TB (2012–2016). SANAC; March 2016.

g Deputy President Cyril Ramaphosa. World TB Day, 23 March 2016. Available from: <http://www.gov.za/speeches/deputy-president-cyril-ramaphosa-address-mark-world-tb-day-marapong-stadium-lephalale> [6 August 2016].

and is associated with severe side-effects.^h Furthermore, treatment places a significant financial burden on the patient's family and the health system in general.

South Africa has a high burden of MDR-TB. Until 2008, like many countries in the world, South Africa adopted an inpatient model of care in which patients were hospitalised in a centralised specialised hospital for the initial six months of treatment to facilitate daily injections and allow close monitoring of adverse events and adherence. Following discharge, and for the remaining period of treatment (18 months or longer), patients were expected to complete treatment at their local healthcare facility and return to the centralised hospital for monthly outpatient visits; for some patients this entailed travelling up to 500 km to reach the hospital. However, by 2008 the escalating burden of drug-resistant tuberculosis (DR-TB), together with limited bed capacity, resulted in long waiting lists and high mortality while patients waited to access treatment, plus the occurrence of nosocomial transmission.^{i,j} Furthermore, patients were discharged before the end of the injectable phase of treatment to facilities unfamiliar with DR-TB treatment, resulting in poor treatment outcomes and high default rates.^k

To address the TB burden in South Africa, the National Department of Health (NDoH) introduced GeneXpert diagnostic machines across the country in 2011. These machines detect TB and rifampicin-resistant TB (RR-TB), which is considered a surrogate marker for MDR-TB, in less than two hours. Following this, guidelines for decentralised and de-institutionalised management of DR-TB were introduced,^l and by 2015 the NDoH was promoting the provision of MDR-TB services in each district in the country. The last two *District Health Barometers* have reported the TB rifampicin resistance confirmed client rate by district. However, the MDR-TB treatment success rate is being reported for the first time this year.

Although the quality and completeness of the TB data have improved significantly over the last few years, the MDR-TB data are far from accurate or complete. Fifteen per cent of patient records had missing geographical data and could not be assigned to a district in 2015. These problems are due to a combination of data programming issues, the use of incorrect facility names and old geographical boundaries (prior to 2011), as well as incomplete and inaccurate data entry. Poor MDR-TB programme data was a major weakness highlighted in a World Health Organization (WHO)-led review at the end of 2015.^m Accurate data are essential for the management and control of MDR-TB in South Africa. Given the infectious nature of this disease and the poor treatment success rate, every effort must be made at all levels of the healthcare system to improve the validity of the MDR-TB data. All the indicator values in this publication differ from the values in the 2015/16 Annual Report of the National Department of Health as the ETR.Net and EDRWeb data were cleaned after the analysis of the data was done by HST.

9.1 Incidence of TB (all types)

The TB incidence rate is the proportion of new TB cases in a population over a specific period of time. The incidence rate reported here is based on the number of diagnosed TB cases reported in the electronic TB register (ETR.Net) in 2015 per 100 000 population.

In South Africa, the TB incidence rate reached its peak in 2009 at 832 per 100 000, and declined thereafter, with an incidence rate of 520 per 100 000 population in 2015. However, South Africa still has one of the highest TB burdens in the world, and considerable effort will be necessary to achieve the Sustainable Development Goals.

Presently the Eastern Cape, KwaZulu-Natal and Western Cape have the highest incidence rates in the country, with reported rates of 692, 685 and 681 per 100 000, respectively (Figure 1). Table 2 shows the decline in TB incidence across the provinces; the most notable decline was in KwaZulu-Natal where the incidence decreased from 1 185 to 685 per 100 000 over the last 5 years.

h Wu S, Zhang Y, Sun F, Chen M, Zhou L, Wang N, et al. Adverse Events Associated With the Treatment of Multidrug-Resistant Tuberculosis: A Systematic Review and Meta-analysis. *Am J Ther*. 2016; 23(2):e521–30. doi: 10.1097/01.mjt.0000433951.09030.5a.

i Wallengren K, Scano F, Nunn P, Margot B, Buthelezi B, Williams B, et al. Resistance to TB drugs in KwaZulu-Natal: causes and prospects for control. Available from: <http://arxiv.org/abs/1107.1800> [Accessed 25 July 2015].

j Gandhi N, Moll A, Sturm A, Pawinski R, Govender T, Lalloo, et al. Extensively drug-resistant tuberculosis as a cause of death in patients co-infected with tuberculosis and HIV in a rural area of South Africa. *Lancet*. 2006; 368:1575–80.

k Brust J, Gandhi N, Carrara H, Osburn G, Padayatchi N. High treatment failure and default rates for patients with multidrug-resistant tuberculosis in KwaZulu-Natal, South Africa, 2000–2003. *Int J Tuberc Lung Dis*. 2010; 14:413–9.

l National Department of Health. Multi-drug resistant tuberculosis: A policy framework on decentralised and deinstitutionalised management for South Africa. Pretoria: NDoH; 2011.

m World Health Organization. Towards Universal Health Coverage: Report of the Evaluation of South Africa Drug Resistant TB programme and its implementation of the Policy Framework on Decentralised and Deinstitutionalised Management of Multidrug Resistant TB. Pretoria: WHO; 2016.

Figure 1: Incidence of TB (all types) by province, 2015

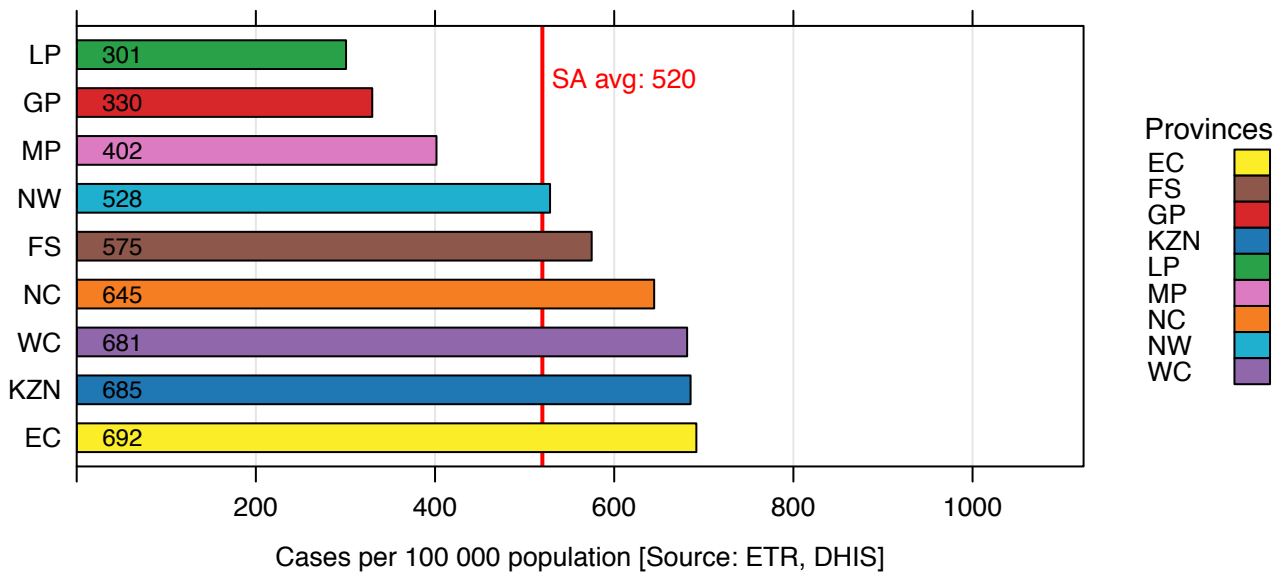


Table 2: Incidence of TB (all types) by province and nationally, 2006–2016 (cases per 100 000 population)

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
EC	720.5	806.6	962.7	953.4	922.3	913.7	862.7	823.1	785.0	691.7
FS	819.6	844.1	889.5	859.7	837.2	841.5	760.6	720.9	631.7	574.8
GP	462.3	174.1	489.5	517.1	113.6	454.1	418.2	403.3	378.2	329.9
KZN	591.7	880.7	928.1	1 215.5	1 161.8	1 185.2	1 060.4	952.5	813.7	685.2
LP	284.1	329.1	397.2	433.5	419.8	410.6	371.8	383.3	334.1	300.7
MP	22.7	227.3	637.1	745.0	715.5	613.6	512.7	477.1	461.5	401.6
NC	778.2	859.2	935.5	932.5	892.2	893.8	758.1	798.0	764.3	644.6
NW	791.6	766.5	815.0	903.8	894.4	816.6	705.0	658.1	630.7	528.4
WC	958.8	938.3	948.1	930.1	909.5	827.4	776.5	742.9	709.9	681.4
SA	577.7	608.2	752.8	831.8	718.4	762.3	689.3	648.9	592.7	519.8

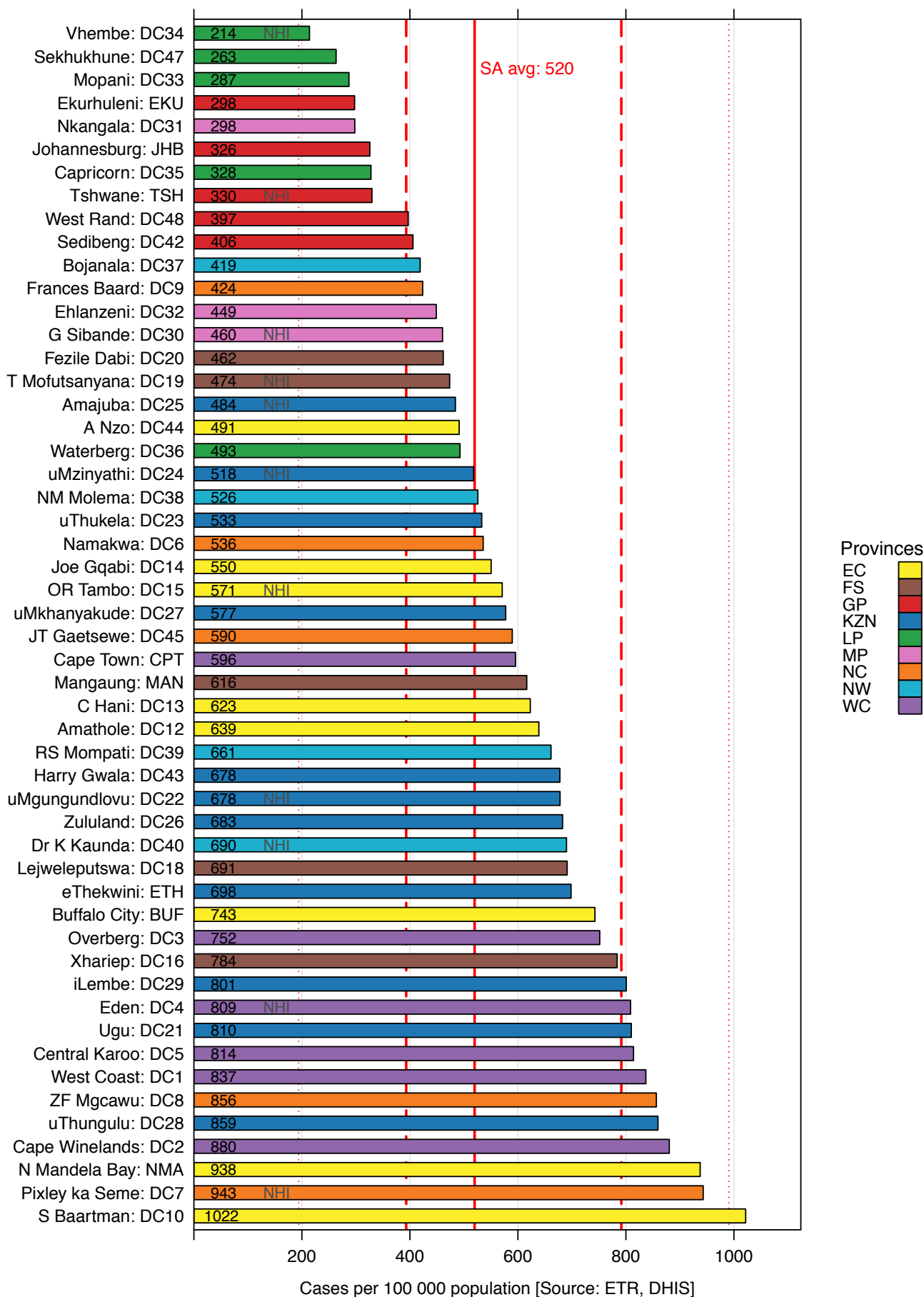
Source: ETR.Net

As can be seen in Figure 2 and Map 1, the districts with the highest TB incidence rates were S Bantam (EC) with 1 022 cases per 100 000, Pixley ka Seme (Northern Cape (NC)) with 943 cases per 100 000, and N Mandela Bay (EC) with 938 new cases per 100 000 population. All three districts have remained at approximately the same incidence rate for the last four years. The lowest incidence occurred in three districts in Limpopo Province (LP), namely Vhembe (214 per 100 000), Sekhukhune (263 per 100 000) and Mopani (287 per 100 000). Although the TB incidence rate declined or at least stabilised in most districts, one district reported a slight increase in incidence between 2014 and 2015, namely West Coast (WC), from 825.7 to 837.0 per 100 000. Five districts reported a sharp decline in incidence rate from 2014 to 2015. Xhariep (Free State (FS)) reported a decline from 978.7 to 783.8 per 100 000, Ugu (KZN) from 996.3 to 810.0, eThekweni (KZN) from 871.3 to 698.4, OR Tambo (EC) from 775.8 to 570.9, and Frances Baard (NC) from 635.8 to 423.6 per 100 000 population.

The three districts with the highest TB burden in 2015 were eThekweni (KZN) with 24 588 cases, Cape Town (WC) with 23 815 cases, and Johannesburg (GP) with 15 912 cases. These districts will need to make a concerted effort to decrease their high TB burden.

Incidence across National Health Insurance (NHI) districts varied widely, from 214 per 100 000 in Vhembe (LP) to 943 per 100 000 in Pixley ka Seme (NC) (Figure 3). From 2014 to 2015, TB incidence decreased in all 11 NHI districts.

Figure 2: Incidence of TB (all types) by district, 2015



Map 1: Incidence of TB (all types) by district, 2015 (cases per 100 000 population)

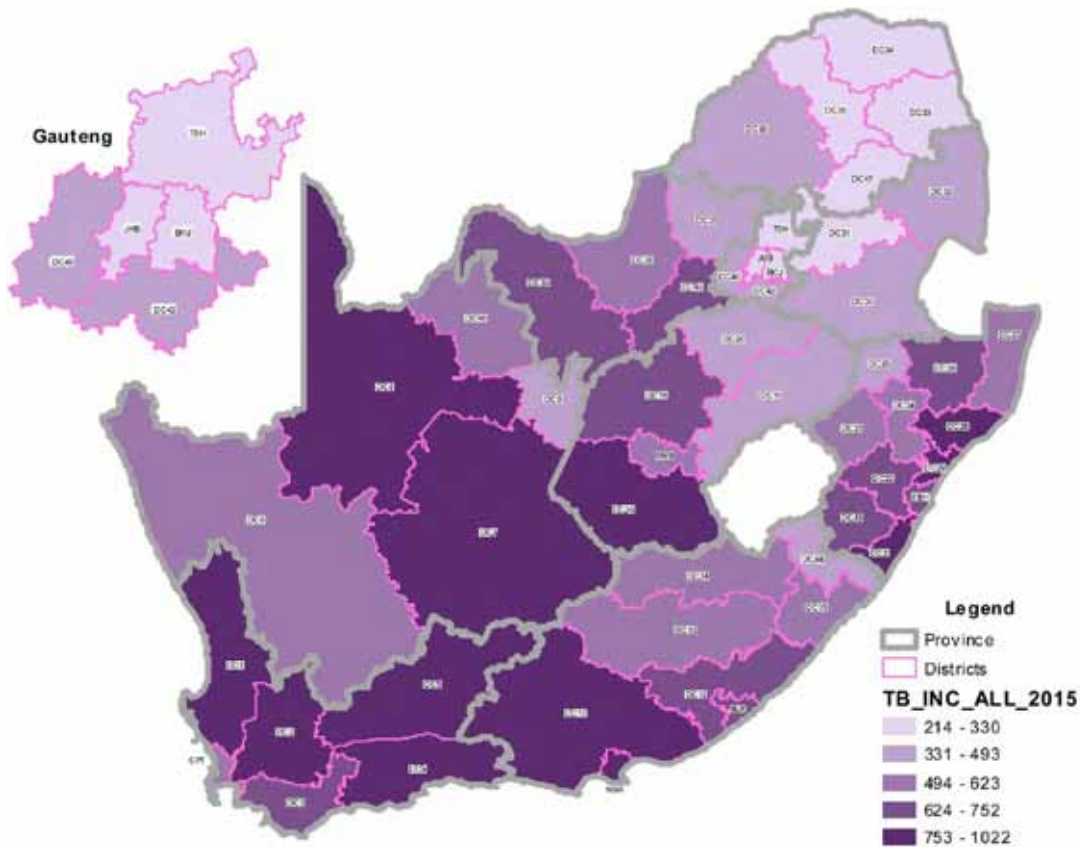
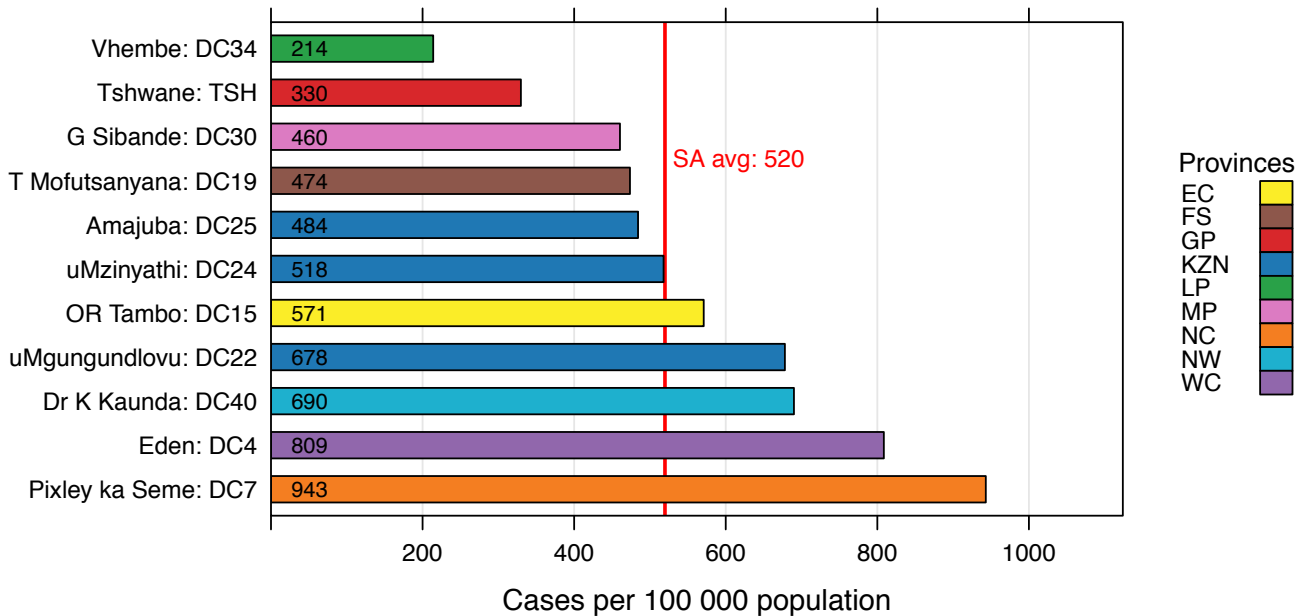


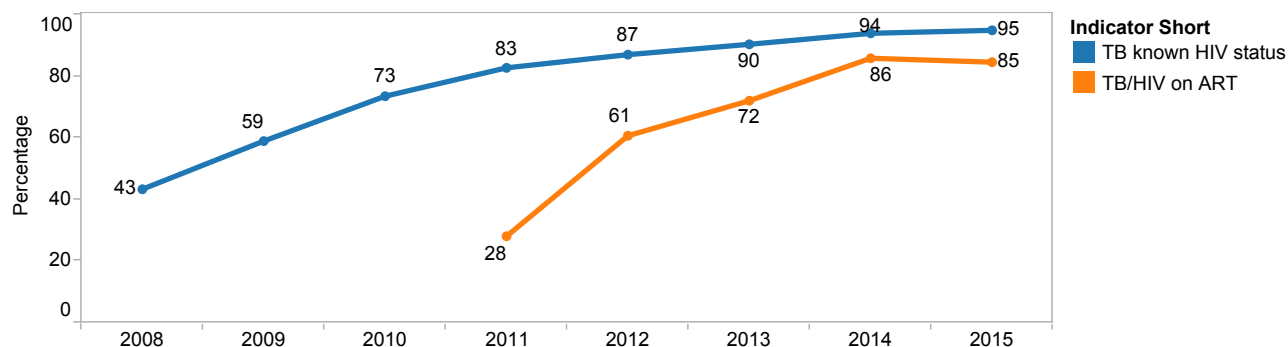
Figure 3: Incidence of TB (all types) by National Health Insurance district, 2015



TB and HIV co-infection

The relationship between TB and HIV is well documented, and HIV is a key driver of the TB epidemic.ⁿ As disconnected and inadequate services contribute to poor treatment outcomes in patients co-infected with TB and HIV,^o it is encouraging to see that the proportion of TB patients who know their HIV status increased considerably from 43.3% in 2008 to 94.8% in 2015 (Figure 4). Similarly, it is very encouraging to note that the number of co-infected patients on antiretroviral therapy (ART) increased from 28.0% in 2011 to 84.5% in 2015.

Figure 4: Percentage of TB patients with known HIV status and percentage of TB-HIV co-infected patients on ART, 2008–2015



a) Proportion of TB patients with known HIV status

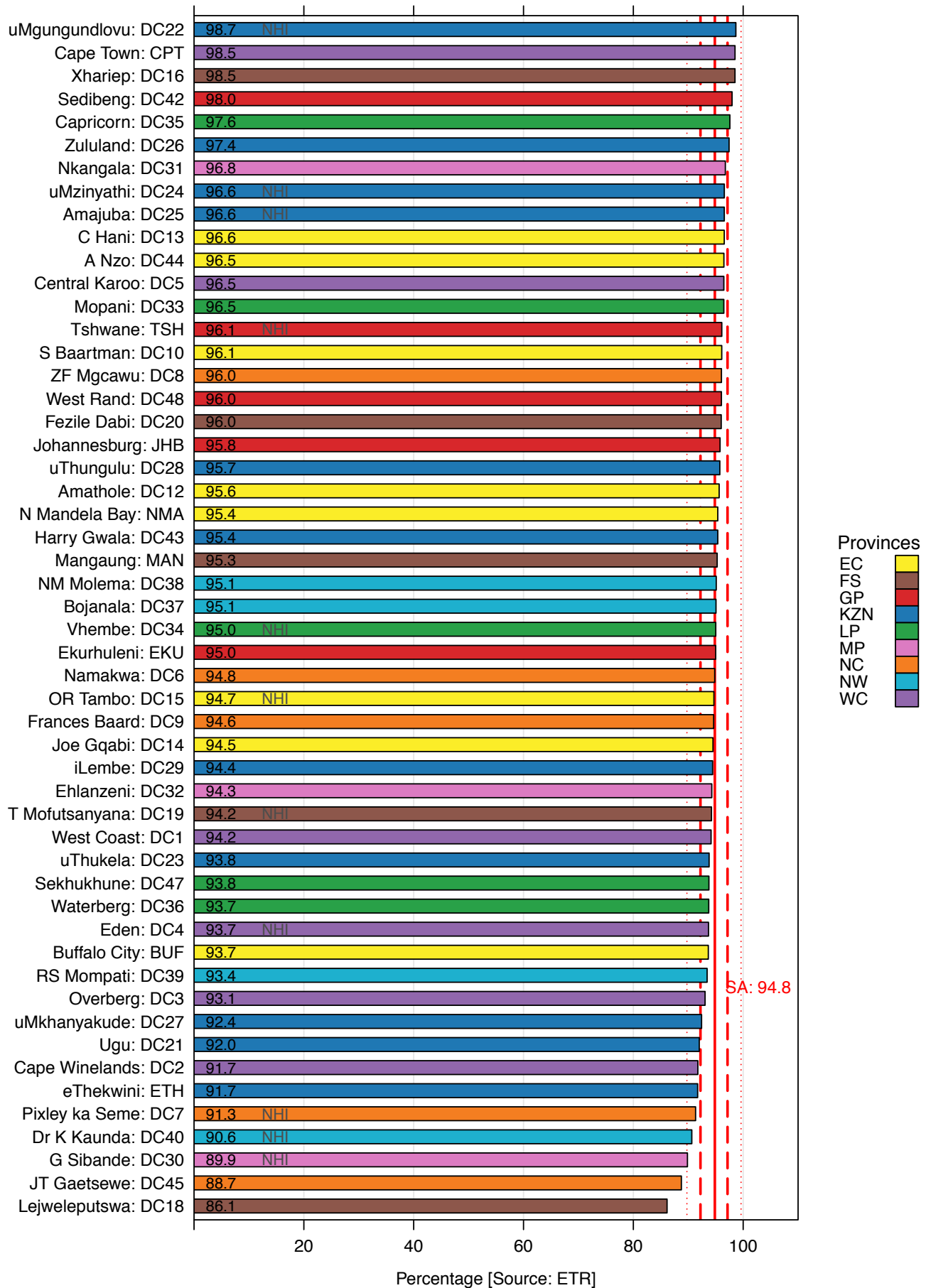
In 2015, 94.8% of TB patients across the country knew their HIV status. All nine provinces performed well; the Western Cape had the highest proportion of patients with known status (96.1%), while the Free State had the lowest proportion (93.0%).

Ninety-five per cent of TB patients knew their HIV status in 28 districts (Figure 5). Lejweleputswa (FS) had the lowest proportion of patients with known HIV status (86.1%). In the NHI districts, the proportion of patients with known HIV status varied from a low of 89.9% in G Sibande (Mpumalanga (MP)) to a high of 98.7% in uMgungundlovu (KZN).

ⁿ Corbett E, Watt C, Walker N, Maher D, Williams BG, Raviglione MC, et al. The growing burden of tuberculosis: global trends and interactions with the HIV epidemic. *Arch Intern Med.* 2003; 163:1009–21.

^o Shah N, Wright A, Bai G, Barrera L, Boulahbal F, Martin-Casabona N, et al. Worldwide emergence of extensively drug-resistant tuberculosis. *Emerg Infect Dis.* 2007; 13:380–7.

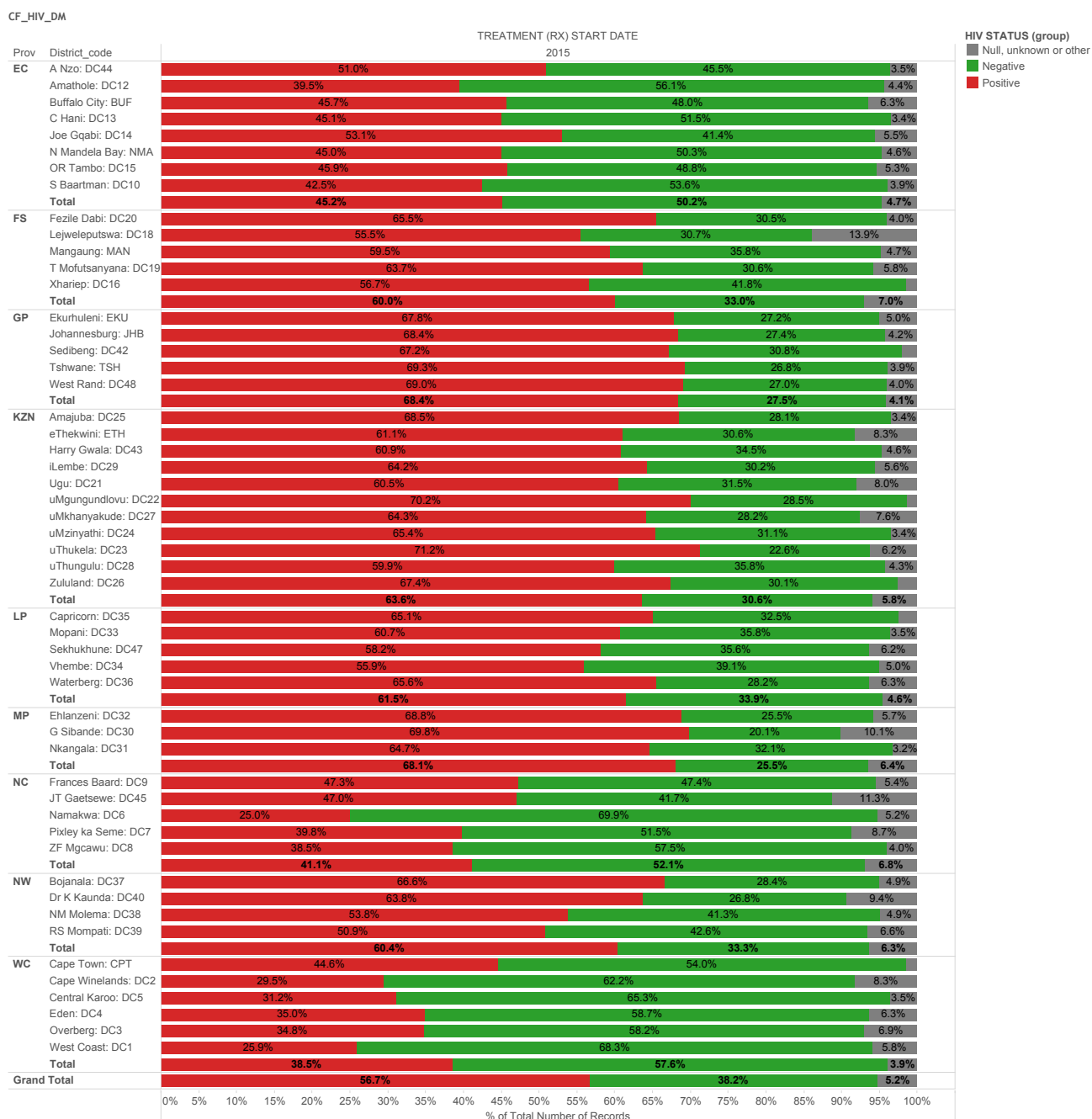
Figure 5: Percentage of TB cases with known status by district, 2015



b) Proportion of TB patients co-infected with HIV

In 2015, the average TB/HIV co-infection rate across South Africa was 56.7%. Tuberculosis patients in Gauteng, Mpumalanga and KwaZulu-Natal had the highest co-infection rates at 68.4%, 68.1% and 63.6%, respectively. The Eastern Cape, Northern Cape and Western Cape had far lower rates of HIV co-infection at 45.2%, 41.1% and 38.5%, respectively. Across the districts, TB/HIV co-infection rates varied from a high of 71.2% in uThukela (KZN) to a low of 25.0% in Namakwa (NC). HIV co-infection rates in the NHI districts ranged from a low of 35.0% in Eden (WC) to a high of 70.2% in uMgungundlovu (KZN) (Figure 6).

Figure 6: TB/HIV co-infection rate across districts, 2015

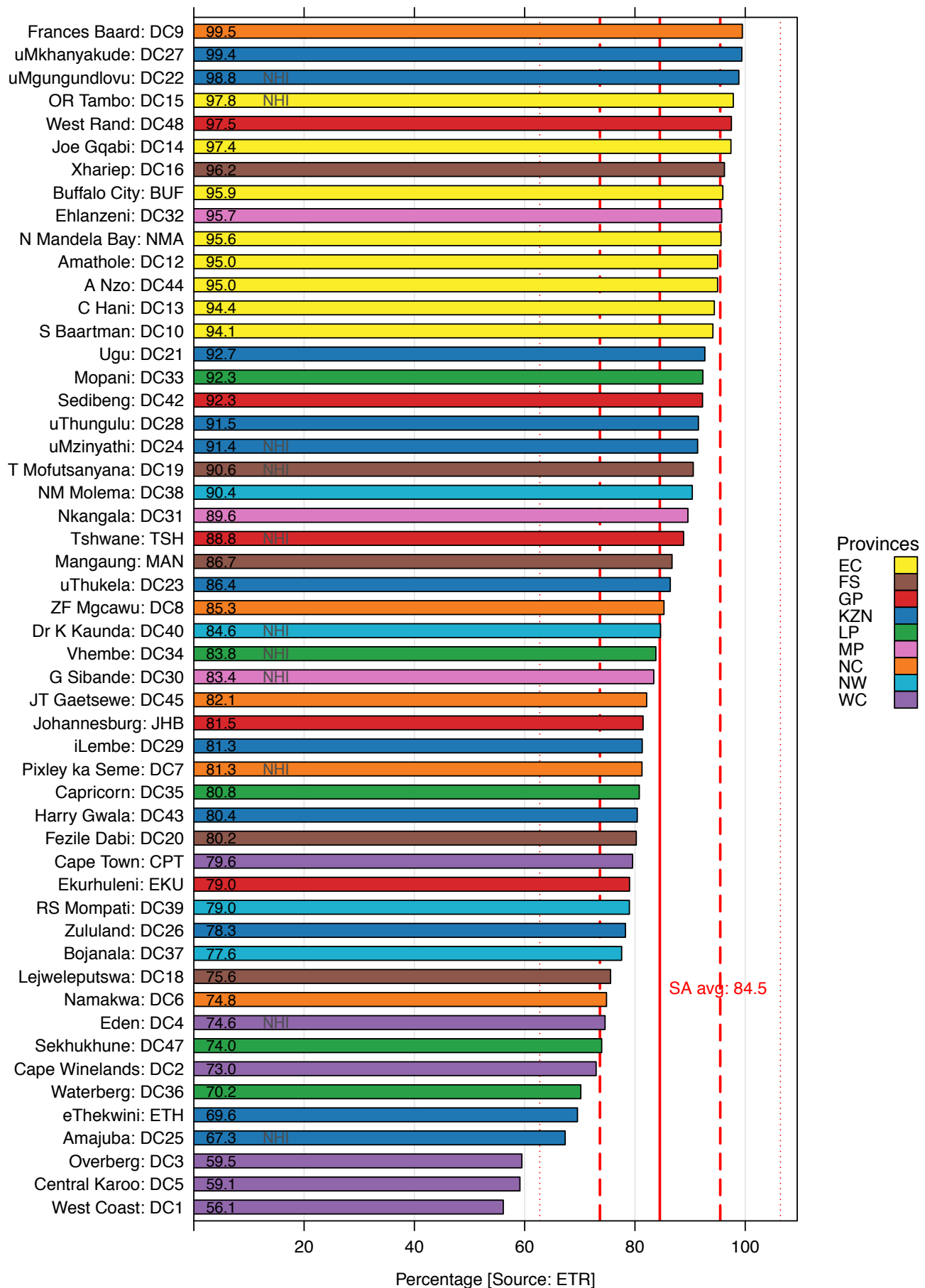


c) Proportion of co-infected patients on ART

Figure 7 shows the percentage of TB-HIV co-infected patients started on ART. The increase in proportion is very encouraging, from 28.0% in 2011 to 84.5% in 2015. If these improvements continue we will likely reach the End TB target of 100% by 2020.

Among the provinces, the Eastern Cape had the highest proportion of co-infected patients on ART (95.7%), while the Western Cape had the lowest proportion (75.7%). There was wide variation across districts, with the West Coast (WC) having the lowest proportion of HIV-positive TB patients on ART (56.1%), and Frances Baard (NC) the highest proportion (99.5%). Nine of the 11 NHI districts had more than 80% of HIV co-infected TB patients on ART.

Figure 7: Percentage of TB patients on ART by district, 2015



9.2 TB successful treatment rate (all TB)

This indicator measures the proportion of all TB patients (smear-positive, smear-negative and extra-pulmonary) who were cured or who completed treatment.^p The national treatment success rate has been improving steadily, from 68.8% in 2007 to 77.2% in 2014. Table 3 shows the number and proportion of successfully treated patients between 2012 and 2014. It is encouraging that the treatment success rate has remained constant; however, as the number of TB patients decline, the country must intensify its efforts to treat all TB patients successfully to reach the End TB Strategy target of 90% by 2020.

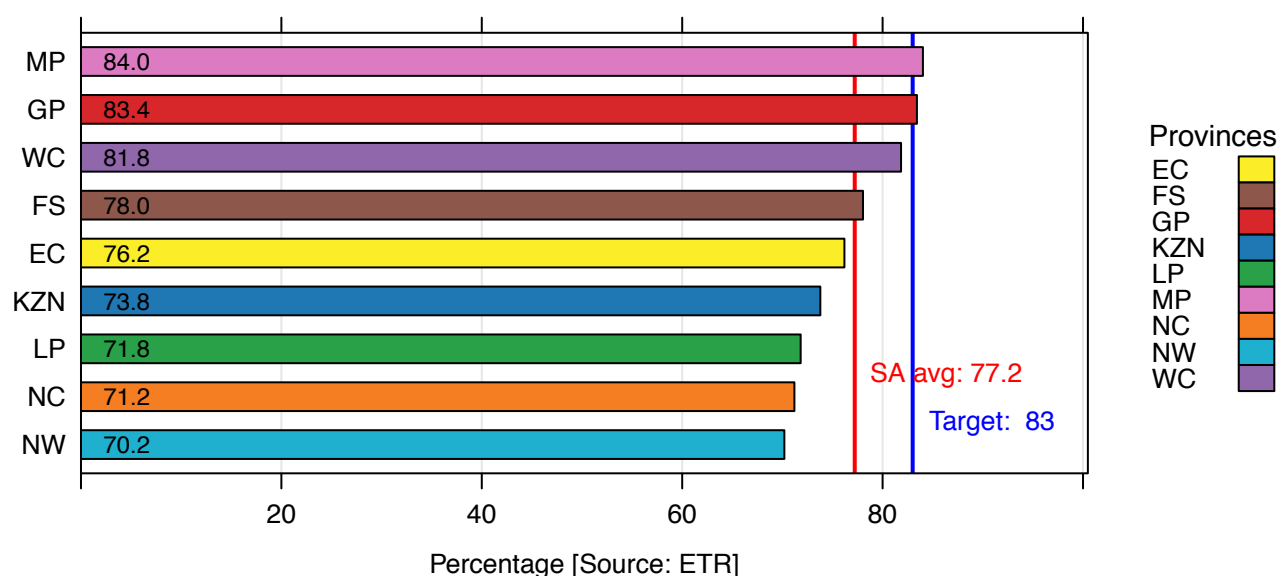
Table 3: National TB treatment success rate, 2012–2014

Year	Number of TB patients started on TB treatment	Number of patients successfully treated	Treatment success rate (%)
2012	354 270	269 624	76.1
2013	339 379	264 455	77.9
2014	325 498	251 344	77.2

Source: ETR.Net

Limpopo, Mpumalanga and North West (NW) provinces saw a marked increase in treatment success rate from 2013 to 2014. Mpumalanga increased its success rate from 76.1% in 2013 to 84.0% in 2014, and reported the highest treatment success rate for all nine provinces. Limpopo and North West also increased their success rates from 2013 to 2014, from 57.6% to 71.8% and from 65.8% to 70.2%, respectively (Figure 8). The Western Cape, Eastern Cape, Northern Cape, Gauteng and Free State maintained their treatment success rates from 2013. However, KwaZulu-Natal reported a significant decline in treatment success from 81.8% in 2013 to 73.8% in 2014. It appears that the reason for the drop in KwaZulu-Natal's treatment success was the proportion of patients not evaluated, namely more than 12% of patients in five districts in 2014 (Figure 9). eThekweni had the highest not-evaluated rate among all the districts (18.5%).

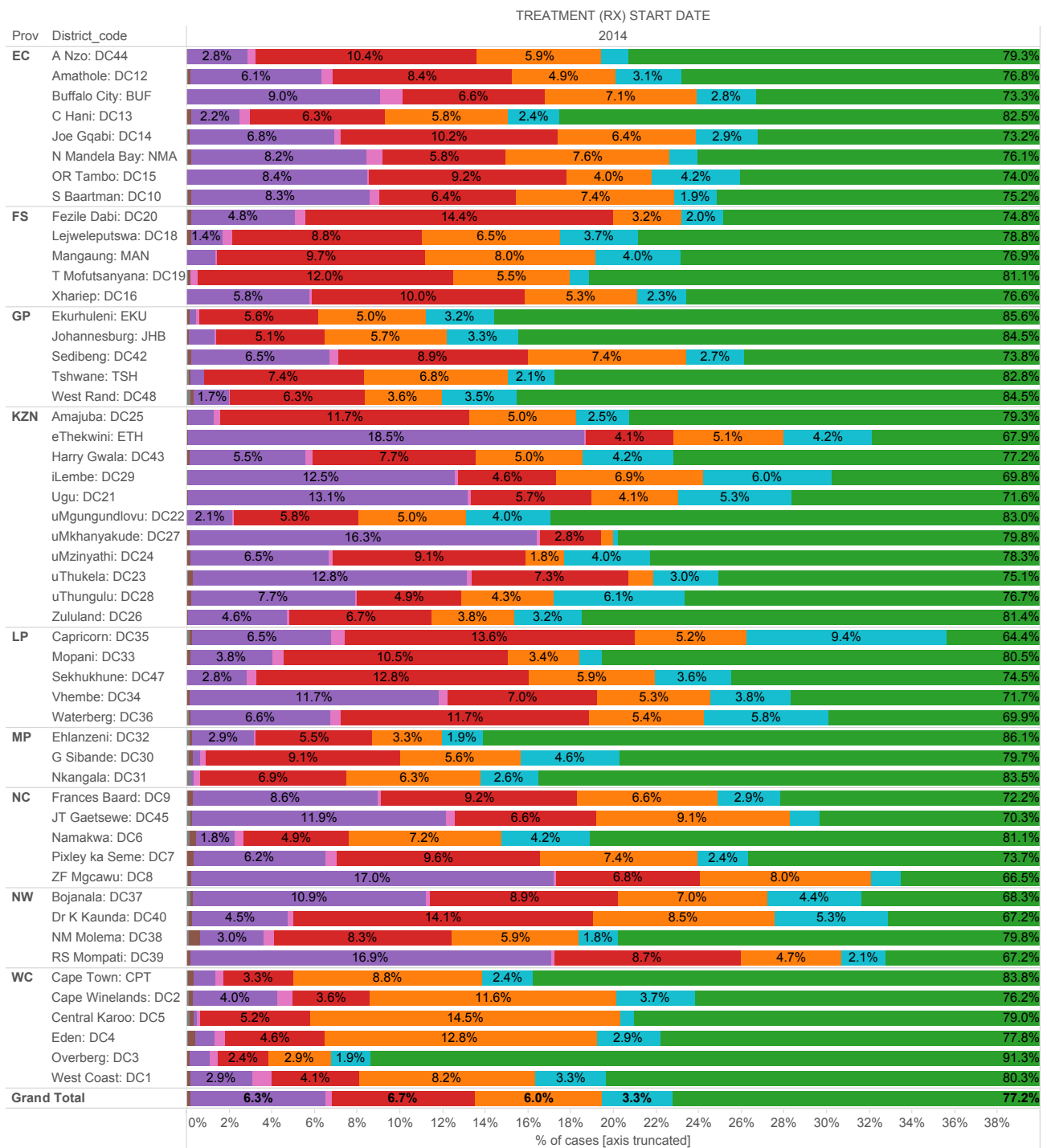
Figure 8: TB treatment success rate by province, 2014



^p National Department of Health. National Tuberculosis Management Guidelines 2014. Pretoria: NDoH; 2014.

Section A: Tuberculosis

Figure 9: Treatment outcomes for all TB patients by district, 2014

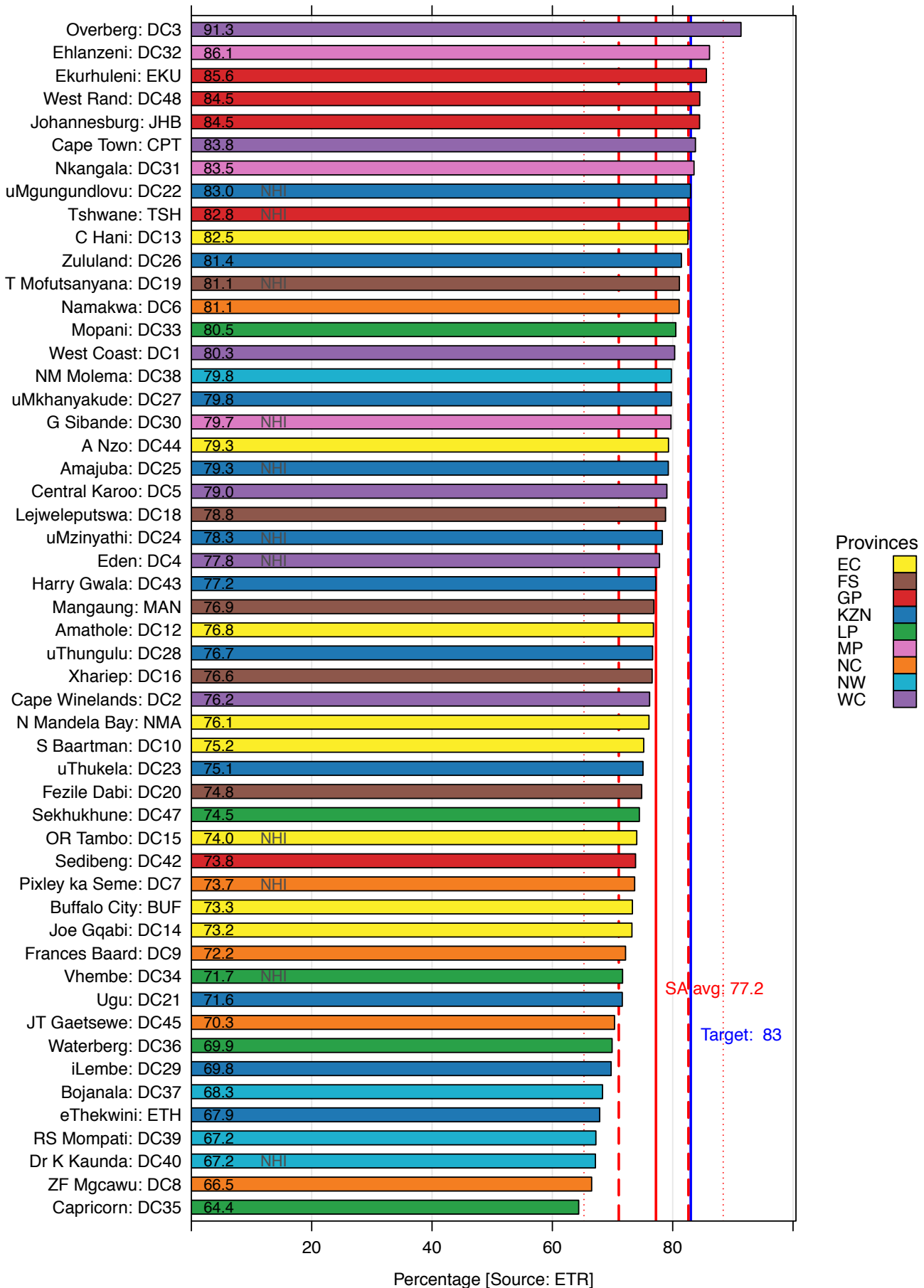


SYSGENOUTCOME (group)

- Treatment Success
- Transferred Out
- Lost to follow up
- Died
- Failed
- Not Evaluated
- MDR Case
- RIF Resistance

At district level, Overberg (WC) had the highest treatment success rate of 91.3%, exceeding the End TB Strategy target of 90%. The lowest success rate (64.4%) was in Capricorn (LP), but this is a marked improvement on the lowest success rate of 46.7% reported by Vhembe (LP) in 2013. Low success rates were also reported by ZF Mgcawu (NC) 66.5%, and RS Mompoti and Dr K Kaunda (NW), both at 67.2% (Figure 10). High death rates in Capricorn (LP) (13.6%) and Dr K Kaunda (NW) (14.1%) and a high number of cases not evaluated in ZF Mgcawu (17.0%) are possible causes of these poor treatment success rates (Figure 9). It is of concern that eThekweni (KZN) had the highest number of TB cases in South Africa but one of the lowest treatment success rates (67.9%).

Figure 10: TB treatment success rate by district, 2014



Treatment success rates in the NHI districts ranged from 67.2% in Dr K Kaunda (NW) to 83.0% in uMgungundlovu (KZN) (Figure 11). Vhembe (LP) recorded a remarkable increase from 46.7% in 2013 to 71.7% in 2014 by decreasing the proportion of not-evaluated cases from 35.8% to 11.7% (Figure 9). While eight of the 11 NHI districts increased their treatment success rate, three districts reported a decline from 2013 to 2014, namely Eden (WC) from 79.1% to 77.8%, OR Tambo (EC) from 76.2% to 74.0%, and uMzinyathi (KZN) from 82.9% to 78.3%.

Figure 11: TB treatment success rate by National Health Insurance district, 2014

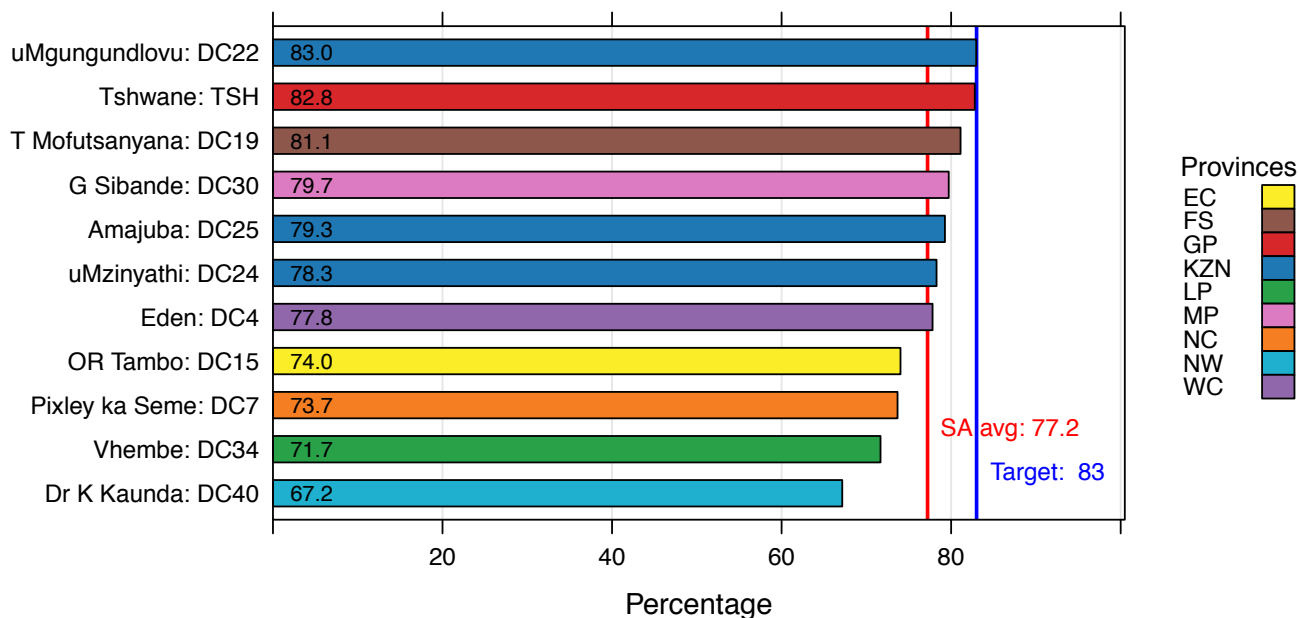
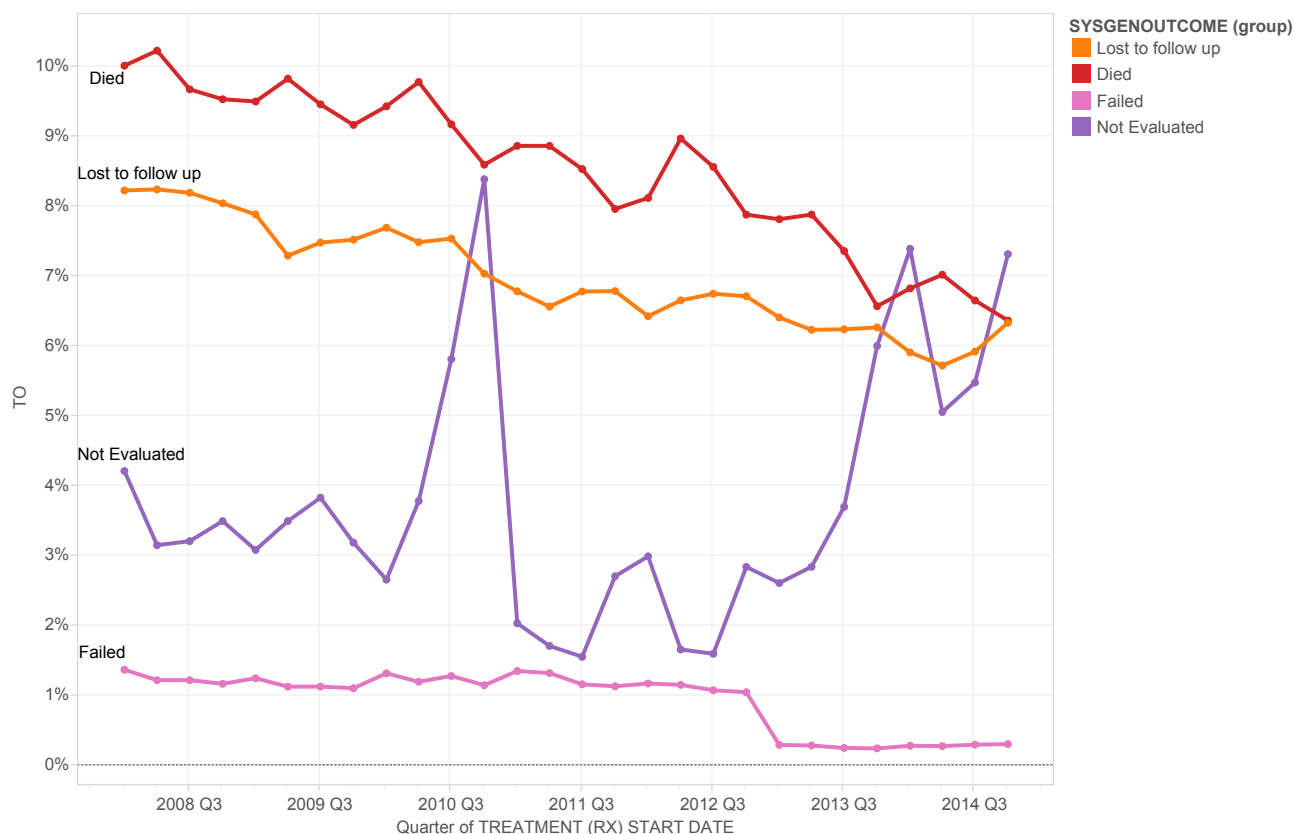


Figure 12 shows the trends for treatment outcomes from 2008 to 2014. While the proportion of patients who died or who failed treatment has been decreasing steadily, the proportion of cases loss to follow up has not declined, and the proportion of cases not evaluated has increased significantly over the last two years. It is not clear whether the inclusion of patients previously classified as 'Transferred out' has contributed to the increase in patients not evaluated, or whether there are other reasons for this increase. However, to improve TB programme performance, the proportion of patients not evaluated and loss to follow up must be reduced, and efforts should be made by every facility to find out and report treatment outcomes for all patients.

Figure 12: National trends for TB treatment outcomes, 2008–2014



9.3 TB death rate (all TB)

Tuberculosis remained the leading cause of death in South Africa in 2014, with 8.4% of deaths nationally attributed to TB.⁹ However, the proportion of deaths due to TB has decreased significantly since 2007, when it peaked at 12.8%. At provincial level, TB was the leading cause of death in six of the nine provinces in 2014. The highest proportion of deaths due to TB was recorded in KwaZulu-Natal (11.2%), followed by Mpumalanga (9.8%) (Table 4).

Table 4: TB as cause of natural death by province, 2011–2014

Year	SA		WC		EC		NC		FS		KZN		NW		GP		MP		LP	
	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%	Rank	%
2014	1	8.4	4	5.6	1	9.0	2	7.4	1	8.4	1	11.2	1	8.9	1	6.7	1	9.8	2	7.4
2013	1	8.8	4	5.7	1	9.8	2	7.7	1	8.5	1	11.9	1	8.7	1	7.3	1	10.6	2	7.7
2012	1	9.9	2	6.4	1	10.8	1	8.8	1	9.3	1	13.3	1	10.4	1	7.7	1	12.0	2	8.5
2011	1	10.7	1	7.1	1	11.4	1	8.5	2	9.6	1	14.4	1	11.3	1	8.4	1	13.4	2	9.1
2010	1	11.6	1	7.8	1	12.7	1	9.2	2	11.1	1	15.7	1	12.3	1	8.8	1	13.4	1	8.4

Source: StatsSA.^a

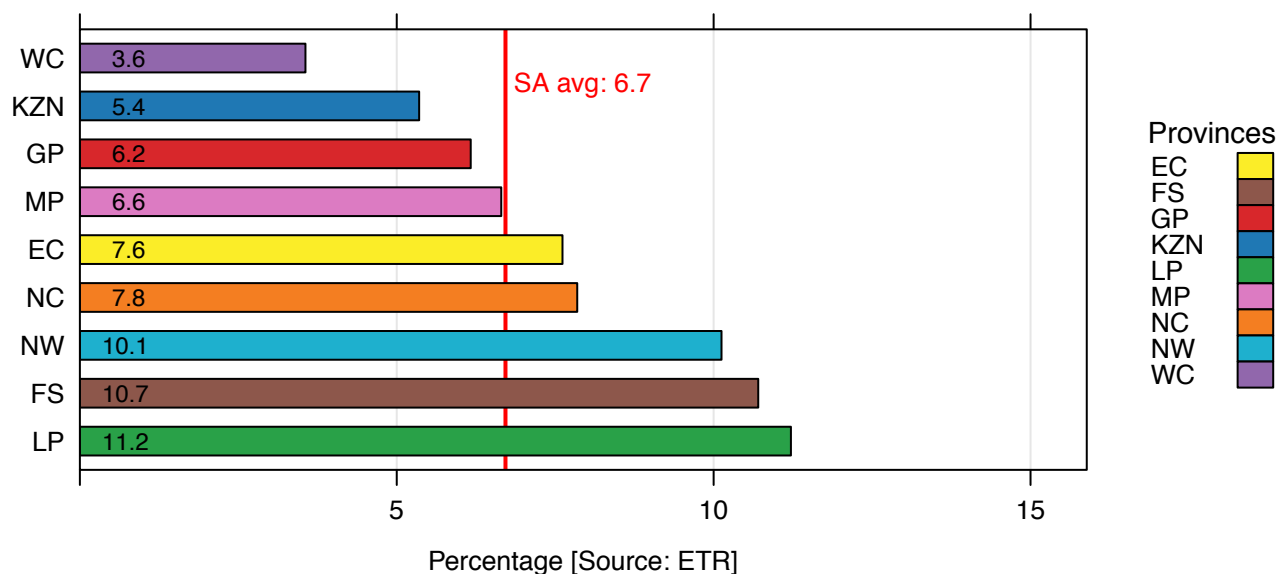
The TB death rate measures the proportion of TB patients who died while on treatment.^p Factors that increase the risk of death for TB patients in South Africa are advanced age, HIV co-infection, a prior history of TB, and the presence of both pulmonary and extra-pulmonary TB. In TB patients with HIV, the risk of death decreases if patients are on ART and if they have a higher CD4 cell count.^f

In 2014, a national average death rate of 6.7% was reported for TB patients on treatment. This was an improvement from 7.4% in 2013. There was wide variation in death rate between provinces, with a high of 11.2% in Limpopo and a low of 3.6% in the Western Cape. Limpopo’s death rate increased slightly, while death rates decreased in the other eight provinces (Figure 13).

q Statistics South Africa. Mortality and causes of death in South Africa, 2014: Findings from death notification. Pretoria: StatsSA; 2015.

r Pepper DJ, Schomaker M, Wilkinson RJ, de Azevedo V, Maartens G. Independent predictors of tuberculosis mortality in a high HIV prevalence setting: a retrospective cohort study. *AIDS Res Ther.* 2015; 12:35.

Figure 13: TB death rate by province, 2014



At district level, the highest TB death rate was recorded in Fezile Dabi (FS) (14.4%) and the lowest in Overberg (WC) (2.4%) (Figure 14). uMkhanyakude (KZN) and C Hani (EC) saw the largest decline in death rate compared with 2013, from 6.9% to 2.8% and from 10.7% to 6.3%, respectively. uThungulu (KZN) and Pixley ka Seme (NC) had the biggest increase compared with 2013, from 3.1% to 4.9% and from 8.0% to 9.6%, respectively.

Nine of the 11 NHI districts reported a death rate higher than the national average of 6.7%. Furthermore, five of the 11 NHI districts reported an increase in death rate compared with 2013, namely Vhembe (LP), Tshwane (GP), G Sibande (MP), Pixley ka Seme (NC) and Amajuba (KZN) (Figure 15).

Figure 14: TB death rate by district, 2014

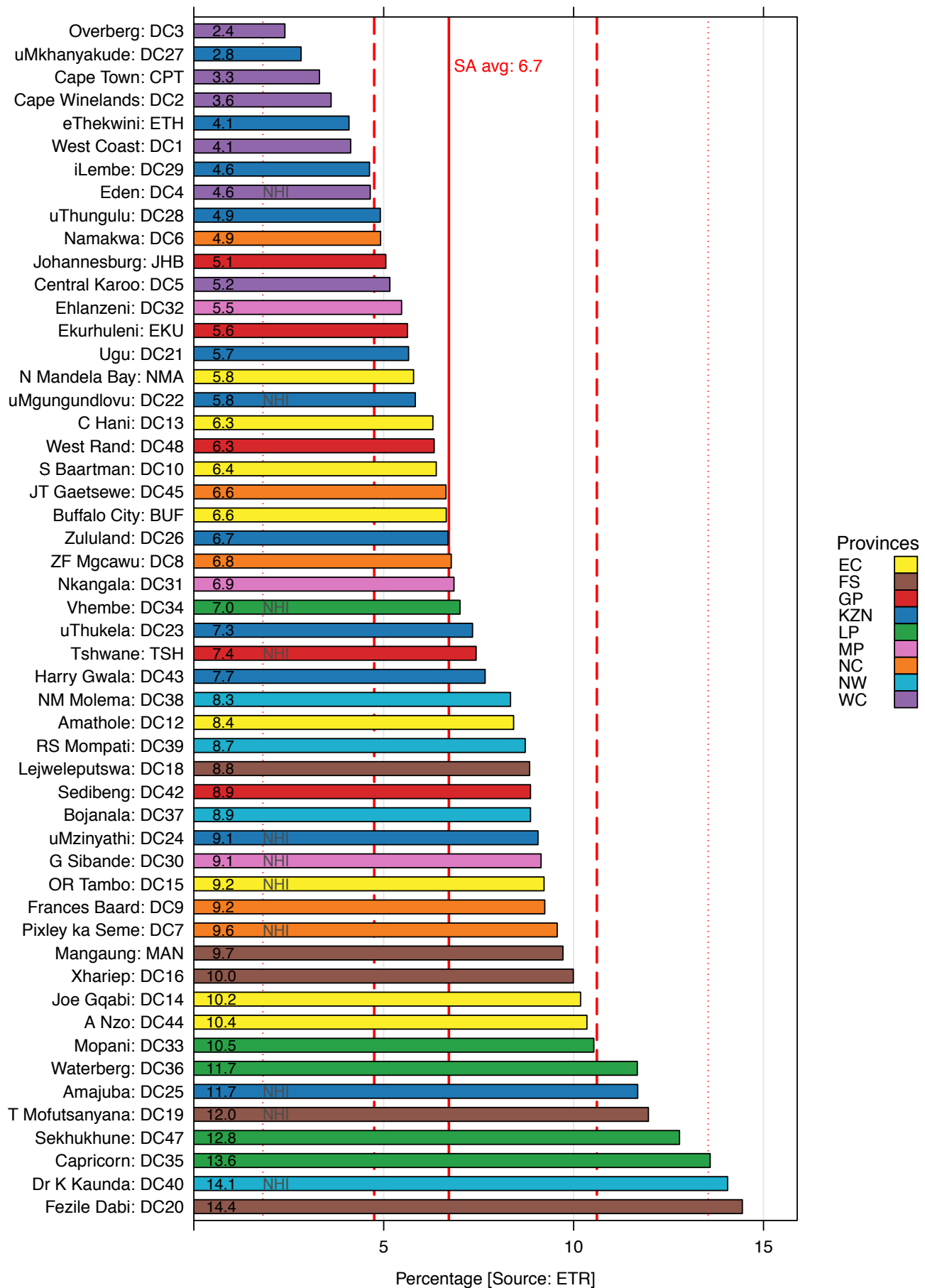
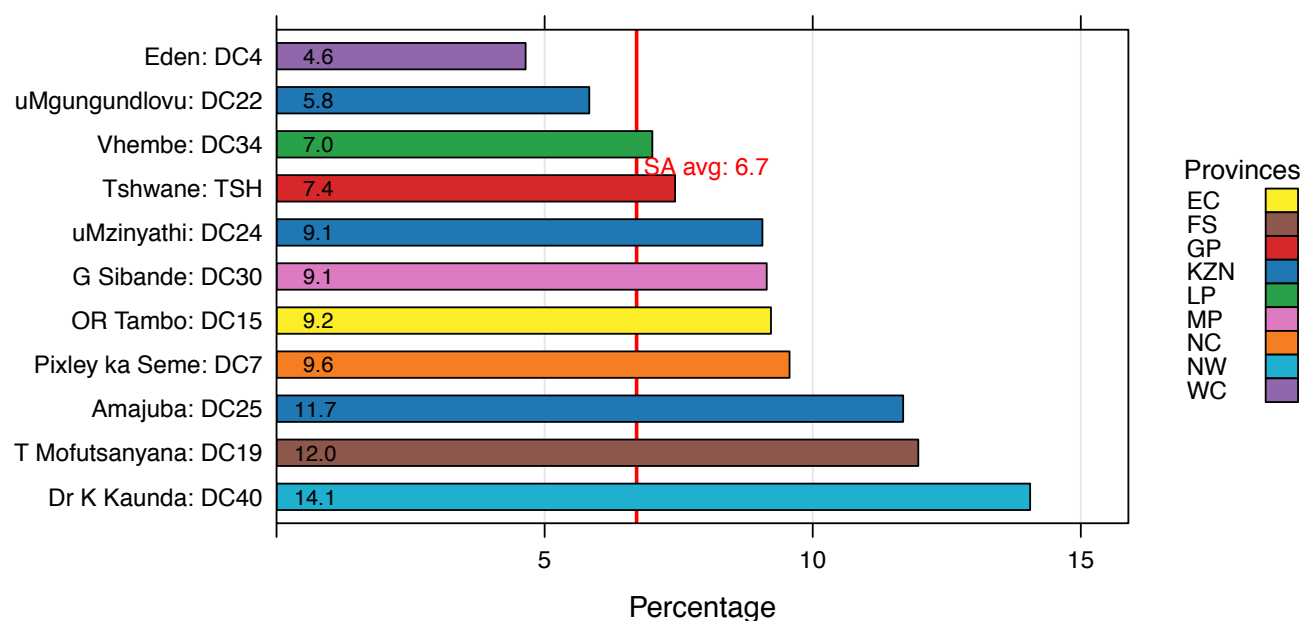


Figure 15: TB death rate by National Health Insurance district, 2014



However, it must be noted that due to the high proportion of cases not evaluated in 2014, the death rate for several districts may be higher than shown in Figures 13 and 14. In eThekweni (KZN), iLembe (KZN), Ugu (KZN), uMkhanyakude (KZN), uThukela (KZN), Vhembe (LP), JT Gaetsewe (NC), ZF Mgcau (NC), Bojanala (NW) and RS Mompoti (NW), more than 10% of cases were not evaluated, which may have impacted negatively on the death rates in these districts (Figure 9).

9.4 TB cure rate (new pulmonary smear-positive)

This indicator measures the proportion of new smear-positive patients who have bacteriological proof of cure and who are smear-negative in the last month of treatment and on at least one other occasion.^P As smear-positive TB cases are infectious and responsible for much TB transmission, it is encouraging to see that the proportion of smear-positive TB cases has decreased over the last four years (Table 5).

Table 5: National TB smear-positive rate, 2012–2015

Year	Number of smear-positive TB patients	Total number of all TB patients	Smear-positive rate (%)
2012	122 425	360 308	33.9
2013	115 080	343 780	33.5
2014	91 331	318 309	28.7
2015	73 363	282 945	25.9

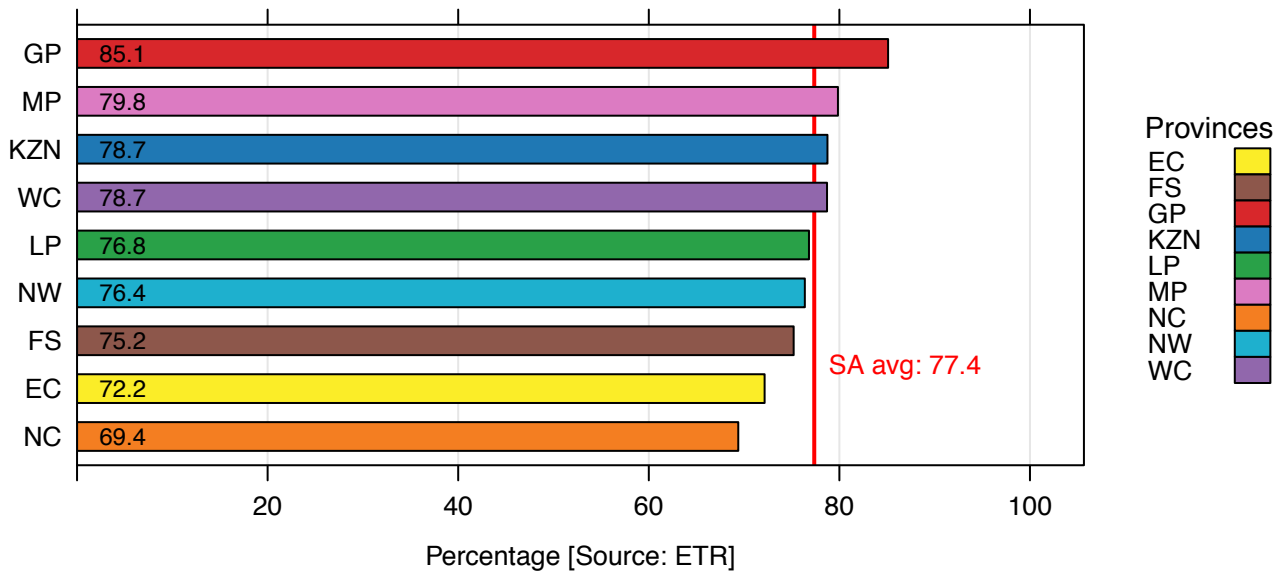
The average cure rate for the country was 77.4%. The cure rate for new smear-positive patients continued to increase from 75.8% in 2012, to 76.8% in 2013, and to 77.4% in 2014 (Table 6).

Table 6: National TB cure rate (new smear-positive), 2012–2014

Year	Number of new smear-positive patients cured	Total number of new smear-positive patients	Cure rate for new smear-positive TB (%)
2012	92 685	122 302	75.8
2013	89 368	116 349	76.8
2014	74 737	96 607	77.4

At provincial level the cure rate varied from 69.4% in the Northern Cape to 85.1% in Gauteng (Figure 16). Contrary to previous years when the cure rate increased steadily in KwaZulu-Natal, the province reported a decline from 82.8% in 2013 to 78.7% in 2014. As mentioned earlier, KwaZulu-Natal had a large number of not-evaluated cases in 2014, which could partly explain this decline. North West and the Eastern Cape reported a remarkable increase in their cure rates. In North West, the cure rate increased from 66.0% in 2012 to 76.4% in 2014, and in the Eastern Cape it increased from 65.8% in 2012 to 72.2% in 2014.

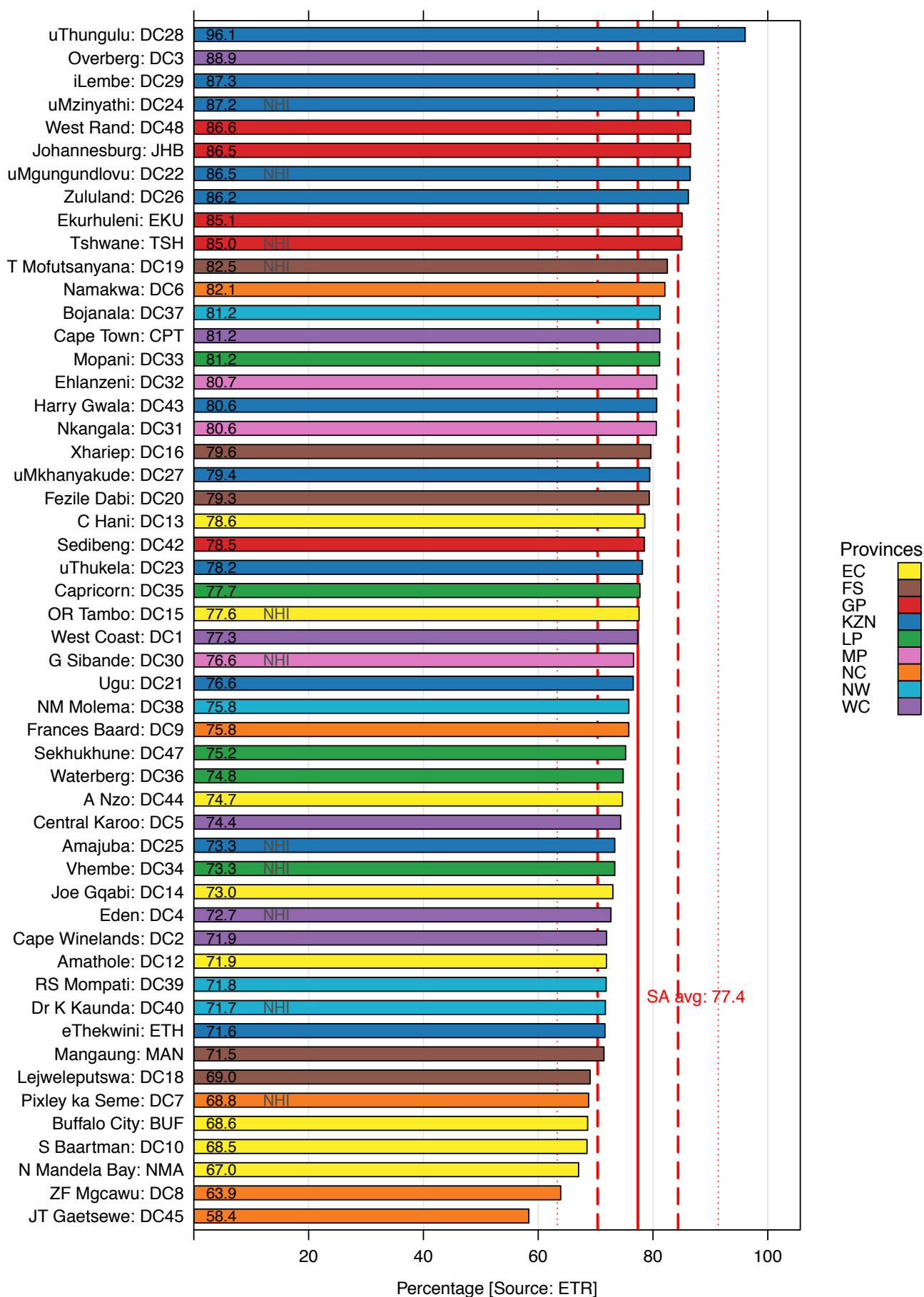
Figure 16: TB cure rate (new smear-positive) by province, 2014



At district level, there was wide variation in the cure rate for smear-positive TB, from a high of 96.1% in uThungulu (KZN) to a low of 58.4% in JT Gaetsewe (NC) (Figure 17). Three districts in Limpopo and one district in North West made the most significant improvement. In Limpopo, the cure rate increased in Vhembe from 47.9% in 2013 to 73.3% in 2014; in Sekhukhune from 58.8% to 75.2%; and in Waterberg from 64.9% to 74.8%. This improvement was achieved by reducing the number of patients not evaluated. The cure rate in Dr K Kaunda (NW) improved from 61.6% to 71.7%. Three districts reported a decline in cure rate of more than 7 percentage points, namely S Baartman (EC), eThekweni (KZN) and Eden (WC). Both S Baartman and eThekweni struggled with a high proportion of cases not-evaluated, while Eden had a high proportion of loss-to-follow-up cases (Figure 18).

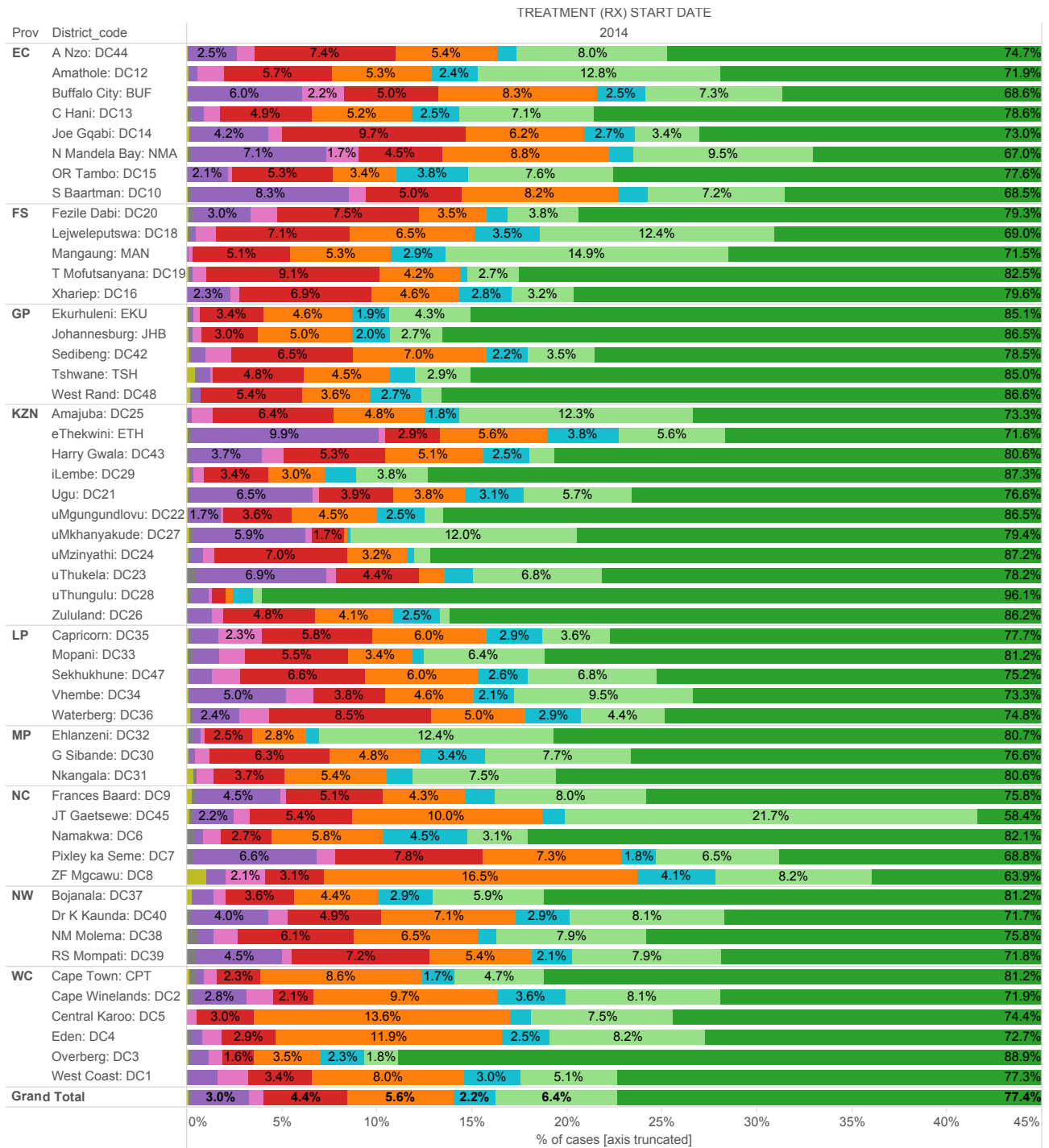
Five of the 11 NHI districts recorded a cure rate higher than the average of 77.4% in 2014. Seven NHI districts improved their cure rates, while two reported a slight decline of less than 3 percentage points. However, Pixley ka Seme (NC) reported a decrease from 73.2% to 68.8% and Eden (WC) reported a decrease from 79.8% to 72.7%. Eden has been on a downward trend since 2012 when it had the highest cure rate among NHI districts at 83.5%.

Figure 17: TB cure rate (new smear-positive) by district, 2014



Section A: Tuberculosis

Figure 18: Treatment outcomes in new pulmonary smear-positive patients, 2014



SYSTEM GEN OUTCOME

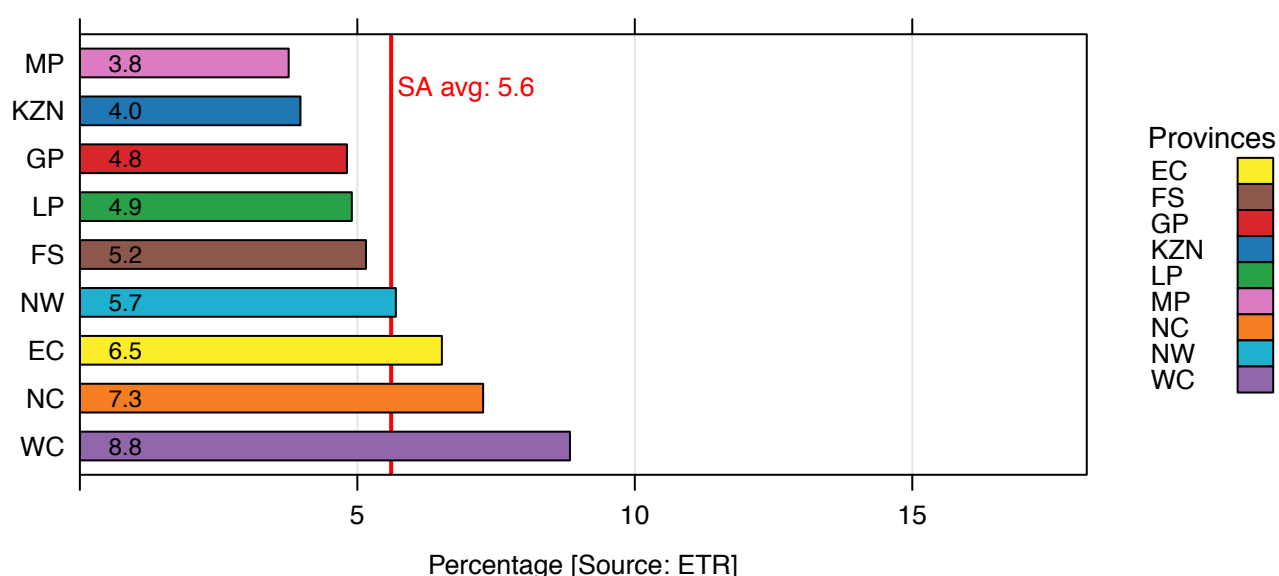
- Cured
- Completed
- Transferred Out
- Lost to follow up
- Died
- Failed
- Not Evaluated
- MDR Case
- RIF Resistance

9.5 TB loss to follow up rate (new pulmonary smear-positive)

The TB loss to follow up rate measures the proportion of new pulmonary smear-positive TB patients who interrupted treatment for two consecutive months or more.^p This indicator does not include initial default, i.e. patients who were diagnosed with TB but who did not start treatment. Several studies have recorded a high rate of initial default in South Africa and have recommended that initial default be addressed to improve TB control.^{s,t} Non-adherence or default from TB treatment can lead to death, drug resistance and continued transmission of TB in the community.^u

The national loss to follow up rate was 5.6% in 2014, a marginal improvement from 5.8% in 2013. At provincial level, the loss to follow up rate decreased in six of the nine provinces, with the most notable improvements being in Mpumalanga (from 5.4% in 2013 to 3.8% in 2014), North West (from 7.1% in 2013 to 5.7% in 2014) and in the Eastern Cape (from 7.7% in 2013 to 6.5% in 2014). Limpopo, Free State and the Western Cape saw an increase in loss to follow up rate. While the rates in Limpopo and the Free State were still below the national target of 6%, the loss to follow up rate in the Western Cape was the highest in the country at 8.8% (Figure 19).

Figure 19: TB loss to follow up rate (new smear-positive) by province, 2014



At district level, 36 of South Africa's 52 districts achieved the national target and had a loss to follow up rate of 6% or less. uMkhanyakude (KZN) reported a loss to follow up rate of 0.1%, followed by uThungulu (KZN) with 0.4%, and uThukela (KZN) with 1.3% (Figure 20). The highest loss to follow up rate was recorded in ZF Mgcawu (NC) at 16.5%, Central Karoo (WC) at 13.6% and Eden (WC) at 11.9%. These same three districts also reported a significant increase in loss to follow up rate from 2013: ZF Mgcawu (NC) increased from 11.1% to 16.5%, Central Karoo (WC) from 10.2% to 13.6%, and Eden (WC) from 8.6% to 11.9%.

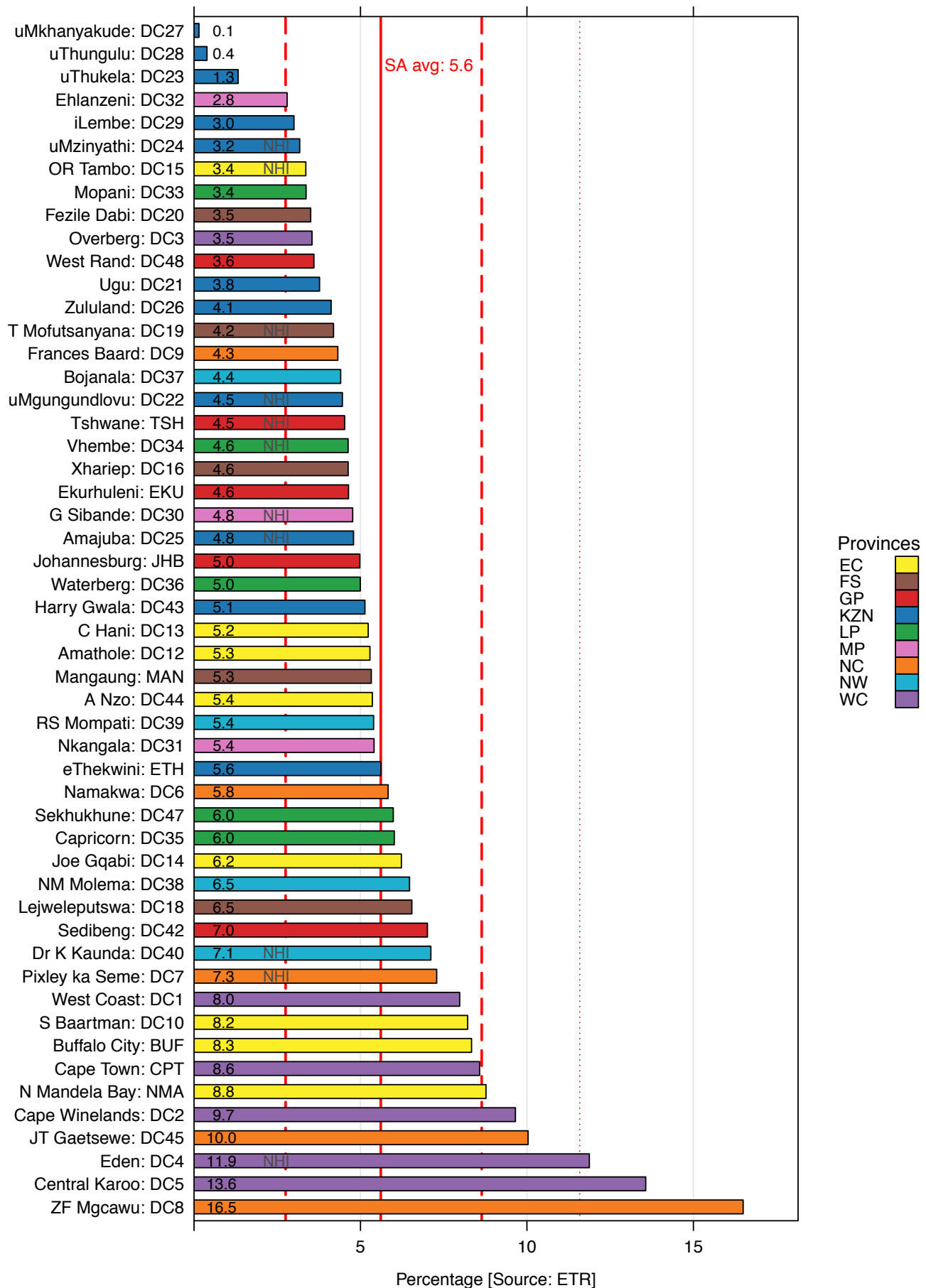
However, it must be noted that while certain districts such as uThukela, uMkhanyakude, Ugu and eThekweni in KwaZulu-Natal had low loss to follow up rates, they also had high rates of cases not-evaluated, which may 'hide' loss to follow up cases (Figure 18).

s Claassens MM, du Toit E, Dunbar R, Lombard C, Enarson DA, Beyers N, et al. Tuberculosis patients in primary care do not start treatment. What role do health system delays play? *Int J Tuberc Lung Dis.* 2013; 17(5):603–7.

t Cele LP, Knight S, Webb E, Tint K, Dlungwane T. High level of initial default among smear positive pulmonary tuberculosis in eThekweni health district, KwaZulu-Natal. *Southern African Journal of Infectious Diseases.* 2016; 31(2):41–3.

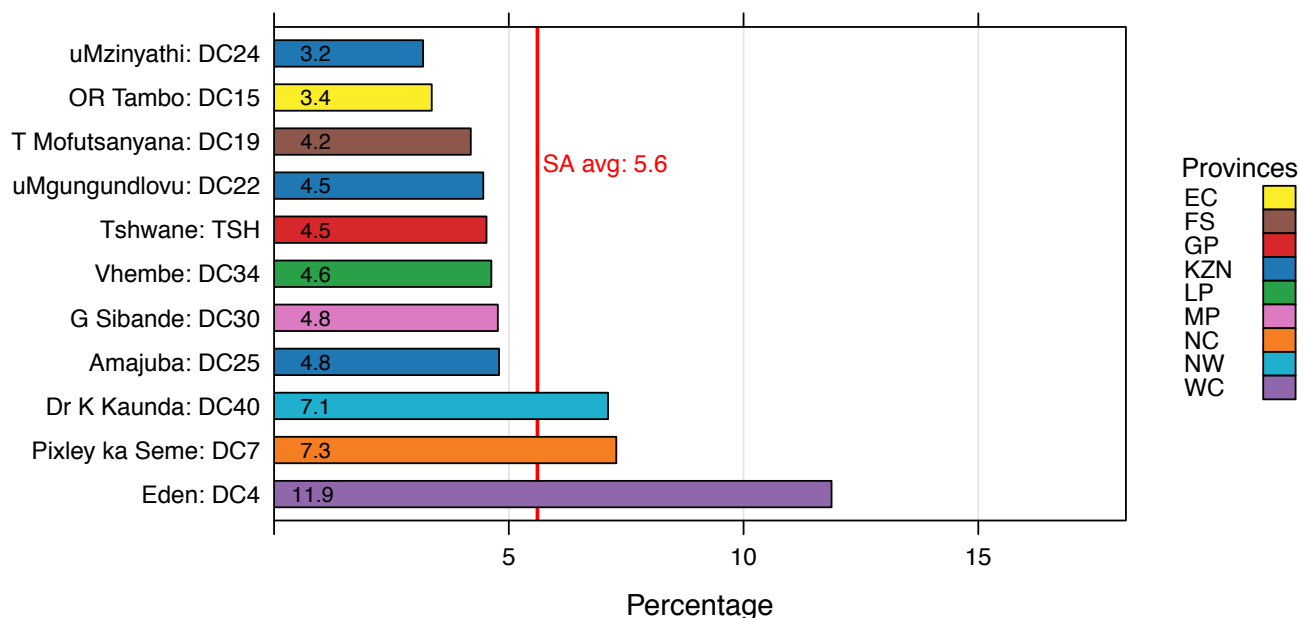
u Marx FM, Dunbar R, Enarson DA, Beyers N. The rate of sputum smear-positive tuberculosis after treatment default in a high-burden setting: a retrospective cohort study. *PLoS One.* 2012; 7(9):e45724.

Figure 20: TB loss to follow up rate (new smear-positive) by district, 2014



Eight of the 11 NHI districts had a loss to follow up rate well below 6%, ranging from 3.2% in uMzinyathi (KZN) to 4.8% in Amajuba (KZN). Three NHI districts struggled with high loss to follow up rates, namely Dr K Kaunda (NW) (7.1%), Pixley ka Seme (NC) (7.3%), and Eden (WC) (11.9%). However, Eden is of the greatest concern as the loss to follow up rate doubled from 5.1% in 2010 to 11.9% in 2014 (Figure 21).

Figure 21: TB loss to follow up rate (new smear-positive) by National Health Insurance district, 2014



9.6 TB rifampicin resistance confirmed client rate

This indicator measures the proportion of TB suspects detected to have rifampicin resistance. The indicator is being reported for the second time in the *District Health Barometer*.

In 2015, 6.1% of the GeneXpert TB-positive tests conducted nationally were reported as rifampicin resistant. Map 2 and Figure 22 show the proportion of TB cases identified using the GeneXpert diagnostic tool that were detected to have rifampicin resistance by district. Both the map and figure show that KwaZulu-Natal remains the MDR-TB hotspot in the country, with seven of the 11 districts in the province reporting proportions of rifampicin resistance above the national average. uMkhanyakude, Zululand and iLembe (all KZN) had the highest rifampicin resistance rates of 12.4%, 9.5% and 9.3% respectively. Similar to KwaZulu-Natal at 8.3%, Mpumalanga reported that 8.6% of the TB cases identified in the province were rifampicin resistant. However, rates varied across the country, and in contrast to KwaZulu-Natal and Mpumalanga, resistance rates below 4% were reported in three Western Cape districts (Central Karoo, Eden and Overberg) and in Frances Baard (NC).

Variation in rifampicin resistance rates across the NHI districts was similar to the variation in provincial rates. National Health Insurance districts in KwaZulu-Natal and Mpumalanga reported high rates of rifampicin resistance. Amajuba and uMzinyathi (both KZN) reported rates of 8.3%, and G Sibande (MP) reported a rate of 8.2%. In contrast, Eden, the Western Cape NHI district, reported the lowest rifampicin resistance rate (3.6%).

Map 2: TB rifampicin resistance confirmed client rate by district, 2015

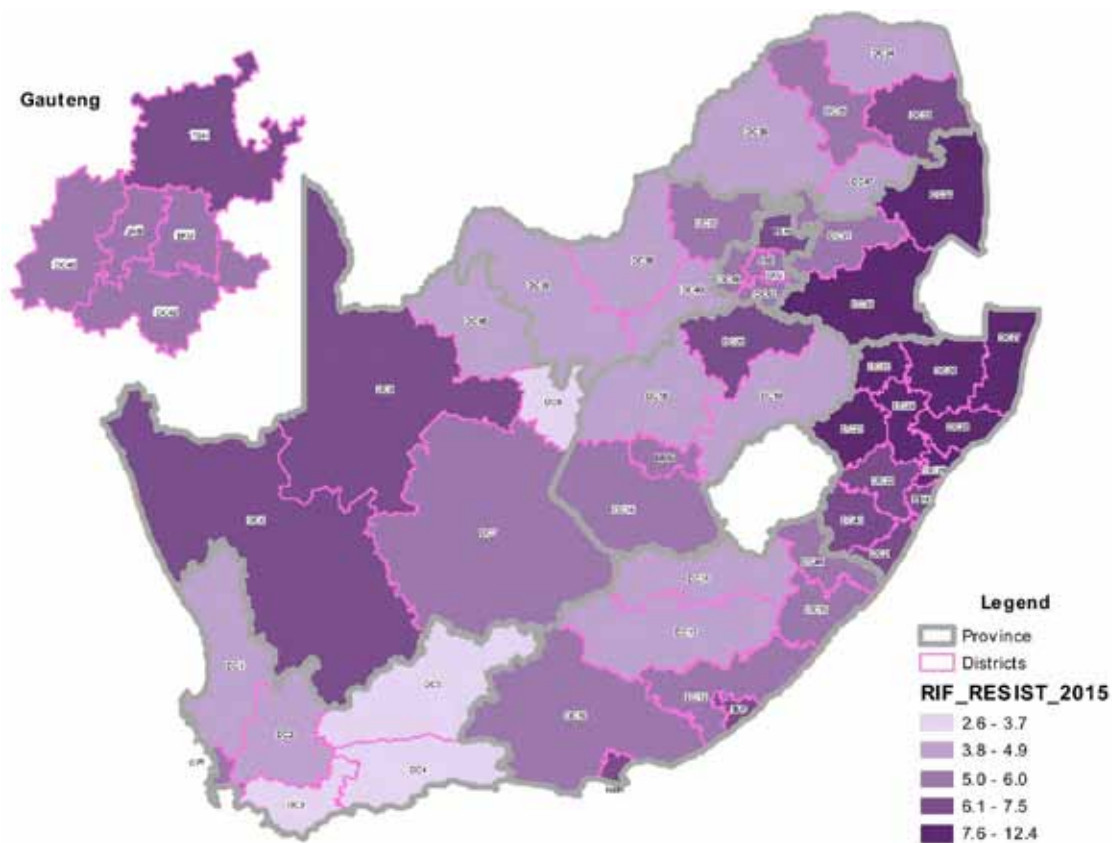
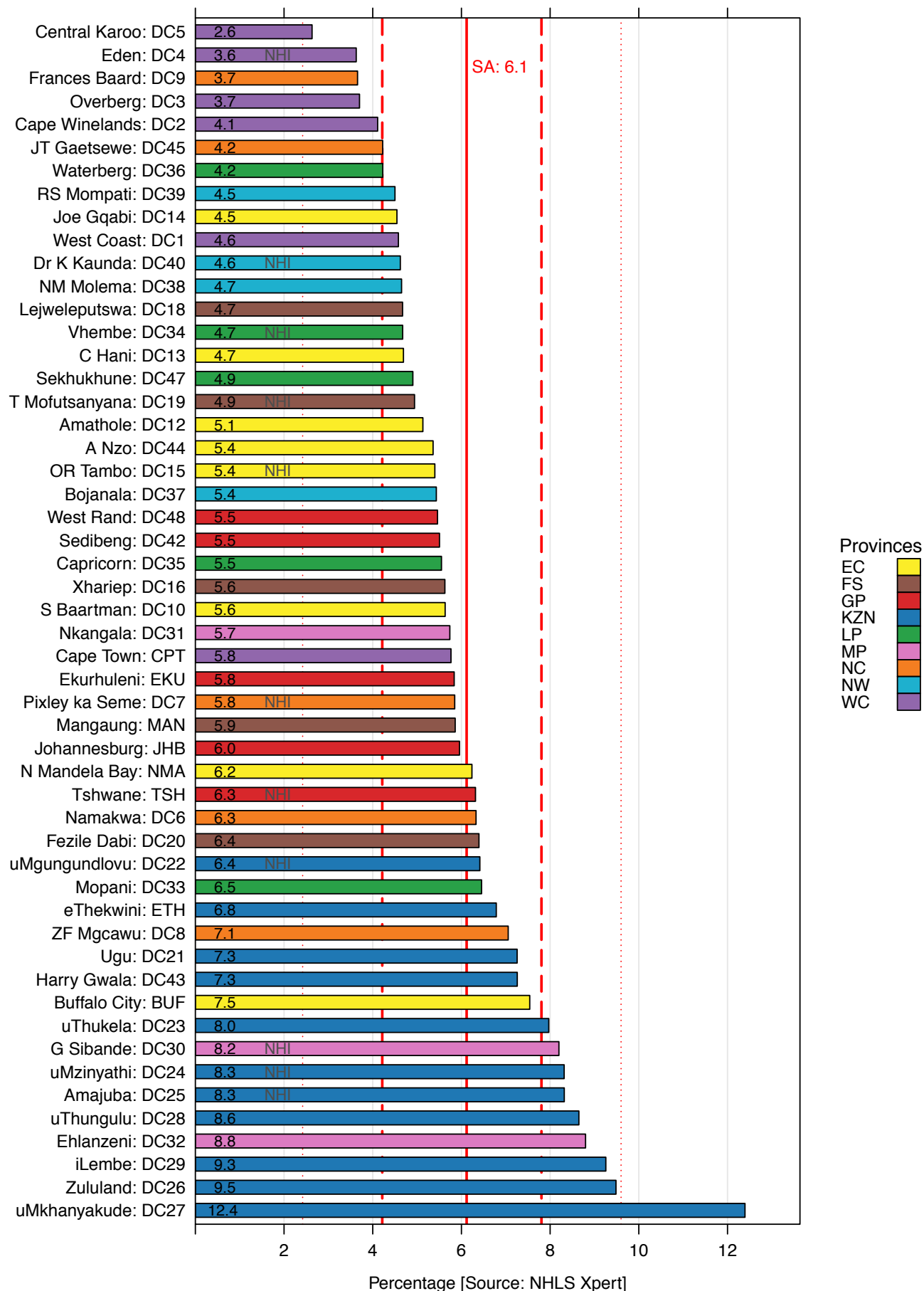


Figure 22: TB rifampicin resistance confirmed client rate by district, 2015

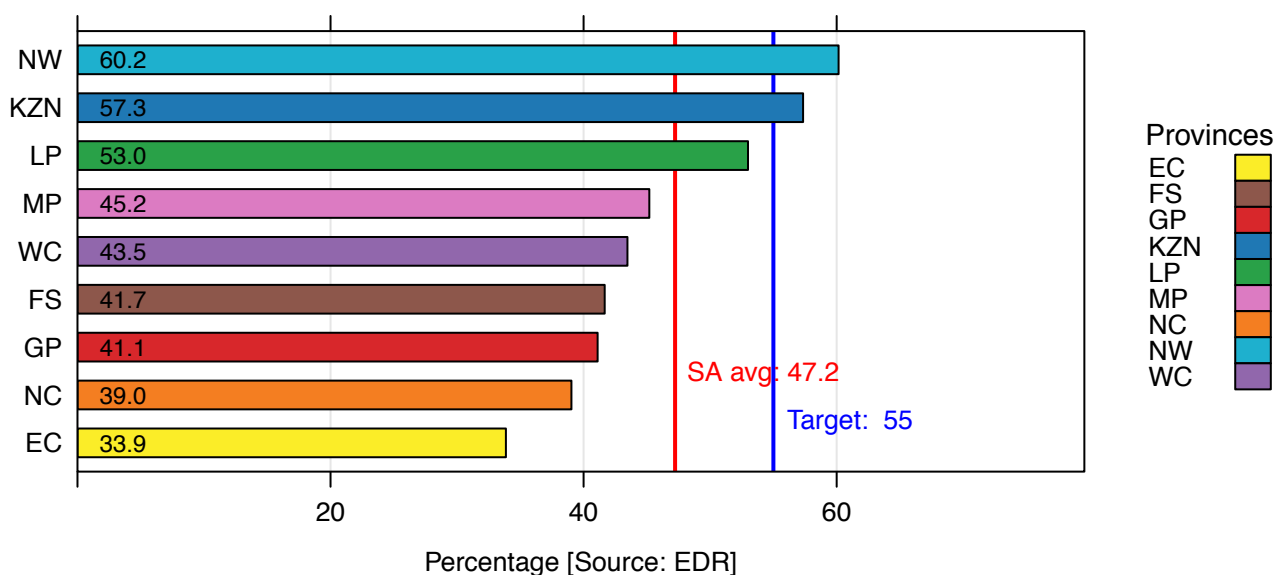


9.7 MDR-TB treatment success rate

MDR-TB treatment success rate is defined as the proportion of patients who started second-line treatment who were either cured or who completed treatment.^v The treatment success rate target in the National Strategic Plan on HIV, STIs and TB 2012–2016^f was 55%. However, in order to meet the Sustainable Development Goals, the End TB Strategy set a revised target of 75% for 2030, a target that has been endorsed by the National Department of Health.

In 2013, the average MDR-TB treatment success rate for the country was 47.2%. Although this is much lower than the treatment success rate for drug-susceptible ('routine') TB, the treatment success rates for MDR-TB are much lower than for TB. The MDR-TB success rate varied across the provinces, from 60.2% in the North West to 33.9% in the Eastern Cape. The success rate across the districts varied from a low of 26.5% in Ekurhuleni (GP) to a high of 72.3% in Mopani (LP). The success rate reported for Mopani is surprising, as at the time all MDR-TB patients in the province were treated in one hospital, and the other Limpopo districts were reporting far lower rates of successful treatment. Furthermore, with the treatment regimen available at the time, successful treatment outcome rates are seldom over 65%.^w However, it is encouraging that treatment success of almost 65% was reported in three districts, namely uMzinyathi in KwaZulu-Natal (64.7%) and two North West districts, namely NM Molema (64.4%) and Bojanala (63.8%) (Figure 23).

Figure 23: MDR-TB treatment success rate by province, 2013

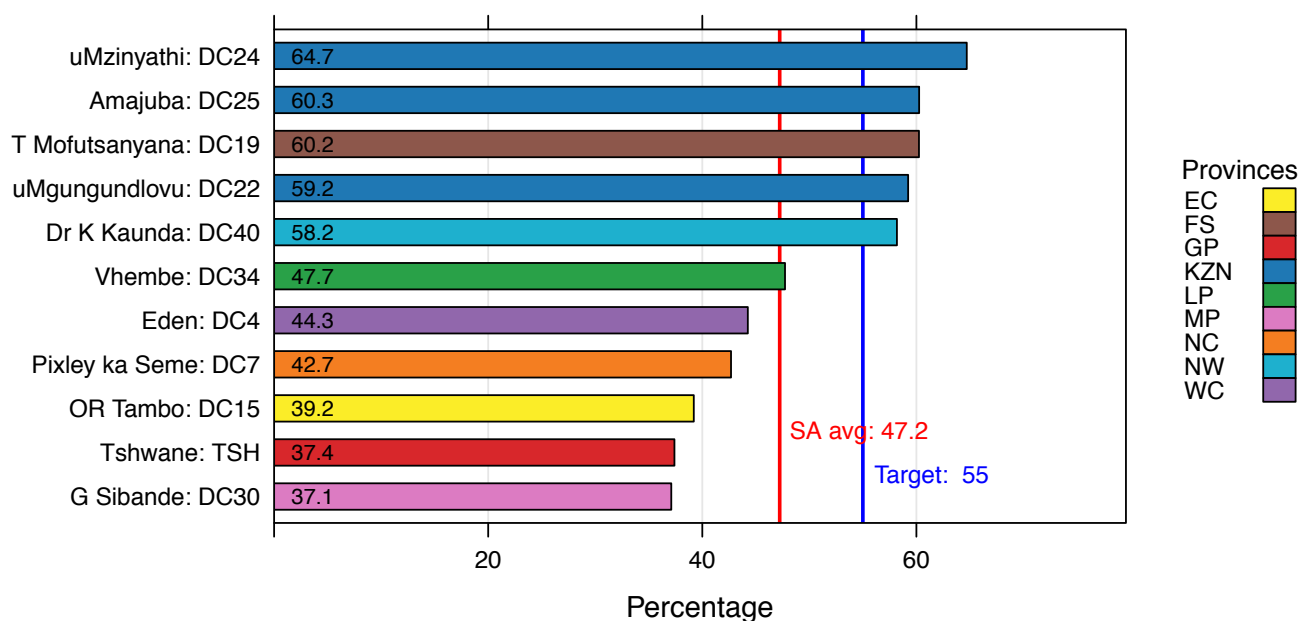


The treatment success rate for MDR-TB also varied across the NHI districts. Three NHI districts had treatment success rates over 60%, namely uMzinyathi (64.7%) and Amajuba (60.3%) (both KZN) and T Mofutsanyana (60.2%) (FS). Three NHI districts had treatment success rates below 40%, namely OR Tambo (EC), Tshwane (GP) and G Sibande (MP) (Figure 24).

^v World Health Organization. Definitions and reporting framework for TB – 2013 revision. Geneva: WHO; 2013.

^w Orenstein E, Basu S, Shah S, Andrews JR, Friedland GH, Moll AP, et al. Treatment outcomes among patients with multidrug-resistant tuberculosis: systematic review and meta-analysis. *Lancet Infect Dis.* 2009; 9:153–61.

Figure 24: MDR-TB treatment success rate by National Health Insurance district, 2013



Summary of TB indicators across the NHI districts

Table 7 shows the performance of the NHI districts with regard to the TB indicators. T Mofutsanyana (FS) was the best-performing district on the TB programme (indicated by the most green blocks), followed by uMzinyathi (KZN). In contrast, Pixley ka Seme (NC) and Dr K Kaunda (NW) performed worst on the TB programme (indicated by the most red and orange blocks).

Table 7: Summary of TB indicators across the National Health Insurance districts, 2013–2015

Average of Rank			District										
Category	Indicator Short	Year	Amajuba: DC25	Dr K Kaunda: DC40	Eden: DC4	G Sibande: DC30	OR Tambo: DC15	Pixley ka Seme: DC7	T Mofutsanyana: DC19	Tshwane: TSH	uMgungundlovu: DC22	uMzinyathi: DC24	Vhembe: DC34
09_TB_CF	TB inc all TB	2015	17	36	43	14	25	51	17	8	34	20	1
	RIF resistance rate	2015	47	11	2	45	20	30	17	34	37	46	14
09_TB_TO	TB cure rate new sm+	2014	36	43	39	28	26	47	11	10	7	4	37
	TB success all TB	2014	20	50	24	18	36	38	12	9	8	23	42
	TB deaths all TB	2014	47	51	8	37	38	40	48	28	17	36	26
	New pulmonary TB LTF rate	2014	23	41	50	22	7	42	14	18	17	6	19
	TB success MDR	2013	7	13	31	42	36	32	8	40	10	2	26

Key:

■ Performing well compared to other districts

■ Average performance

■ Poor performance, improvement needed

Source: ETR.Net and EDRWeb

Key findings

- ◆ Slow improvement in the TB cure rate, death rate, and defaulter rate are encouraging, but to reach the End TB Strategy and SDG targets for 2030, additional efforts and focus will be required.
- ◆ While TB treatment outcomes are improving in most districts, the proportion of patients not evaluated remains high. As this category can 'hide' patients loss to follow-up, efforts must be made to decrease the proportion of patients not evaluated.
- ◆ Three districts did not show improved TB programme performance, namely ZF Mgcawu (NC), Capricorn (LP) and Dr K Kaunda (NW). These districts need to prioritise improved TB programme performance by increasing treatment success and reducing the number of defaulters.
- ◆ The increase in number of TB patients with known HIV status and the proportion of co-infected patients on ART have been an encouraging improvement in the past few years.

Recommendations

- ◆ The MDR-TB treatment success rate has been reported in this year's District Health Barometer for the first time. It is hoped that the national treatment success rate of 47.2% will improve with the introduction of new drugs and a shortened treatment regimen.
- ◆ Considerable efforts by all TB programme staff and frontline healthcare workers will be needed to capitalise on these new developments and improve the treatment success of MDR-TB patients.
- ◆ Improving the accuracy and validity of MDR-TB data and using these data for clinical and programmatic management will be an essential component in improving MDR-TB programme performance.

10 HIV

Noluthando Ndlovu

There are an estimated 36.7 million people living with HIV across the globe.^a One of the ways in which the South African government has pursued a faster move towards attaining the global 90-90-90 treatment target^b was to adopt the World Health Organization (WHO) recommendations on treating all people who test positive for HIV.^c This 'test and start' strategy was implemented in September 2016. These WHO guidelines are based on evidence that early initiation on antiretroviral therapy (ART) results in better clinical outcomes than delayed treatment.^d South Africa currently has the world's largest national HIV treatment programme reaching about 3.4 million people.

Tuberculosis (TB) is the leading cause of death among people living with HIV and accounts for one in four HIV-related deaths.^e South Africa has a high incidence of both HIV and TB. Individually they are two of the deadliest infections in the world, making them even more dangerous when combined. It is important for TB patients to be tested for HIV, and for HIV patients to be tested for TB. Patients who are dually infected need to commence treatment for both diseases as soon as is clinically possible. This section covers four HIV-related indicators, namely: (i) male condom distribution coverage; (ii) HIV testing coverage (including tests done during antenatal care (ANC)); (iii) proportion of TB cases with known HIV status; and (iv) proportion of TB/HIV co-infected clients on ART. These four indicators cover aspects of HIV prevention and treatment of TB/HIV co-infected clients. The source data for the first two indicators were obtained from the District Health Information Software (DHIS), while the source data for the TB/HIV indicators were obtained from the Electronic TB register (ETR.Net).

10.1 Male condom distribution coverage

Male condom distribution coverage refers to the number of male condoms distributed through public health facilities, identified outlets and other non-medical sites in a given 12-month period per male aged 15 years and older. When used consistently and correctly, condoms are highly effective in preventing the sexual transmission of HIV and are considered to be one of the cornerstones in any response to HIV due to their low cost and strong prevention efficacy.^f As part of the 'Choice' condom rebranding campaign run by the National Department of Health (NDoH), condoms have been rebranded to be more appealing. The new condoms will introduce a range of scents and colours. These freely available condoms aim to promote safe sex and help in the fight against sexually transmitted infections such as HIV and AIDS.^g

South Africa responded to the HIV epidemic by rapidly expanding its public sector condom programme, making male condoms freely and widely available. During the 2015/16 financial year each district prepared a 'district condom distribution plan' to ensure that condoms are distributed as effectively as possible and reach the targeted high-risk groups. Despite the country's intensified efforts to increase condom distribution, the last national household survey conducted in 2012 reported a declining use of condoms at last sex act by men and women.^h Some of the challenges impeding the effectiveness of condoms in preventing HIV transmission are the inconsistent and incorrect use of condoms and the likelihood that couples in longer-term relationships discontinue the use of condoms.ⁱ

During 2015/16, a total of 839 874 751 male condoms were distributed in South Africa, compared with 712 387 234 in 2014/15. The 2015/16 figure is equivalent to distributing an average of 44.4 condoms per male aged 15 years and older. KwaZulu-Natal (KZN) had the highest male condom distribution coverage again in 2015/16, at 54.6 per male 15 years and older, followed closely by the Free State (FS) at 54.0 per male (Figure 1). Coverage in the Free State increased from 34.1 condoms per male aged 15 years and older in 2014/15. Three other provinces increased their male condom distribution coverage quite significantly, namely the Eastern Cape (EC) which increased from 33.6 to 54.0, Gauteng (GP) which increased

a UNAIDS. Fact Sheet 2016. Geneva: UNAIDS; 2016. Available from: <http://www.unaids.org/en/resources/fact-sheet> [Accessed 14 July 2016].

b UNAIDS. 90-90-90. An ambitious treatment target to help end the AIDS epidemic. 2014. Available from: http://www.unaids.org/sites/default/files/media_asset/90-90-90_en_0.pdf [Accessed 15 August 2016].

c UNAIDS. South Africa takes bold step to provide HIV treatment for all. Geneva: UNAIDS; 2016. Available from: http://www.unaids.org/en/resources/presscentre/pressreleaseandstatementarchive/2016/may/20160513_UTT [Accessed 28 June 2016].

d WHO. Consolidated guidelines on the use of antiretroviral drugs for treating and preventing HIV infection: recommendations for a public health approach – 2nd ed. Switzerland: World Health Organization, 2016 <http://www.who.int/hiv/pub/arv/arv-2016/en/> [Accessed 28 June 2016].

e World Health Organization. TB and HIV Topics. Available from: http://www.who.int/hiv/topics/tb/about_tb/en/ [Accessed 28 June 2016].

f Ashmore J, Henwood R. Choice or no choice? The need for better branded public sector condoms in South Africa. *S Afr J HIV Med.* 2015; 16(1), Art. #353. <http://dx.doi.org/10.4102/sajhivmed.v16i1.353>.

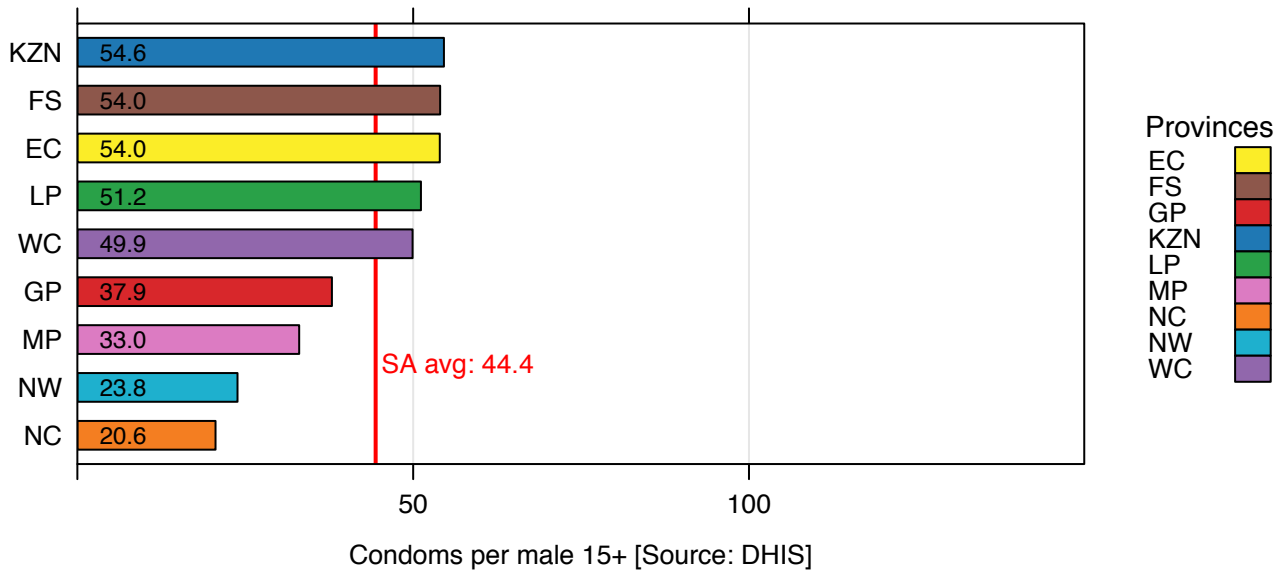
g Western Cape Government. Choice condoms go the Max. Available from: <https://www.westerncape.gov.za/general-publication/choice-condoms-go-max> [Accessed 15 August 2016].

h South African National HIV, Behaviour and Health Survey 2012. Available from: http://www.hsarc.ac.za/en/research-areas/Research_Areas_HAST/HAST_National_HIV_Survey#stash.3ZHkhG7A.dpuf [Accessed 14 July 2016].

i Beksinska ME, Smit JA, Mantell JE. Progress and challenges to male and female condom use in South Africa. *Sexual Health.* 2012; 9(1):51-8. doi:10.1071/SH11011.

from 25.8 to 37.9, and Limpopo Province (LP) which increased from 38.2 to 51.2. The worst-performing province was the Northern Cape (NC) at 20.6 condoms per male, with no improvement from the coverage of 20.3 per male in 2014/15.

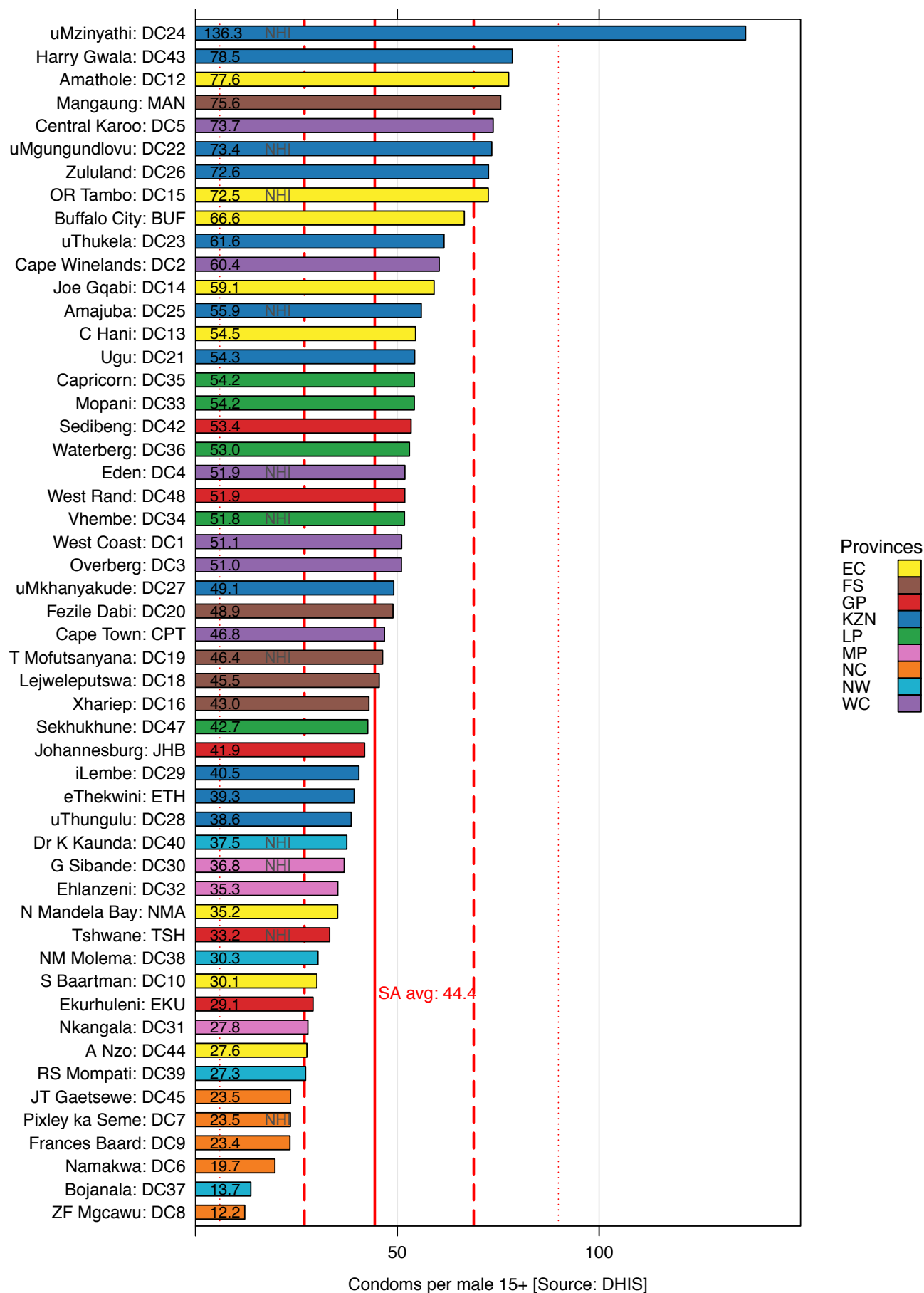
Figure 1: Male condom distribution coverage by province, 2015/16



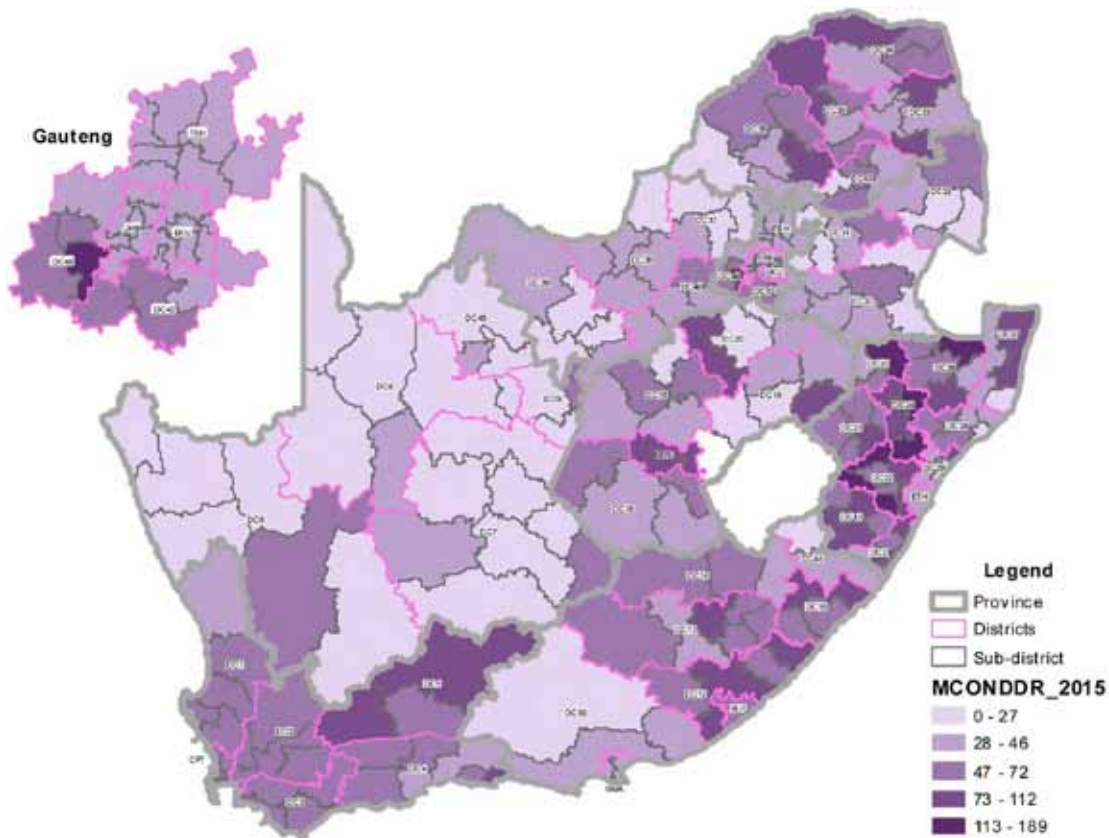
The district with the highest coverage was uMzinyathi (KZN) at 136.3 condoms per male aged 15 years and older, while the lowest coverage was recorded in ZF Mgcawu (NC) at only 12.2 per male (Figure 2). Half of the 10 best-performing districts were from KwaZulu-Natal. However, there was a dramatic drop in male condom distribution in uMgungundlovu district (KZN), from 216.8 per male over 15 years in 2014/15 to 73.4 in 2015/16. Since 2010/11, coverage has fluctuated significantly in uMgungundlovu, driven by the huge changes in data reported from a range of ‘condom distribution sites’. Most of the worst-performing districts were located in the Northern Cape.

According to Map 1, Botshabelo in Mangaung (FS) was the best-performing sub-district with 197.5 condoms distributed per male aged 15 and older, followed by Impendle in uMgungundlovu (KZN) and Nquthu in uMzinyathi (KZN).

Figure 2: Male condom distribution coverage by district, 2015/16



Map 1: Male condom distribution coverage by sub-district, 2015/16



In 2015/16, uMzinyathi (KZN) and uMgungundlovu (KZN) were again the top-performing National Health Insurance (NHI) districts for this indicator, while Pixley ka Seme (NC) remained the worst-performing NHI district (Figure 3). However, there was a massive improvement in Pixley ka Seme (over 100%) from coverage of only 11.4 condoms per male aged 15 and older in 2014/15 to 23.5 per male in 2015/16. Four of the 11 NHI districts had male condom distribution coverage less than the national average. In addition, most of the NHI districts were not the best-performing districts in their respective provinces. This suggests that these districts are not benefitting from the additional resources and attention that they receive.

Figure 3: Male condom distribution coverage by National Health Insurance district, 2015/16

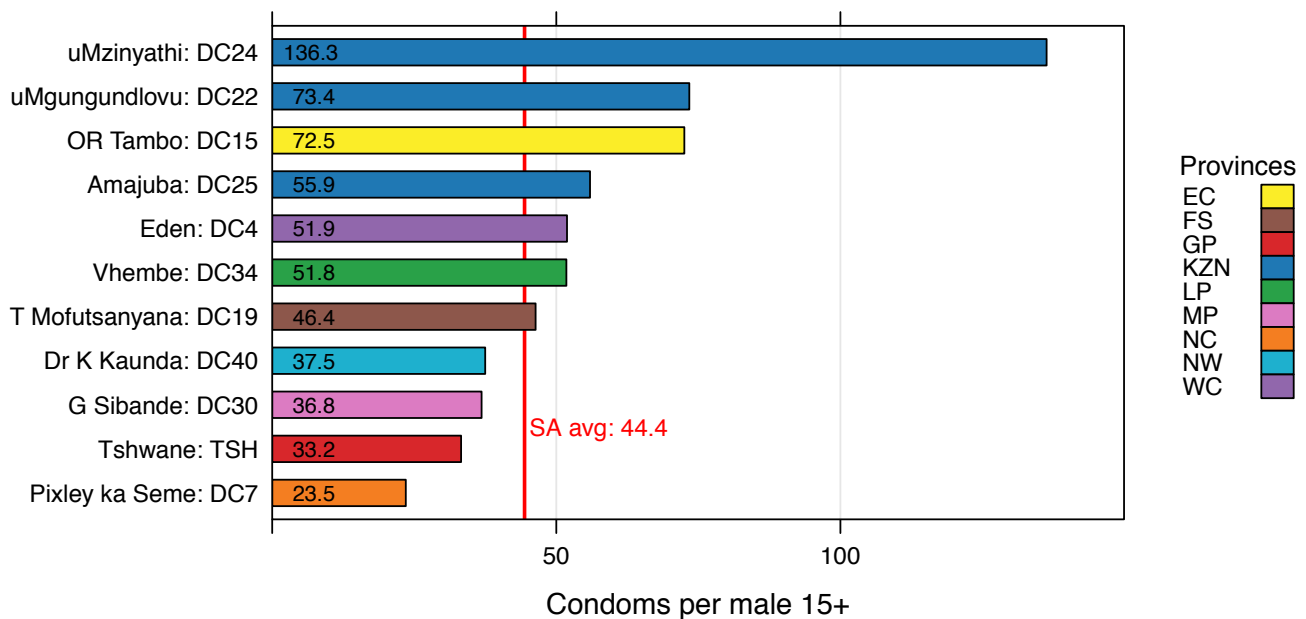


Figure 4 shows the upward trend observed for male condom distribution coverage in the majority of districts over the last 10 years. Figure 5 shows the trends in average district values by socio-economic quintile (SEQ), with SEQ1 showing the highest male condom coverage at 61.6 condoms per male aged 15 years and older. Previously, SEQ3 had the highest male condom distribution coverage but this dropped to the lowest coverage at 38.5 condoms per male. The reason for this may be the huge drop in male condom distribution coverage in uMgungundlovu (KZN), which falls in SEQ3. The male condom distribution for SEQs 4 and 5 was the same at 43.1 condoms per male aged 15 years and older.

Figure 4: Annual trends for male condom distribution coverage

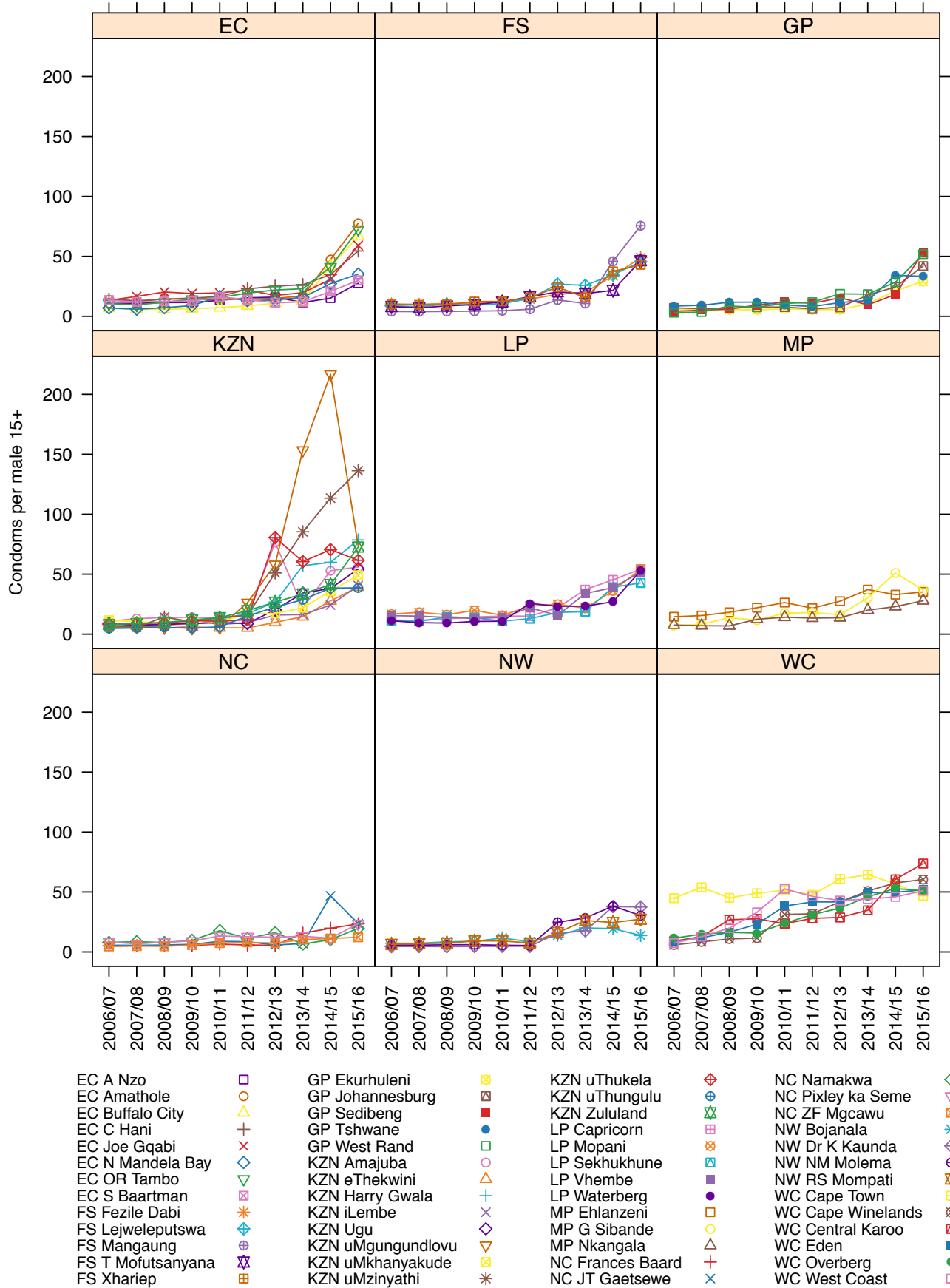
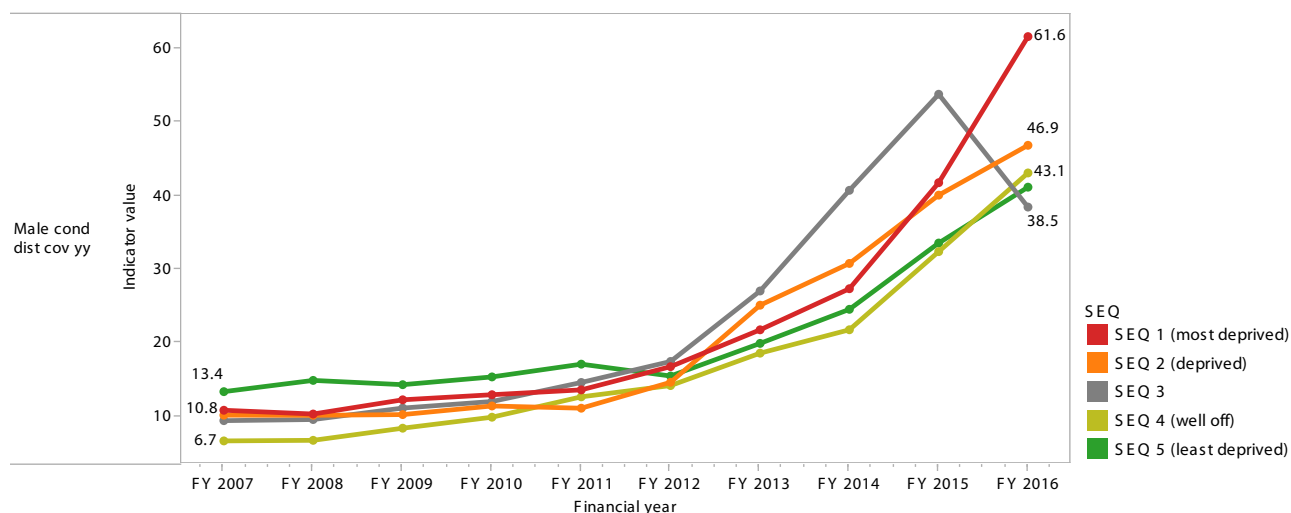


Figure 5: Trends in average district values by socio-economic quintile for male condom distribution coverage



10.2 HIV testing coverage (including antenatal care)

The HIV testing coverage indicator was introduced in the 2014/15 *District Health Barometer* to monitor the progress of HIV testing. It measures all people aged from 15 to 49 years who were tested for HIV during the year as a proportion of the total population in this age group. This indicator reports on HIV testing done within public health facilities as well as any non-medical sites that report data to the DHIS. It also includes tests administered to antenatal clients. When accessing HIV testing services people are provided with pre-test information, HIV testing and diagnosis, post-test counselling if applicable, and referral and linkage to prevention, care and treatment services.^d

HIV counselling and testing (HCT) has been advocated as a critical entry point for care and treatment services, including prevention, clinical management of HIV-related illnesses, and psychosocial support. There are still major research gaps about the best ways to provide HCT, especially to the youth^j as they have historically exhibited lower uptake of HIV testing services.^k There is a particular need to target this group, especially young women and adolescent girls who bear a disproportionate burden of HIV in South Africa. One of the ways in which the South African government is trying to fast-track HCT among young women and adolescent girls is through a national three-year campaign that was launched in June 2016, targeting this specific population. The campaign was a response to the unacceptably high rate of new infections among this group who have an HIV infection rate two-and-a-half times that of their male peers. Currently it is estimated that there are 2 000 new infections per week among adolescent girls and young women aged 15–24 years.^l

An additional component that has been introduced to HIV testing services in South Africa is the self-testing kit, which pharmacies are now permitted to sell. However, there are concerns about whether people who test positive will actually report to their local clinic for further testing and treatment.^m Some countries (e.g. Kenya) have already introduced self-test monitoring and reporting into national population-based surveys.ⁿ

The South African average for HIV testing coverage has been increasing steadily, from 26.1% in 2013/14 to 34.5% in 2015/16. Although the testing coverage in Limpopo decreased slightly in 2015/16, Limpopo remained the province with the highest testing coverage at 39.1%, followed by the Eastern Cape at 37.3% (Figure 6). Compared with 2014/15, the HIV testing coverage in KwaZulu-Natal decreased by 3.0 percentage points to 36.0%. The province that showed significant improvement was Gauteng, with a dramatic increase of nearly 10 percentage points from 23.3% in 2014/15 to 32.6% in 2015/16. This significant improvement could be the result of the awareness campaign launched in 2014 by the Gauteng

^j Lawrence E, Struthers P, Van Hove G. HIV counselling and testing in secondary schools: What students want. *S Afr J HIV Med.* 2015; 16(1), Art. #390. doi:<http://www.sajhivmed.org.za/index.php/hivmed/article/view/390>.

^k Maughan-Brown B, Lloyd N, Bor J, Venkataramani A. Increasing access to HIV testing: Impacts on equity of coverage and uptake from a national campaign in South Africa. Southern Africa Labour and Development Research Unit Working Paper Number 145. Cape Town: SALDRU, University of Cape Town; 2015.

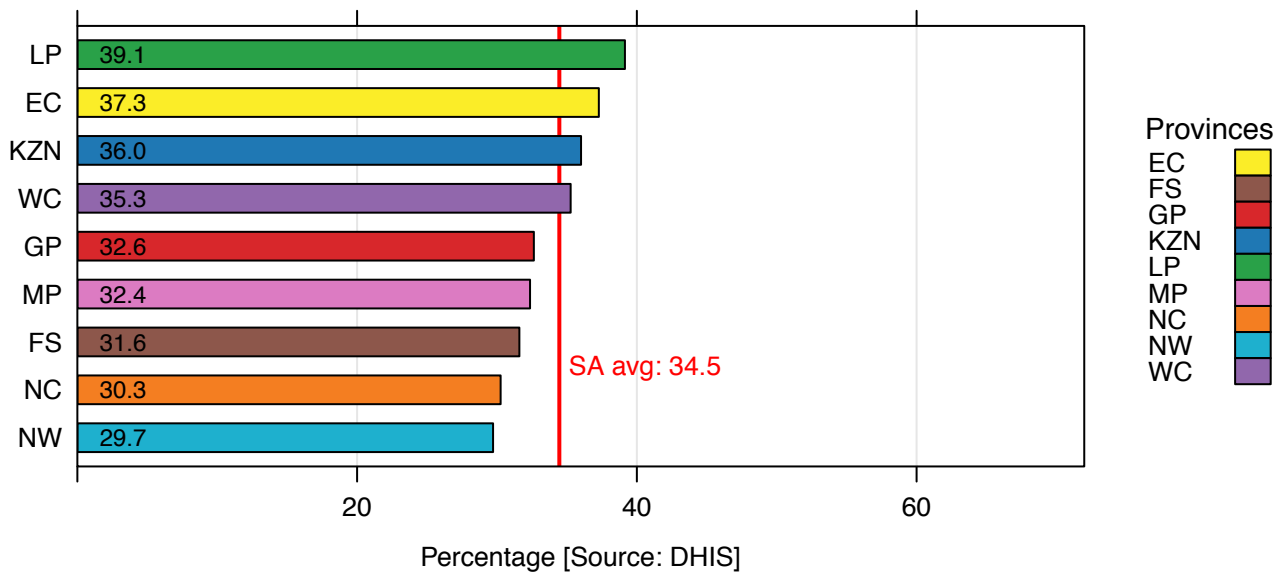
^l UNAIDS. South Africa Launches National Campaign for Young Women and Adolescent Girls. Geneva: UNAIDS; 2016. Available from: http://www.unaids.org/en/resources/presscentre/featurestories/2016/june/20160624_south-africa [Accessed 14 July 2016].

^m Gonzalez L, Polao K, Warby V. Home HIV testing gets green light. *Health-e;* 2016. Available from: <https://www.health-e.org.za/2016/02/08/home-hiv-testing-gets-the-green-light/> [Accessed 28 June 2016].

ⁿ World Health Organization. Consolidated Strategic Information Guidelines For HIV in the Health Sector. Geneva: WHO; 2015.

Department of Health. Called PASOP (Prevent, Avoid, Stop, Overcome and Protect), the campaign seeks to reduce the new HIV infection rate by at least 50% in the province.^o

Figure 6: HIV testing coverage (including antenatal care) by province, 2015/16



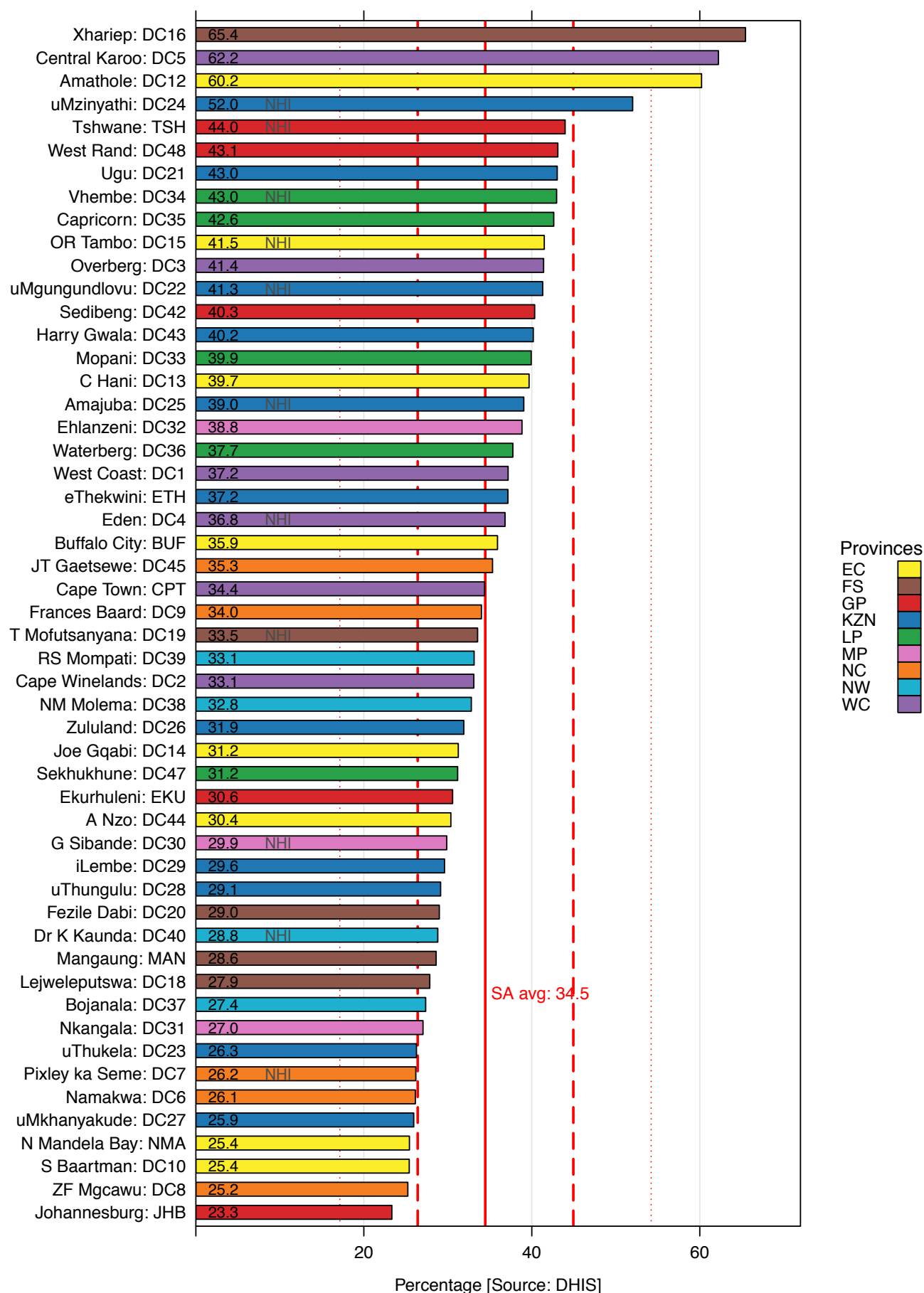
Four districts reached coverage of more than 50% (Figure 7 and Map 2). These districts were Xhariep (FS) at 65.4%, Central Karoo (Western Cape (WC)) at 62.2%, Amathole (EC) at 60.2% and uMzinyathi (KZN) at 52.0%. Although uMzinyathi was still among the top-performing districts for this indicator, it is disconcerting to note that its coverage rate decreased by over 10 percentage points, along with uThungulu (KZN) (12.4 percentage point decrease), uMkhanyakude (KZN) (9.9 percentage point decrease) and NM Molema (North West (NW)) (8.8 percentage point decrease). The worst-performing district was once again Johannesburg (GP) at 23.3%, even though the coverage increased by 4.5 percentage points compared with 2014/15.

Seven of the 11 NHI pilot districts achieved coverage higher than the national average of 34.5%, with the worst-performing district being Pixley ka Seme (NC) at 26.2% (Figure 8). uMzinyathi (KZN) was the only NHI pilot district with coverage above 50%.

As the proportion of HIV-positive people who know their status increases, so the yields from increased HIV testing coverage are decreasing. In other words, more HIV tests have to be done to discover one positive person, and the cost-effectiveness of testing decreases. Strategies are being sought so that testing increasingly targets people at higher risk of being infected with HIV.

^o Tladi T. Premier Makhura calls for reinforced fight against HIV and AIDS. Gauteng Department of Health; 2014. Available from: <https://gphealthdepartment.wordpress.com/tag/pasop/> [Accessed 19 July 2016].

Figure 7: HIV testing coverage (including antenatal care) by district, 2015/16



Map 2: HIV testing coverage by district, 2015/16

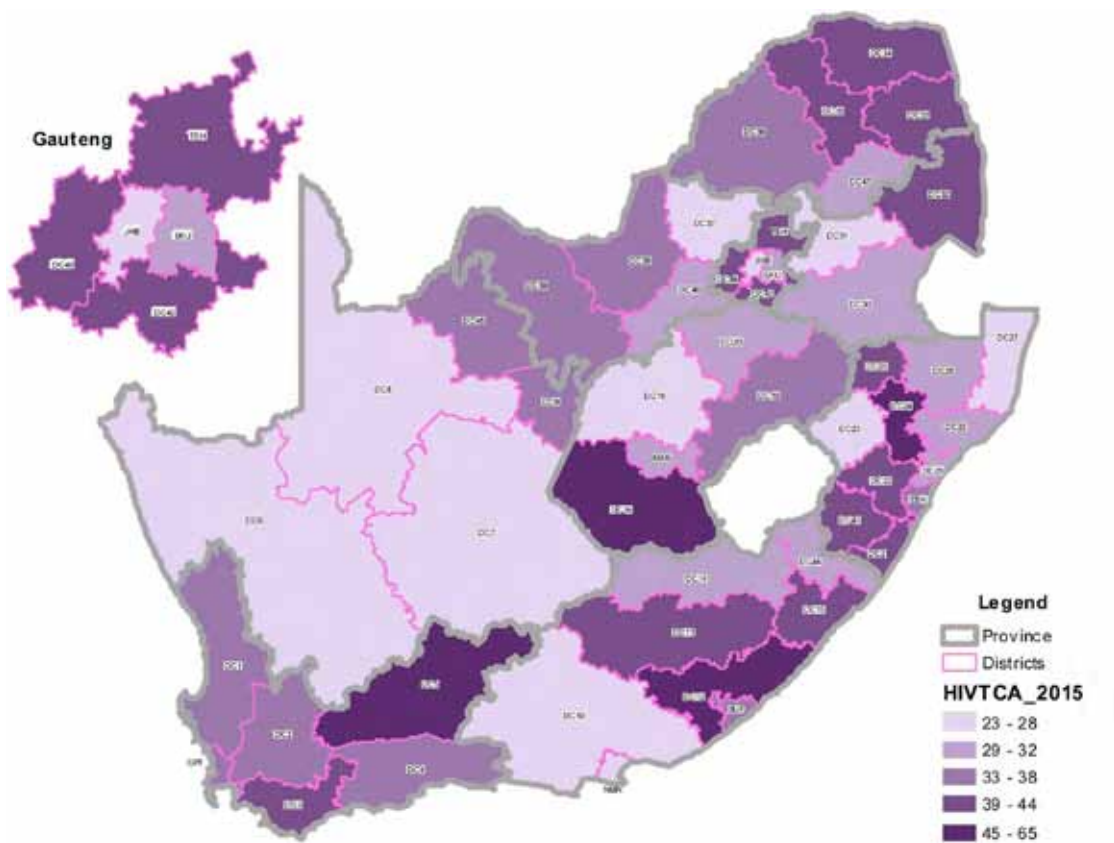
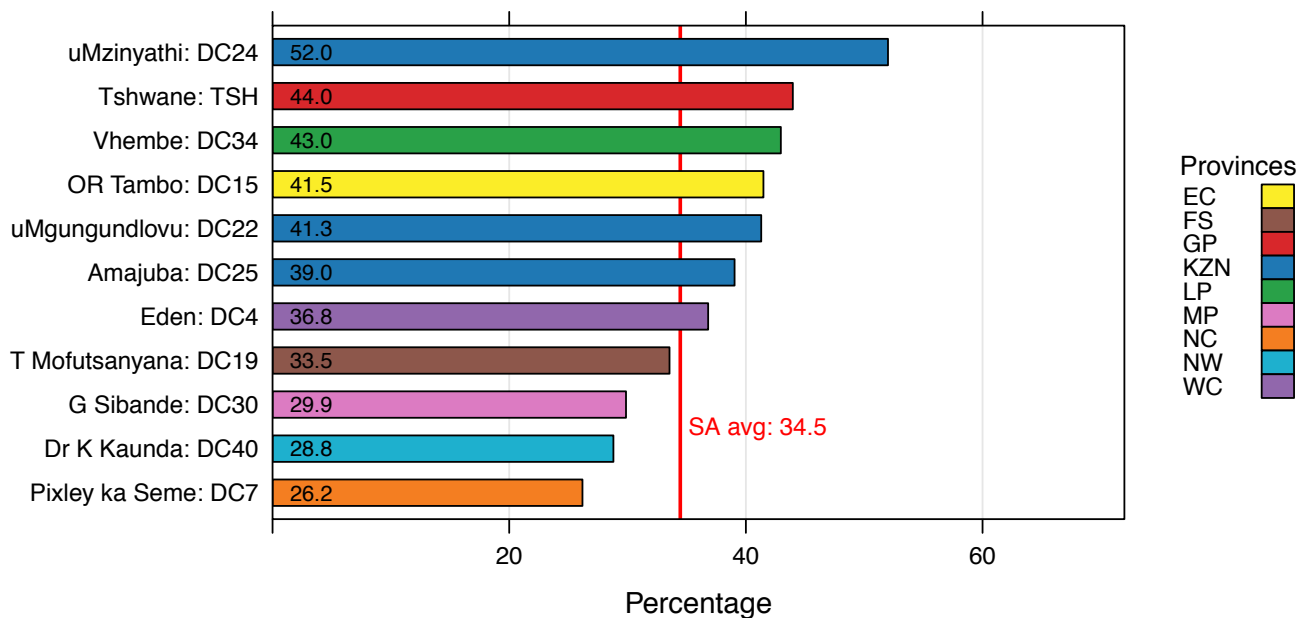
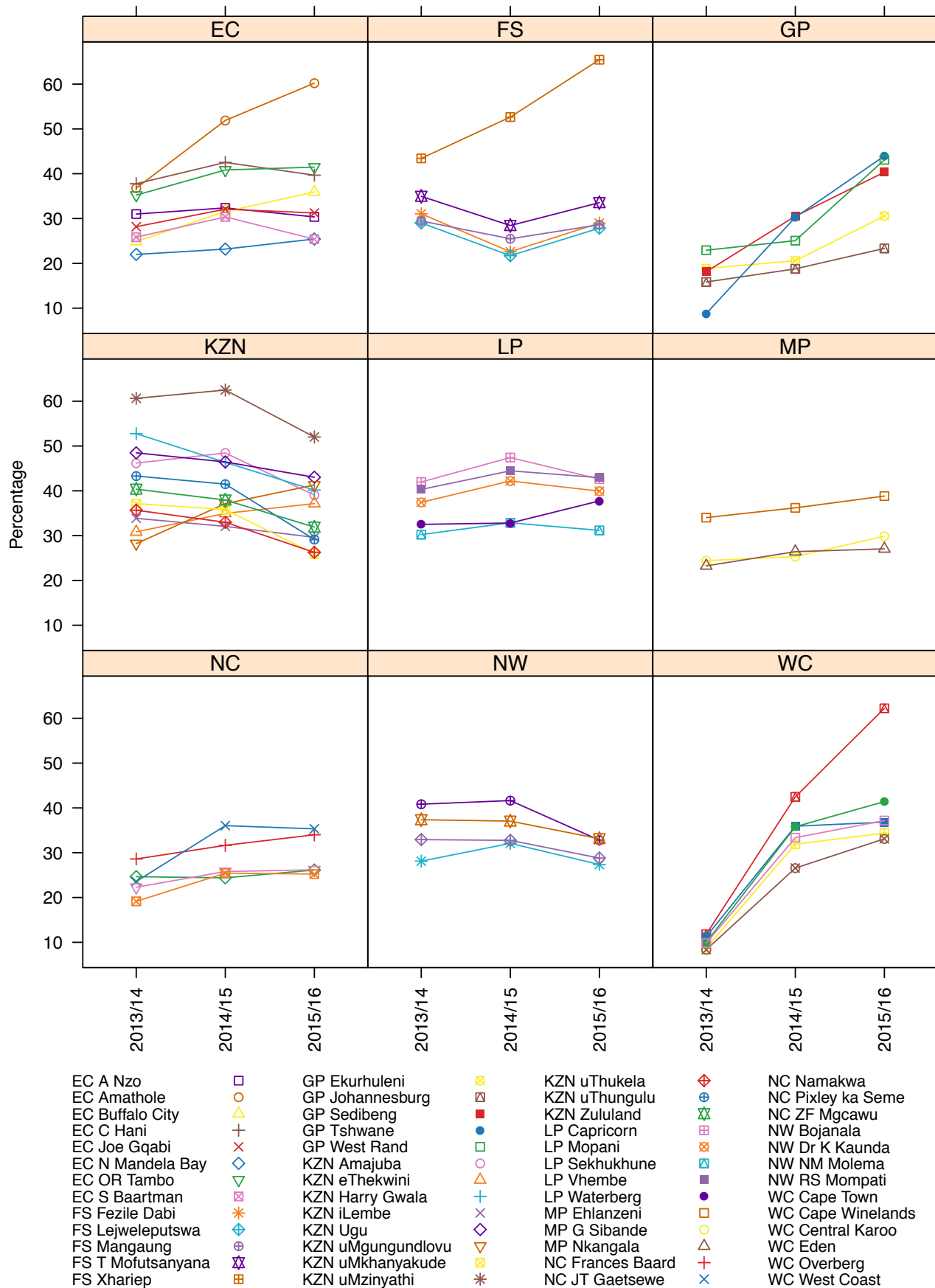


Figure 8: HIV testing coverage (including antenatal care) by National Health Insurance district, 2015/16



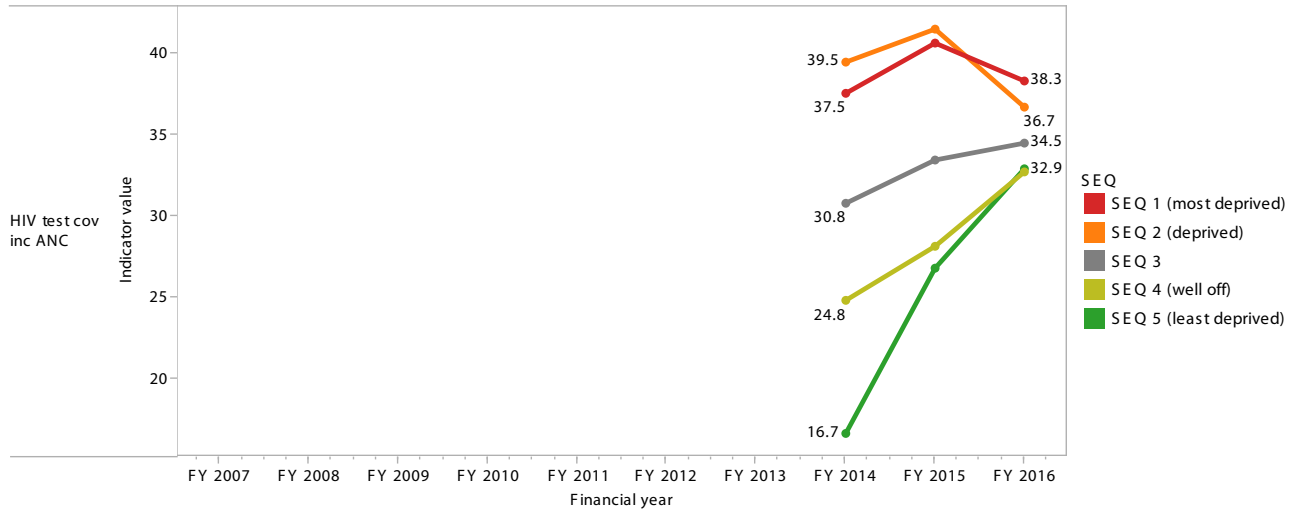
Annual trend data in Figure 9 indicate that all districts in the Western Cape and Free State increased their HIV testing coverage between 2014/15 and 2015/16. Coverage remained stable in Mpumalanga (MP) and the Northern Cape districts, and dropped in all districts in the North West. Testing coverage decreased in most KwaZulu-Natal districts, with the exception of eThekweni and uMgungundlovu. There was variation among the districts in the Eastern Cape, with some decreasing quite significantly, such as S Baartman from 30.4% to 25.4%, while others like Amathole increased by almost 10 percentage points from 51.9% to 60.2%. There must be reasons why a province like KwaZulu-Natal that was performing quite well on this indicator suddenly dropped HIV testing coverage, when all districts should be working to reach the UNAIDS 90-90-90 goals.^b

Figure 9: Annual trends for HIV testing coverage (including antenatal care)



HIV testing coverage increased in the higher socio-economic quintiles (SEQ3–SEQ 5) between 2014/15 and 2015/16 (Figure 10). Although a downward trend was observed in the two lowest SEQs, coverage was still highest in SEQ1 (38.3%) and SEQ2 (36.7%).

Figure 10: Trends in average district values by socio-economic quintile for HIV testing coverage (including antenatal care)



10.3 Percentage of TB cases with known HIV status

This indicator measures the percentage of TB patients who know their HIV status. The source of data is the ETR.Net database. Tuberculosis remains the leading cause of death among people living with HIV; as such it is important that TB patients are aware of their HIV status so that if they are dually infected with TB and HIV, antiretroviral treatment (ART) can be started immediately.

South Africa is considered the epicentre of HIV and TB co-infection, with around 70% of patients with TB in South Africa also infected with HIV. The national average percentage of TB patients with known HIV status increased slightly to 94.8% in 2015, more than double the 2008 rate of 43.3%. In 2015, all the provinces had rates above 93%. The Western Cape remained the province with the highest rate at 96.1%, followed by Gauteng at 95.9%. The poorest-performing province was the Free State (93.0%), followed by the Northern Cape (93.2%), as shown in Figure 11.

The best-performing district was uMgungundlovu (KZN) at 98.7%, followed closely by Cape Town (WC) and Xhariep (FS) at 98.5% (Figure 12 and Map 3). Only two districts had rates below 90%, namely JT Gaetsewe (NC) and Lejweleputswa (FS) at 88.7% and 86.1%, respectively. Very few districts deviated significantly from the national average.

The three top-performing NHI districts were in KwaZulu-Natal, namely uMgungundlovu, uMzinyathi and Amajuba. The worst-performing NHI district was G Sibande (MP) at 89.9%. Essentially, all the NHI districts had rates of 90% or above.

Annual trend data in Figure 13 illustrate positive trends between 2008 and 2015 for all the provinces with the exception of the Northern Cape, which had some variation over this period. This is a good indication that HIV and TB services are being integrated and that TB patients are in fact being tested for HIV, as per the guideline recommendation.

Figure 11: Percentage of TB cases with known HIV status by province, 2015/16

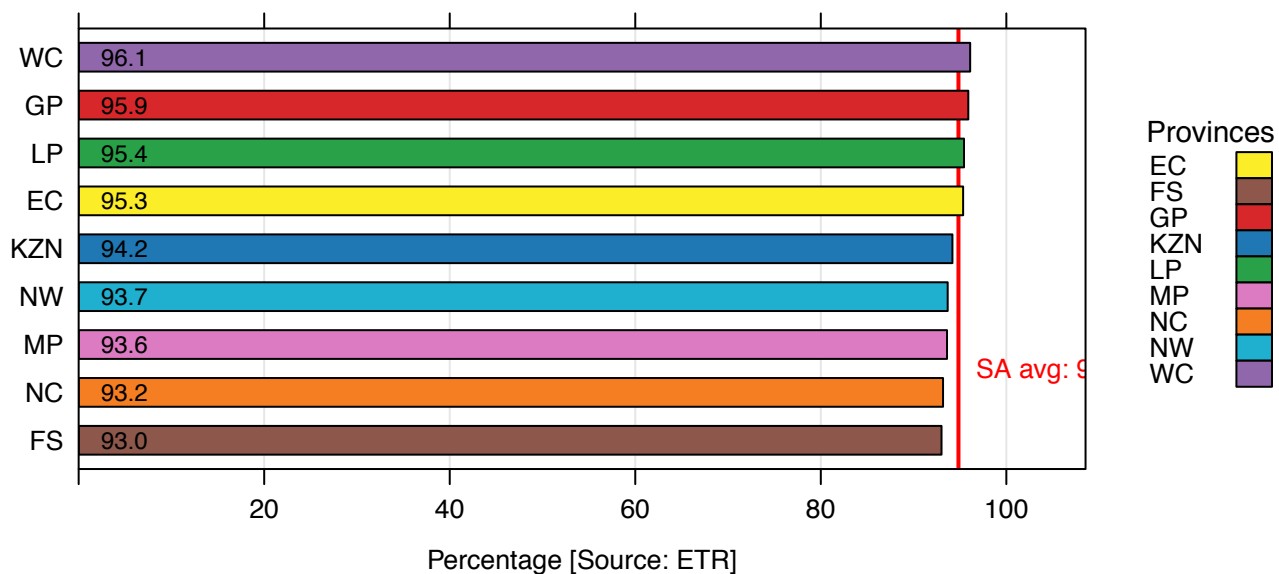
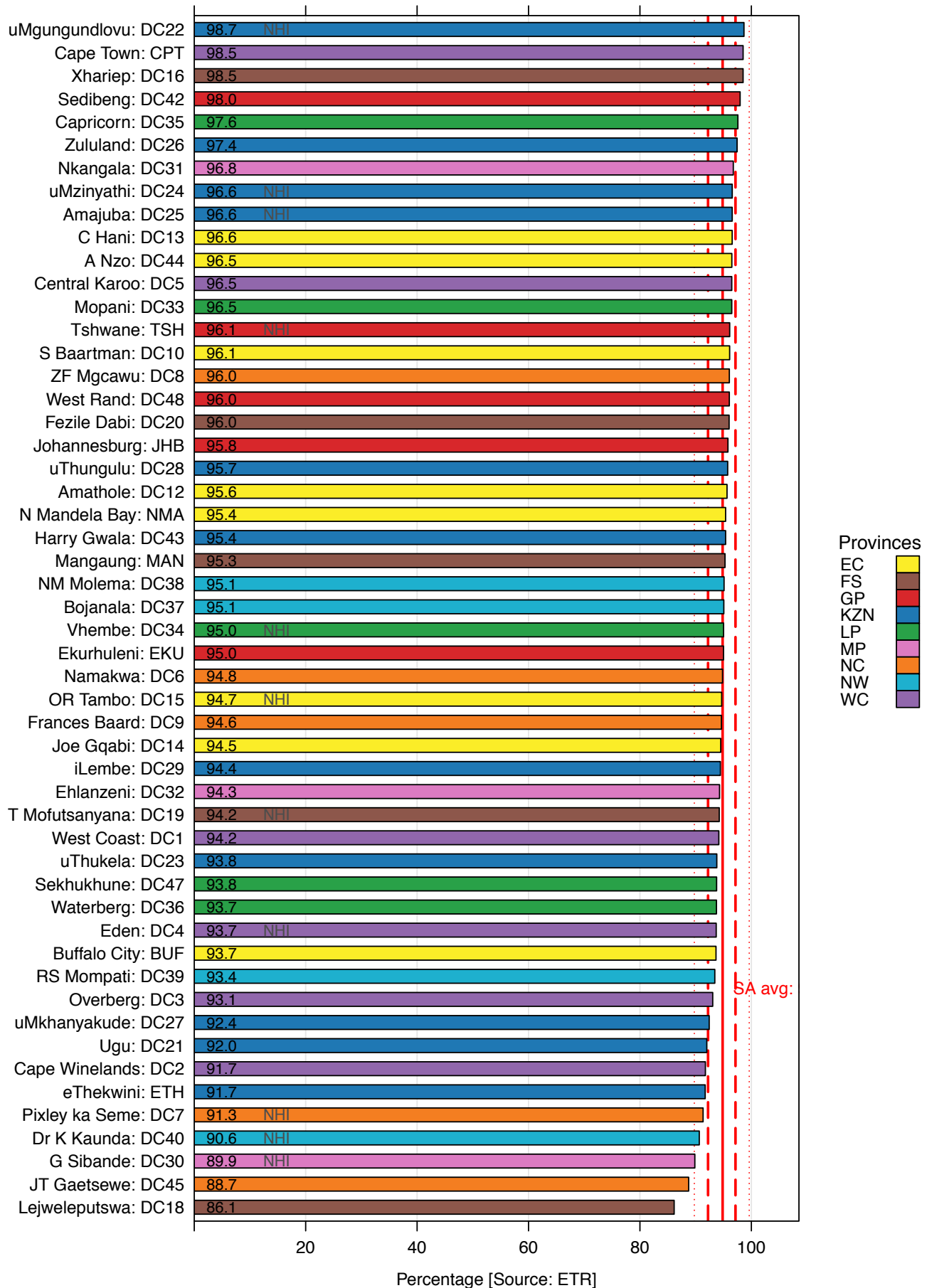


Figure 12: Percentage of TB cases with known HIV status by district, 2015



Map 3: Percentage of TB cases with known HIV status by district, 2015

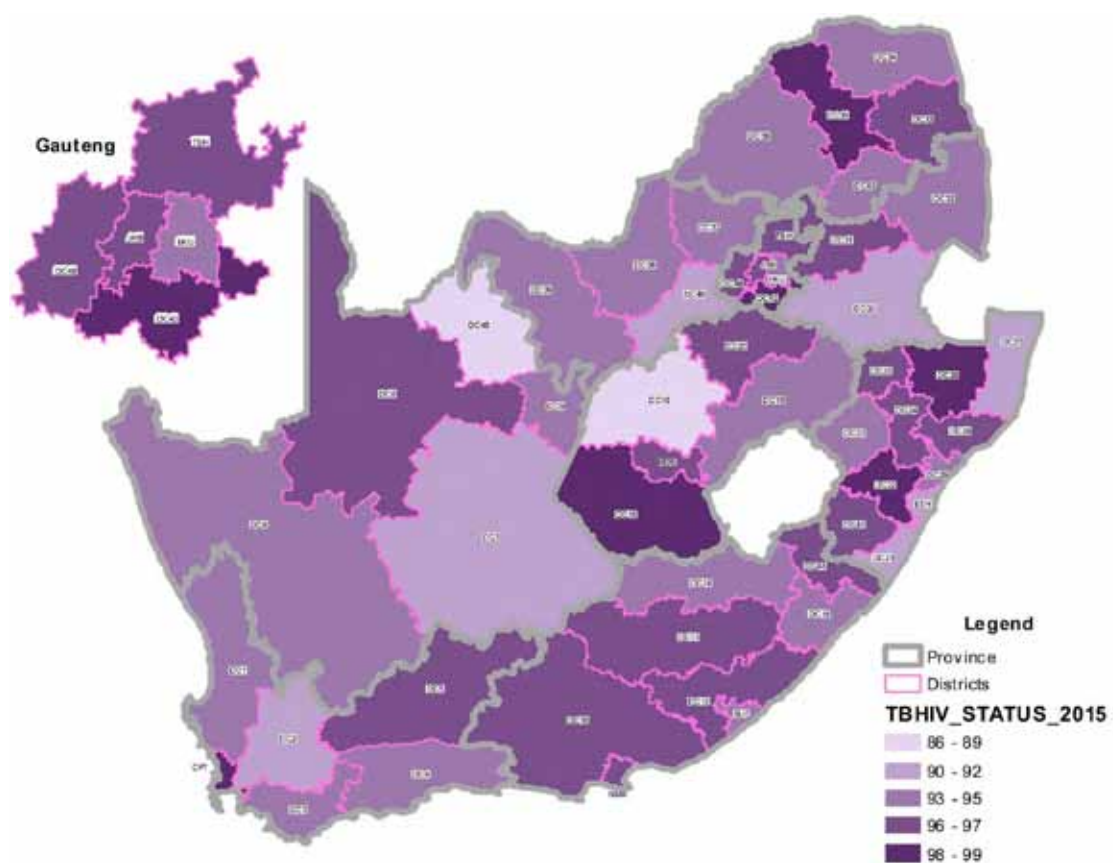
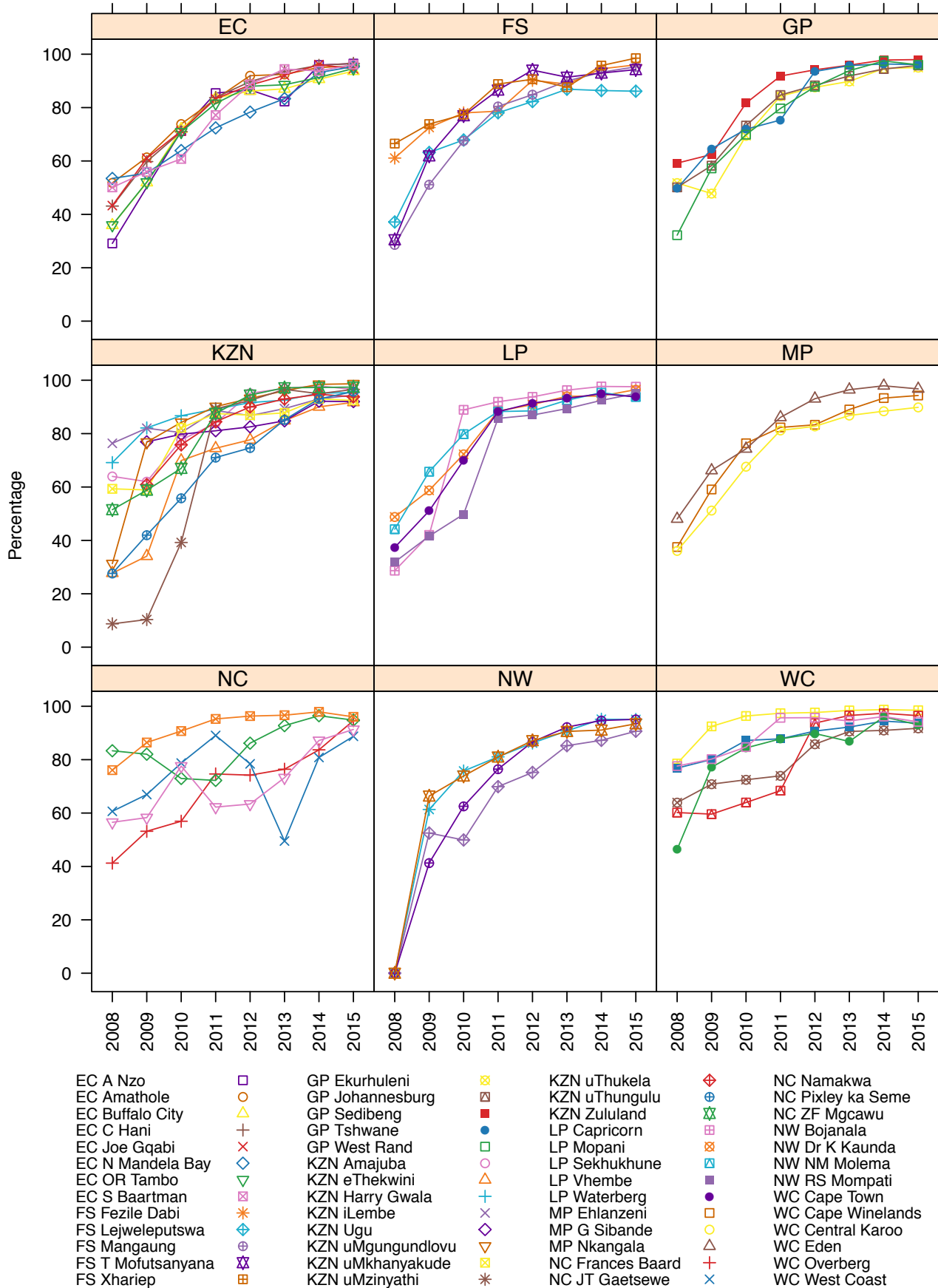
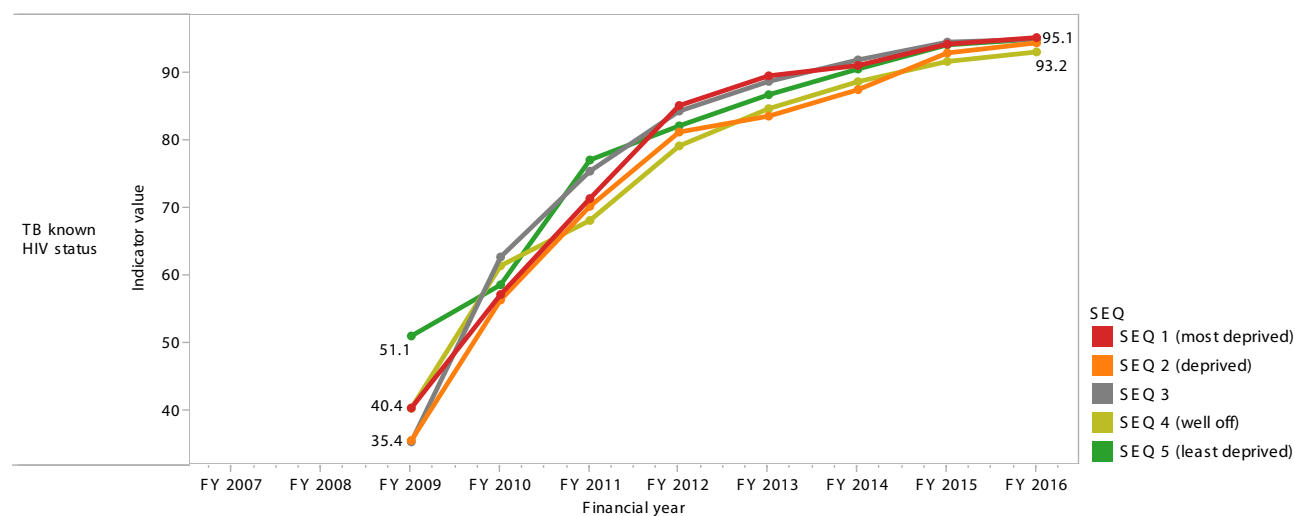


Figure 13: Annual trends for percentage of TB cases with known HIV status



There was no variation among the socio-economic quintiles for this indicator as the rates ranged from 93.2% to 95.1%. Rates almost tripled in SEQ3 and SEQ4 between 2008 and 2015 (Figure 14).

Figure 14: Trends in average district values by socio-economic quintile for percentage of TB cases with known HIV status



10.4 TB/HIV co-infected client on ART

Globally, people living with HIV are 26 times more likely to develop active TB than those without HIV, and South Africa is ranked third among the 22 high-burden TB countries on the WHO list.^p The 2012 WHO guidelines and the 2015 South African ART guidelines^q recommend that people with TB be initiated on ART as soon as possible, viz. within the first two weeks of initiating TB treatment for those patients with profound immunosuppression (CD4 cell counts <50 cells/mm³), and within the first eight weeks of treatment in all other TB patients.^m

However, TB and HIV present particular challenges that involve complex treatment regimens with potentially severe side-effects, and as such it has been found that healthcare workers are often reluctant to start combination ART in patients receiving TB treatment. In addition to this, there is fear of a high pill burden and immune reconstitution inflammatory syndrome. These complexities can be compounded by poor patient adherence to treatment.^r

The TB/HIV co-infected client on ART indicator measures the percentage of all HIV-positive TB patients on ART and is derived from the ETR-Net. The initiation of ART can greatly improve the survival and quality of life of TB patients living with HIV. This indicator serves as a proxy of how well HIV and TB services are being integrated.

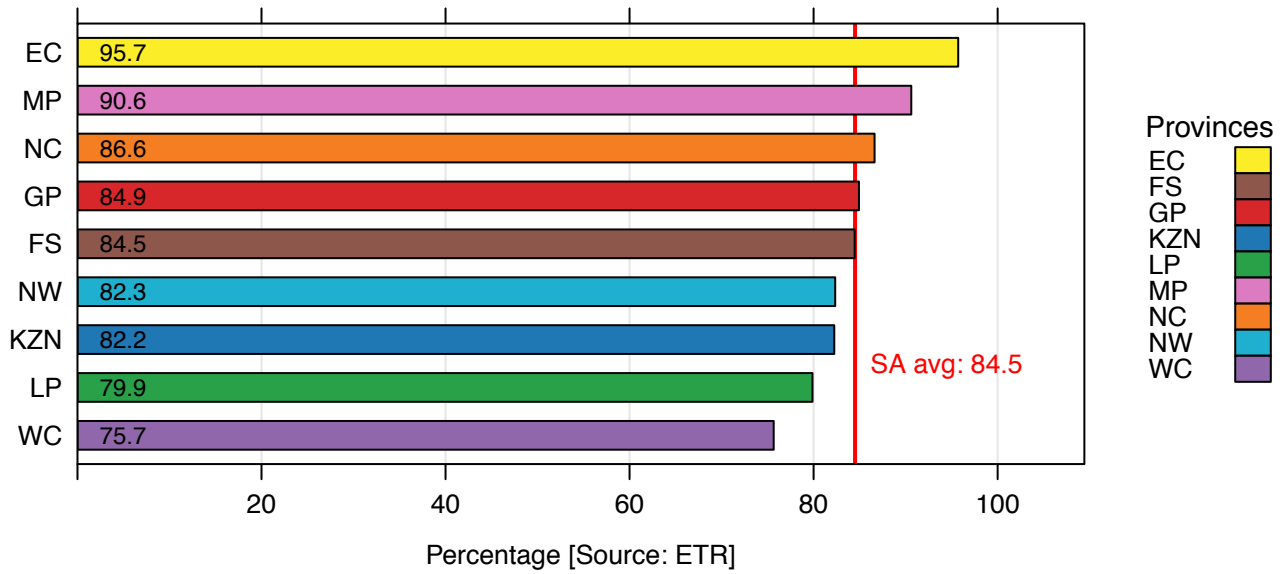
The national average for 2015 was 84.5%, down slightly from of 85.8% in 2014. The Eastern Cape was the best-performing province in 2015 with a rate of 95.7%, as shown in Figure 15. The TB/HIV co-infected client on ART rate decreased from 92.9% in 2014 to 90.6% in 2015 in Mpumalanga but it was still the second-best performing province. The rate in the Western Cape decreased from 84.9% to 75.7% in the same period, when it became the poorest-performing province. This is likely to be a data-related problem rather than a real decrease. All other provinces increased their TB/HIV co-infected client on ART rate.

^p Hecht R. As donor funding falls, SA must come up with a plan to stretch HIV bucks. Bhekisisa. 2016. Available from: <http://bhekisisa.org/article/2016-07-08-as-donors-scale-back-funding-sa-must-come-up-with-a-plan-to-stretch-its-hiv-and-aids-buck> [Accessed 21 July 2016].

^q South African National Department of Health. National Consolidated Guidelines for the Prevention of Mother-to-child Transmission of HIV (PMTCT) and the Management of HIV in Children, Adolescents and Adults. Pretoria: NDoH; April 2015.

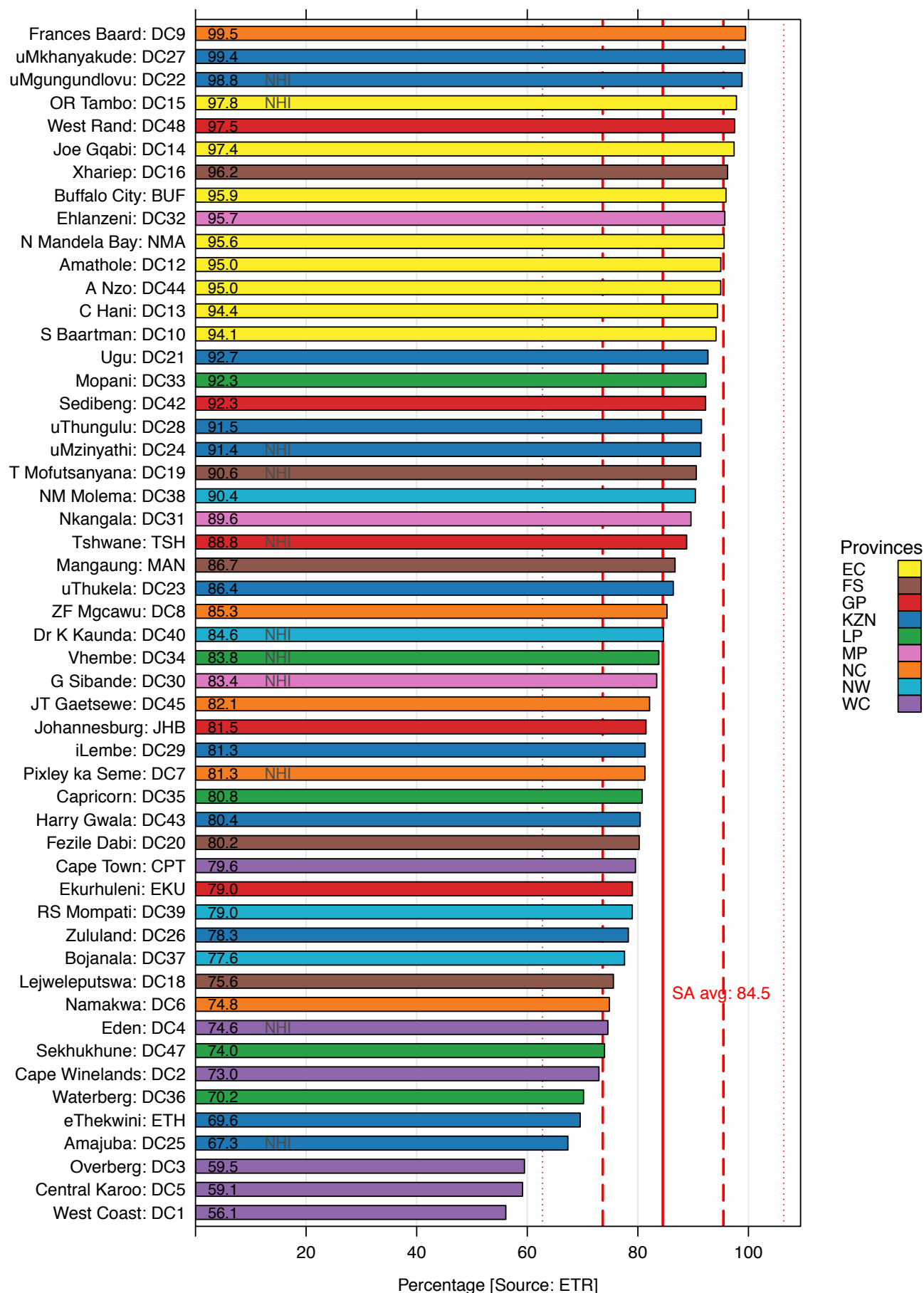
^r Knight M, Van Zyl RL, Sanne I, Bassett J, Van Rie A. Impact of combination antiretroviral therapy initiation on adherence to antituberculosis treatment. *S Afr J HIV Med.* 2015; 16(1), Art.#346, 6 pages. doi:<http://www.sajhivmed.org.za/index.php/hivmed/article/view/346>.

Figure 15: TB/HIV co-infected client on ART rate by province, 2015

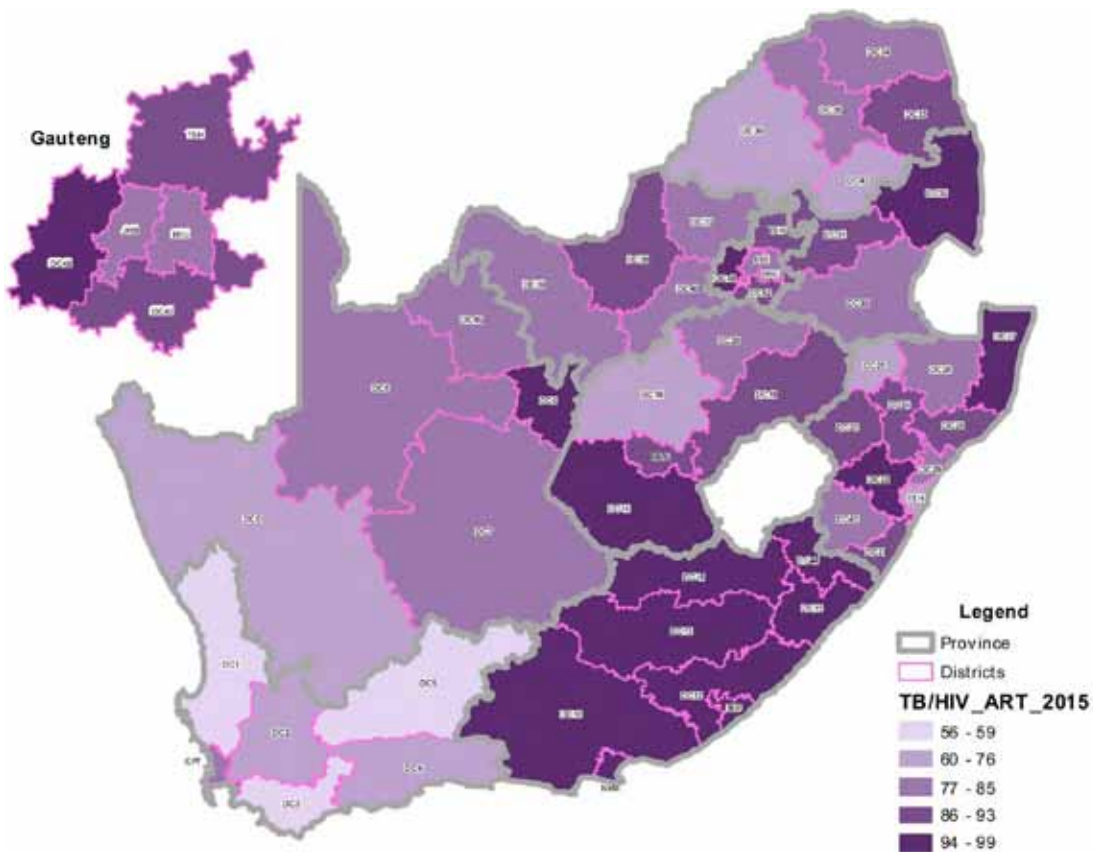


In 2015, the best-performing districts were Frances Baard (NC) and uMkhanyakude (KZN), which almost achieved 100% for this indicator (99.5% and 99.4%, respectively) (Figure 16). It is encouraging to see uMkhanyakude district doing so well on this indicator as in 2006 it had the largest outbreak of drug-resistant TB (XDR-TB) in history.^d All districts in the Eastern Cape had TB/HIV co-infected client on ART rates above 94%, as did uMgungundlovu (KZN), West Rand (GP), Xhariep (FS) and Ehlanzeni (MP) (Map 4).

Figure 16: TB/HIV co-infected client on ART rate by district, 2015

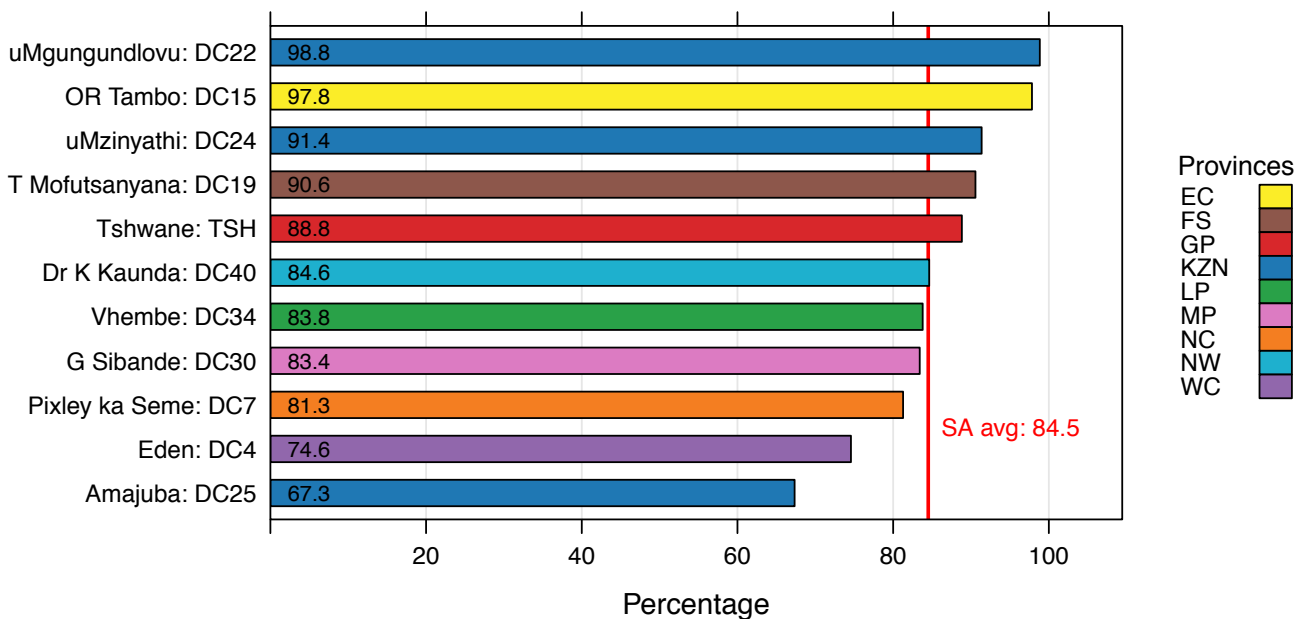


Map 4: TB/HIV co-infected client on ART rate by district, 2015



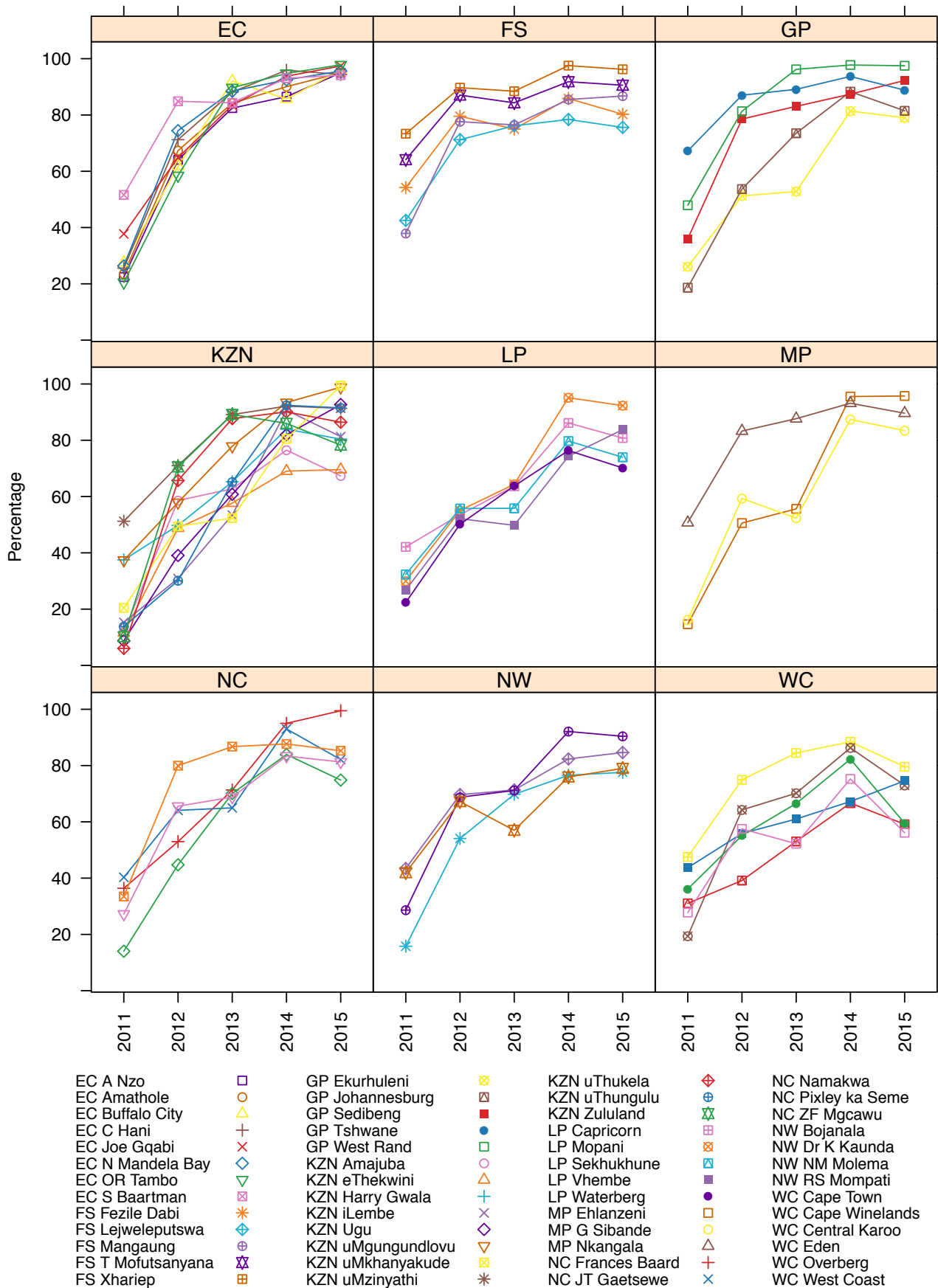
The best-performing NHI districts were uMgungundlovu (KZN) (98.8%) and OR Tambo (EC) (97.8%) (Figure 17). The poorest-performing NHI district was Amajuba (KZN), while Eden (WC) increased its performance significantly from 55.9% in 2012 to 74.6% in 2015. All the other NHI districts had TB/HIV co-infection client on ART rates above 80%.

Figure 17: TB/HIV co-infected client on ART rate by National Health Insurance district, 2015



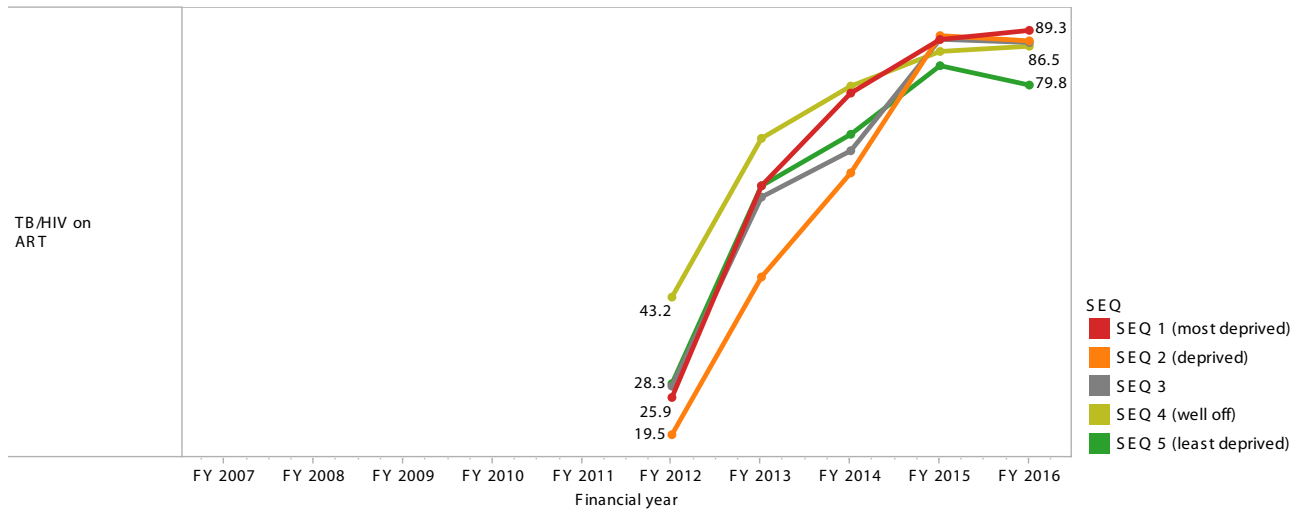
The annual trend data in Figure 18 show that the TB/HIV co-infected client on ART rate increased significantly from 2011 in all provinces, especially between 2011 and 2012. The highest declines were observed in the West Coast (WC) and Overberg (WC), which both decreased by around 20% between 2014 and 2015. This is likely to be a data-related problem rather than a real decrease.

Figure 18: Annual trends for TB/HIV co-infected client on ART rate



TB/HIV co-infected client on ART rates increased sharply for all socio-economic quintiles between 2011 and 2015 (Figure 19). The rates were highest for SEQ1 (89.3%), while SEQs 2, 3 and 4 all had the same rate (86.5%), and SEQ2 improved the most, from 19.5% in 2011 to 86.5% in 2015.

Figure 19: Trends in average district values by socio-economic quintile for TB/HIV co-infected client on ART rate



Key findings

- ◆ Undoubtedly, South Africa still has a high burden of HIV and AIDS, but the country has also made significant gains in ensuring that HIV and AIDS is no longer a death sentence but a treatable and manageable chronic disease.
- ◆ South Africa currently has the largest antiretroviral programme in the world, which will expand even more as the new policy of universal testing and treating is rolled out.
- ◆ The HIV indicators provide some insight into the challenges and achievements of the HIV and AIDS epidemic in South Africa. On average, the male condom distribution coverage was 44.4 male condoms per male 15 years and older, and the number of condoms distributed increased by over 1 million from 2014/15.
- ◆ HIV testing coverage increased by almost 10 percentage points from 2013/14, to 34.5%; however, this is still far from the 90-90-90 targets.^b
- ◆ The percentage of TB cases with known HIV status had a national average close to 100% at ~95%, and all provinces had rates above 93%.
- ◆ The percentage of HIV-positive TB cases on ART increased rapidly but has now plateaued at around 85%.

Recommendations

- ◆ How funds directed at HIV and AIDS programmes are managed will become even more important going forward as South Africa adopts the universal testing and treating policy to reach the 90-90-90 goals by 2030.

11 Non-communicable diseases

Annibale Cois

Undoubtedly, non-communicable diseases (NCDs) are playing an increasingly important role in defining South Africa's health profile, and they are an essential element to be taken into account in policy development and planning purposes at both national and local level.

Conditions in this broad class include cardiovascular and kidney disease, diabetes, chronic respiratory conditions, cancer, mental disorders, oral and eye pathologies, and musculoskeletal conditions. Today these conditions are among the top causes of death in South Africa, and together they have become the largest cause of years of life lost (YLLs). In 2009, they accounted for nearly one-third of total YLLs at national level.^a In 2010, NCDs accounted for 36% of the total number of deaths, comparable to the number of deaths from HIV, AIDS and TB combined.^b

Overall, age-standardised death rates for NCDs have shown a slight decrease in the last decade, mainly driven by the decreased mortality for cardiovascular disease, oesophageal cancer and chronic respiratory conditions.^b However, because of the population growth and the changing age distribution, the decrease in age-standardised death rates does not correspond with a reduction in the burden of disease. The number of deaths due to NCDs is increasing steadily and despite the lack of reliable surveillance data, which makes it difficult to estimate the distribution of the various diseases in the population accurately, the evidence clearly points towards: (i) an increasing number of subjects living with non-communicable chronic conditions, especially diabetes and other diet-related disorders; (ii) a substantial overlap and interaction between the epidemic of communicable and non-communicable disease, with many 'shared' patients; and (iii) a growing pressure on both acute and chronic health-care services.^{c,d,e,f}

The Strategic Plan for the Prevention and Control of Non-communicable Diseases 2013–2017⁹ was launched by the South African National Department of Health (NDoH) in September 2013 and is currently being implemented. The plan provides a general framework for the prevention and treatment of NCDs and identifies a series of legislative and regulatory interventions aimed at reducing the prevalence of known NCD risk factors in the general population, chiefly hypertension, obesity and unhealthy dietary habits, alcohol and tobacco use, and physical inactivity. The plan recommends interventions to strengthen the primary health care (PHC) system and to adapt its organisation to the country's changed needs. It also aims to improve knowledge of NCD trends and the distribution of risk factors, and it explicitly recognises the shortcomings of the current surveillance system.

Far from aiming to provide a comprehensive picture of NCD distribution and temporal trends across districts, this chapter focuses on three specific indicators: (i) prevalence of hypertension in the general adult population; (ii) incidence of new diagnoses of hypertension in public health facilities; and (iii) incidence of new diagnoses of diabetes mellitus in public health facilities.

Hypertension is widely acknowledged as a major risk factor for cardiovascular disease, which in turn is the leading cause of NCD deaths. Tracking hypertension prevalence and the incidence of new cases across districts and time may, therefore, offer valuable insight into the distribution and temporal trends for the burden associated with this category of diseases. In order to understand how the health care system is responding to the hypertension epidemic, the description and interpretation of the two hypertension indicators is accompanied by estimates of treatment coverage (i.e. the proportion of hypertensive subjects who are in treatment) and level of control among those in treatment (i.e. the proportion of subjects taking antihypertensive drugs who have blood pressure values within the normal limits).

The third indicator examined in detail in this chapter is diabetes incidence. The incidence of new cases of diabetes is especially interesting because in addition to being a direct indicator of the changing characteristics of patients who access PHC facilities, convincing evidence associates the risk of diabetes with obesity and dietary habits.^h This makes diabetes

a Day C, Groenewald P, Laubscher R, Chaudhry S, van Schaik N, Bradshaw D. Monitoring of non-communicable diseases such as hypertension in South Africa: Challenges for the post-2015 global development agenda. *South African Medical Journal*. 2014; 104(10):680–7.

b Nojilana B, Bradshaw D, Pillay-van Wyk V, Msemburi W, Laubscher R, Somdya NI, et al. Emerging trends in non-communicable disease mortality in South Africa, 1997–2010. *South African Medical Journal*. 2016; 106(5):477–84.

c Mayosi BM, Flisher AJ, Lalloo UG, Sitas F, Tollman SM, Bradshaw D. The burden of non-communicable diseases in South Africa. *Lancet*. 2009; 374(9693):934–47.

d Oni T, Unwin N. Why the communicable/non-communicable disease dichotomy is problematic for public health control strategies: implications of multimorbidity for health systems in an era of health transition. *International Health*. 2015; 7(6):390–9.

e Spires M, Delobelle P, Sanders D, Puaone T, Hoelzel P, Swart R. Diet-related non-communicable diseases in South Africa: determinants and policy responses. In: Padarath A, King J, Mackie E, Casciola J, editors. *South African Health Review 2016*. Durban: Health System Trust; 2016.

f Mayosi BM, Lawn JE, van Niekerk A, Bradshaw D, Abdool Karim SS, Coovadia HM. Health in South Africa: changes and challenges since 2009. *Lancet*. 2012; 380(9858):2029–43.

g National Department of Health. *Strategic Plan for the Prevention and Control of Non-Communicable Diseases 2013–2017*. Pretoria: NDoH; 2013.

h Steyn NP, Mann J, Bennett PH, Temple N, Zimmet P, Tuomilehto J, et al. Diet, nutrition and the prevention of type 2 diabetes. *Public Health Nutrition*. 2004; 7(1a):147–65.

incidence a suitable tracker for the effect of the regulatory and educational interventions envisaged by the NDoH to curb the obesity epidemic (within the framework of the NCD Strategic Plan).

11.1 Prevalence of hypertension in the general population

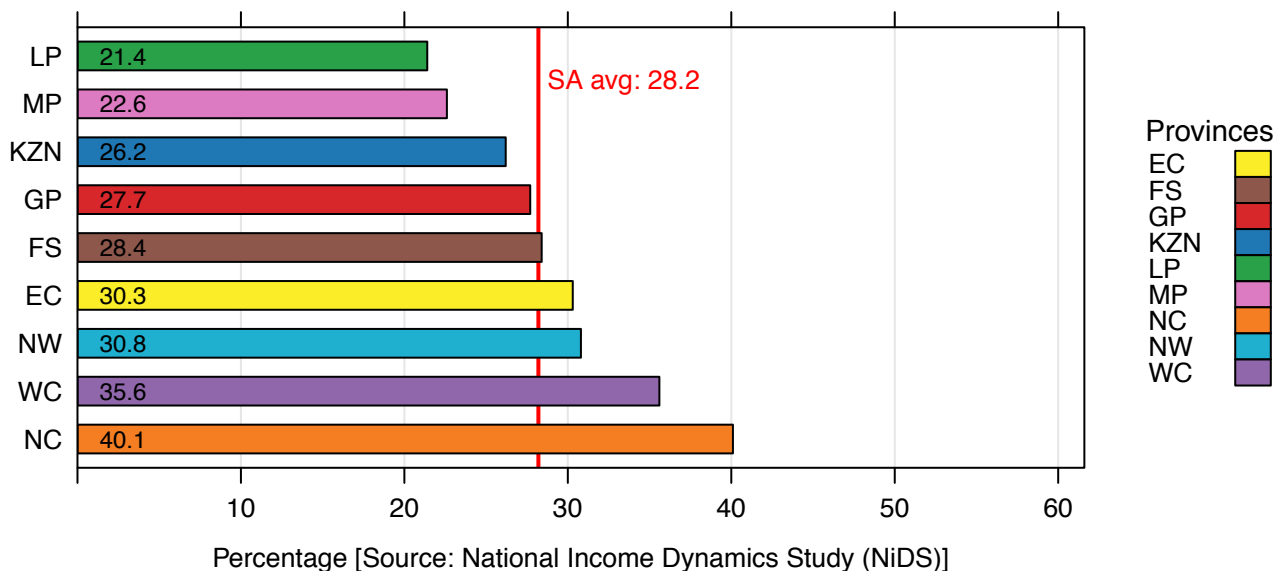
The prevalence of hypertension in the general adult population (15 years and over) was estimated from the individual-level data collected during the first four waves of the National Income Dynamics Study (NiDS), an ongoing panel survey of a large representative sample of the South African population.ⁱ

In 2008, the survey implemented a stratified, two-stage cluster sampling design to select a baseline sample of approximately 28 000 individuals from a target population consisting of individuals living in private households, worker hostels, convents and monasteries but excluding those living in student hostels, old age homes, hospitals, prisons and military barracks.^j The sampled individuals were contacted again in 2010/11, 2012 and 2014/15. The large majority of data collection took place in 2010 for the 2010/11 wave, and in 2015 for the 2014/15 wave. For brevity, the waves are referred as the 2010 and 2015 waves, respectively, in the figures and comments.

On all occasions, the fieldworkers collected duplicate measurements of systolic and diastolic blood pressure and self-reported use of antihypertensive medication. Measurements for subjects 15 years or older in each data-collection wave were used to calculate the (crude) prevalence estimates reported in this chapter.^k Following the standardised data-cleaning procedures applied in other large-scale surveys in South Africa,^l measurements were excluded from the analyses if the systolic blood pressure was less than 80 mmHg or differed by less than 15 mmHg from the diastolic blood pressure. The first systolic/diastolic pair was also excluded if it differed by more than 5 mmHg from the second. The arithmetic means of the remaining systolic and diastolic measurements were considered as the subjects' blood pressure. Respondents were classified as hypertensive if their blood pressure was equal to or above 140/90 mmHg (systolic/diastolic) or if they were taking antihypertensive medication. Age-standardised hypertension prevalence was calculated by direct standardisation, using population proportions in each five-year age stratum as per the 2011 South African census.

Using the above method, the national hypertension prevalence was estimated at 28.2% in 2015, with large variations across provinces. The highest proportion of hypertensive individuals was recorded in the Northern Cape (NC) (40.1%), and the lowest in Limpopo Province (LP) (21.4%) (Figure 1).

Figure 1: Hypertension prevalence (crude) in people 15 years and older, by province, 2015



ⁱ National Income Dynamics Study [homepage on the Internet]. 2016. Available from: <http://www.nids.uct.ac.za/> [Accessed 8 July 2016].

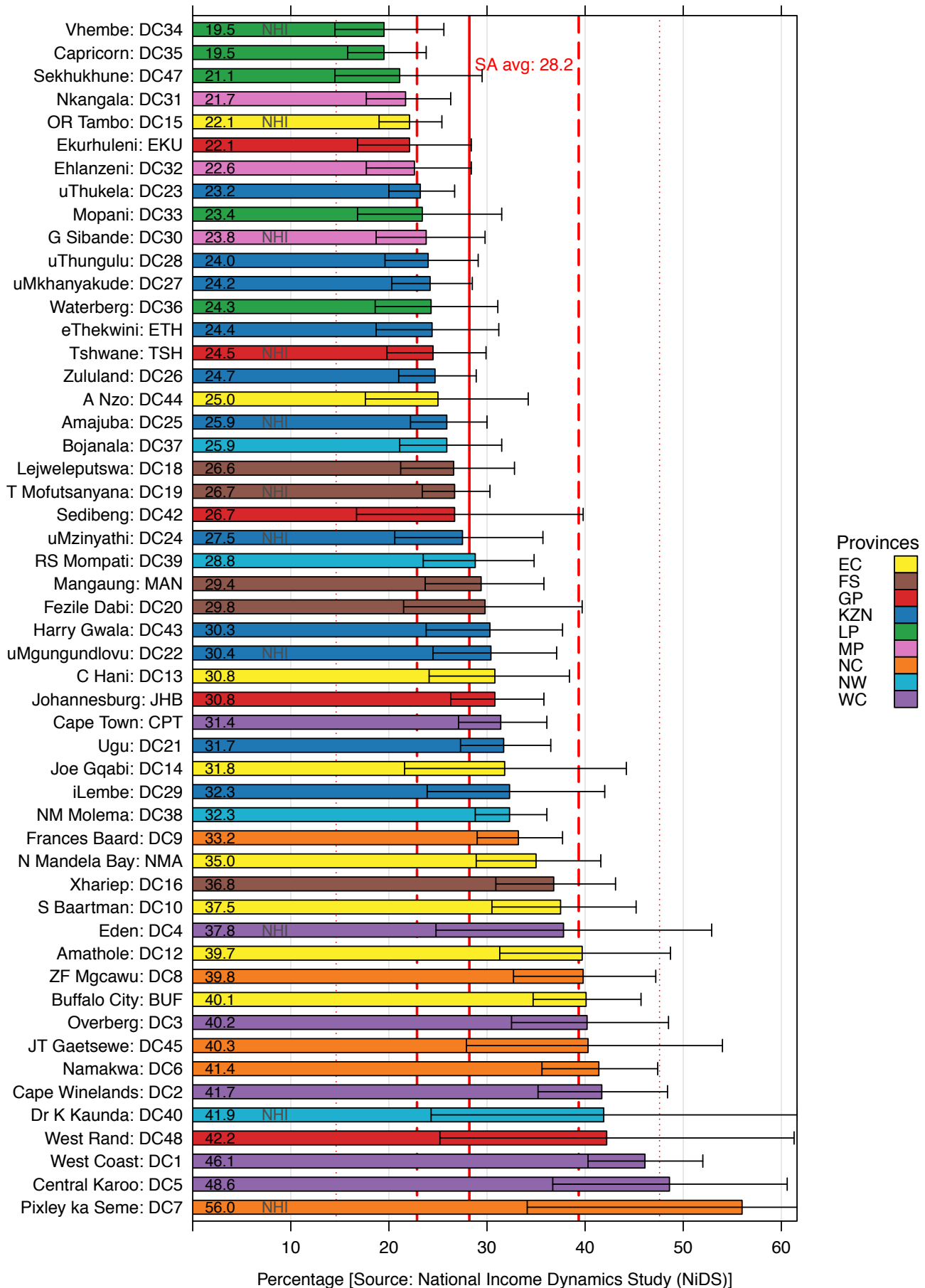
^j Leibbrandt M, Woolard I, de Villiers L. Methodology: Report on NIDS Wave 1. Technical Paper no. 1. Cape Town: Southern Africa Labour and Development Research Unit; 2009.

^k The NiDS data is regularly updated as new relevant information such as improved estimates of population totals from censuses or other administrative data become available. Updates also arise due to further improved cleaning of the data. The hypertension prevalence reported in this chapter used data versions 6, 3, 2 and 1 for waves 1, 2, 3 and 4 respectively.

^l Including the two editions of the Demographic and Health Survey (Department of Health. South Africa Demographic and Health Survey 1998: Full report. Pretoria: NDoH; 2002).

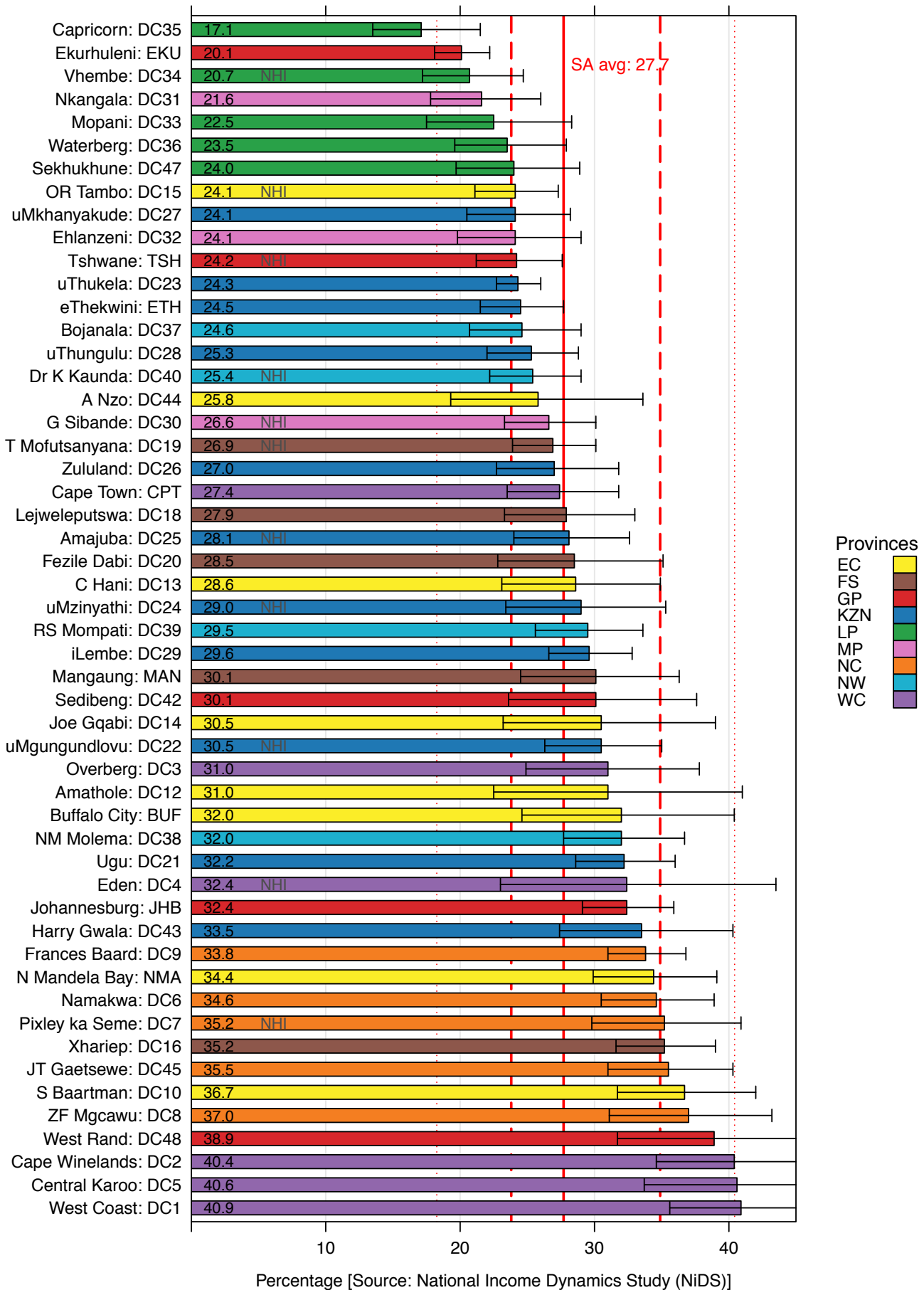
The estimated prevalence varied among districts within each province, as shown in Figure 2. The variability was extreme in the Eastern Cape (EC), where OR Tambo had one of the lowest prevalences in the country (22.1%), and Buffalo City had one of the highest (40.1%). The highest crude prevalence at district level was recorded in Pixley ka Seme in the Northern Cape (56.0%).

Figure 2: Hypertension prevalence (crude) in people 15 years and older, by district, 2015



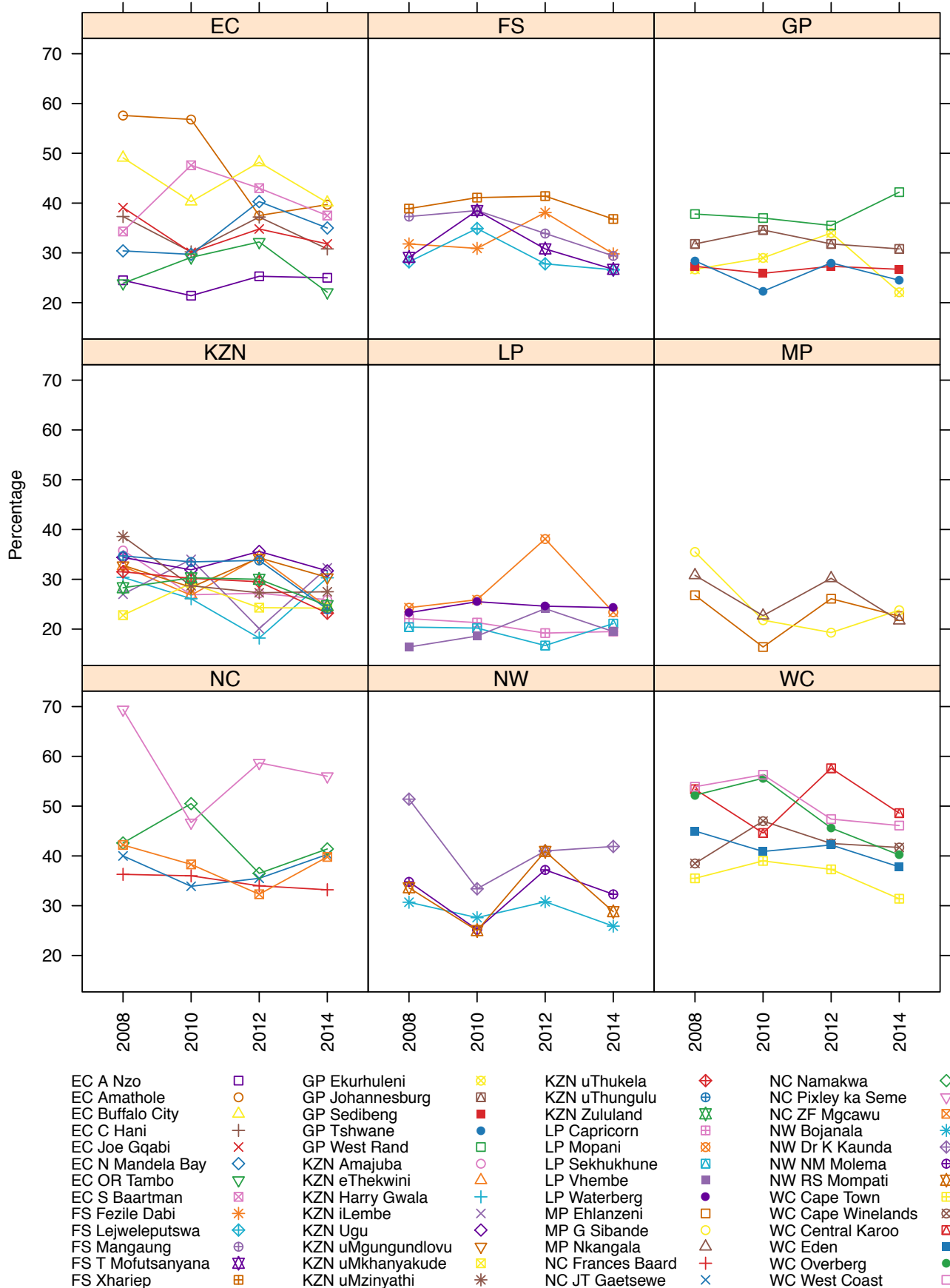
Because of the well-established direct relationship between age and blood pressure, differences in hypertension prevalence between provinces and districts were partly due to differences in the age distribution of the populations. In particular, the extreme values (50% or more) recorded in districts such as Pixley ka Seme (NC), Central Karoo (Western Cape (WC)) and West Coast (WC) were largely the result of the much older populations in these areas, and were reduced to more acceptable levels (at around 40%) after adjustment for age. However, age standardisation did not change the overall picture of geographical difference in hypertension prevalence (Figure 3).

Figure 3: Hypertension prevalence (age-standardised) in people 15 years and older by district, 2015



Comparison of the 2015 estimates with those calculated using the same method from the previous waves of the NiDS survey shows a clear decreasing trend, with the latest estimates consistently lower than those for 2008 across all provinces, and with few exceptions, across all districts (Figure 4).

Figure 4: Annual trends for hypertension prevalence (crude) in people 15 years and older



Section A: Non-communicable diseases

This decreasing trend is accompanied by a generalised increase in both treatment coverage and the prevalence of subjects with controlled hypertension, as shown in Figures 5 and 6.

Figure 5: Annual trends for hypertension treatment coverage, by province

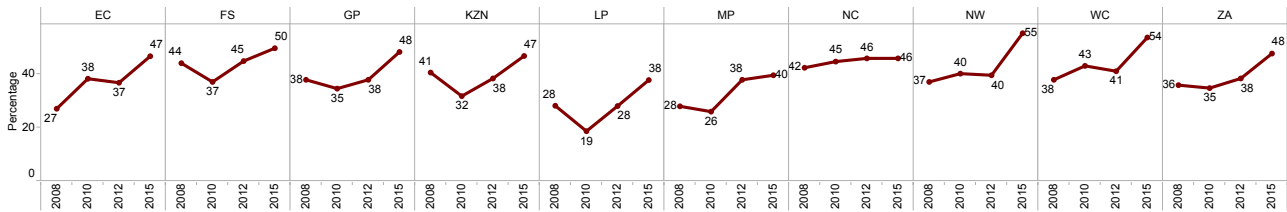
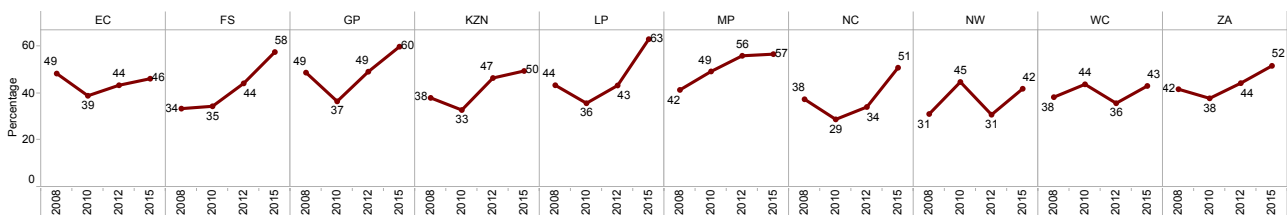


Figure 6: Annual trends for proportion of subjects with controlled hypertension

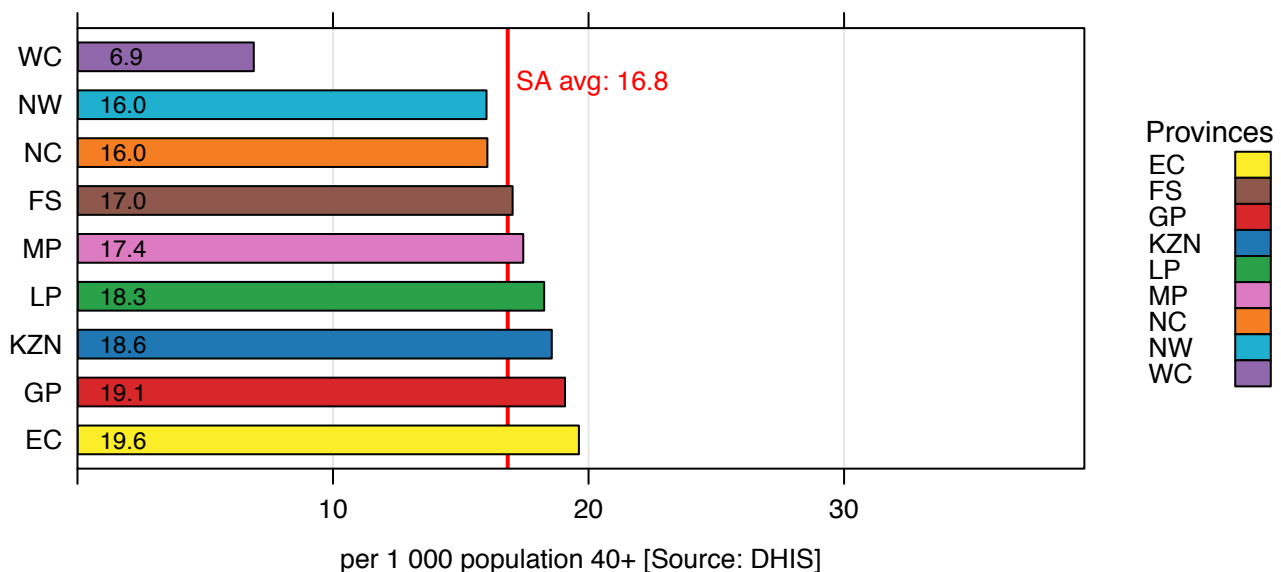


11.2 Hypertension incidence

Despite its name, the District Health Information Software (DHIS) indicator “hypertension incidence” does not measure the actual incidence of hypertension in the population, but rather the number of newly diagnosed cases of hypertension initiated on treatment in public health facilities per 1 000 population aged 40 years and older. It is also worth noting that while the numerator includes all new cases of hypertension, regardless of the age of the client, the denominator consists of the population 40 years and older. However, the number of patients younger than 40 years initiated on hypertensive treatment is very small, and therefore the values of this indicator can be interpreted as an approximation of the incidence of new cases in the main risk group, with slight overestimation of the true value.

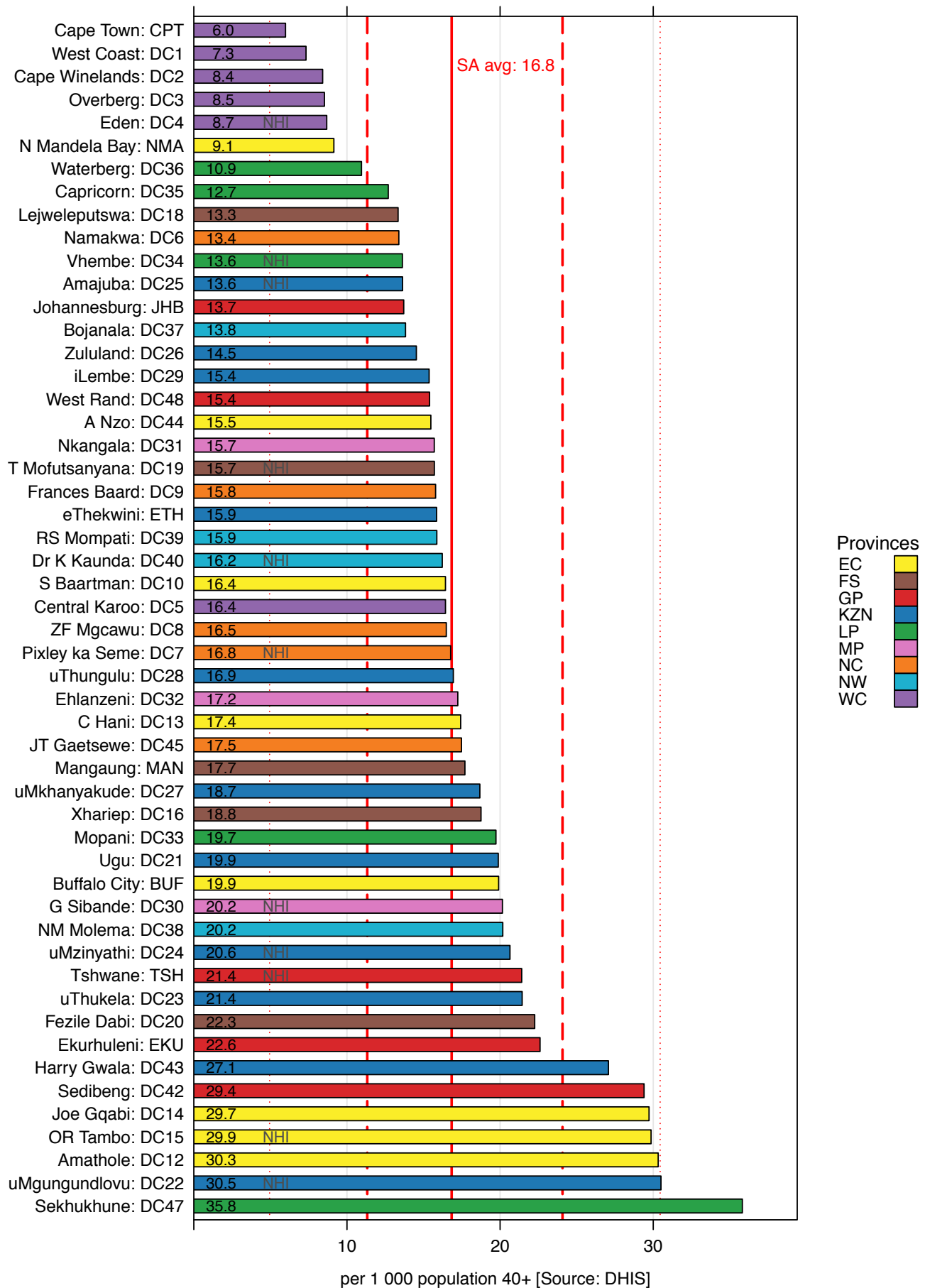
The national incidence of new hypertension diagnoses in 2015/16 was 16.8 cases per 1 000 population aged 40 years and older. The differences across provinces were relatively small, with the notable exception of the Western Cape, where the incidence was about half the national average, at 6.9 cases per 1 000 population aged 40 years and older. The highest values were recorded in the Eastern Cape and Gauteng (GP), with more than 19 cases per 1 000 population aged 40 years and older. Figure 7 shows the incidence in each province.

Figure 7: Hypertension incidence in people aged 40 years and older by province, 2015/2016



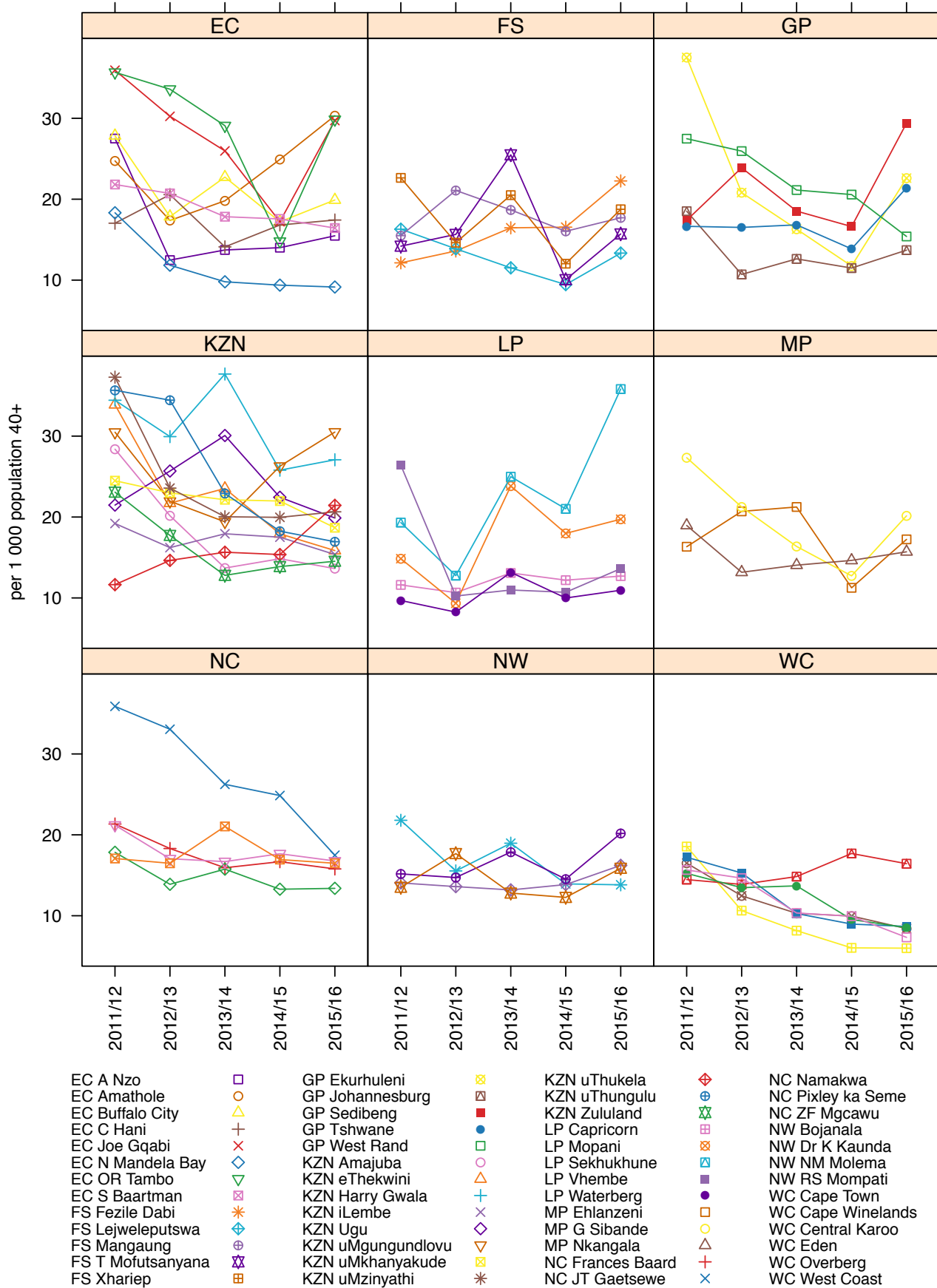
The incidence showed much greater variability across districts, as depicted in Figure 8. The lowest incidence was recorded in Cape Town (WC) (6.0 cases per 1 000 population aged 40 years and older), while the highest incidence was recorded in Sekhukhune (LP) (35.8 per 1 000). As already noticed for the estimated hypertension prevalence, districts geographically within the same province, showed in some cases large differences in hypertension incidence. The Eastern Cape was again the province with the greatest variability, with incidence rates varying from 9.1 cases per 1 000 population 40 years and older in N Mandela Bay (among the lowest in the country) to 30.3 cases per 1 000 population 40 years and older in Amathole (among the highest rates).

Figure 8: Hypertension incidence in people aged 40 years and older, by district, 2015/2016



At national level, hypertension incidence decreased consistently between 2011/12 and 2014/15 (from 22.3 cases per 1 000 population 40 years and older to 13.9 cases per 1 000), only to increase again between 2014/15 and 2015/16. The same trend was present in each province. The reversal in the last year of an otherwise consistently decreasing trend also occurred in most districts (Figure 9). Notable exceptions were all the districts in the Western and Northern Cape, where hypertension incidence was lower in 2015/16 than in the previous year.

Figure 9: Annual trends for hypertension incidence in people aged 40 years and older

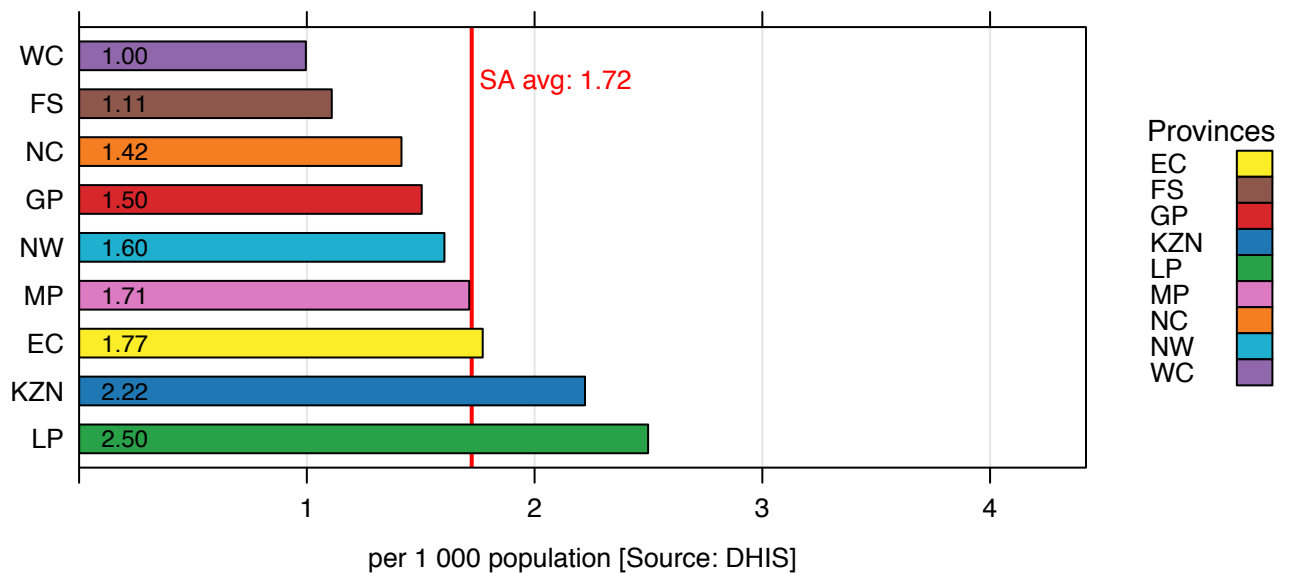


11.3 Diabetes incidence

The DHIS indicator “Diabetes incidence” measures the number of newly diagnosed cases of diabetes mellitus initiated on treatment per 1 000 total population, per year. Similarly to the previous indicator, it measures the number of diabetes cases identified within the public health system, which does not necessarily reflect the incidence in the population.

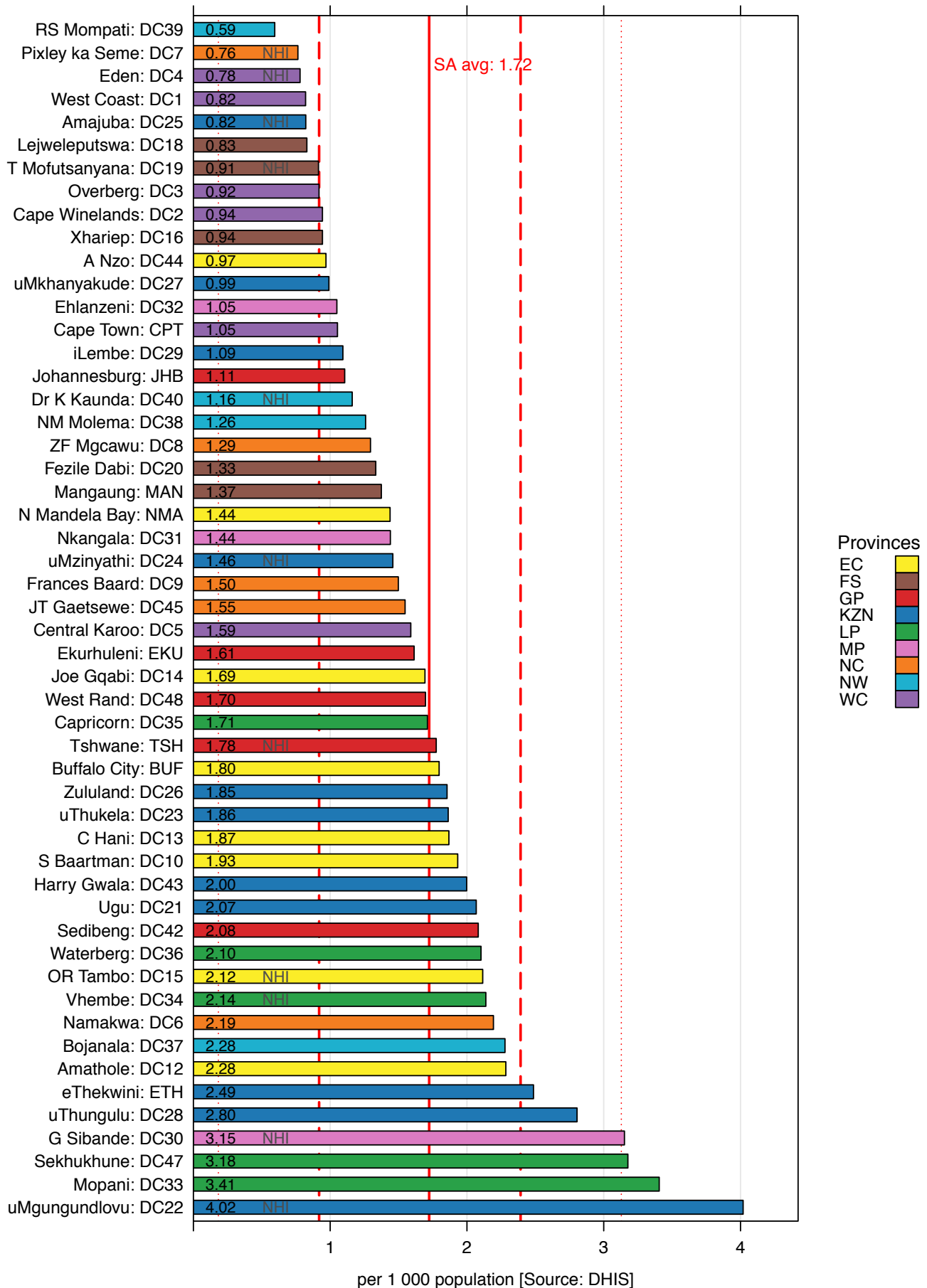
In 2015/16, the national average was 1.7 cases per 1 000 total population. At provincial level, the incidence ranged between 1.0 case per 1 000 population in the Western Cape to 2.2 cases per 1 000 population in KwaZulu-Natal (KZN) and 2.5 cases per 1 000 population in Limpopo (Figure 10).

Figure 10: Diabetes incidence by province, 2015/2016



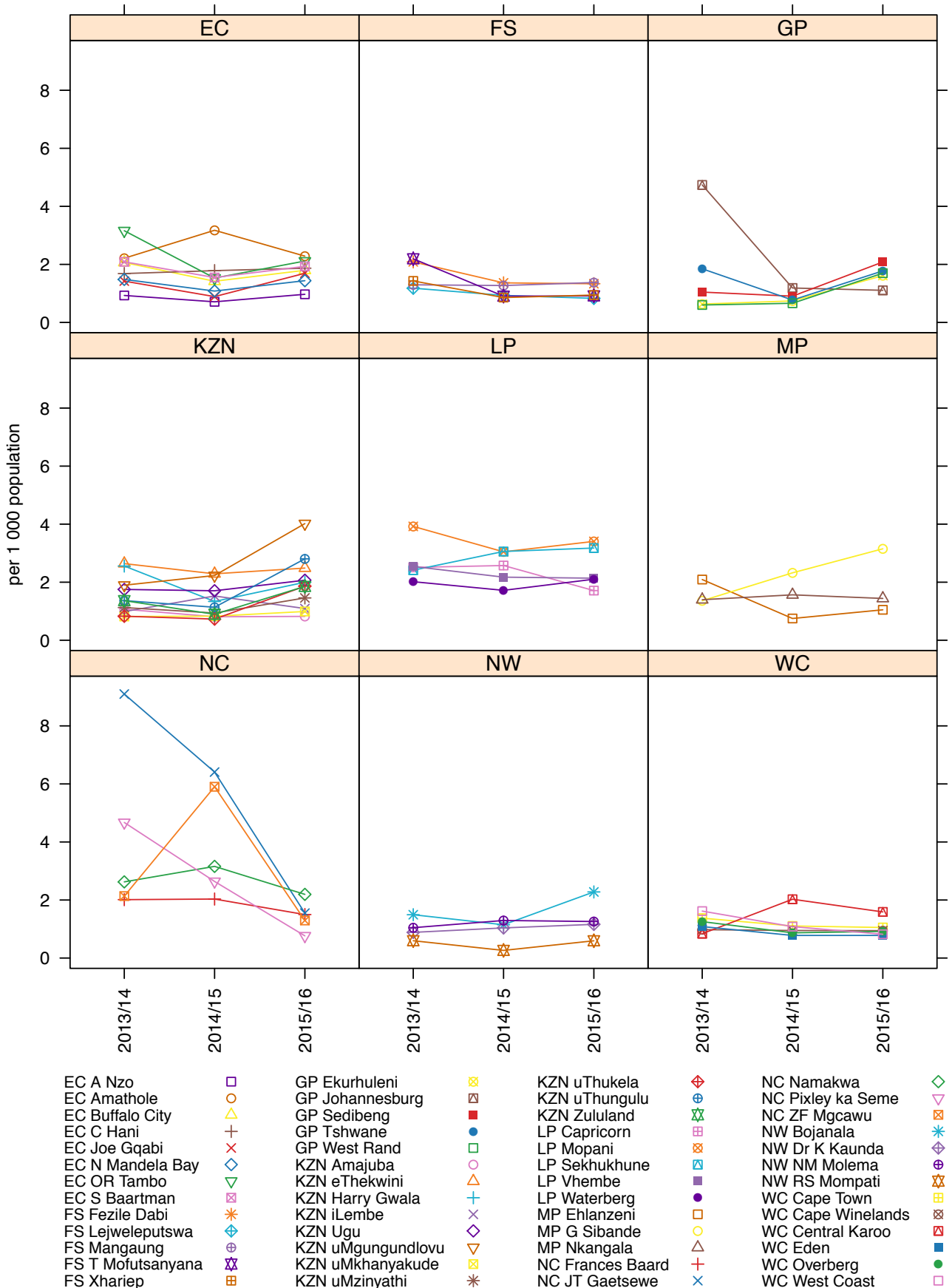
At district level (Figure 11), the incidence varied between 0.6 cases per 1 000 population in RS Mompoti (North West (NW)) and 4.0 cases per 1 000 population in uMgungundlovu (KZN).

Figure 11: Diabetes incidence (annualised) by district, 2015/2016



At national level the incidence increased from 1.4 cases per 1 000 population in 2014/15 to 1.7 per 1 000 in 2015/16. Trends at district level were varied (Figure 12), but in most cases data seem to indicate an increase in the incidence in 2015/16 compared with 2014/15.

Figure 12: Annual trends for diabetes incidence



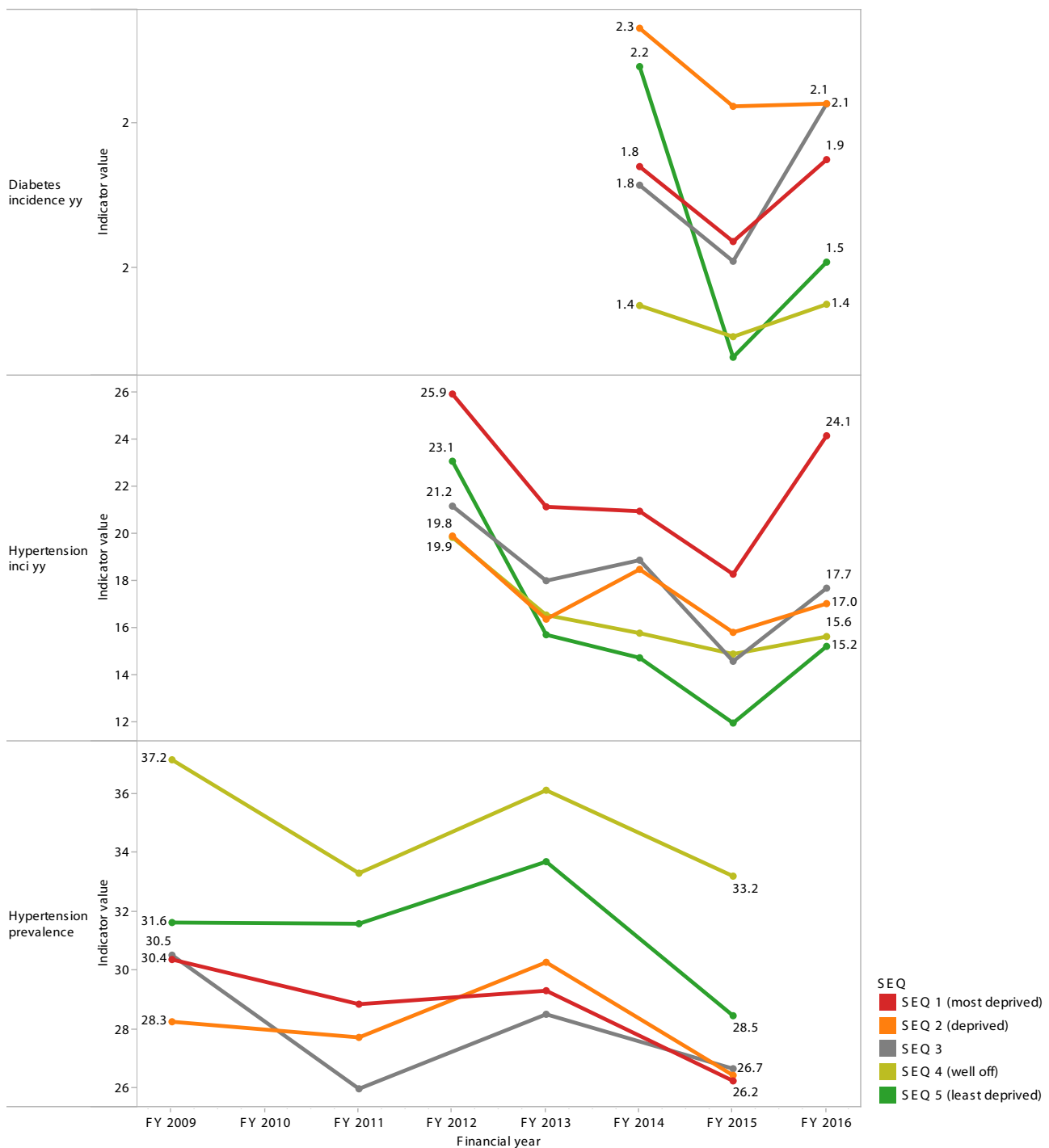
Hypertension and diabetes indicators per socioeconomic quintiles

Figure 13 shows the values of the three indicators analysed in this chapter, with districts grouped according to socio-economic quintile (SEQ).

The crude hypertension prevalence was higher in districts in SEQs 4 and 5 (less deprived). Hypertension prevalence clearly declined within each group of districts, but possibly more rapidly in the wealthiest districts. The incidence of new cases of hypertension showed a reverse relationship with SEQ, with incidence increasing as SEQ decreased.

The relationship between SEQ and diabetes incidence was less clear, but in each year the most deprived districts tended to have higher incidence.

Figure 13: Trends in average district values by socio-economic quintile for hypertension prevalence and incidence and diabetes incidence



Discussion

In all South African districts, the estimated hypertension prevalence in the general adult population is higher than the average prevalence in other countries in the sub-Saharan Africa region, where the rate is estimated at 16.3%.^m However, data from the NiDS survey indicate that South Africa's high prevalence rate is decreasing in almost all districts, with few exceptions.

Treatment coverage and the proportion of controlled hypertension have increased substantially in the last year across all provinces. It is worth noticing that differences in coverage and control between provinces have been reducing over time. The increase in coverage between 2008 and 2015 has been generally higher in provinces such as the Eastern Cape where the initial values were low. This observation may suggest a trend towards greater homogeneity of access to adequate treatment across provinces.

Data on diabetes incidence are more difficult to interpret. The large decreases in incidence over a short time period observed in the Northern Cape and Gauteng are unlikely to reflect real changes in the underlying prevalence in the population. The decreases are more plausibly the result of incongruences in reporting, or specific and localised events such as campaigns or temporary increased efforts to find new cases. In the remaining provinces, changes over time were more modest. Considering that only three time points were available, and the level of uncertainty associated with the population total that constitutes the denominator for this indicator, any conclusion regarding population trends is unwarranted.

Data quality considerations

The considerations presented in the previous sections must take into account the limitations of the data upon which they are based. Both the survey estimates from the NiDS and surveillance indicators from the DHIS are affected by a substantial amount of uncertainty.

The potential magnitude of the error associated with blood pressure measurement in large-scale surveys, even studies conducted with great attention to quality, has been of concern for many years, and is a known problem, especially when comparing results from different surveys.^{n,o} The estimates discussed here come from repeated waves of the same survey, which ensures the comparability of the methods and instruments. However, the seasonal distribution of measurements differs greatly across waves, but as seasonal blood pressure change is a known phenomenon, this may explain some of the differences from year to year.^p More importantly, the NiDS protocol establishes that individuals whose blood pressure is found to exceed the hypertensive cut-off must be referred to a clinic for further evaluation. This awareness of subjects' possible hypertensive condition, introduced by the survey itself, may have artificially inflated the estimates of treatment coverage and hypertension control and deflated the estimates of hypertension prevalence in the waves subsequent to the first. That is, the trends observed in the sample might overestimate both the decrease in hypertension prevalence and the increase in coverage and control in the South African population.

The quality of the DHIS indicators, on the other hand, is affected by reporting incongruences and by imprecision in the estimates of population totals used as denominators in the calculation (total district population for diabetes incidence and total district population aged 40 years and older for hypertension incidence). These incongruences may be the cause of the large and substantively unlikely year-to-year variations in some districts.

Key findings

- ◆ The decreasing prevalence of hypertension in the general adult population across all provinces and most districts, accompanied by the generalised increase in treatment coverage and level of control and a possible trend towards a reduction in socioeconomic differences in access to treatment for both hypertension and diabetes, are all positive indicators.
- ◆ Hypertension prevalence in South Africa remains high compared with most African countries, and the current rate of decrease is unlikely to be able to compensate for the increased number of hypertensive subjects due to population growth and ageing.
- ◆ The predicted further spread of urban, westernised lifestyles in rural areas is bound to increase hypertension prevalence, and even more, the number of subjects with diabetes and related pathologies.

m Ogah OS, Rayner BL. Recent advances in hypertension in sub-Saharan Africa. *Heart*. 2013; 99(19):1390–7.

n Rosner B, Polk BF. The implications of blood pressure variability for clinical and screening purposes. *Journal of Chronic Diseases*. 1979; 32:451–61

o Hense HW, Stieber J, Kuch B, Keil U. Blood pressure measurements in epidemiological surveys – time to change? *Zeitschrift für Kardiologie*. 1996; 85(Suppl 3):66–70.

p The current edition of the South African hypertension guidelines acknowledges the effects of temperature on blood pressure measurement, but makes no provision for the modification of diagnostic criteria and treatment in relation to season.

Recommendations

- ◆ The legislative and regulatory interventions recommended by the Strategic Plan for the Prevention and Control of Non-communicable Diseases should be implemented.
- ◆ In particular, rapid interventions are needed to strengthen the PHC system and adapt its organisation to the country's changed needs. This is an important priority and needs to be taken into consideration in NHI policy and implementation in terms of prevention and control of NCD's.
- ◆ Finally, knowledge on distribution, trends and likely determinants of hypertension, diabetes and other NCDs is still extremely limited, especially at local level. This knowledge is much needed to promote targeted interventions, and inform planning.

12 Burden of disease

Pam Groenewald, Debbie Bradshaw, Candy Day and Ria Laubscher

This is the fifth attempt to assess and compare the cause of death profiles for each of the 52 health districts in South Africa. District-level mortality information is extremely important for health managers and programme planners to monitor health status, assess effectiveness of priority programmes and identify emerging health issues and vulnerable groups. Such data can also be used to gauge inequities in health among districts. Currently, Statistics South Africa (StatsSA) compiles cause of death statistics based on death notifications but reports only limited information at district level.

Methodology

Data source

Unit records for the 2008–2014 mortality data were provided by StatsSA.^{a,b,c,d,e,f,g} These included age, sex, district of death and underlying cause of death coded to the International Statistical Classification of Diseases (ICD-10).^h Vital statistics data are updated annually with late registrations. For these reasons, the data for 2008–2013 were re-analysed using the 2014 data. Stillbirths were excluded from the data prior to analysis.

Aggregation of causes of death

The ICD classification contains a detailed list of causes of mortality that is too extensive for public health use. For this reason the ICD codes were aggregated according to the National Burden of Disease (NBD) list,ⁱ which is a condensed list of conditions adapted from the Global Burden of Disease list,^j and containing the most prevalent diseases across South Africa, including those of public health importance. The NBD list has recently been updated,^k and differs slightly from the list used for the first district mortality profiles prepared for the 2010/11 *District Health Barometer*.^l

The NBD list of causes was aggregated into three broad cause groups, namely communicable diseases together with perinatal, maternal and nutritional conditions; non-communicable diseases; and injuries, as indicated in the 2000 NBD study^j (Table 1). Given the large burden caused by HIV-related deaths, which form part of the communicable disease group, these deaths were separated into a fourth group. Since many HIV deaths are misclassified to tuberculosis (TB), the TB deaths were reported with the HIV deaths.

- a Statistics South Africa. Mortality and causes of death in South Africa, 2008: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2010. Available from: <http://www.statssa.gov.za/publications/P03093/P030932008.pdf> [Accessed 23 September 2014].
- b Statistics South Africa. Mortality and causes of death in South Africa, 2009: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2011. Available from: <http://www.statssa.gov.za/publications/P03093/P030932009.pdf> [Accessed 23 September 2014].
- c Statistics South Africa. Mortality and causes of death in South Africa, 2010: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2013. Available from: <http://www.statssa.gov.za/publications/P03093/P030932010.pdf> [Accessed 23 September 2014].
- d Statistics South Africa. Mortality and causes of death in South Africa, 2011: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2014. Available from: <http://www.statssa.gov.za/publications/P03093/P030932011.pdf> [Accessed 22 August 2016].
- e Statistics South Africa. Mortality and causes of death in South Africa, 2012: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2014.
- f Statistics South Africa. Mortality and causes of death in South Africa, 2013: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2015. Available from: <http://www.statssa.gov.za/publications/P03093/P030932013.pdf> [Accessed 22 August 2016].
- g Statistics South Africa. Mortality and causes of death in South Africa, 2014: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2015. Available from: <http://www.statssa.gov.za/publications/P03093/P030932014.pdf> [Accessed 22 August 2016].
- h World Health Organization. International Statistical Classification of Diseases and Health Related Problems. 10th revision. Volume 2. 2nd ed. Geneva: WHO; 2004. Available from: http://www.who.int/classifications/icd/ICD-10_2nd_ed_volume2.pdf [Accessed 30 October 2012].
- i Bradshaw D, Groenewald P, Laubscher R, Nannan N, Nojilana B, Norman R, et al. Initial burden of disease estimates for South Africa, 2000. Cape Town: South African Medical Research Council; 2003. Available from: www.mrc.ac.za/bod/initialbodemestimates.pdf [Accessed 30 October 2012].
- j GBD 2005. Operations Manual. Final Draft. Harvard University, Institute for Health Metrics and Evaluation at the University of Washington, John Hopkins University, Queensland University and the WHO, 2009. Available at http://www.globalburden.org/GBD_Study_Operations_Manual_Jan_20_2009.pdf
- k South African National Burden of Disease Team, Medical Research Council, personal communication [2016].
- l Day C, Barron P, Massyn N, Padarath A, English R, editors. District Health Barometer 2010/11. Durban: Health Systems Trust; January 2012.

Table 1: Examples of causes of death in each broad cause group

Broad cause group	Examples
Communicable diseases (excluding HIV and TB) maternal, perinatal and nutritional disorders (Comm/Mat/Peri/Nut)	Diarrhoeal diseases Meningitis & encephalitis Maternal conditions Perinatal conditions Nutritional disorders
HIV related and TB (HIV and TB)	HIV related Tuberculosis
Non-communicable diseases (NCDs)	Cerebrovascular disease Diabetes Mellitus Ischaemic heart disease Cancer
Injuries	Transport injuries Interpersonal violence

Adjustments to data

STATA 14 was used to adjust the data, firstly by redistributing deaths of unknown age (N=1169) and sex (N=3039) proportionally by known age and sex across each of the known causes of death and districts. Causes of death used as pseudonyms for AIDS (N=24126), e.g. 'retroviral disease' or 'immune suppression' were combined with the HIV deaths. Deaths misclassified to ill-defined signs and symptoms (ICD chapter XVII) and other 'garbage codes' (intermediate causes of death, e.g. septicaemia; mechanisms of death, e.g. cardiac arrest; partially specified causes, e.g. cancer with unknown site of the disease; or risk factors, e.g. hypertension)^m were proportionally redistributed to specified causes within each age and sex category.

Cause of death information for injuries was particularly problematic, with a very high proportion of 'undetermined cause' due to the manner of death (accident, homicide, suicide) not being specified on the death notification form. To accommodate a coding change implemented by StatsSA in 2007,ⁿ whereby unspecified injuries are coded to accidental injuries according to ICD-10 guidelines, injuries were redistributed using a different redistribution algorithm. This involved identifying the proportion of accidental injuries that would previously have been coded as unspecified based on 2006 data and re-allocating these proportionally to homicide, suicide and accidental intent. In the absence of district-level information, the estimated national proportions were applied to each district, based on the assumption that the change in coding was consistent across the country.

m Naghavi M, Makela S, Foreman K, O'Brien J, Pourmalek F, Lozano R. Algorithms for enhancing public health utility of national causes of death data. *Population Health Metrics*, 2010; 8:9.

n Statistics South Africa. Mortality and causes of death in South Africa, 2007: findings from death notification. Statistical Release P0309.3. Pretoria: StatsSA; 2009. Available from: <http://www.statssa.gov.za/publications/P03093/P030932007.pdf> [Accessed 30 October 2012].

Analysis

The proportions of deaths and years of life lost (YLLs) due to the four broad cause groups were calculated for each of the 52 districts. Years of life lost is a measure of premature mortality based on the age at death and thus highlights the causes of death that should be targeted for prevention. In line with the initial South African NBD study, the highest observed national life expectancy was selected as the standard against which YLLs are calculated.^o

Completeness of death registration for 2008 was reported to be 81% nationally,^b but Dorrington and Bradshaw estimate that it was higher at 90%.^p Completeness for 2009 was reported to be 93.5% at national level.^c Death registration completeness for 2010,^d 2011,^e 2012,^f 2013^g and 2014,^h was reported to be 94%. However, estimates of completeness were not available at district level and since variation in completeness at district level can distort death rates, rates were not calculated except for the eight metros where completeness was likely to be good. The number of deaths, age distribution and the seasonal trends for each year were examined and compared for all districts. Metro death rates were age standardised to eliminate differences in observed mortality rates caused by differences in the age structure of the population in different areas.^q Rates were calculated using the population estimates from the District Health Information Software (DHIS), based on 2002–2018 district cohort estimates developed by StatsSA (2013).

Results

A total of 3 767 401 deaths were reported for 2008–2014, of which 102 519 stillbirths were excluded from further analysis (Table 2). There was a decline in the total number of deaths between 2008 and 2014 as well as a decline in mortality rates.^f

Between 2008 and 2012, large fluctuations were noted in the total number of deaths in various districts, as reported previously.⁵ Among the metros, this was clearly apparent in N Mandela Bay and Buffalo City (both Eastern Cape (EC)), although it was more difficult to assess the impact in the other metros. In Buffalo City, the number of deaths appeared to be at a lower level than expected from 2012 to 2014 (Figure 1). In Ekurhuleni (Gauteng (GP)), the number of deaths early in 2014 appeared to be lower than expected. In addition, the number of deaths recorded in eThekweni (KZN) declined by 36.9% between 2013 and 2014, with a distinct fall off over the year that is quite clearly different from the usual seasonal trends. A similar trend was noted in a number of other districts in KwaZulu-Natal, suggesting that deaths across the province were incomplete for 2014. In N Mandela Bay (EC), the deaths appeared to be back at expected levels for early 2014 but fell off dramatically after July 2014.

While some of these observations may be due to an increase in the number of deaths with 'unknown district' noted between 2013 and 2014 (an increase from 10 072 to 15 250 deaths), it appears that there may also be a delay in the transfer of death notification forms from the Department of Home Affairs to StatsSA in some areas, e.g. in eThekweni. A similar problem was noted in 2013 data but was resolved with the data update for 2014. For this reason mortality rates for the metros were only reported until 2013, since incomplete reporting affects absolute mortality rates. The relative mortality measures, such as the percentage of YLLs by cause, have been reported up to 2014 based on the assumption that the incomplete death records represent a similar profile of ages and causes to those that have been captured. The observed trends support this as they generally show consistent year-on-year changes by cause.

o This standard is represented by a model life table, Coale and Demeny West level 26, with a life expectancy at birth of 82.5 years for Japanese females and 80 for males. Years of life lost are estimated for each age, sex and cause category by multiplying the observed number of deaths in each category by the expected life expectancy in each age category, implying that YLLs are greater when age at death is younger. Since people value years of life gained in the future less than years gained in the present, a 3% discount rate is applied. In contrast to the first NBD study, an age-weighting function that assigns greater value to a year of life lived in the economically active age groups than it assigns to years lived in childhood or old age was not applied, in line with the latest Global Burden of Disease protocol (<http://www.dcp2.org/pubs/GBD>).

p Dorrington R, Bradshaw D. Maternal mortality in South Africa: lessons from a case study in the use of deaths reported by households in censuses and surveys. *J Pop Research*. 2011; 28:49–73.

q Ahmad OB, Boschi-Pinto C, Lopez AD, Murray CJL, Lozano R, Inoue M. Age standardisation of rates: A new WHO standard. *GPE Discussion Paper Series No. 31*. Geneva: World Health Organization; 2001.

r Bradshaw D, Dorrington RE, Laubscher R. *Rapid Mortality Surveillance Report 2011*. Cape Town: Medical Research Council; 2012. Available from: www.mrc.ac.za/bod/RapidMortality2011.pdf [Accessed 30 October 2012].

s Massyn N, Day C, Peer N, Padarath A, Barron P, English R, editors. *District Health Barometer 2013/14*. Durban: Health Systems Trust; October 2014.

Table 2: Number of registered deaths and stillbirths nationally, 2008–2014

Year	Deaths	Stillbirths	Total	Unknown district	
				N	%*
2008	597 781	14 932	612 713	4 122	0.7
2009	582 956	14 279	597 235	4 531	0.8
2010	550 401	14 989	565 396	6 745	1.2
2011	514 938	14 216	529 154	23 560	4.6
2012	492 062	14 676	506 738	18 590	3.8
2013	473 384	15 008	488 392	10 072	2.1
2014	453 360	14 413	467 773	15 250	3.4
Total	3 664 882	102 519	3 767 401	82 870	2.3

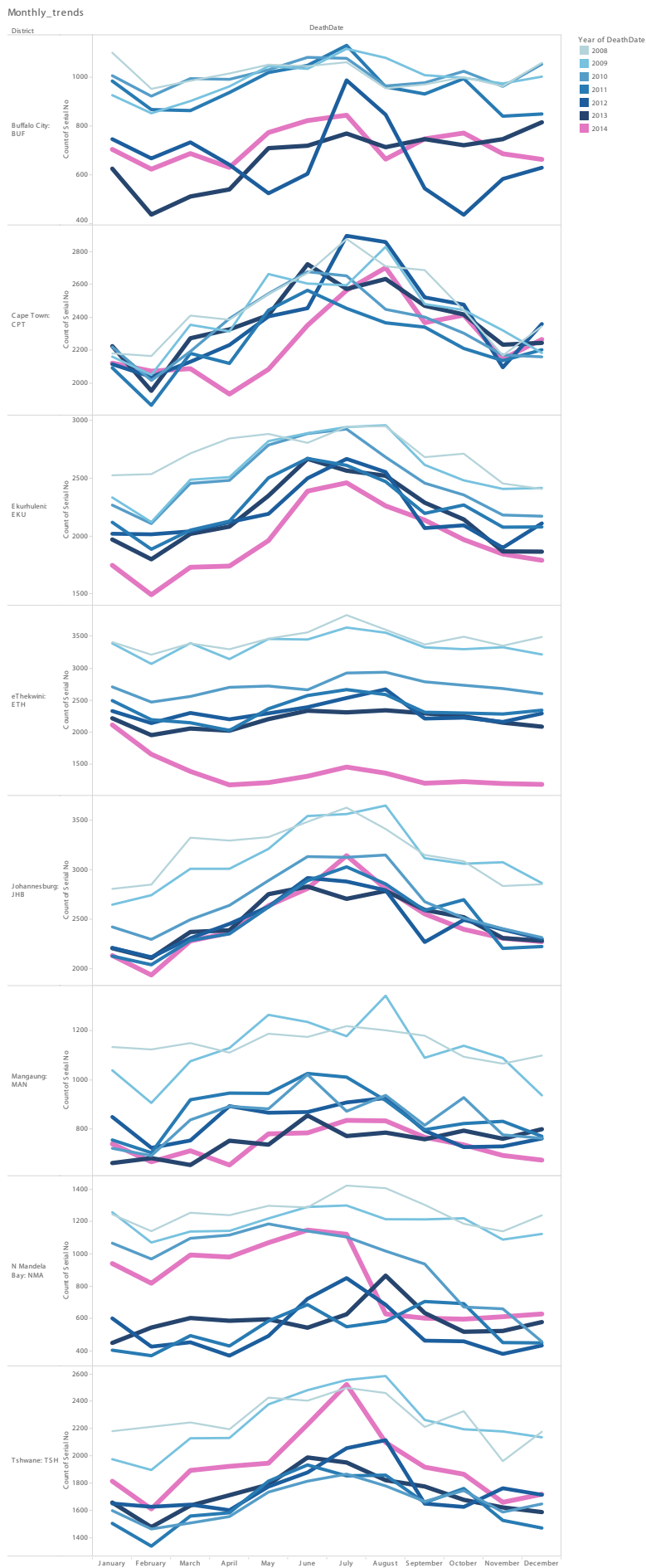
* Refers to percentage of deaths excluding stillbirths.

Furthermore, data quality issues affecting national mortality data have been identified, including a high proportion of ill-defined causes, misclassification of HIV and AIDS deaths, and poor specification of external causes of injury deaths.^t In addition, data completeness at the time of analysis has become an issue since 2013, particularly for KwaZulu-Natal (KZN).

Despite the data quality concerns, it is essential to start making use of the available data, at the same time as initiating improvement strategies. By assuming that the metro areas have near-complete death registration, it is possible to obtain death rates for these areas. While it is not yet possible to provide reliable mortality rates for each district, the epidemiological mortality profiles can be used as part of a measure of need for equitable resource allocation and priority setting.

^t Bradshaw D, Pillay-van Wyk V, Laubscher R, Nojilana B, Groenewald, Nannan N. Cause of death statistics for South Africa: Challenges and possibilities for improvement. Cape Town: Medical Research Council; 2011. Available from: www.mrc.ac.za/bod/cause_death_statsSA.pdf [Accessed 30 October 2012].

Figure 1: Monthly trends in deaths for the eight metros, 2008–2014



Data quality

The two main indicators of data quality include the completeness of registration (which is unknown at district level) and the percentage of deaths classified to ill-defined causes and 'garbage codes' as described earlier. The annual fluctuations in numbers of deaths by district and the changing proportions of deaths from "unknown district" by year suggest that completeness at district level is variable and that trends need to be interpreted with caution. Internationally the recommended standard is less than 10% ill-defined and garbage codes; no districts in South Africa met this standard.^u In South Africa, the total ill-defined and 'garbage codes' has declined from 39% in 1998^v to 29.0% in 2009, and declined again slightly to 28.4% in 2014. However, there have been marked improvements in both ill-defined (9.5% to 6.9%) and garbage codes (16.1% to 12.2%) in the Western Cape since 2008 and Northern Cape since 2011 in contrast with other provinces over this period (Figure 2). This may reflect the increased efforts to improve death certification in the Western Cape, as a result of the implementation of a local mortality surveillance system in that province. It is not clear what is responsible for the improvement in the Northern Cape. In order to reduce the proportion of ill-defined deaths it will be imperative to train doctors in death certification in areas with high ill-defined and garbage code. In rural areas with limited access to medical doctors it may be useful to consider implementing alternative methods of establishing the underlying cause of death, such as the use of verbal autopsy, within the civil registration and vital statistics system.

For the purposes of this study, the proportion of deaths coded to ill-defined causes was used as an indicator of the quality of mortality data. In 2014, ill-defined causes were reported for 13.8% of deaths in South Africa and ranged from 3.6% (Eden, WC) to 54.8% (A Nzo, EC) across districts (Figure 3 and Map 1). The percentage of ill-defined deaths in the eight metros was 12.3% and ranged between 3.6% in Eden and 54.8% In A Nzo. As might be expected, the percentage of ill-defined deaths was lowest in the districts within the highest socio-economic quintiles (SEQs 3–5)^w and highest in the most deprived districts.

In 2014, garbage codes were reported for 14.6% of deaths in South Africa and ranged from 6.9% in JT Gaetsewe (NC) to 20.5% in Sedibeng (GP) (Figure 4). In A Nzo (EC), OR Tambo (EC), Vhembe (Limpopo (LP)) and Joe Gqabi (EC) more than 40% of deaths were coded to ill-defined causes and garbage codes. Interestingly, the percentage of garbage codes was on average highest in districts within the highest socio-economic quintiles (SEQs 4–5) and lowest in districts in the lowest SEQs, although there was quite a range across districts within each quintile. This may reflect better access to health services and medical information but poor certification practices on the part of the doctors.^x

u Mathers CD, Ma Fat D, Inoue M, Rao C, Lopez AD. Counting the dead and what they died from: an assessment of the global status of cause of death data. *Bulletin of the World Health Organization*. 2004; 83:171–7.

v Pillay-van Wyk V, Bradshaw D, Groenewald P, Laubscher R. Improving the quality of medical certification of cause of death: the time is now! *S Afr Med J*. 2011 Sep 5; 101(9):626.

w See Introduction to the DHB for details of the deprivation index and socio-economic quintiles.

x Meel BL. Certification of deaths at Umtata General Hospital, South Africa. *Journal of Clinical Forensic Medicine*. 2003; 10(1):13–5.

Figure 2: Trend in deaths coded to ill-defined causes and garbage codes by province, 2008–2014

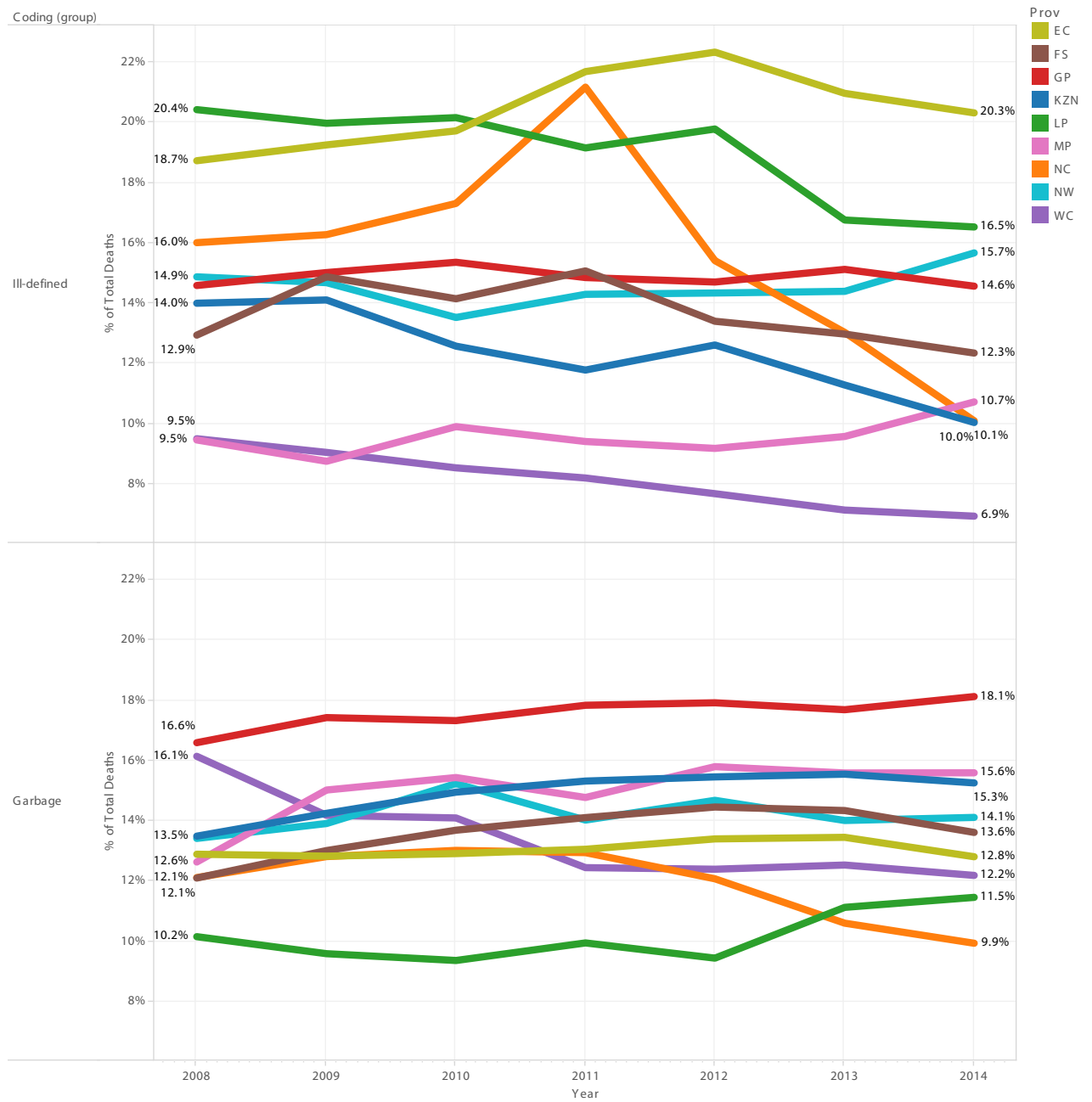
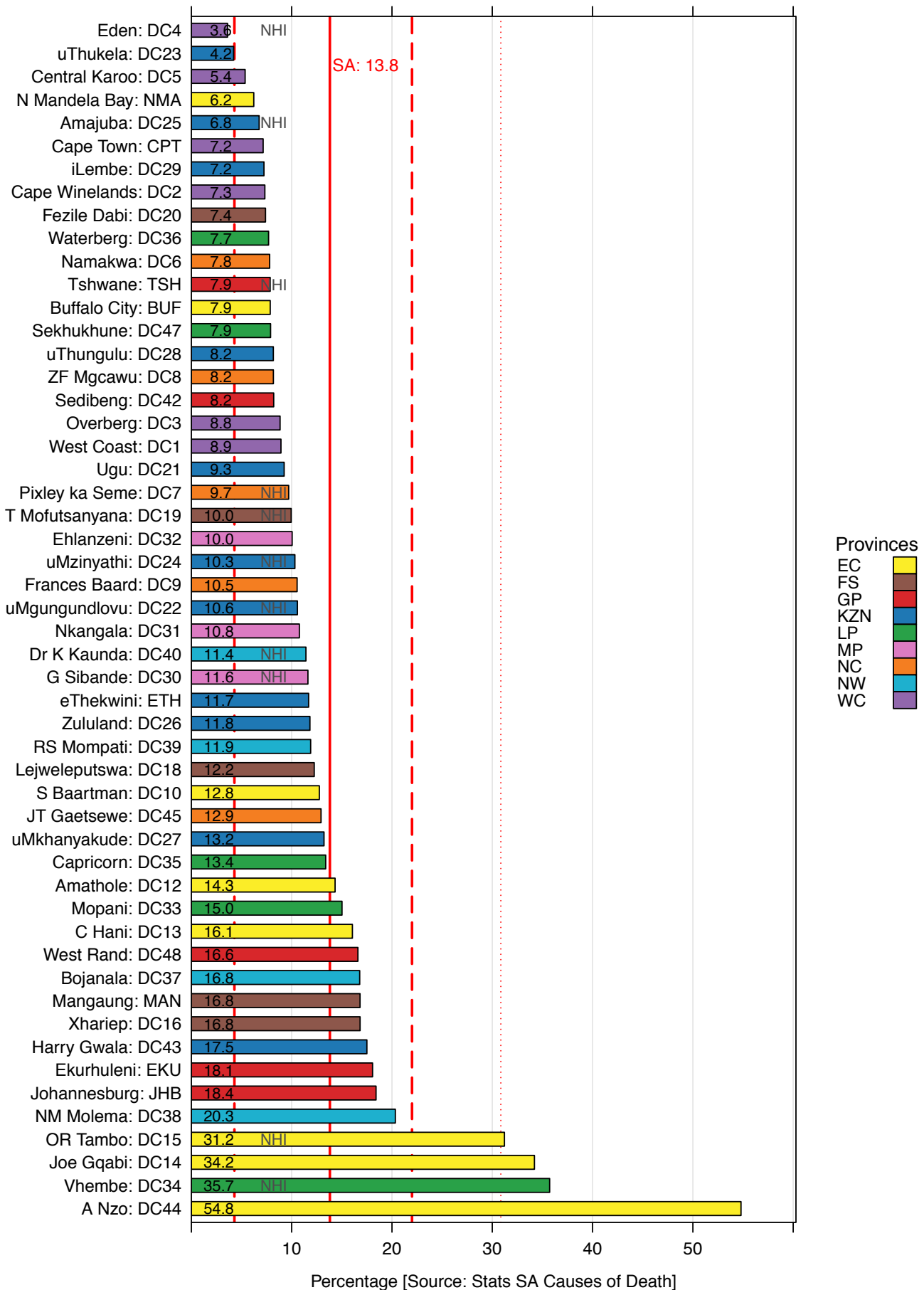


Figure 3: Percentage of deaths ill-defined by district, 2014



Map 1: Percentage of deaths ill-defined by district, 2014

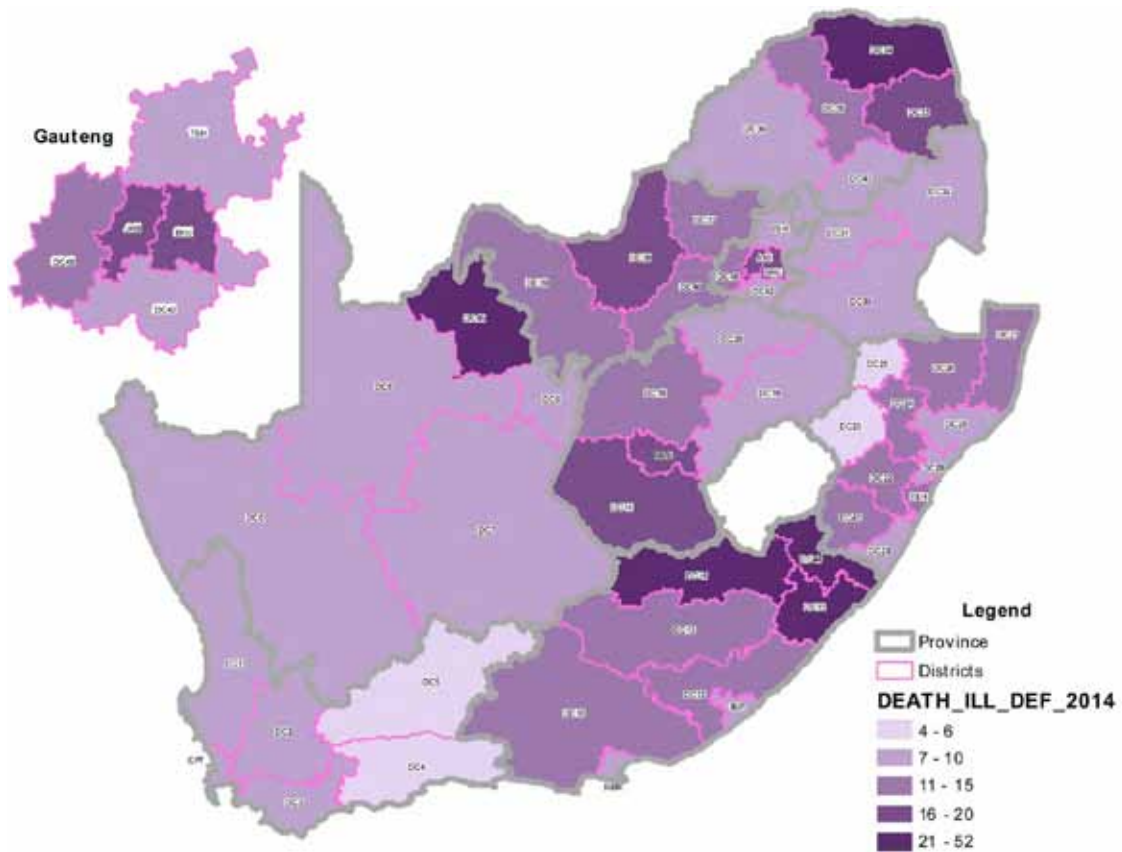
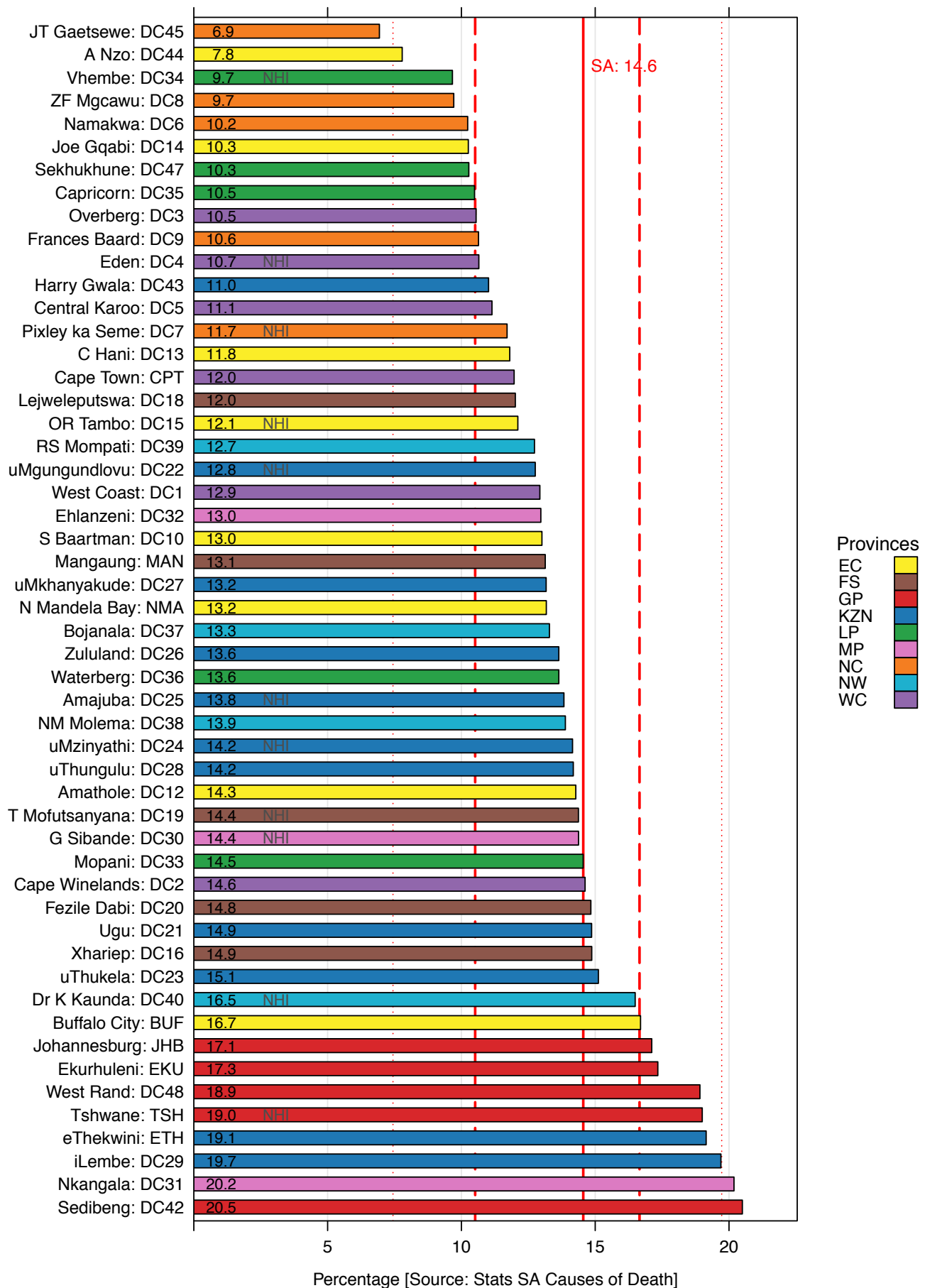


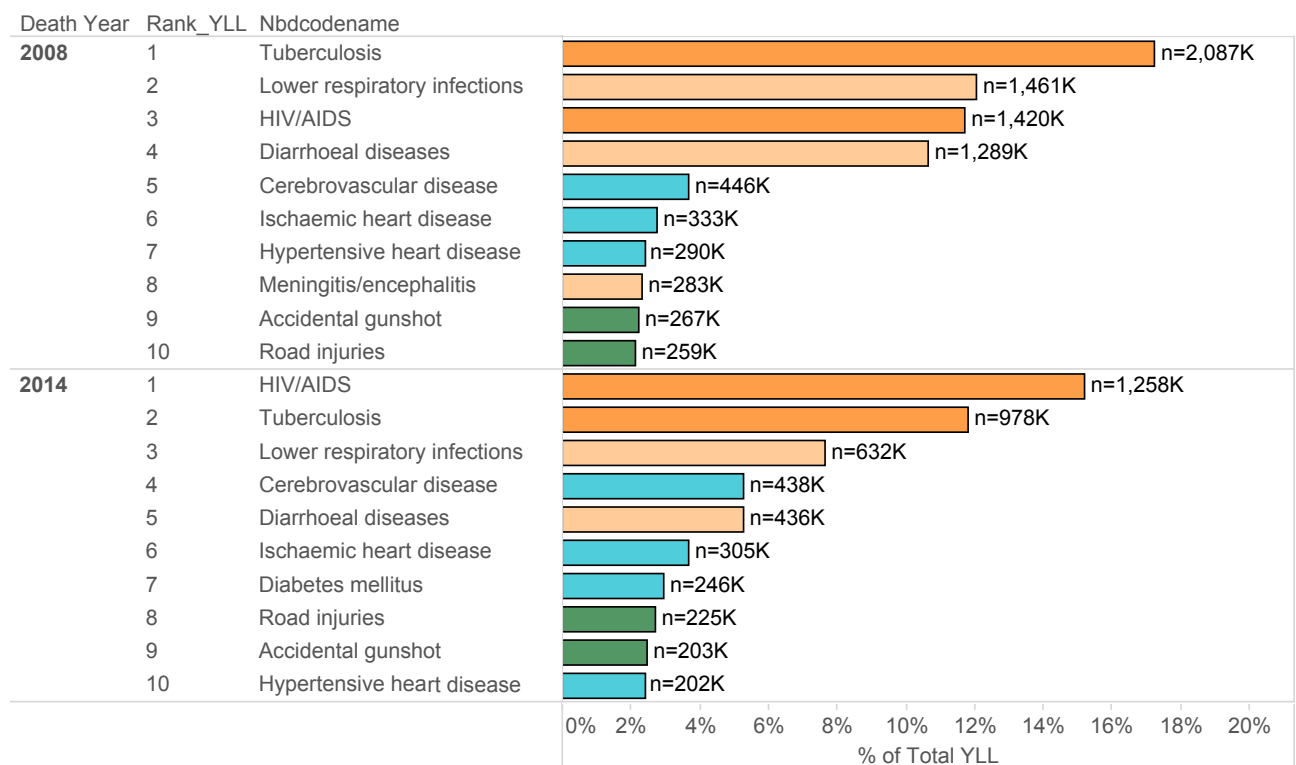
Figure 4: Percentage of deaths with garbage codes by district, 2014



Leading causes of premature mortality

The results presented here differ substantially from the results presented in the StatsSA 2008–2014 cause of death reports^{b-h} in that ill-defined causes have been redistributed across other specified causes and specific causes of injury are presented. It is important to note that more than 90% of HIV deaths have been misattributed to immediate causes of death such as TB, diarrhoeal diseases and lower respiratory infections,^{y,z} and that since many injury-related deaths are misclassified to ill-defined intent,^{aa} the ranking of injury causes may be unreliable. In 2008 and 2014, the three leading single causes of YLLs in South Africa were HIV-related conditions, TB and pneumonia, with diarrhoea ranking fourth in 2008 and fifth in 2014, suggesting that HIV-related mortality remains the leading cause of YLLs in the majority of districts in South Africa (Figure 5). Also in the top 10 leading causes of YLLs across South Africa are cerebrovascular diseases, hypertensive heart disease, ischaemic heart disease, diabetes, and road injuries. Accidental gunshot also appears in the top 10 but reflects homicide cases that have been miscoded.^{ab} With some minor differences, the following conditions are among the top causes of premature mortality across most districts in South Africa : preterm birth complications (North West (NW) and NC); chronic obstructive pulmonary disease (COPD) (WC and NC); lung cancer (WC); meningitis and encephalitis (LP); and nephritis/nephrosis or renal failure (GP, KZN and LP) (Figures 5, 6 and 7).

Figure 5: Leading causes of years of life lost (YLLs) for South Africa, 2008 and 2014



Note: Graph labelled with the number of years of life lost (YLLs) in thousands.

y Bradshaw D, Bradshaw D, Msemburi W, Dorrington R, Pillay-van Wyk V, Laubscher R, Groenewald P. On behalf of the SA NBD team HIV/AIDS in South Africa – how many people died from the disease between 1997 and 2010? *AIDS* 2016 Mar 13;30(5):771–8.

z Yudkin PL, Burger EH, Bradshaw D, Groenewald P, Ward AM, Volmink J. Deaths caused by HIV disease under-reported in South Africa. *AIDS*. 2009 Jul 31; 23(12):1600–2.

aa Norman R, Matzopoulos R, Groenewald P, Bradshaw D. The high burden of injuries in South Africa. *Bulletin of the World Health Organization*. 2007; 85:695–702.

ab Matzopoulos R, Groenewald P, Abrahams N, Bradshaw D. Where have all the gun deaths gone? *S Afr Med J*. 2016; 106(6):589–91.

Figure 6: Ten leading causes of years of life lost (YLLs) by province, 2014

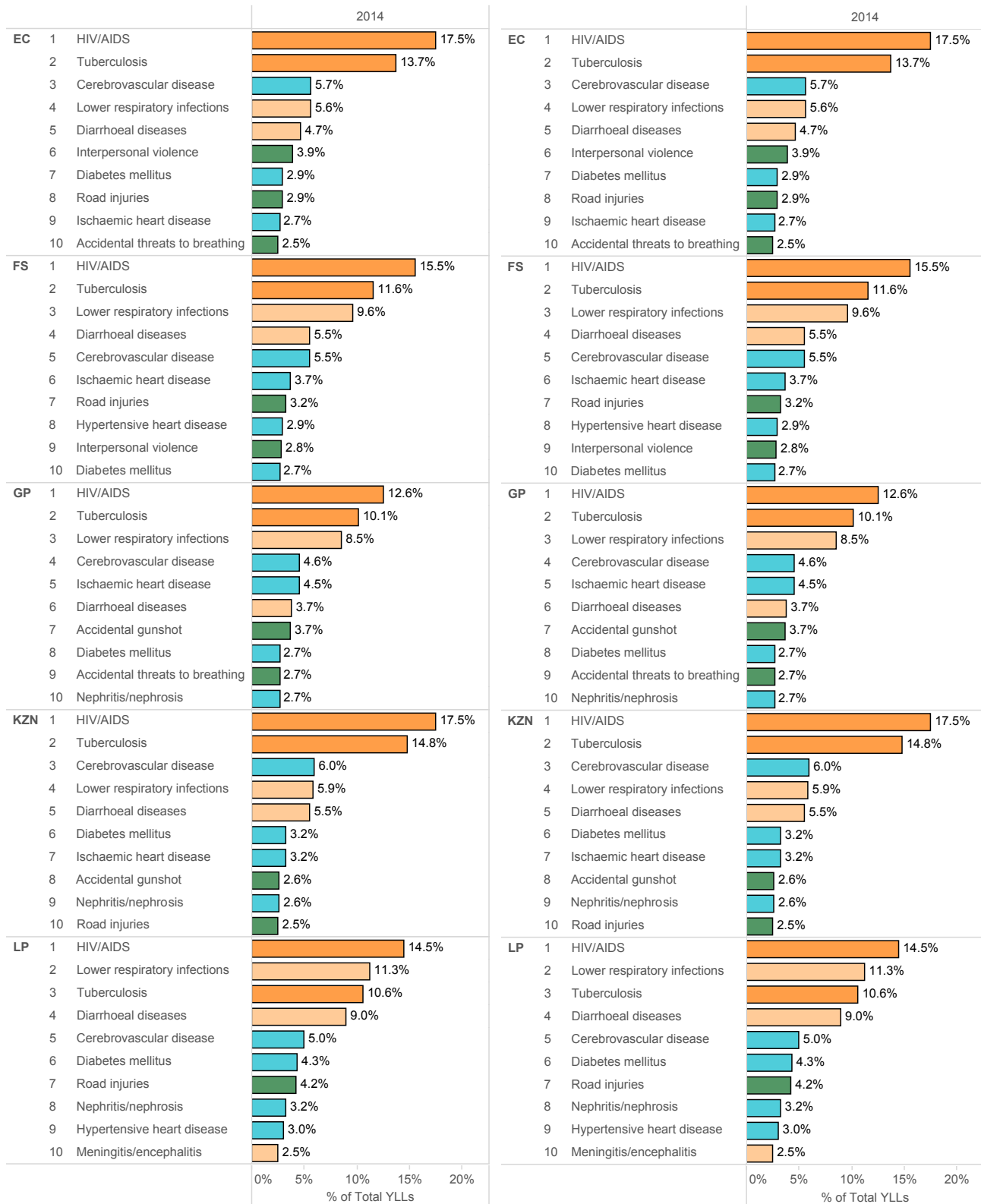


Figure 7: Ranking of 20 leading causes of years of life lost (YLLs) by district, 2014

Prov	District	HIV/AIDS	Tuberculosis	Lower respiratory infections	Cerebrovascular disease	Diarrhoeal diseases	Ischaemic heart disease	Diabetes mellitus	Road injuries	Accidental gunshot	Hypertensive heart disease	Interpersonal violence	Nephritis/nephrosis	Accidental threats to breathing	Preterm birth complications	COPD	Meningitis/encephalitis	Septicaemia	Endocrine nutritional, blood, immu..	Asthma	Epilepsy	Other perinatal conditions	Malaria	Alzheimers and other dementias
EC	A Nzo: DC44	1	2	4	5	3	13	12	7	18	9	6	11	8	20	16	10		14	7	17			
	Amathole: DC12	1	2	3	4	5	9	11	14	17	10	6	16	8		12				14	13			
	Buffalo City: BUF	1	2	5	3	13	6	9	7	18	12	4	11	10		8		20		14				
	C Hani: DC13	1	2	3	4	5	15	7	12		9	6	16	8		14	18		17	11	13			
	Joe Gqabi: DC14	2	1	3	4	5	9	8	10		7	6	13	11		12	15			17	16			
	N Mandela Bay: NMA	1	2	6	3	15	4	5	12	7	16	10	8	13	17	9			19	14	18			
	OR Tambo: DC15	1	2	4	5	3	20	8	6	12	10	7	13	11			14		17	18	15			
	S Baartman: DC10	1	2	3	4	14	5	11	7	18	10	6	12	9		8				15	17			
FS	Fezile Dabi: DC20	3	1	2	5	6	7	8	4		9	15	10	12	13	14		20	11					
	Lejweleputswa: DC18	2	3	1	5	4	7	11	8	18	9	6	10	14	12	17	19		16					
	Mangaung: MAN	1	2	3	4	7	6	9	15	10	12	5	8	14	16	17	20	11	13					
	T Mofutsanyana: DC19	1	2	3	5	4	6	8	9		7	11	10	13	12	16	19		15					
	Xhariep: DC16	1	2	3	4	6	7	12	5	13	9	8		10	17	11				20	18			
GP	Ekurhuleni: EKU	1	2	3	4	5	7	8		6	12	14	11	9	10	15	13	17	19					
	Johannesburg: JHB	1	2	3	5	9	6	13		4	20	7	8	10	12	14	11	16						
	Sedibeng: DC42	3	1	2	5	6	4	8		7	13	10	11	9	15	16	12	17	19					
	Tshwane: TSH	1	2	3	5	6	4	7	10		12	8		9	11	15	16	19	13	14				
	West Rand: DC48	1	3	2	5	6	4	10	11	7	12	9	13	8	18	14	16	15	17					
KZN	Amajuba: DC25	3	2	1	5	4	12	9	6	14	10	11	16	7	8		20	15						
	Harry Gwala: DC43	1	2	4	5	3	12	6	7	13	8	9	16		15		14	20	18	11				
	Ugu: DC21	1	2	4	3	5	8	6	13	10	11	9	12	7	15	16	20	17		14	19			
	Umgungundlovu: DC22	1	2	5	3	4	6	7	11	10	12	8	9	13	14		20	19	16					
	Umkhanyakude: DC27	1	2	5	4	3	11	7	6	10	13	12	9	8	19			16	17					
	Umzinyathi: DC24	1	2	3	5	4	7	9	6	11	10	13	12		8		17	19	15					
	Uthukela: DC23	1	2	4	5	3	6	8	11	9	10	14	7	13	18		12	16	15		17			
	Uthungulu: DC28	1	2	5	3	6	13	8	4	11	12	9	10	18	7		16	14	15					
	Zululand: DC26	2	1	3	5	4	12	6	7	14	10	11	16	9	8		13	18	15		20			
	eThekweni: ETH	1	2	4	3	7	5	10		6	14	16	8	9	11	20	12	13	15	19				
	iLembe: DC29	2	1	6	3	4	7	9	5	10	12		8	15	13		14	16		17	20			
LP	Capricorn: DC35	1	3	2	6	4	12	7	5		8		9	10	11	18	13	14	16	20				
	Mopani: DC33	1	2	3	7	4	12	8	11		10	20	6	13	9		5	18						
	Sekhukhune: DC47	1	4	2	5	3	15	7	6	20	9		10	14	19	17	11	8		13				
	Vhembe: DC34	1	2	4	5	3	18	6	8		10	19	7	9	15		16	13	12				17	
	Waterberg: DC36	1	2	3	6	4	7	8	5		9	19	10	12	11	18	13		17					
MP	Ehlanzeni: DC32	1	2	3	5	4	7	8	6	16	13	18	11	12	17		10	9	14					
	G Sibande: DC30	1	2	3	5	4	9	8	6	18	7	12	13	10	11	17	15	19	16					
	Nkangala: DC31	1	3	2	4	5	6	9	11	16	8		10	7	20	14	18	17	15	19				
NC	Frances Baard: DC9	1	2	4	3	6	7	11	5		13	8	10	17	9	12		20	15					
	JT Gaetsewe: DC45	1	4	2	6	3	10	11	5		8	9	14		7				18		20	17		
	Namakwa: DC6	5	2	9	6	15	1	13	3		11	7	19	12	10	4								
	Pixley ka Seme: DC7	1	2	4	3	8	7	15	5		11	6		12	10	9			18		19			
	ZF Mgcawu: DC8	1	2	3	5	8	4	10	6		18	7	16		15	9		20		13	14			
NW	Bojanala: DC37	1	2	3	5	4	9	7	8	14	6	13	11	10	18	17		12	16					
	Dr K Kaunda: DC40	1	2	3	5	4	7	11		20	13	17	8	6	9	14		16						
	NM Molema: DC38	1	2	3	5	4	9	8	7		6	15	13		11		20	18	12	16	19			
	RS Mompoti: DC39	1	2	4	5	3	8	12			6	13	17	10	7		18	20	15					
WC	Cape Town: CPT	1	3	8	6	15	4	9	14	2	18	5	10	12	16	11		17						
	Cape Winelands: DC2	1	2	12	4	15	3	10		14	19	8	11	7	17	5								
	Central Karoo: DC5	3	1	9	7	18	5	15	2	20	11	6	12		10	4			16		13			
	Eden: DC4	1	2	8	4	15	3	12	5		14	10	11	16	9	6			18		17			
	Overberg: DC3	6	2	9	5	13	1	12	4		19	3	10	16	11	7			17				18	
	West Coast: DC1	2	1	12	5	16	3	9		8	14	6	15	11	18	4								

Broad cause

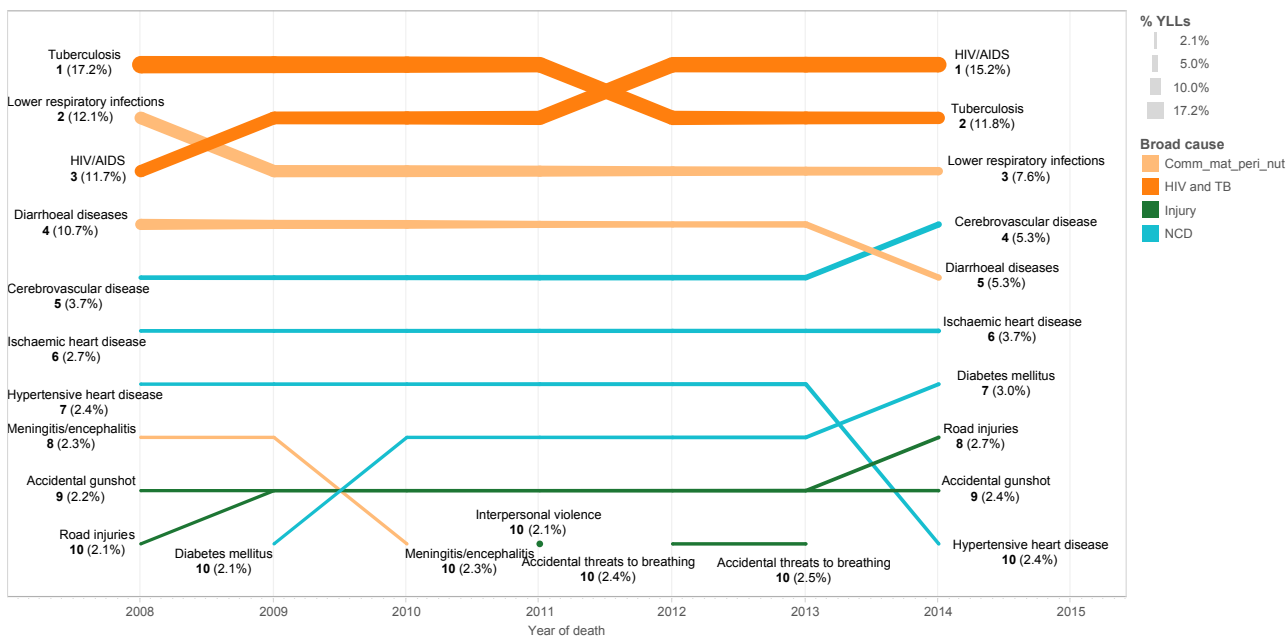
- Comm_mat_peri_nut
- HIV and TB
- Injury
- NCD

Trends in leading causes of premature mortality

Between 2008 and 2014 HIV moved from third to first place in the ranking for premature mortality in South Africa, displacing TB and lower respiratory infections; this reflects increased reporting of HIV on death certificates rather than an increase in mortality from HIV (Figure 8). Cerebrovascular disease displaced diarrhoea and moved into 4th place in 2014. Diabetes mellitus moved from 10th to 7th place between 2009 and 2014, and road injuries moved from 10th to 8th position over the same period.

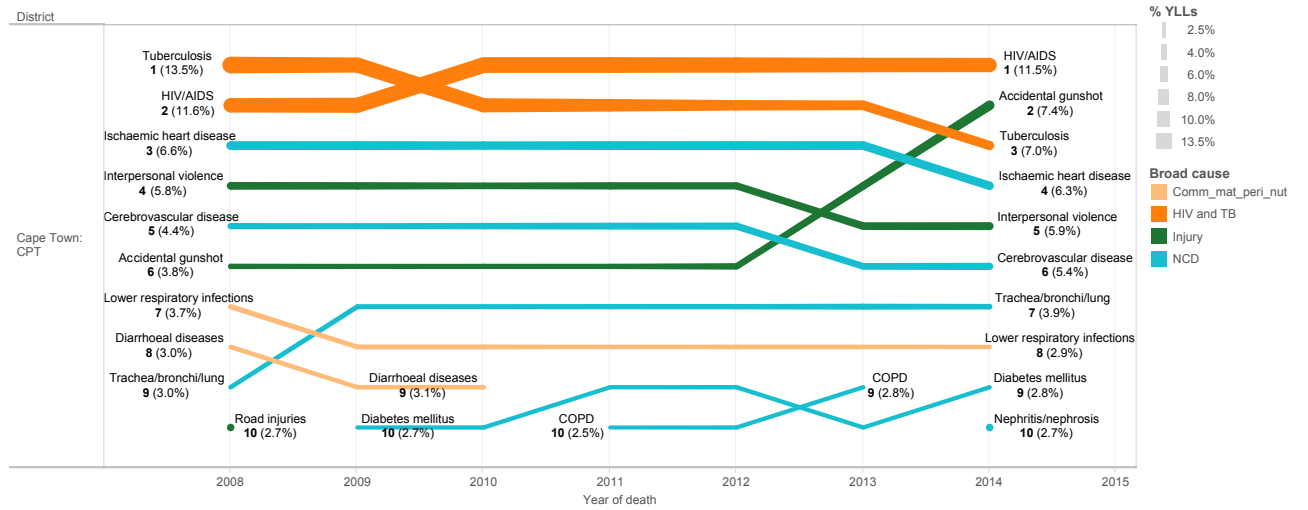
The trends in leading causes of premature mortality for individual districts are available at <http://www.hst.org.za>. The trends in KwaZulu-Natal districts should be interpreted with caution as the 2014 data are incomplete, as noted earlier. HIV climbed in the ranking to first place in all Limpopo districts from 2010, reflecting less reluctance among medical certifiers to report HIV as a cause of death. Of concern is the dramatic increase in ‘accidental’ gunshots (actually interpersonal violence) since 2012 in Cape Town (WC) (Figure 9). The increase in interpersonal violence in Cape Town since 2012 has been noted elsewhere, and is thought to be associated with increased availability of illegal firearms.^{ac}

Figure 8: Trends in 10 leading causes of years of life lost (YLLs), South Africa, 2008–2014



ac Republic of South Africa National Assembly. Question no. 3408, Internal Question Paper no. 37; 4 September 2015.

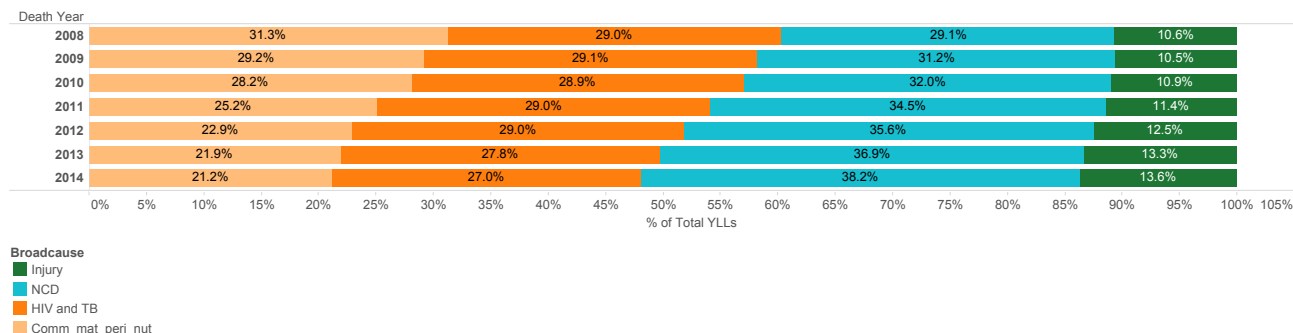
Figure 9: Trends in 10 leading causes of years of life lost (YLLs), Cape Town (WC), 2008–2014



Cause of death profile

South Africa still faces a quadruple burden, namely communicable diseases with maternal, perinatal and nutritional conditions (Comm/Mat/Peri/Nutr); HIV and TB; non-communicable diseases (NCDs); and injuries. However, the percentage of the burden due to HIV and TB and Comm/Mat/Peri/Nutr declined between 2008 and 2014 from 60% to 48%, with a corresponding increase in the burden due to NCDs (from 29% to 38%) and to a lesser extent injuries (from 11% 13.6%) (Figure 10).

Figure 10: Percentage of years of life lost (YLLs) by broad cause, South Africa, 2008–2014



In 2014, the quadruple burden varied across provinces, with the Western Cape having a higher proportion due to injury (19.0%) and NCDs (50.7%) than any other province (Figure 11). KwaZulu-Natal, Mpumalanga, Limpopo and North West had the highest proportions due to HIV and TB and Comm/Mat/Peri/Nutri (approximately 55%). Among the districts, uMkanyakude (KZN) had the highest burden due to HIV and TB (40.2%), while Overberg (WC) had the lowest (14.3%) (Figure 12 and Map 2). Districts in the two highest SEQs (SEQs 4 and 5) had higher proportions of YLLs due to injuries and NCDs, while those in the three lowest SEQs had higher proportions of YLLs due to HIV and TB and Comm/Mat/Peri/Nutr.

Figure 11: Percentage of years of life lost (YLLs) by broad cause by province, 2014

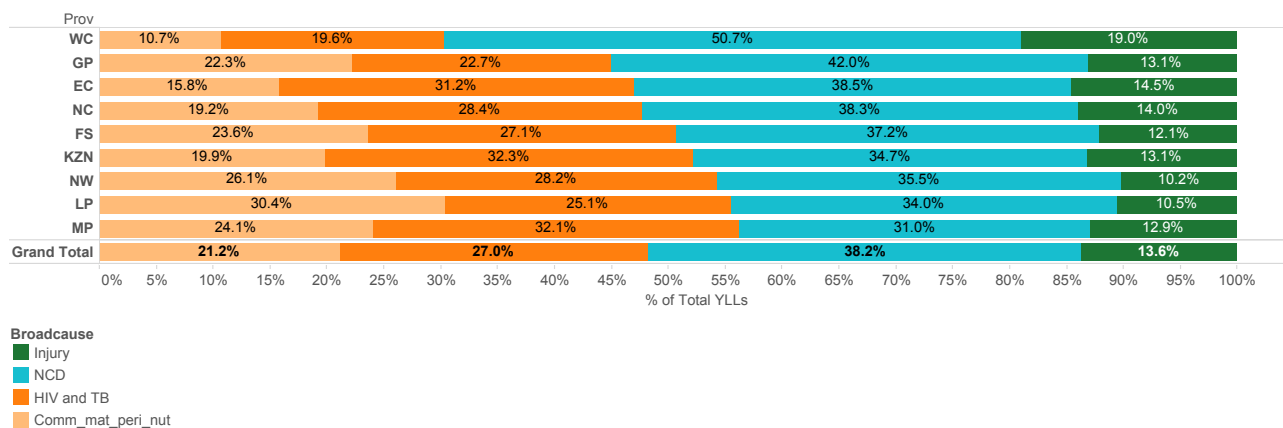
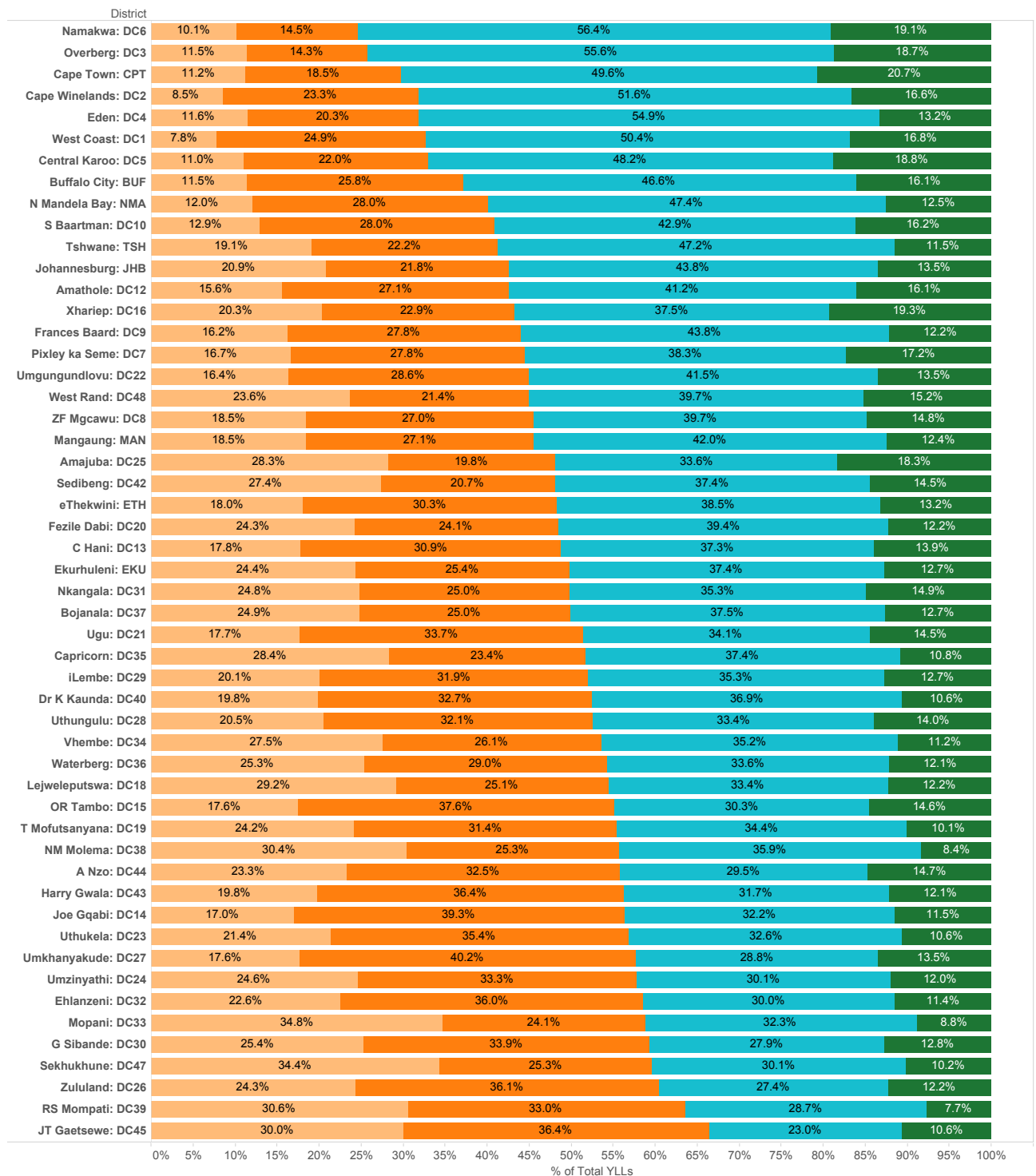


Figure 12: Percentage of years of life lost (YLLs) by broad causes, by district, 2014

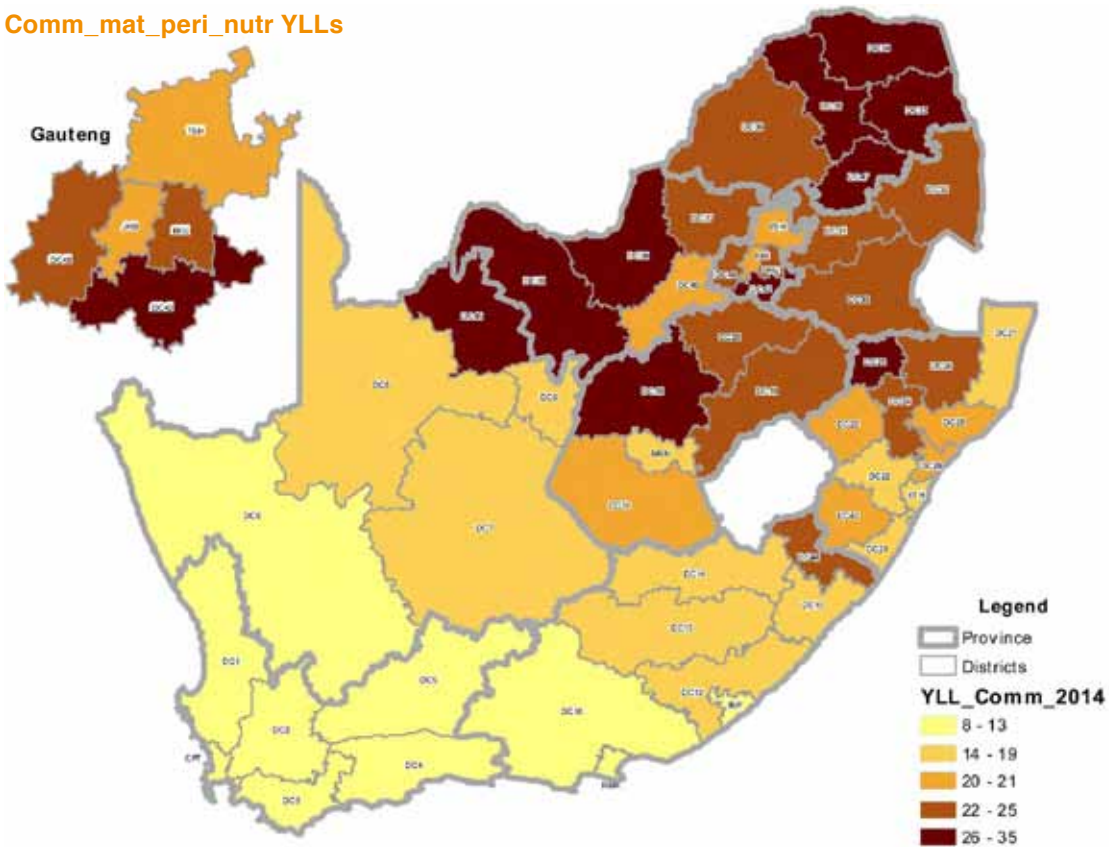


YLLs sorted in ascending order of the combined proportion of Communicable and Maternal YLLs and YLLs due to HIV and TB.

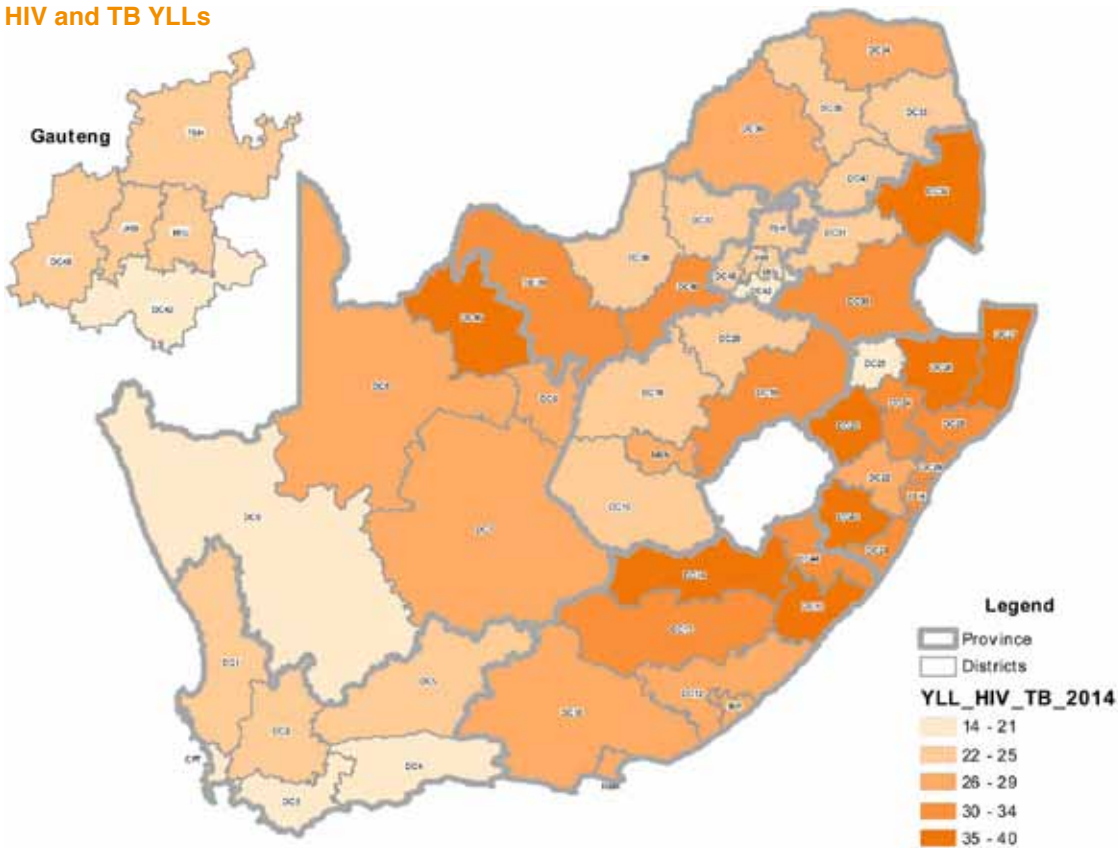
Broadcause
■ Injury
■ NCD
■ HIV and TB
■ Comm_mat_peri_nut

Map 2: Percentage of years of life lost (YLLs) by broad cause, by district, 2014

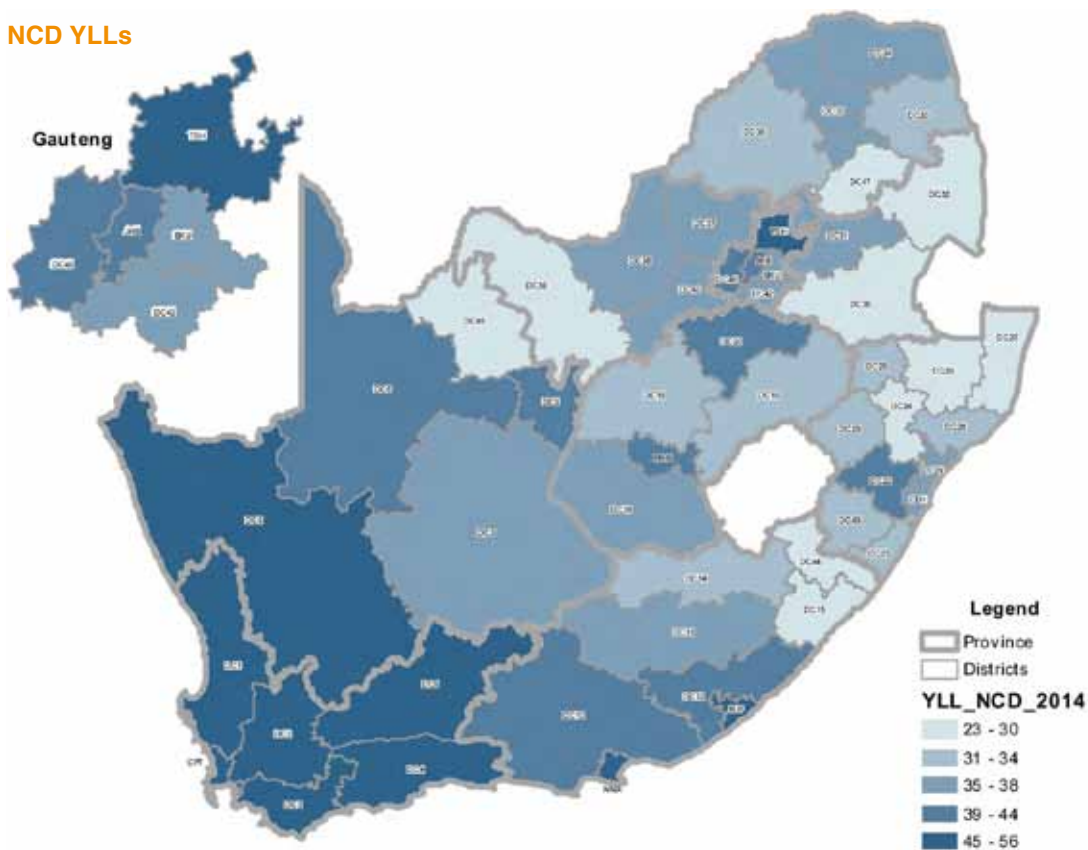
Comm_mat_peri_nutr YLLs



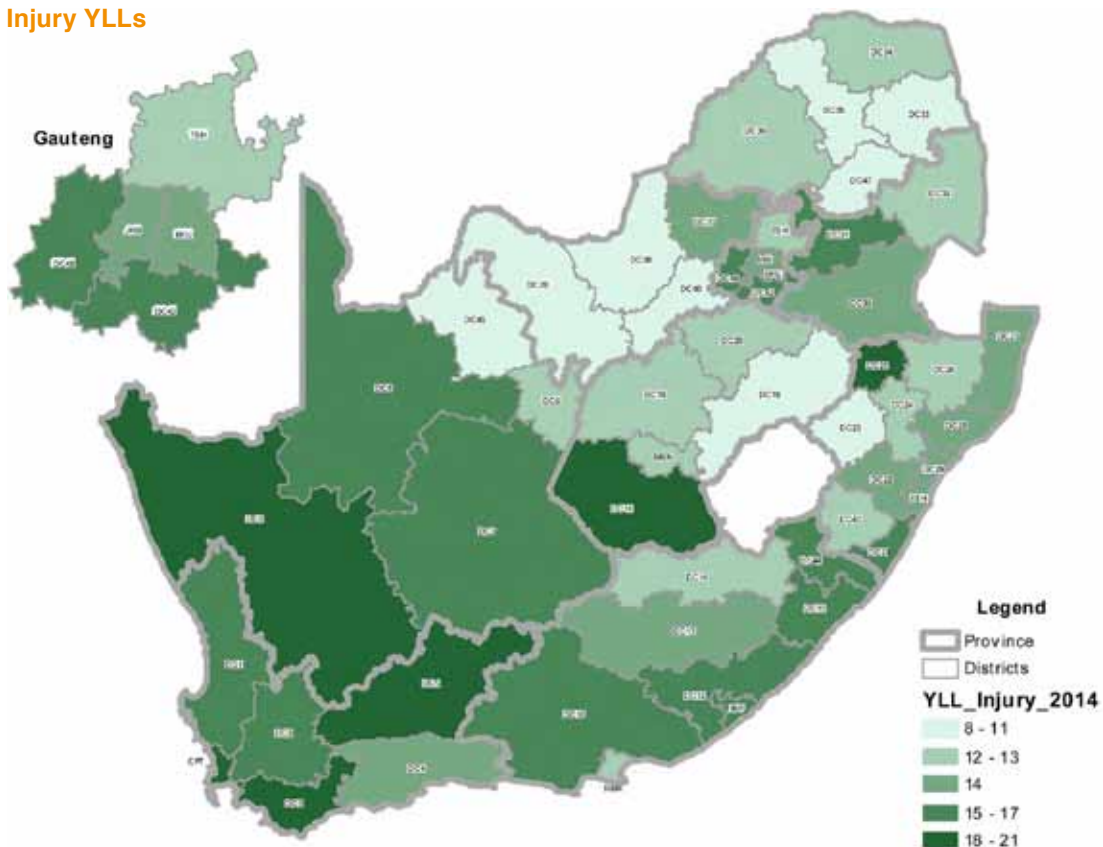
HIV and TB YLLs



NCD YLLs



Injury YLLs



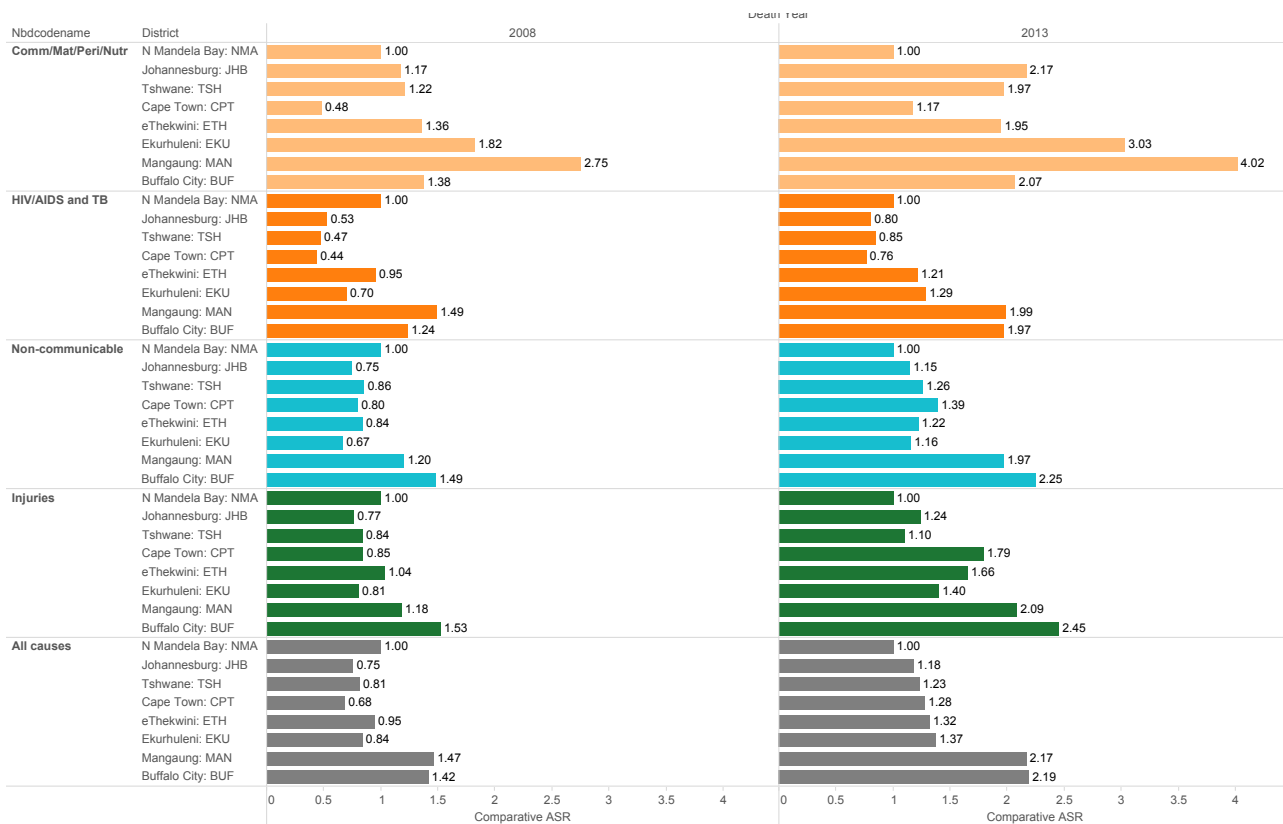
Note: These percentages do not give any indication of the *level* of mortality due to these causes as would be provided by age-standardised mortality rates, but only of the *relative proportion* of all YLLs in each district due to each broad group of causes. Thus the percentage of YLLs for the four broad causes totals 100% for each district.

Metro mortality rates

It is important to note the data challenges and inconsistencies pertaining to the district data as described at the beginning of the Results section when interpreting these results for the metros.

In 2013, comparative mortality ratios for all-cause mortality across the eight metros (with N Mandela Bay metro (EC) as the base) showed that N Mandela Bay had the lowest all-cause mortality, and Buffalo City (EC) the highest, with 2.19 times the mortality experienced in N Mandela Bay after standardising for age (Figure 13). This difference is unlikely to be due to a real difference in mortality but rather due to incomplete data; it is shown here to highlight vital registration data quality issues. Mortality due to Comm/Mat/Peri/Nutr showed the greatest variation between metros in 2012. Mortality from Comm/Mat/Peri/Nutr was lowest in N Mandela Bay and more than fourfold higher in Mangaung (FS) (4.02), more than threefold higher in Ekurhuleni (GP) (3.03), and roughly double in Buffalo City (EC) (2.07), eThekweni (KZN) (1.95), Johannesburg (GP) (2.17) and Tshwane (GP) (1.97). Mortality due to HIV and TB, NCDs and injuries showed less variation in the metros, with Buffalo City (EC) and Mangaung (FS) having the highest mortality (more than double that of N Mandela Bay) for these cause groups.

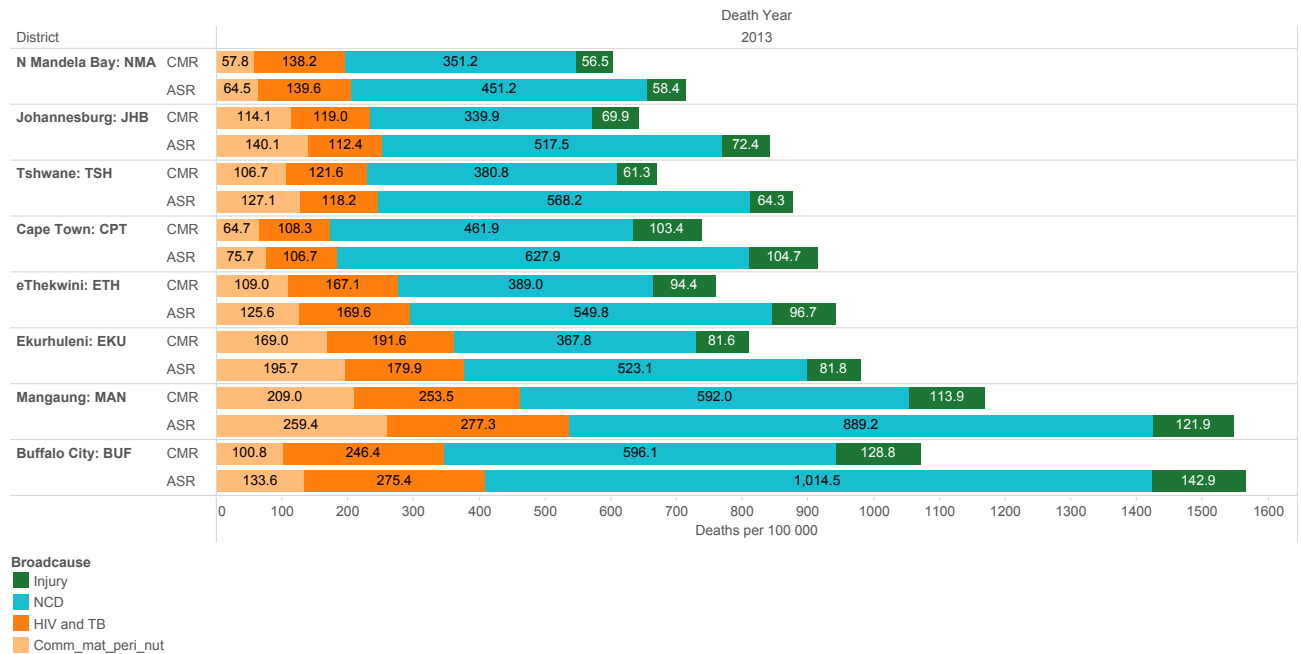
Figure 13: Comparative age-standardised mortality ratios by metro, 2008 and 2013 (interpret with caution)



The Comparative ASR uses the lowest all cause age-standardised mortality rate for the latest year as the comparator (in this case N Mandela Bay in 2013).

Figure 14 shows the cause of death profile in the metros based on the crude and age-standardised mortality rates.^{ad} Cape Town (WC) had the highest proportion of injury and NCD YLLs across all metros (Figure 12), yet the age-standardised mortality ratios for injuries and NCDs were not the highest among the metros (Figure 13). In contrast, Mangaung (FS) had the highest proportions of YLLs due to Comm/Mat/Peri/Nutr and HIV and TB (Figure 12) and the highest age-standardised death rates for these cause groups (Figure 14). Gender differentials were greatest for injury death rates, with male-to-female rate ratios ranging from 2.6 in Tshwane and Ekurhuleni (both GP) to 4.9 in Cape Town (WC) (Figure 15).

Figure 14: Crude and age-standardised mortality rates by metro, 2013 (interpret with caution)



^{ad} Crude mortality represents the actual mortality burden experienced, while the age-standardised mortality rate is a weighted average of the age-specific mortality rates per 100 000 persons, where the weights are the proportions of persons in the corresponding age groups of the WHO standard population. YLLs represent the premature mortality (mortality occurring at younger ages, which should be targeted for prevention).

Section A: Burden of disease

Figure 15: Age-standardised mortality rates by gender, by metro, 2013 (interpret with caution)

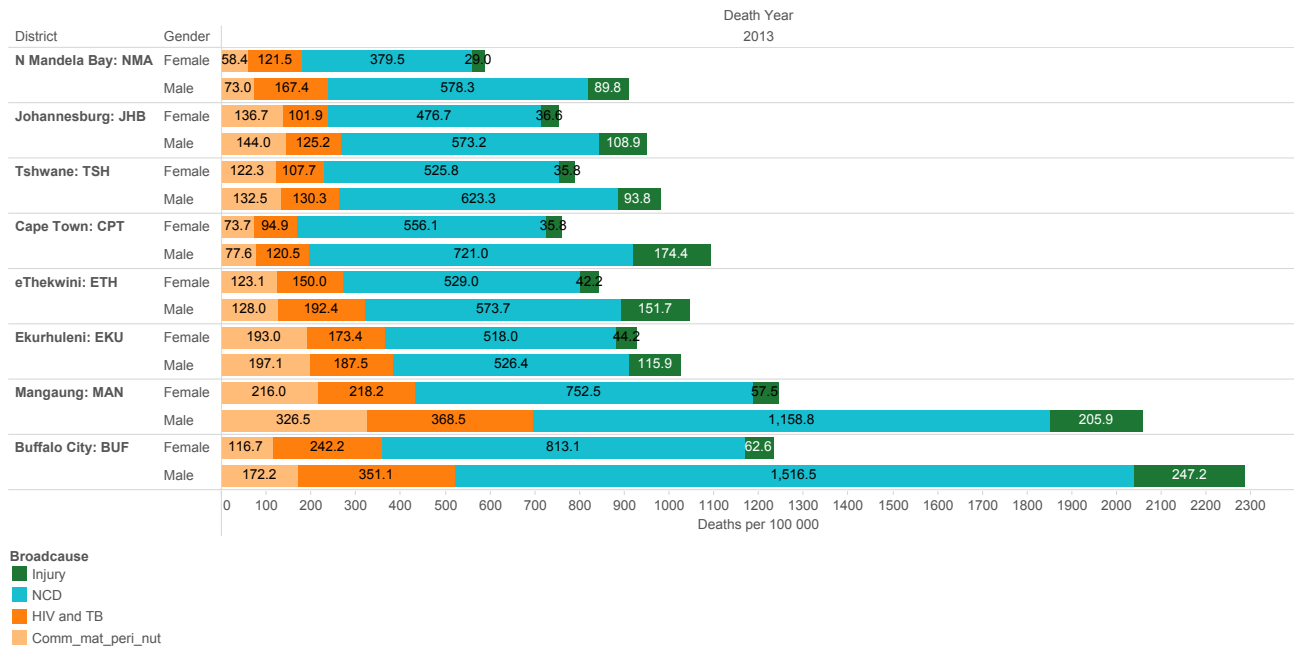
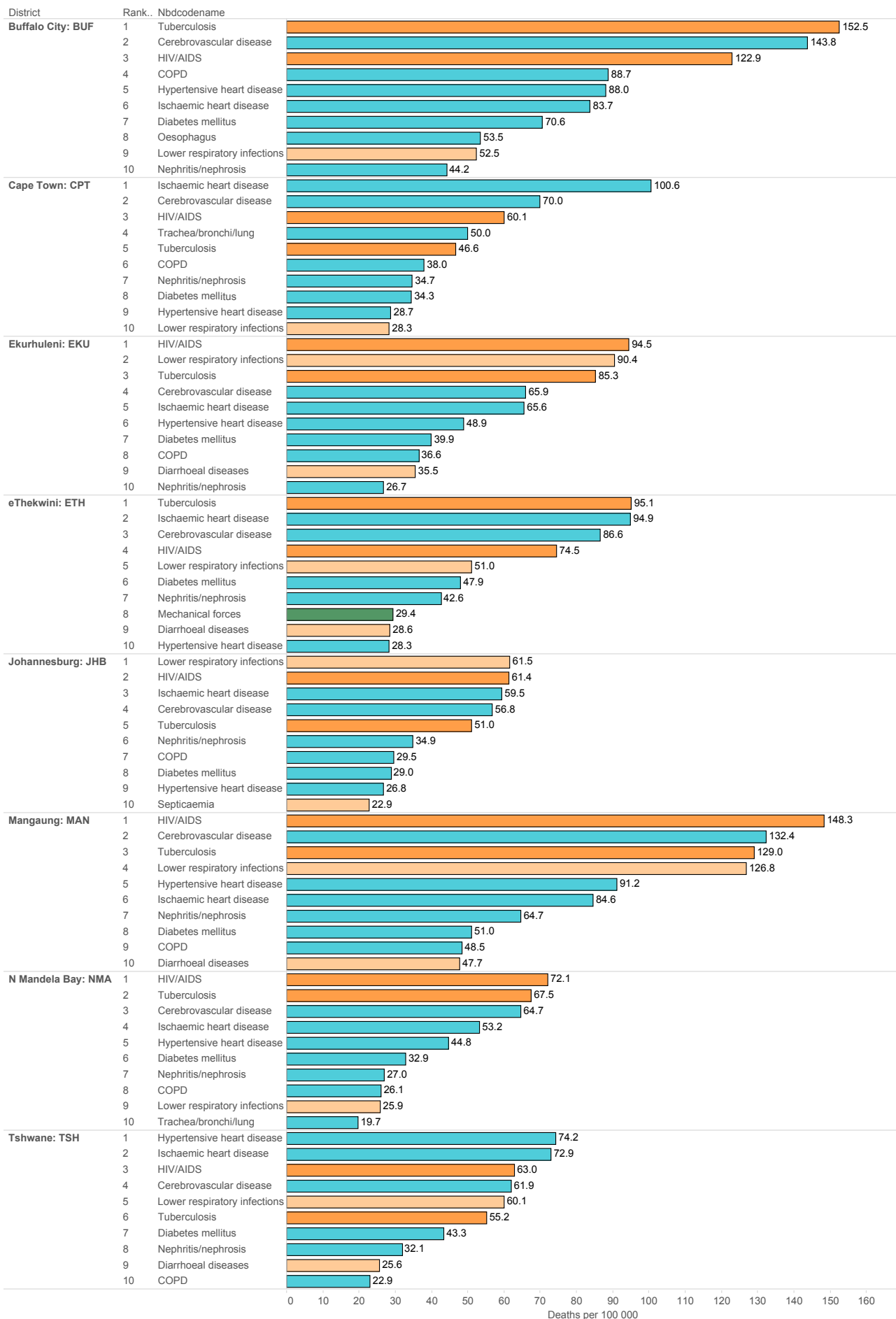


Figure 16 shows the 10 causes with the highest age-standardised mortality rates for each metro. High rates of mortality from TB, lower respiratory infection and HIV featured in all metros, with extremely high TB mortality rates in Buffalo City (EC) (152.5 per 100 000) and Mangaung (FS) (148.3 per 100 000). Mangaung had the highest mortality rates for lower respiratory infection (126.8 per 100 000) and HIV (148.3 per 100 000). Cardiovascular diseases and diabetes featured in all metros, with mortality rates for ischaemic heart disease higher than for cerebrovascular disease in Cape Town (WC), Ekurhuleni (GP), eThekweni (KZN), Johannesburg and Tshwane (both GP), and cerebrovascular disease higher than ischaemic heart disease in Buffalo City (EC), Mangaung (FS) and N Mandela Bay (EC), suggesting that urban populations are at different stages of the health transition. Chronic obstructive pulmonary disease and oesophageal cancer mortality rates were very high in Buffalo City and lung cancer mortality rates featured in Cape Town.

Mortality rates for Buffalo City (EC) and Mangaung (FS) were very high, with mortality rates for TB, lower respiratory infection, and HIV and AIDS much higher than in any of the other metros, suggesting that HIV and AIDS-related deaths are a major cause of the high mortality. However, death rates from cerebrovascular causes were also higher here than in other metros, suggesting that health services are suboptimal in these metros, or that these metros are heavily burdened as referral centres for severely ill patients from their surrounding areas.

Section A: Burden of disease

Figure 16: Leading age-standardised mortality rates by metro, 2013



Conclusion

Mortality rates in South Africa declined between 2008 and 2014, mainly due to a decline in HIV-related mortality. Despite this, HIV and AIDS and associated conditions still stand out as being a leading cause of YLLS together with cerebrovascular diseases, ischaemic heart disease, diabetes mellitus, road injuries, interpersonal violence and hypertensive heart disease.

A reduction in the percentage of deaths coded to ill-defined causes was noted in the Western Cape. This suggests that the Western Cape local mortality surveillance system, which included a provincial training initiative in medical certification of cause of death as well as increased utilisation of mortality information for health policy making, may have had a positive impact on the quality of medical certification. However, until the completeness of death registration is consistently high across all districts and the quality of medical certification has improved, the district-level mortality profiles need to be interpreted cautiously. In particular, the lack of reliability of the injury profile and the misclassification of HIV and AIDS need to be taken into consideration. Efforts to utilise mortality profile information at district level need to be accompanied by initiatives to improve medical certification of the cause of death as well as the geographical coding of place of residence and place of death. Urgent initiatives, such as including a field to capture the manner of death on the death notification form, are required to improve the quality of injury mortality information in the national statistics as these are currently misleading.

Section B:

National, Provincial and District Profiles

Contents

13 South Africa	277
14 Eastern Cape Province	293
Buffalo City Metropolitan Municipality (BUF)	293
Sarah Baartman District Municipality (DC10)	299
Amathole District Municipality (DC12)	305
Chris Hani District Municipality (DC13)	311
Joe Gqabi District Municipality (DC 14)	317
OR Tambo District Municipality (DC15)	323
Alfred Nzo District Municipality (DC44)	329
Nelson Mandela Bay Metropolitan District (NMA)	335
15 Free State Province	341
Xhariep District Municipality (DC16)	341
Lejweleputswa District Municipality (DC18)	347
Thabo Mofutsanyana District Municipality (DC19)	353
Fezile Dabi District Municipality (DC20)	359
Mangaung Metropolitan Municipality (MAN)	365
16 Gauteng Province	371
Sedibeng District Municipality (DC42)	371
West Rand District Municipality (DC48)	377
Ekurhuleni Metropolitan Municipality (EKU)	383
Johannesburg Metropolitan Municipality (JHB)	389
Tshwane Metropolitan Municipality (TSH)	395
17 KwaZulu-Natal Province	401
Ugu District Municipality (DC21)	401
uMgungundlovu District Municipality (DC22)	407
uThukela District Municipality (DC23)	413
uMzinyathi District Municipality (DC24)	419
Amajuba District Municipality (DC25)	425
Zululand District Municipality (DC26)	431
uMkhanyakude District Municipality (DC27)	437
uThungulu District Municipality (DC28)	443
iLembe District Municipality (DC29)	449
Harry Gwala District Municipality (DC43)	455
eThekweni Metropolitan Municipality (ETH)	461

18 Limpopo Province	467
Mopani District Municipality (DC33)	467
Vhembe District Municipality (DC34)	473
Capricorn District Municipality (DC35)	479
Waterberg District Municipality (DC36)	485
Sekhukhune District Municipality (DC47)	491
19 Mpumalanga Province	497
Gert Sibande District Municipality (DC30)	497
Nkangala District Municipality (DC31)	503
Ehlanzeni District Municipality (DC32)	509
20 Northern Cape Province	515
John Taolo Gaetsewe District Municipality (DC45)	515
Namakwa District Municipality (DC6)	521
Pixley Ka Seme District Municipality (DC7)	527
ZF Mgcawu District Municipality (DC8)	533
Frances Baard District Municipality (DC 9)	539
21 North West Province	545
Bojanala District Municipality (DC37)	545
NM Molema District Municipality (DC38)	551
RS Mompoti District Municipality (DC39)	557
Dr K Kaunda District Municipality (DC40)	563
22 Western Cape Province	569
Cape Town Metropolitan Municipality (CPT)	569
West Coast District Municipality (DC1)	575
Cape Winelands District Municipality (DC2)	581
Overberg District Municipality (DC3)	587
Eden District Municipality (DC4)	593
Central Karoo District Municipality (DC5)	599
Definitions and sources	605

Part B: National, Provincial and District Profiles

Naomi Massyn

13 South Africa

In 2015, South Africa had an estimated population of more than 55.1 million, with a population density of 45.2 people per km² and an estimated medical scheme coverage of 17.5% (Figure 1). The provincial Index of Multiple Deprivation Rank for 2011 is shown in Figure 2.^a

Figure 1: Medical scheme coverage by province, 2015

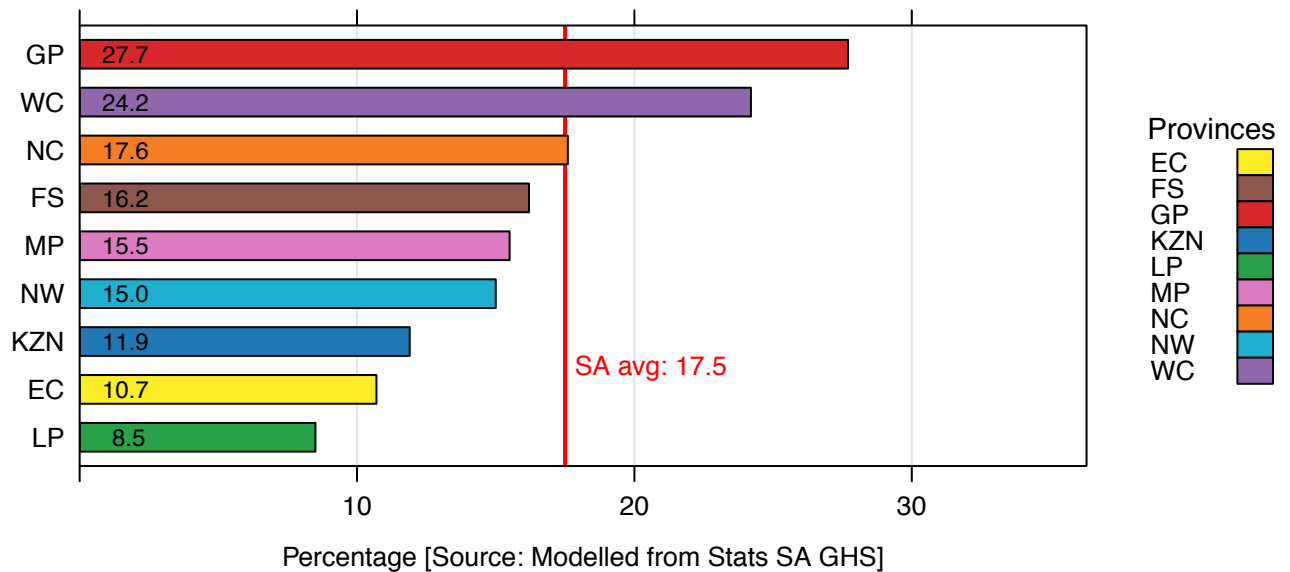
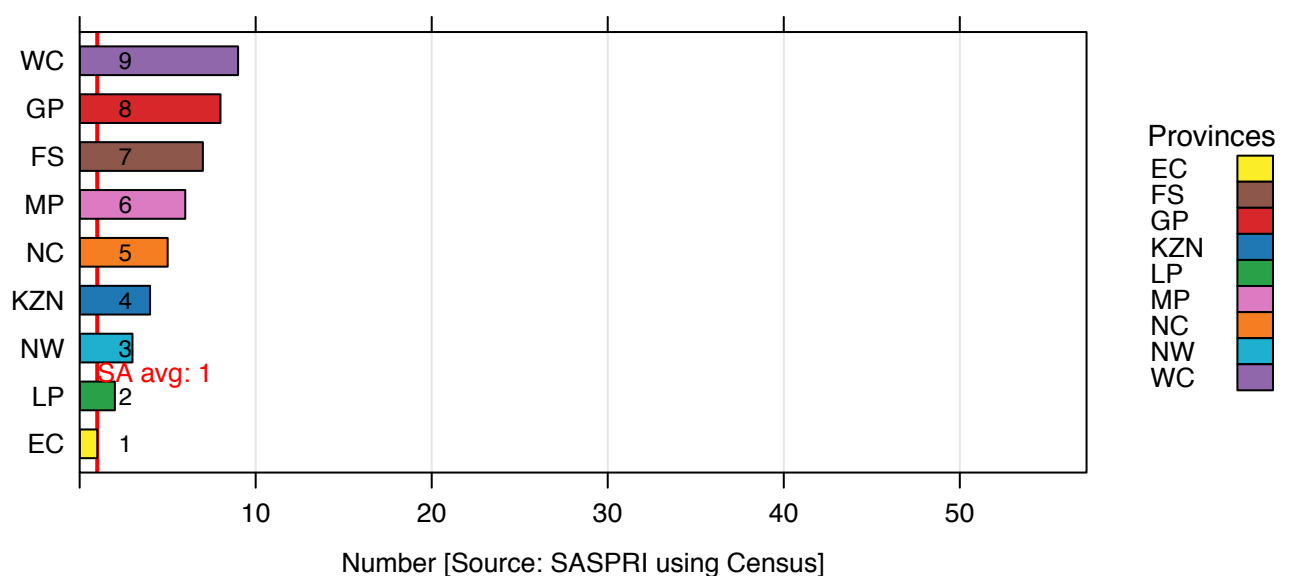


Figure 2: Index of Multiple Deprivation Rank by province, 2011^b



a Noble M, Zembe W, Wright G, Avenell D. Multiple Deprivation and Income Poverty at Small Area Level in South Africa in 2011. Cape Town: Southern African Social Policy Research Institute and Southern African Social Policy Research Insights (SASPRI); 2013.

b See section 'Deprivation index and socio-economic quintiles' on page v.

Section B: National, Provincial and District Profiles

Table 1 shows the number of health facilities nationally by category in 2015/16, while Table 2 shows the national headcount and death figures for 2013/14–2015/16.

Table 1: Number of health facilities nationally by level of care, 2015/16

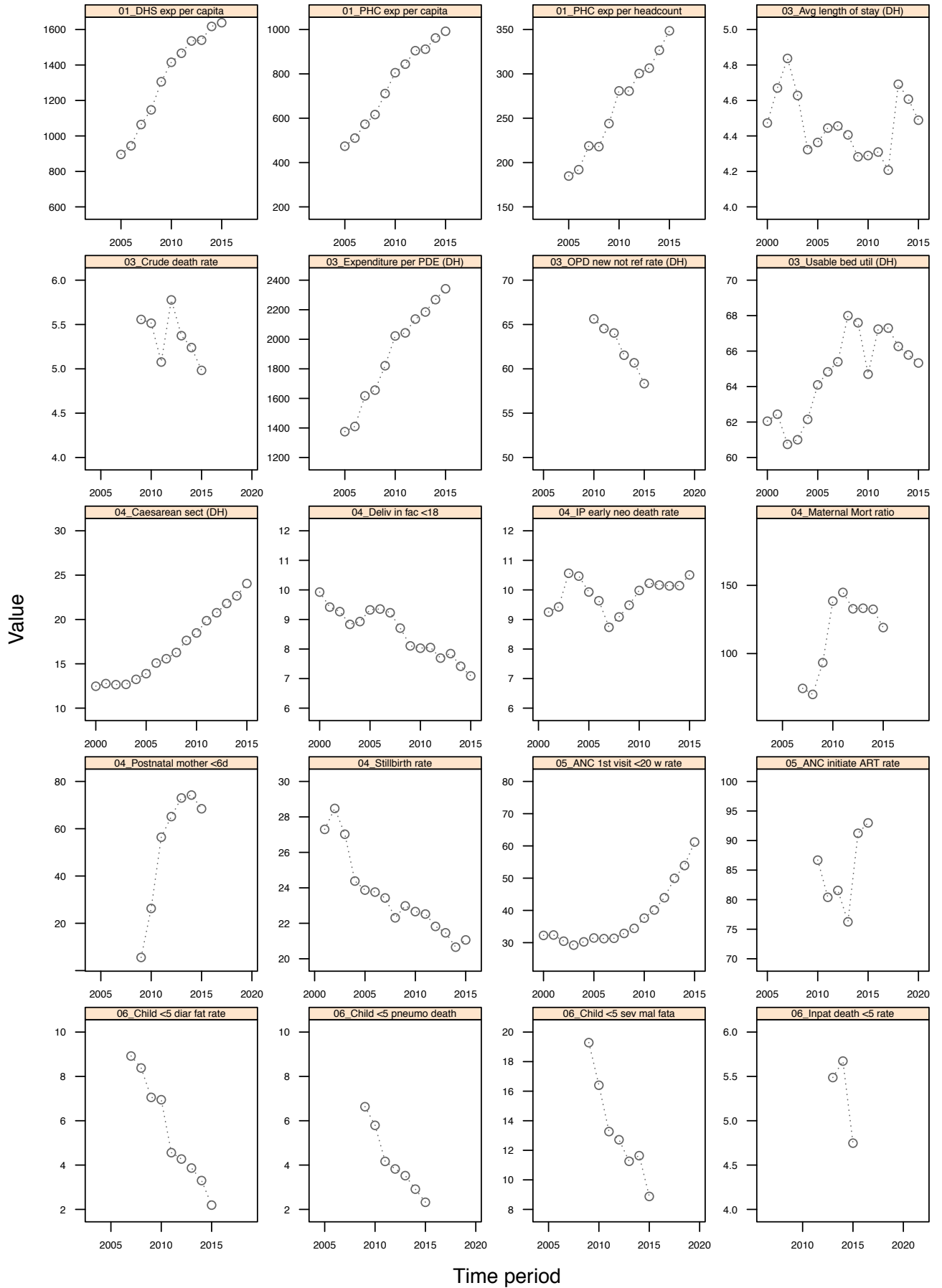
Category	Clinics	CHCs	District hospitals	Regional hospitals	Central/tertiary hospitals	Other hospitals
Number	3 198	274	253	47	27	262

Table 2: National headcount and death figures, 2013/14–2015/16

Data Element	2013/14	2014/15	2015/16
PHC headcount under 5 years	22 619 331	22 418 071	22 170 860
PHC headcount 5 years and older	105 816 917	107 060 088	104 598 206
Patient day equivalent	32 452 805	32 300 342	32 298 663
Still births	20 504	20 263	19 403
Late neonatal deaths	2 133	2 481	2 321
Early neonatal deaths	9 487	9 806	9 475
Deaths – total	192 380	189 064	190 522
Child under 5 years with severe acute malnutrition death	1 671	1 851	1 380
Child under 5 years with pneumonia death	1 524	1 411	1 240
Child under 5 years with diarrhoea death	1 769	1 514	1 049

Figure 3 shows the national annual trends for indicators included in this publication. The provincial and national averages are given in Tables 3 and 4 for the period 2010–2015. Map 1 shows the provinces, districts and sub-districts in South Africa.

Figure 3: National annual trends for all indicators



Section B: National, Provincial and District Profiles

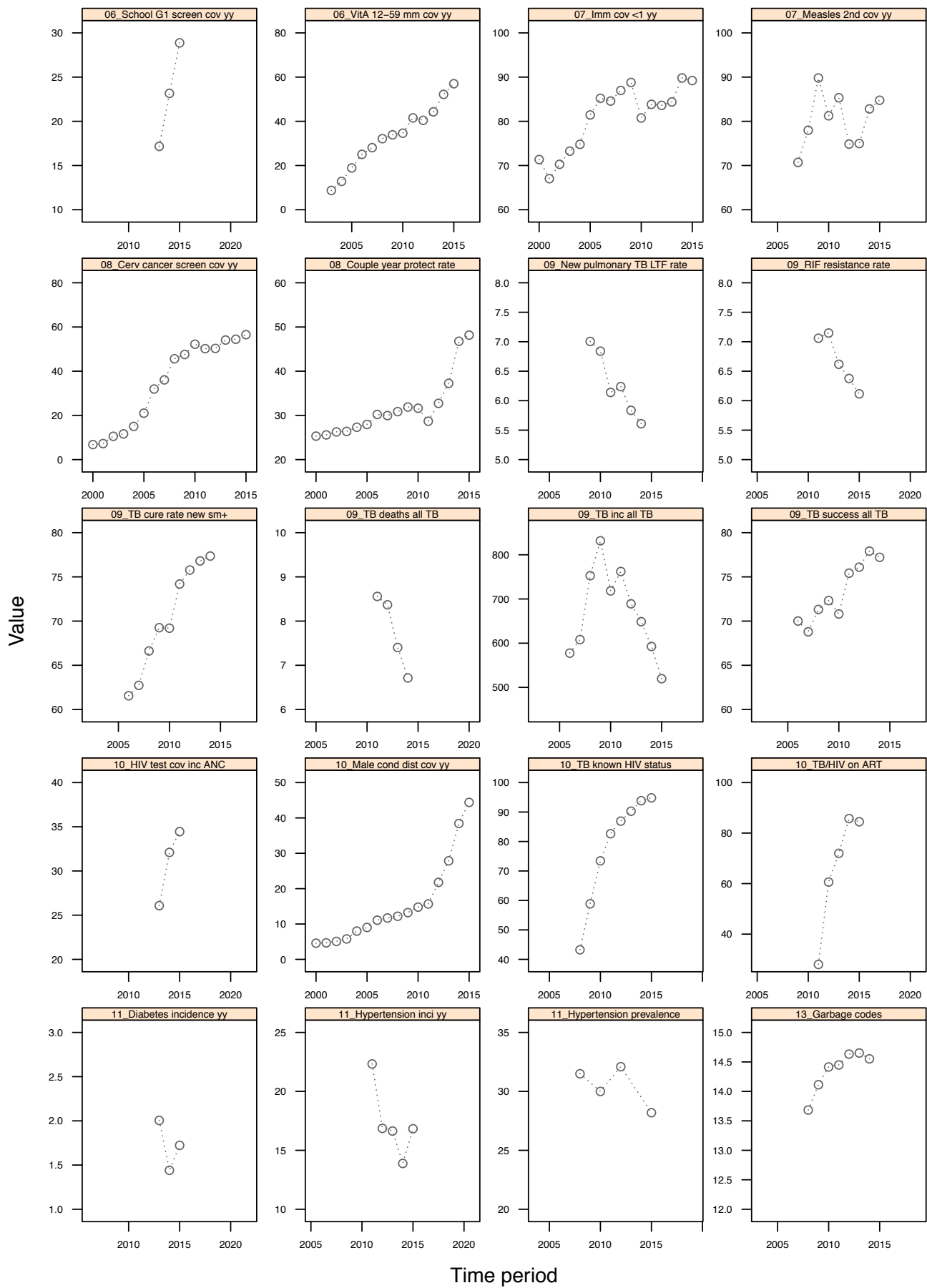


Table 3: Provincial average values for all indicators, 2010/11–2015/16

Provincial average values for all indicators: Eastern Cape

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 392	1 410	1 475	1 468	1 451	1 438
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 569	1 590	1 664	1 656	1 637	1 623
	Provincial expenditure per PHC headcount	271	260	300	296	292	276
	Provincial PHC expenditure per capita (total population)	734	724	807	777	785	752
	Provincial PHC expenditure per capita (uninsured)	828	817	910	876	886	848
02_Management PHC	Percentage ideal clinics						10.2
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						1.8
03_Management Inpatients	Average length of stay (district hospitals)	5.1	5.0	5.0	5.3	5.3	5.1
	Expenditure per Patient Day Equivalent (district hospitals)	1 942	2 015	2 038	2 149	2 130	2 217
	Inpatient bed utilisation rate (district hospitals)	65.6	64.7	62.1	59.5	59.0	57.2
	Inpatient crude death rate		6.2	7.4	6.7	6.3	6.3
	OPD new client not referred rate (district hospitals)	58.3	65.7	67.4	65.8	64.3	63.8
04_Delivery	Delivery by Caesarean section rate (district hospitals)	13.6	16.2	18.5	19.4	20.6	22.7
	Delivery in facility under 18 years rate	10.6	10.6	10.3	10.1	9.6	9.0
	Inpatient early neonatal death rate	13.2	14.5	16.4	14.1	13.3	12.8
	Maternal mortality in facility ratio	147.9	114.9	109.5	156.2	148.3	135.2
	Mother postnatal visit within 6 days rate	17.1	48.5	55.5	54.6	58.0	58.2
	Stillbirth rate in facility	22.4	22.3	21.8	20.6	19.6	21.6
05_PMTCT	Antenatal 1st visits before 20 weeks rate	31.7	33.6	39.6	43.3	48.8	59.7
	Antenatal client initiated on ART rate	82.1	70.4	80.5	79.0	91.7	93.9
	HIV PCR birth testing coverage						1.2
	Percentage PCR tests positive within the first six days						1.4
06_Child Health	Child under 5 years diarrhoea case fatality rate	10.3	7.4	6.6	6.9	5.2	3.6
	Child under 5 years pneumonia case fatality rate	6.6	4.9	4.4	5.7	4.2	3.7
	Child under 5 years severe acute malnutrition case fatality rate	21.7	17.7	15.2	14.0	11.8	10.1
	Inpatient death under 5 years rate				6.3	6.2	5.3
	School Grade 1 screening coverage				17.1	13.4	19.0
	Vitamin A coverage 12 to 59 months	36.5	41.8	40.1	44.7	53.0	63.7
07_Immunisation	Immunisation coverage under 1 year	69.2	71.7	72.3	72.3	80.9	86.8
	Measles 2nd dose coverage	78.1	80.0	65.6	67.6	73.6	81.1
08_Reproductive health	Cervical cancer screening coverage	36.2	36.9	37.6	46.0	56.3	57.4
	Couple year protection rate	30.4	28.9	29.1	30.9	39.4	53.5
09_TB	TB incidence (all types)	922.3	913.7	862.7	823.1	785.0	691.7
	TB rifampicin resistance confirmed client rate		7.6	6.9	6.2	6.0	5.7
	TB cure rate (new pulmonary smear-positive)	67.0	67.7	65.8	70.5	72.2	
	TB loss to follow up rate (new pulmonary smear-positive)	7.7	7.7	8.5	7.7	6.5	
	TB MDR treatment success rate				33.9		
	TB successful treatment rate (all TB)	71.3	72.5	71.9	77.0	76.2	
	TB death rate (all TB)		10.8	10.8	9.3	7.6	
10_HIV	HIV testing coverage (including ANC)				30.5	36.0	37.3
	Male condom distribution coverage	14.5	15.8	16.6	17.6	33.6	54.0
	Percentage of TB cases with known HIV status	68.8	80.4	86.3	88.4	93.4	95.3
	TB/HIV co-infected client on ART rate		27.1	66.9	87.5	91.7	95.7
11_NCDs	Diabetes mellitus incidence				2.0	1.6	1.8
	Hypertension incidence		25.1	19.5	18.2	15.7	19.6
	Hypertension prevalence rate (crude)	32.7		36.1			30.3
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						0.4
	Percentage fixed PHC facilities with performance management agreement for all staff						10.0

Section B: National, Provincial and District Profiles

Provincial average values for all indicators: Free State

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 144	1 191	1 253	1 241	1 302	1 337
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 382	1 440	1 516	1 503	1 578	1 622
	Provincial expenditure per PHC headcount	285	280	282	306	323	356
	Provincial PHC expenditure per capita (total population)	685	734	770	765	796	841
	Provincial PHC expenditure per capita (uninsured)	827	888	931	927	965	1 021
02_Management PHC	Percentage ideal clinics						20.8
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						10.0
03_Management Inpatients	Average length of stay (district hospitals)	3.1	3.2	3.1	3.9	3.2	3.3
	Expenditure per Patient Day Equivalent (district hospitals)	2 132	2 035	2 007	2 131	2 298	2 311
	Inpatient bed utilisation rate (district hospitals)	62.6	66.5	68.2	65.1	60.0	61.4
	Inpatient crude death rate		5.8	6.2	6.4	6.1	5.8
	OPD new client not referred rate (district hospitals)	68.6	63.5	60.0	67.4	71.2	68.1
04_Delivery	Delivery by Caesarean section rate (district hospitals)	12.6	13.9	16.2	17.6	17.1	16.0
	Delivery in facility under 18 years rate	7.7	7.7	7.3	7.1	7.1	6.5
	Inpatient early neonatal death rate	12.4	11.7	10.8	12.3	10.5	10.6
	Maternal mortality in facility ratio	237.2	199.1	132.7	143.4	217.8	130.2
	Mother postnatal visit within 6 days rate	47.4	82.0	82.3	83.9	80.8	71.2
	Stillbirth rate in facility	30.9	29.1	25.1	27.4	25.4	27.1
	Antenatal 1st visits before 20 weeks rate	45.2	47.1	53.5	56.8	58.6	62.9
05_PMTCT	Antenatal client initiated on ART rate	49.6	68.4	82.1	80.8	88.7	86.8
	HIV PCR birth testing coverage						3.6
	Percentage PCR tests positive within the first six days						1.1
	Child under 5 years diarrhoea case fatality rate	15.0	5.8	3.6	4.5	4.1	2.8
06_Child Health	Child under 5 years pneumonia case fatality rate	10.6	9.0	3.5	3.1	3.1	2.4
	Child under 5 years severe acute malnutrition case fatality rate	24.6	13.3	8.8	11.9	12.2	8.1
	Inpatient death under 5 years rate				7.2	5.1	5.1
	School Grade 1 screening coverage				21.0	24.4	24.8
	Vitamin A coverage 12 to 59 months	39.1	57.8	59.3	54.8	58.7	58.7
	Immunisation coverage under 1 year	94.3	96.6	96.2	86.6	90.1	86.2
07_Immunisation	Measles 2nd dose coverage	75.4	82.4	85.8	80.0	81.3	92.3
	Cervical cancer screening coverage	38.1	43.6	50.3	51.1	40.9	58.1
08_Reproductive health	Couple year protection rate	32.4	31.9	36.6	34.9	43.7	57.4
	TB incidence (all types)	837.2	841.5	760.6	720.9	631.7	574.8
09_TB	TB rifampicin resistance confirmed client rate		5.8	6.2	5.7	5.6	5.5
	TB cure rate (new pulmonary smear-positive)	72.7	72.4	73.5	75.8	75.2	
	TB loss to follow up rate (new pulmonary smear-positive)	4.8	4.7	5.6	4.3	5.2	
	TB MDR treatment success rate				41.7		
	TB successful treatment rate (all TB)	72.0	73.3	73.2	76.8	78.0	
	TB death rate (all TB)		12.8	12.6	11.1	10.7	
	HIV testing coverage (including ANC)				31.8	26.2	31.6
10_HIV	Male condom distribution coverage	9.9	13.0	20.1	18.5	34.1	54.0
	Percentage of TB cases with known HIV status	71.8	81.5	87.1	89.1	91.8	93.0
	TB/HIV co-infected client on ART rate		49.8	78.8	78.4	85.9	84.5
	Diabetes mellitus incidence				1.7	1.1	1.1
11_NCDs	Hypertension incidence		15.3	16.2	18.0	12.8	17.0
	Hypertension prevalence rate (crude)	36.3		32.6			28.4
	Percentage of fixed PHC facilities with staffing in line with WISN						3.6
12_Human Resources	Percentage fixed PHC facilities with performance management agreement for all staff						20.8

Provincial average values for all indicators: Gauteng Province

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	793	844	944	875	934	983
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 133	1 208	1 351	1 252	1 337	1 409
	Provincial expenditure per PHC headcount	361	349	394	372	400	464
	Provincial PHC expenditure per capita (total population)	605	638	731	691	732	773
	Provincial PHC expenditure per capita (uninsured)	866	912	1 046	989	1 048	1 107
02_Management PHC	Percentage ideal clinics						33.2
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						24.3
03_Management Inpatients	Average length of stay (district hospitals)	3.3	3.5	3.2	4.5	4.3	4.4
	Expenditure per Patient Day Equivalent (district hospitals)	2 491	2 399	2 478	2 402	2 766	2 656
	Inpatient bed utilisation rate (district hospitals)	62.6	65.2	66.3	67.8	60.7	65.8
	Inpatient crude death rate		4.7	5.7	5.4	5.4	4.7
	OPD new client not referred rate (district hospitals)	60.9	71.5	53.2	49.2	46.9	52.3
04_Delivery	Delivery by Caesarean section rate (district hospitals)	19.3	21.8	21.2	22.3	24.0	25.6
	Delivery in facility under 18 years rate	5.7	5.6	4.8	5.7	4.8	5.0
	Inpatient early neonatal death rate	9.6	9.7	8.8	9.3	9.7	9.5
	Maternal mortality in facility ratio	93.8	123.3	116.5	104.5	112.6	107.6
	Mother postnatal visit within 6 days rate	14.4	72.0	85.1	86.5	85.5	76.9
	Stillbirth rate in facility	20.3	21.2	19.9	20.2	19.6	19.5
05_PMTCT	Antenatal 1st visits before 20 weeks rate	30.6	34.6	37.8	43.7	48.4	54.9
	Antenatal client initiated on ART rate	60.1	80.5	83.0	63.1	87.4	92.4
	HIV PCR birth testing coverage						1.0
	Percentage PCR tests positive within the first six days						1.1
06_Child Health	Child under 5 years diarrhoea case fatality rate	7.6	4.5	3.3	3.5	2.9	1.8
	Child under 5 years pneumonia case fatality rate	5.5	3.6	2.3	2.5	2.1	1.9
	Child under 5 years severe acute malnutrition case fatality rate	13.4	12.5	12.1	6.1	9.3	7.5
	Inpatient death under 5 years rate				6.2	7.8	6.1
	School Grade 1 screening coverage				32.9	31.1	37.8
	Vitamin A coverage 12 to 59 months	43.7	47.1	45.6	49.9	56.6	58.8
07_Immunisation	Immunisation coverage under 1 year	105.3	106.5	102.6	109.0	107.7	106.4
	Measles 2nd dose coverage	91.4	91.3	86.8	85.1	94.9	92.0
08_Reproductive health	Cervical cancer screening coverage	51.4	38.2	37.4	41.8	43.6	45.1
	Couple year protection rate	26.3	20.1	21.7	25.0	38.7	42.1
09_TB	TB incidence (all types)	113.6	454.1	418.2	403.3	378.2	329.9
	TB rifampicin resistance confirmed client rate		6.1	6.8	6.5	5.7	5.9
	TB cure rate (new pulmonary smear-positive)	79.9	81.1	83.0	84.2	85.1	
	TB loss to follow up rate (new pulmonary smear-positive)	4.9	5.1	5.3	4.9	4.8	
	TB MDR treatment success rate				41.1		
	TB successful treatment rate (all TB)	78.6	80.7	81.8	82.6	83.4	
	TB death rate (all TB)		6.9	6.9	6.3	6.2	
10_HIV	HIV testing coverage (including ANC)				15.5	23.3	32.6
	Male condom distribution coverage	8.3	7.2	9.3	14.2	25.8	37.9
	Percentage of TB cases with known HIV status	72.7	82.5	89.8	92.8	95.5	95.9
	TB/HIV co-infected client on ART rate		34.1	65.5	75.4	88.7	84.9
11_NCDs	Diabetes mellitus incidence				2.5	0.9	1.5
	Hypertension incidence		23.6	16.8	15.6	13.1	19.1
	Hypertension prevalence rate (crude)	29.8		31.1			27.7
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						3.3
	Percentage fixed PHC facilities with performance management agreement for all staff						25.1

Section B: National, Provincial and District Profiles

Provincial average values for all indicators: KwaZulu-Natal

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 307	1 345	1 386	1 434	1 502	1 514
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 489	1 532	1 578	1 632	1 710	1 724
	Provincial expenditure per PHC headcount	263	261	264	273	307	330
	Provincial PHC expenditure per capita (total population)	683	744	793	833	907	954
	Provincial PHC expenditure per capita (uninsured)	778	848	903	948	1 032	1 086
02_Management PHC	Percentage ideal clinics						30.7
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						23.5
03_Management Inpatients	Average length of stay (district hospitals)	5.8	5.8	5.6	5.8	5.8	5.7
	Expenditure per Patient Day Equivalent (district hospitals)	1 692	1 808	2 042	2 117	2 129	2 241
	Inpatient bed utilisation rate (district hospitals)	61.7	63.7	63.2	64.6	62.8	60.2
	Inpatient crude death rate		5.5	5.8	5.3	5.1	5.2
	OPD new client not referred rate (district hospitals)	47.3	49.3	52.2	52.7	53.0	47.7
04_Delivery	Delivery by Caesarean section rate (district hospitals)	24.4	26.0	27.0	27.7	27.8	28.8
	Delivery in facility under 18 years rate	8.7	9.3	9.3	9.3	8.9	8.7
	Inpatient early neonatal death rate	9.0	9.2	8.7	10.4	10.3	10.8
	Maternal mortality in facility ratio	196.9	192.2	165.5	148.4	124.9	121.1
	Mother postnatal visit within 6 days rate	40.6	57.3	69.4	72.2	66.4	69.8
	Stillbirth rate in facility	22.8	23.4	23.3	23.2	21.1	22.3
05_PMTCT	Antenatal 1st visits before 20 weeks rate	36.9	41.0	46.4	56.2	57.3	64.8
	Antenatal client initiated on ART rate	160.0	93.6	83.2	85.4	95.2	97.6
	HIV PCR birth testing coverage						0.7
	Percentage PCR tests positive within the first six days						0.7
06_Child Health	Child under 5 years diarrhoea case fatality rate	6.8	4.3	4.3	3.3	3.0	2.2
	Child under 5 years pneumonia case fatality rate	5.4	3.7	2.6	3.2	2.7	2.7
	Child under 5 years severe acute malnutrition case fatality rate	11.6	9.2	11.0	9.7	10.4	7.7
	Inpatient death under 5 years rate				5.7	5.9	5.2
	School Grade 1 screening coverage				9.4	20.7	22.1
	Vitamin A coverage 12 to 59 months	32.8	41.1	41.4	47.8	54.5	63.8
07_Immunisation	Immunisation coverage under 1 year	77.8	87.5	85.6	85.8	89.9	85.0
	Measles 2nd dose coverage	76.8	90.5	78.1	77.0	86.3	82.6
08_Reproductive health	Cervical cancer screening coverage	58.2	73.9	78.2	75.3	70.3	72.7
	Couple year protection rate	24.2	25.6	35.8	45.0	57.8	52.1
09_TB	TB incidence (all types)	1 161.8	1 185.2	1 060.4	952.5	813.7	685.2
	TB rifampicin resistance confirmed client rate		7.9	8.9	8.9	8.3	7.8
	TB cure rate (new pulmonary smear-positive)	71.1	74.1	79.6	82.8	78.7	
	TB loss to follow up rate (new pulmonary smear-positive)	7.2	5.8	4.9	4.1	4.0	
	TB MDR treatment success rate				57.3		
	TB successful treatment rate (all TB)	73.7	75.9	78.4	81.8	73.8	
10_HIV	TB death rate (all TB)		7.5	7.0	6.4	5.4	
	HIV testing coverage (including ANC)				37.5	39.0	36.0
	Male condom distribution coverage	8.2	12.1	28.3	41.2	58.9	54.6
	Percentage of TB cases with known HIV status	71.9	81.1	83.9	88.8	93.1	94.2
11_NCDs	TB/HIV co-infected client on ART rate		17.5	50.4	66.1	81.5	82.2
	Diabetes mellitus incidence				1.8	1.6	2.2
	Hypertension incidence		29.6	22.4	21.9	19.1	18.6
12_Human Resources	Hypertension prevalence rate (crude)	28.9		31.6			26.2
	Percentage of fixed PHC facilities with staffing in line with WISN						2.7
	Percentage fixed PHC facilities with performance management agreement for all staff						28.5

Provincial average values for all indicators: Limpopo Province

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 418	1 501	1 563	1 588	1 770	1 751
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 552	1 644	1 712	1 739	1 939	1 918
	Provincial expenditure per PHC headcount	237	240	260	265	286	297
	Provincial PHC expenditure per capita (total population)	621	655	683	685	733	755
	Provincial PHC expenditure per capita (uninsured)	680	717	748	750	803	827
02_Management PHC	Percentage ideal clinics						15.1
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						5.7
03_Management Inpatients	Average length of stay (district hospitals)	4.3	4.5	4.3	4.5	4.2	4.3
	Expenditure per Patient Day Equivalent (district hospitals)	2 286	2 259	2 431	2 515	2 666	2 791
	Inpatient bed utilisation rate (district hospitals)	65.2	72.4	72.2	64.2	69.1	70.4
	Inpatient crude death rate		5.7	5.9	5.7	5.6	5.4
	OPD new client not referred rate (district hospitals)	80.7	80.4	78.8	78.6	75.2	73.8
04_Delivery	Delivery by Caesarean section rate (district hospitals)	17.2	17.7	18.1	19.4	19.7	22.3
	Delivery in facility under 18 years rate	8.2	8.1	7.8	7.9	7.5	7.1
	Inpatient early neonatal death rate	10.7	11.0	11.5	11.7	11.6	12.6
	Maternal mortality in facility ratio	142.1	184.6	177.9	152.0	165.2	140.2
	Mother postnatal visit within 6 days rate	45.3	65.2	73.0	72.3	72.4	66.8
	Stillbirth rate in facility	21.9	21.3	21.8	21.1	21.4	20.3
05_PMTCT	Antenatal 1st visits before 20 weeks rate	41.6	41.3	42.0	45.8	50.7	60.7
	Antenatal client initiated on ART rate	76.6	73.1	69.4	78.6	92.9	92.8
	HIV PCR birth testing coverage						1.6
	Percentage PCR tests positive within the first six days						1.7
06_Child Health	Child under 5 years diarrhoea case fatality rate	9.2	8.1	7.8	5.2	4.7	3.0
	Child under 5 years pneumonia case fatality rate	7.3	5.5	4.8	4.7	4.2	3.1
	Child under 5 years severe acute malnutrition case fatality rate	23.3	18.7	18.5	15.3	14.9	11.6
	Inpatient death under 5 years rate				8.9	8.1	7.3
	School Grade 1 screening coverage				22.0	22.2	29.5
	Vitamin A coverage 12 to 59 months	30.3	42.9	35.8	33.8	44.4	50.0
07_Immunisation	Immunisation coverage under 1 year	76.9	74.7	71.1	70.3	82.2	79.2
	Measles 2nd dose coverage	91.2	94.2	72.4	73.5	83.3	87.9
08_Reproductive health	Cervical cancer screening coverage	55.9	54.3	50.7	55.5	47.9	50.1
	Couple year protection rate	32.7	32.4	33.3	36.3	49.2	50.4
09_TB	TB incidence (all types)	419.8	410.6	371.8	383.3	334.1	300.7
	TB rifampicin resistance confirmed client rate		7.5	6.6	4.9	4.9	5.2
	TB cure rate (new pulmonary smear-positive)	72.6	75.3	74.5	64.0	76.8	
	TB loss to follow up rate (new pulmonary smear-positive)	5.9	4.7	4.8	4.5	4.9	
	TB MDR treatment success rate				53.0		
	TB successful treatment rate (all TB)	64.5	65.7	64.5	57.6	71.8	
10_HIV	TB death rate (all TB)		13.2	13.4	11.0	11.2	
	HIV testing coverage (including ANC)				37.0	40.8	39.1
	Male condom distribution coverage	13.6	19.3	20.5	27.7	38.2	51.2
	Percentage of TB cases with known HIV status	72.2	88.7	90.4	93.1	95.0	95.4
11_NCDs	TB/HIV co-infected client on ART rate		31.4	53.2	59.7	82.8	79.9
	Diabetes mellitus incidence				2.7	2.6	2.5
	Hypertension incidence		16.8	10.3	17.0	14.3	18.3
12_Human Resources	Hypertension prevalence rate (crude)	22.4		23.6			21.4
	Percentage of fixed PHC facilities with staffing in line with WISN						0.0
	Percentage fixed PHC facilities with performance management agreement for all staff						15.3

Section B: National, Provincial and District Profiles

Provincial average values for all indicators: Mpumalanga Province

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 218	1 267	1 304	1 337	1 407	1 456
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 406	1 462	1 505	1 543	1 624	1 681
	Provincial expenditure per PHC headcount	264	258	267	292	300	326
	Provincial PHC expenditure per capita (total population)	535	562	594	648	681	716
	Provincial PHC expenditure per capita (uninsured)	617	649	685	748	786	826
02_Management PHC	Percentage ideal clinics						16.0
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						6.6
03_Management Inpatients	Average length of stay (district hospitals)	4.3	4.2	4.1	4.3	4.3	4.5
	Expenditure per Patient Day Equivalent (district hospitals)	2 277	2 171	2 054	1 978	2 131	2 180
	Inpatient bed utilisation rate (district hospitals)	65.4	68.9	69.9	70.5	71.0	71.4
	Inpatient crude death rate		6.2	6.2	5.8	5.6	5.5
	OPD new client not referred rate (district hospitals)	68.9	72.4	67.6	65.2	67.0	66.0
04_Delivery	Delivery by Caesarean section rate (district hospitals)	15.8	17.2	17.6	18.1	17.9	19.3
	Delivery in facility under 18 years rate	10.1	9.5	8.9	9.1	9.1	8.6
	Inpatient early neonatal death rate	9.2	9.8	9.5	8.6	7.9	9.3
	Maternal mortality in facility ratio	161.1	135.0	175.8	149.1	115.4	125.3
	Mother postnatal visit within 6 days rate	4.8	51.9	61.6	53.9	59.7	62.6
	Stillbirth rate in facility	24.3	24.1	24.3	21.3	21.1	21.8
05_PMTCT	Antenatal 1st visits before 20 weeks rate	36.0	37.5	42.2	49.0	56.6	65.9
	Antenatal client initiated on ART rate	54.6	66.5	81.1	74.2	92.9	95.9
	HIV PCR birth testing coverage						2.3
	Percentage PCR tests positive within the first six days						1.1
06_Child Health	Child under 5 years diarrhoea case fatality rate	12.9	8.2	7.5	4.9	5.3	2.7
	Child under 5 years pneumonia case fatality rate	9.4	7.8	5.3	5.7	5.2	3.7
	Child under 5 years severe acute malnutrition case fatality rate	22.1	27.3	13.1	12.8	19.1	12.5
	Inpatient death under 5 years rate				7.8	8.3	7.1
	School Grade 1 screening coverage				14.9	12.4	13.3
	Vitamin A coverage 12 to 59 months	29.1	34.2	34.8	36.0	50.0	51.4
07_Immunisation	Immunisation coverage under 1 year	58.3	58.9	67.8	71.1	80.1	87.2
	Measles 2nd dose coverage	74.3	76.2	67.0	69.6	74.6	78.7
08_Reproductive health	Cervical cancer screening coverage	60.2	50.6	48.5	54.9	63.3	66.7
	Couple year protection rate	33.0	28.0	29.9	36.0	39.8	38.7
09_TB	TB incidence (all types)	715.5	613.6	512.7	477.1	461.5	401.6
	TB rifampicin resistance confirmed client rate		7.9	11.2	9.5	8.6	7.8
	TB cure rate (new pulmonary smear-positive)	42.1	69.9	76.8	73.3	79.8	
	TB loss to follow up rate (new pulmonary smear-positive)	5.9	5.9	5.4	5.4	3.8	
	TB MDR treatment success rate				45.2		
	TB successful treatment rate (all TB)	39.2	75.6	74.4	76.1	84.0	
	TB death rate (all TB)		8.6	8.3	7.5	6.6	
10_HIV	HIV testing coverage (including ANC)				27.8	30.0	32.4
	Male condom distribution coverage	20.2	17.8	19.6	29.2	34.3	33.0
	Percentage of TB cases with known HIV status	73.5	82.9	85.3	90.1	93.2	93.6
	TB/HIV co-infected client on ART rate		23.1	60.4	61.8	92.9	90.6
11_NCDs	Diabetes mellitus incidence				1.7	1.4	1.7
	Hypertension incidence		20.3	18.1	17.3	12.9	17.4
	Hypertension prevalence rate (crude)	19.9		25.3			22.6
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						2.4
	Percentage fixed PHC facilities with performance management agreement for all staff						16.0

Provincial average values for all indicators: Northern Cape

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 471	1 446	1 360	1 445	1 501	1 463
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 738	1 709	1 606	1 707	1 772	1 728
	Provincial expenditure per PHC headcount	267	300	292	322	337	359
	Provincial PHC expenditure per capita (total population)	817	880	863	949	952	907
	Provincial PHC expenditure per capita (uninsured)	965	1 039	1 020	1 121	1 124	1 072
02_Management PHC	Percentage ideal clinics						18.9
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						1.8
03_Management Inpatients	Average length of stay (district hospitals)	2.3	2.3	2.4	3.2	3.5	3.3
	Expenditure per Patient Day Equivalent (district hospitals)	1 934	2 253	2 185	2 121	2 278	2 209
	Inpatient bed utilisation rate (district hospitals)	62.1	58.6	62.5	64.8	62.4	61.4
	Inpatient crude death rate		4.3	5.3	5.5	5.0	5.1
	OPD new client not referred rate (district hospitals)	76.0	70.1	68.7	69.0	68.7	69.8
04_Delivery	Delivery by Caesarean section rate (district hospitals)	12.1	13.7	13.3	14.0	14.3	16.3
	Delivery in facility under 18 years rate	9.3	10.1	10.2	10.2	9.6	9.3
	Inpatient early neonatal death rate	12.0	13.0	11.7	12.8	14.6	14.3
	Maternal mortality in facility ratio	90.7	147.7	144.6	118.9	254.1	112.5
	Mother postnatal visit within 6 days rate	25.6	42.7	51.7	51.2	56.5	53.0
	Stillbirth rate in facility	27.3	25.0	25.3	26.1	25.5	24.3
05_PMTCT	Antenatal 1st visits before 20 weeks rate	51.0	52.9	52.9	55.5	57.6	62.4
	Antenatal client initiated on ART rate	51.0	55.3	83.1	80.3	89.8	92.2
	HIV PCR birth testing coverage						2.3
	Percentage PCR tests positive within the first six days						1.3
06_Child Health	Child under 5 years diarrhoea case fatality rate	3.6	3.8	2.1	3.2	3.4	1.8
	Child under 5 years pneumonia case fatality rate	4.1	2.8	4.4	2.9	2.9	1.3
	Child under 5 years severe acute malnutrition case fatality rate	13.0	10.9	8.4	11.8	10.9	8.3
	Inpatient death under 5 years rate				7.7	7.5	4.4
	School Grade 1 screening coverage				13.9	11.3	12.9
	Vitamin A coverage 12 to 59 months	26.2	31.9	34.7	38.7	45.3	47.0
07_Immunisation	Immunisation coverage under 1 year	85.8	88.5	86.6	84.9	85.4	83.3
	Measles 2nd dose coverage	82.5	83.1	77.2	75.7	77.1	76.9
08_Reproductive health	Cervical cancer screening coverage	37.9	30.7	30.1	31.6	30.0	34.8
	Couple year protection rate	36.0	30.9	31.6	32.8	44.9	38.3
09_TB	TB incidence (all types)	892.2	893.8	758.1	798.0	764.3	644.6
	TB rifampicin resistance confirmed client rate		6.6	5.5	5.6	5.0	5.3
	TB cure rate (new pulmonary smear-positive)	70.7	68.3	68.5	65.6	69.4	
	TB loss to follow up rate (new pulmonary smear-positive)	6.5	7.4	7.0	8.0	7.3	
	TB MDR treatment success rate				39.0		
	TB successful treatment rate (all TB)	73.5	72.3	74.1	71.8	71.2	
	TB death rate (all TB)		11.7	10.3	9.0	7.8	
10_HIV	HIV testing coverage (including ANC)				24.1	29.5	30.3
	Male condom distribution coverage	9.5	8.5	8.2	11.5	20.3	20.6
	Percentage of TB cases with known HIV status	73.4	78.8	78.8	77.3	88.7	93.2
	TB/HIV co-infected client on ART rate		34.7	63.5	73.9	90.1	86.6
11_NCDs	Diabetes mellitus incidence				3.9	3.9	1.4
	Hypertension incidence		22.3	19.5	18.7	17.7	16.0
	Hypertension prevalence rate (crude)	40.3		37.4			40.1
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						0.6
	Percentage fixed PHC facilities with performance management agreement for all staff						18.3

Section B: National, Provincial and District Profiles

Provincial average values for all indicators: North West

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 145	1 173	1 227	1 288	1 290	1 275
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 316	1 349	1 411	1 481	1 484	1 467
	Provincial expenditure per PHC headcount	321	333	355	376	371	383
	Provincial PHC expenditure per capita (total population)	749	752	789	840	849	854
	Provincial PHC expenditure per capita (uninsured)	861	864	908	967	977	983
02_Management PHC	Percentage ideal clinics						17.5
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						2.2
03_Management Inpatients	Average length of stay (district hospitals)	4.1	3.5	3.7	3.9	4.7	4.6
	Expenditure per Patient Day Equivalent (district hospitals)	2 167	2 348	2 424	2 480	2 416	2 604
	Inpatient bed utilisation rate (district hospitals)	60.6	59.8	60.2	61.4	64.2	64.0
	Inpatient crude death rate		5.6	6.5	6.4	6.6	6.5
	OPD new client not referred rate (district hospitals)	32.6	28.6	45.0	45.9	47.9	44.5
04_Delivery	Delivery by Caesarean section rate (district hospitals)	18.7	18.2	20.2	23.2	27.9	27.6
	Delivery in facility under 18 years rate	8.1	7.2	7.2	7.0	6.9	6.3
	Inpatient early neonatal death rate	12.8	11.2	10.4	9.5	10.8	9.8
	Maternal mortality in facility ratio	204.6	189.7	166.6	184.9	167.1	148.1
	Mother postnatal visit within 6 days rate	52.3	76.4	78.9	74.0	74.7	69.4
	Stillbirth rate in facility	25.2	24.6	23.5	23.5	22.8	22.5
05_PMTCT	Antenatal 1st visits before 20 weeks rate	39.6	42.3	44.1	50.6	54.3	60.7
	Antenatal client initiated on ART rate	68.1	72.8	74.7	79.2	90.2	86.9
	HIV PCR birth testing coverage						1.2
	Percentage PCR tests positive within the first six days						1.2
06_Child Health	Child under 5 years diarrhoea case fatality rate	5.6	4.9	5.8	4.8	3.4	4.0
	Child under 5 years pneumonia case fatality rate	7.0	5.0	5.1	4.8	3.6	3.1
	Child under 5 years severe acute malnutrition case fatality rate	14.6	11.1	11.2	11.6	12.3	12.3
	Inpatient death under 5 years rate				6.6	7.7	6.2
	School Grade 1 screening coverage				20.2	38.2	53.0
	Vitamin A coverage 12 to 59 months	27.0	34.0	32.2	39.3	52.2	52.4
07_Immunisation	Immunisation coverage under 1 year	66.5	68.2	72.4	74.2	82.1	83.2
	Measles 2nd dose coverage	73.7	74.1	62.9	66.3	77.7	76.0
08_Reproductive health	Cervical cancer screening coverage	48.4	46.8	46.5	59.6	65.8	66.1
	Couple year protection rate	26.3	21.3	28.0	32.9	42.7	35.1
09_TB	TB incidence (all types)	894.4	816.6	705.0	658.1	630.7	528.4
	TB rifampicin resistance confirmed client rate		8.0	7.1	5.4	5.2	4.8
	TB cure rate (new pulmonary smear-positive)	66.4	68.9	66.0	69.0	76.4	
	TB loss to follow up rate (new pulmonary smear-positive)	8.8	7.7	7.5	7.1	5.7	
	TB MDR treatment success rate				60.2		
	TB successful treatment rate (all TB)	67.2	67.8	66.4	65.8	70.2	
10_HIV	TB death rate (all TB)		11.2	11.8	10.2	10.1	
	HIV testing coverage (including ANC)				33.4	35.2	29.7
	Male condom distribution coverage	8.3	6.9	17.0	22.3	28.1	23.8
	Percentage of TB cases with known HIV status	65.0	76.8	83.1	89.5	92.2	93.7
11_NCDs	TB/HIV co-infected client on ART rate		29.4	63.2	69.1	81.1	82.3
	Diabetes mellitus incidence				1.2	1.0	1.6
	Hypertension incidence		17.6	15.2	16.8	13.9	16.0
12_Human Resources	Hypertension prevalence rate (crude)	27.5		35.7			30.8
	Percentage of fixed PHC facilities with staffing in line with WISN						1.3
	Percentage fixed PHC facilities with performance management agreement for all staff						11.8

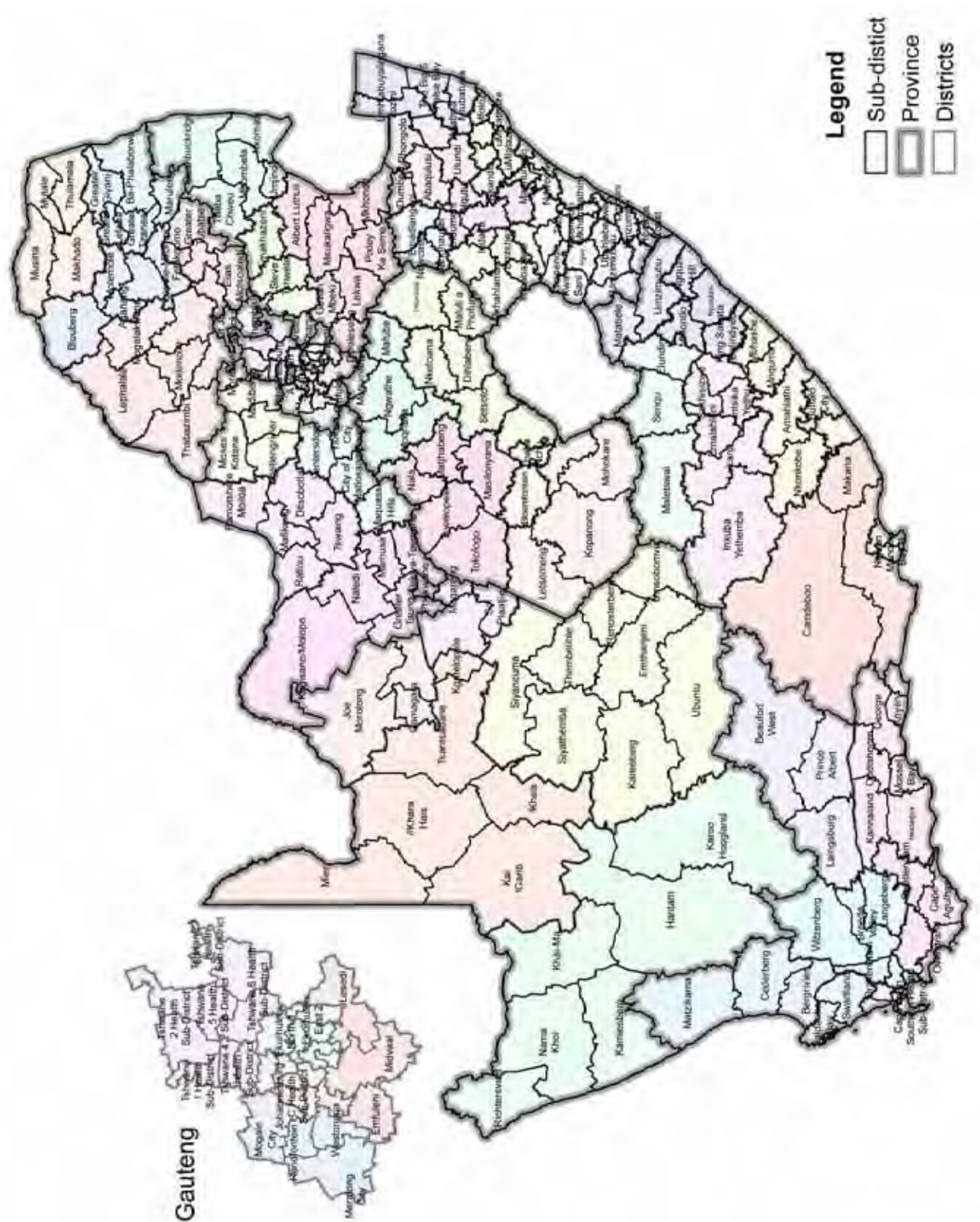
Provincial average values for all indicators: Western Cape

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 091	1 126	1 146	1 160	1 241	1 266
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 476	1 523	1 551	1 570	1 679	1 713
	Provincial expenditure per PHC headcount	248	265	275	295	324	343
	Provincial PHC expenditure per capita (total population)	684	711	692	702	753	777
	Provincial PHC expenditure per capita (uninsured)	926	962	937	949	1 019	1 051
02_Management PHC	Percentage ideal clinics						-
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						-
03_Management Inpatients	Average length of stay (district hospitals)	3.0	3.1	3.2	3.7	3.8	3.3
	Expenditure per Patient Day Equivalent (district hospitals)	2 053	1 881	1 940	1 956	2 021	2 060
	Inpatient bed utilisation rate (district hospitals)	77.3	84.7	87.6	88.7	89.3	87.5
	Inpatient crude death rate		2.8	3.7	3.1	3.1	2.9
	OPD new client not referred rate (district hospitals)				40.2	29.5	21.2
04_Delivery	Delivery by Caesarean section rate (district hospitals)	23.3	23.7	24.1	25.6	27.7	28.1
	Delivery in facility under 18 years rate	6.8	6.7	6.5	6.3	6.1	5.5
	Inpatient early neonatal death rate	4.9	5.1	6.2	4.8	5.3	7.3
	Maternal mortality in facility ratio		28.6	8.7	68.6	54.4	69.6
	Mother postnatal visit within 6 days rate				82.8	100.5	67.8
	Stillbirth rate in facility	20.8	19.1	17.6	17.4	17.2	17.5
05_PMTCT	Antenatal 1st visits before 20 weeks rate	52.7	56.2	58.2	61.0	65.8	67.7
	Antenatal client initiated on ART rate	98.5	97.0	94.2	68.5	82.8	77.5
	HIV PCR birth testing coverage						4.4
	Percentage PCR tests positive within the first six days						2.4
06_Child Health	Child under 5 years diarrhoea case fatality rate	0.3	0.2	0.1	0.2	0.2	0.1
	Child under 5 years pneumonia case fatality rate	0.7	0.5		0.4	0.4	0.3
	Child under 5 years severe acute malnutrition case fatality rate	1.8	3.9		2.2	1.8	0.9
	Inpatient death under 5 years rate				1.4	1.6	1.3
	School Grade 1 screening coverage				0.0	36.6	52.1
	Vitamin A coverage 12 to 59 months	32.3	36.3	37.8	44.4	47.4	47.3
07_Immunisation	Immunisation coverage under 1 year	85.0	86.2	88.8	84.9	90.9	89.3
	Measles 2nd dose coverage	78.7	77.0	70.1	71.2	76.3	86.2
08_Reproductive health	Cervical cancer screening coverage	65.8	57.5	54.5	57.2	56.8	54.0
	Couple year protection rate	58.8	51.6	57.7	63.6	60.0	58.6
09_TB	TB incidence (all types)	909.5	827.4	776.5	742.9	709.9	681.4
	TB rifampicin resistance confirmed client rate		4.7	5.1	5.0	5.2	5.0
	TB cure rate (new pulmonary smear-positive)	81.3	81.4	81.3	80.4	78.7	
	TB loss to follow up rate (new pulmonary smear-positive)	6.8	6.9	7.9	8.3	8.8	
	TB MDR treatment success rate				43.5		
	TB successful treatment rate (all TB)	81.6	81.5	81.5	82.6	81.8	
	TB death rate (all TB)		4.2	4.3	3.8	3.6	
10_HIV	HIV testing coverage (including ANC)				9.1	31.9	35.3
	Male condom distribution coverage	45.8	43.9	53.8	58.6	55.3	49.9
	Percentage of TB cases with known HIV status	89.8	91.7	94.5	95.6	96.6	96.1
	TB/HIV co-infected client on ART rate		42.6	69.8	77.8	84.9	75.7
11_NCDs	Diabetes mellitus incidence				1.3	1.1	1.0
	Hypertension incidence		17.7	11.8	9.1	7.4	6.9
	Hypertension prevalence rate (crude)	42.3		39.9			35.6
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						-
	Percentage fixed PHC facilities with performance management agreement for all staff						-

Table 4: South African average values for all indicators, 2010/11–2015/16

Category	Indicator	2010	2011	2012	2013	2014	2015
01_Finance	Provincial and Local Government expenditure on District Health Services per capita (total population)	1 416	1 467	1 536	1 540	1 618	1 639
	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	1 162	1 203	1 259	1 261	1 324	1 341
	Provincial expenditure per PHC headcount	806	844	905	912	962	993
	Provincial PHC expenditure per capita (total population)	281	281	301	307	327	349
	Provincial PHC expenditure per capita (uninsured)	661	692	741	747	788	812
02_Management PHC	Percentage ideal clinics						18.1
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner						9.2
03_Management Inpatients	Average length of stay (district hospitals)	4.3	4.3	4.2	4.7	4.6	4.5
	Expenditure per Patient Day Equivalent (district hospitals)		5.1	5.8	5.4	5.2	5.0
	Inpatient bed utilisation rate (district hospitals)	2 023	2 044	2 137	2 185	2 269	2 342
	Inpatient crude death rate	65.6	64.6	64.1	61.5	60.7	58.3
	OPD new client not referred rate (district hospitals)	64.7	67.2	67.3	66.3	65.8	65.3
04_Delivery	Delivery by Caesarean section rate (district hospitals)	18.5	19.9	20.8	21.8	22.7	24.1
	Delivery in facility under 18 years rate	8.0	8.1	7.7	7.8	7.4	7.1
	Inpatient early neonatal death rate	10.0	10.2	10.2	10.1	10.1	10.5
	Maternal mortality in facility ratio	138.5	144.9	132.9	133.3	132.5	119.1
	Mother postnatal visit within 6 days rate	26.3	56.4	65.2	73.0	74.3	68.5
	Stillbirth rate in facility	22.7	22.5	21.8	21.5	20.7	21.1
05_PMTCT	Antenatal 1st visits before 20 weeks rate	37.6	40.2	44.0	50.0	53.9	61.2
	Antenatal client initiated on ART rate	86.7	80.4	81.6	76.3	91.2	93.0
	HIV PCR birth testing coverage						1.1
	Percentage PCR tests positive within the first six days						1.2
06_Child Health	Child under 5 years diarrhoea case fatality rate	7.0	4.6	4.3	3.9	3.3	2.2
	Child under 5 years pneumonia case fatality rate	5.8	4.2	3.8	3.5	2.9	2.3
	Child under 5 years severe acute malnutrition case fatality rate	16.4	13.3	12.7	11.3	11.6	8.9
	Inpatient death under 5 years rate				5.5	5.7	4.7
	School Grade 1 screening coverage				17.2	23.2	28.9
	Vitamin A coverage 12 to 59 months	34.6	41.6	40.5	44.3	52.2	57.0
07_Immunisation	Immunisation coverage under 1 year	80.8	83.9	83.6	84.4	89.8	89.2
	Measles 2nd dose coverage	81.3	85.4	74.9	75.0	82.8	84.8
08_Reproductive health	Cervical cancer screening coverage	52.2	50.2	50.3	54.1	54.5	56.6
	Couple year protection rate	31.6	28.7	32.7	37.3	46.8	48.2
09_TB	TB incidence (all types)		7.1	7.1	6.6	6.4	6.1
	TB rifampicin resistance confirmed client rate	718.4	762.3	689.3	648.9	592.7	519.8
	TB cure rate (new pulmonary smear-positive)	6.8	6.1	6.2	5.8	5.6	
	TB loss to follow up rate (new pulmonary smear-positive)	69.2	74.2	75.8	76.8	77.4	
	TB MDR treatment success rate		8.6	8.4	7.4	6.7	
	TB successful treatment rate (all TB)	70.8	75.4	76.1	77.9	77.2	
	TB death rate (all TB)				47.2		
10_HIV	HIV testing coverage (including ANC)				26.1	32.1	34.5
	Male condom distribution coverage	14.8	15.7	21.8	27.9	38.4	44.4
	Percentage of TB cases with known HIV status	73.5	82.7	86.9	90.3	93.9	94.8
	TB/HIV co-infected client on ART rate		28.0	60.6	72.0	85.8	84.5
11_NCDs	Diabetes mellitus incidence				2.0	1.4	1.7
	Hypertension incidence		22.3	16.9	16.6	13.9	16.8
	Hypertension prevalence rate (crude)	30.0		32.1			28.2
12_Human Resources	Percentage of fixed PHC facilities with staffing in line with WISN						1.5
	Percentage fixed PHC facilities with performance management agreement for all staff						16.3

Map 1: Provinces, districts and sub-districts



14 Eastern Cape Province

Buffalo City Metropolitan Municipality (BUF)

Buffalo City is situated on the east coast of the Eastern Cape Province and has a population of 761 501, with a population density of 300.3 people per km². The district falls into socio-economic Quintile 4, which is among the wealthier districts. Estimated medical scheme coverage is 24.6%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
72	5	2	1	1	9

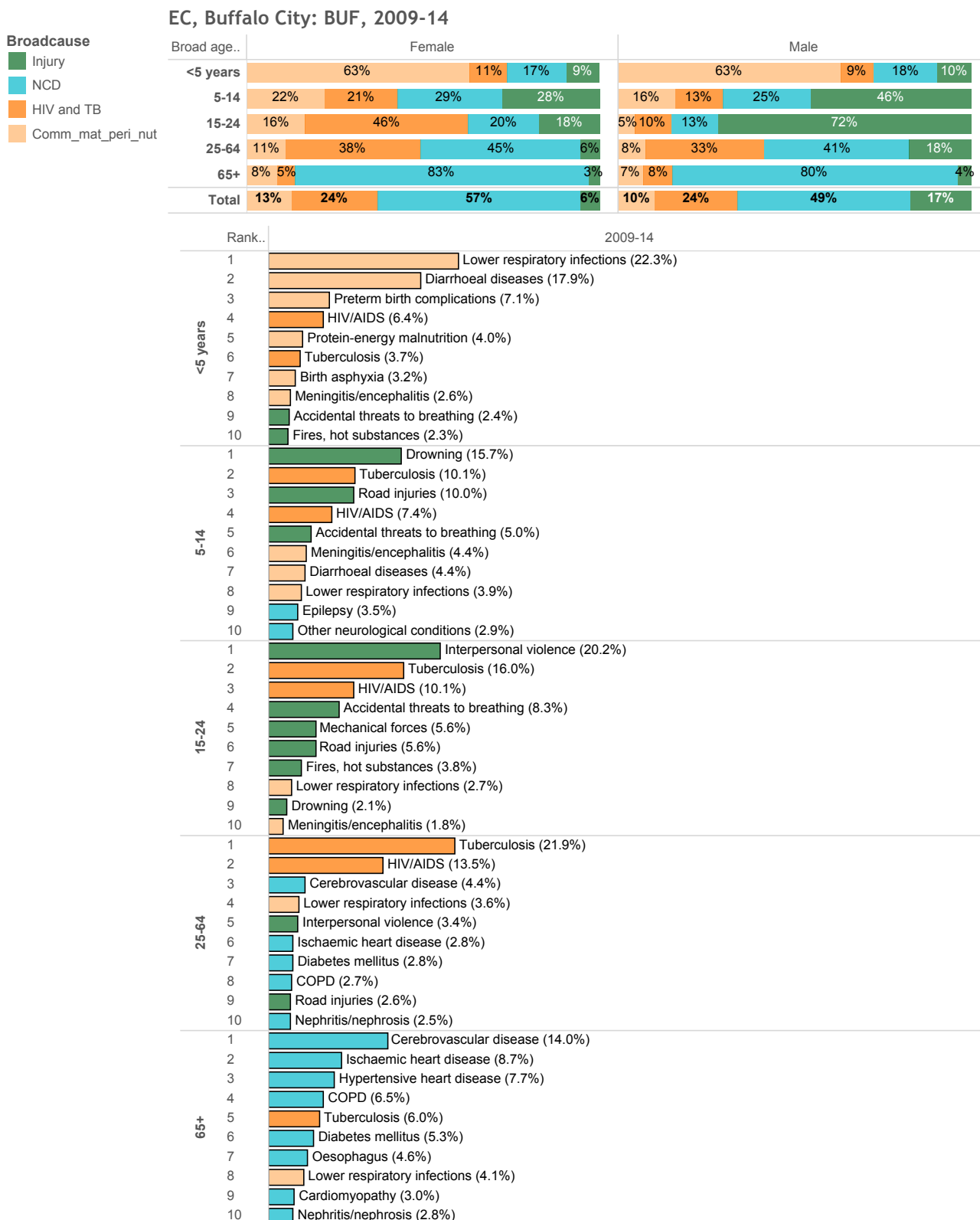
Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	298 967	296 132	285 930
PHC headcount 5 years and older	2 056 868	2 065 377	1 974 565
Patient day equivalent	861 088	862 005	805 388
Deaths – total	5 254	5 085	5 036
Still births	392	358	384
Early neonatal deaths	212	215	189
Late neonatal deaths	54	65	50
Child under 5 years with diarrhoea death	25	17	19
Child under 5 years with pneumonia death	17	20	9
Child under 5 years with severe acute malnutrition death	27	24	27

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Buffalo City (BUF)



Indicator performance: Buffalo City (BUF)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			3.9	45	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.6	4.9	5.0	18	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 169.5	2 194.7	2 395.5	5	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	64.9	56.6	53.4	48	57.2	65.3	78.6
	Inpatient crude death rate [Percentage]	6.4	5.8	5.6	29	6.3	5.0	
Delivery	OPD new client not referred rate (district hospitals) [Percentage]	43.0	47.8	58.5	27	63.8	58.3	
	Delivery by caesarean section rate (district hospitals) [Percentage]	23.7	25.0	29.6		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.1	5.9	6.4	13	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	12.8	13.1	12.5	43	12.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	133.3	206.7	139.4	38	135.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	66.6	69.1	64.7	32	58.2	68.5	85.0
PMTCT	Stillbirth in facility rate [per 1 000 births]	23.2	21.3	24.9	38	21.6	21.1	
	Antenatal 1st visit before 20 weeks rate [Percentage]	39.3	47.4	59.0	41	59.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	79.6	98.2	99.7	3	93.9	93.0	88.0
Child Health	Percentage of PCR tests positive at birth [Percentage]			1.4	31	1.4	1.1	
	Child under 5 years diarrhoea case fatality rate [Percentage]	2.6	2.2	2.7	34	3.6	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	2.1	2.4	1.1	11	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.9	9.5	11.7	41	10.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	2.2	2.4	2.2	8	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	13.2	8.0	8.2	49	19.0	28.9	25.0
	Vitamin A dose 12–59 months coverage (annualised) [Percentage]	33.5	41.7	58.9	21	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	93.4	96.4	92.5	12	86.8	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	72.7	79.8	84.2	22	81.1	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	49.3	65.2	75.2	9	57.4	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	30.6	45.2	61.4	9	53.5	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	24.8	31.6	35.9	23	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	12.9	41.7	66.6	9	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.1	1.4	1.8		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	22.7	17.2	19.9		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			3.9	45	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value			District ranking	Provincial average	National average	National target	
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		791.4	825.9	742.6	39	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		7.9	7.9	7.5	43	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	55.1	65.1	68.6	48	72.2	77.4		
	TB treatment success rate (ETR.net) [Percentage]	71.7	77.7	73.3	39	76.2	77.2	83.0	
	TB death rate (ETR.net) [Percentage]	8.4	6.4	6.6	22	7.6	6.7		
	New smear positive pulmonary TB loss to follow up rate [Percentage]	11.6	11.3	8.3	45	6.5	5.6		
	TB MDR treatment success rate (EDRWeb) [Percentage]		30.5		50	33.9	47.2	55.0	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		87.0	90.6	93.7	41	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		92.0	85.7	95.9	8	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	48.2			40.1	43	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	44.7	44.5	46.6		43	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	29.8	28.7	25.8		23	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	12.0	11.1	11.5		6	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	17.3	16.8	16.7		44	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	13.6	15.8	16.1		42	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	7.8	8.5	7.9		13	20.3	13.8	

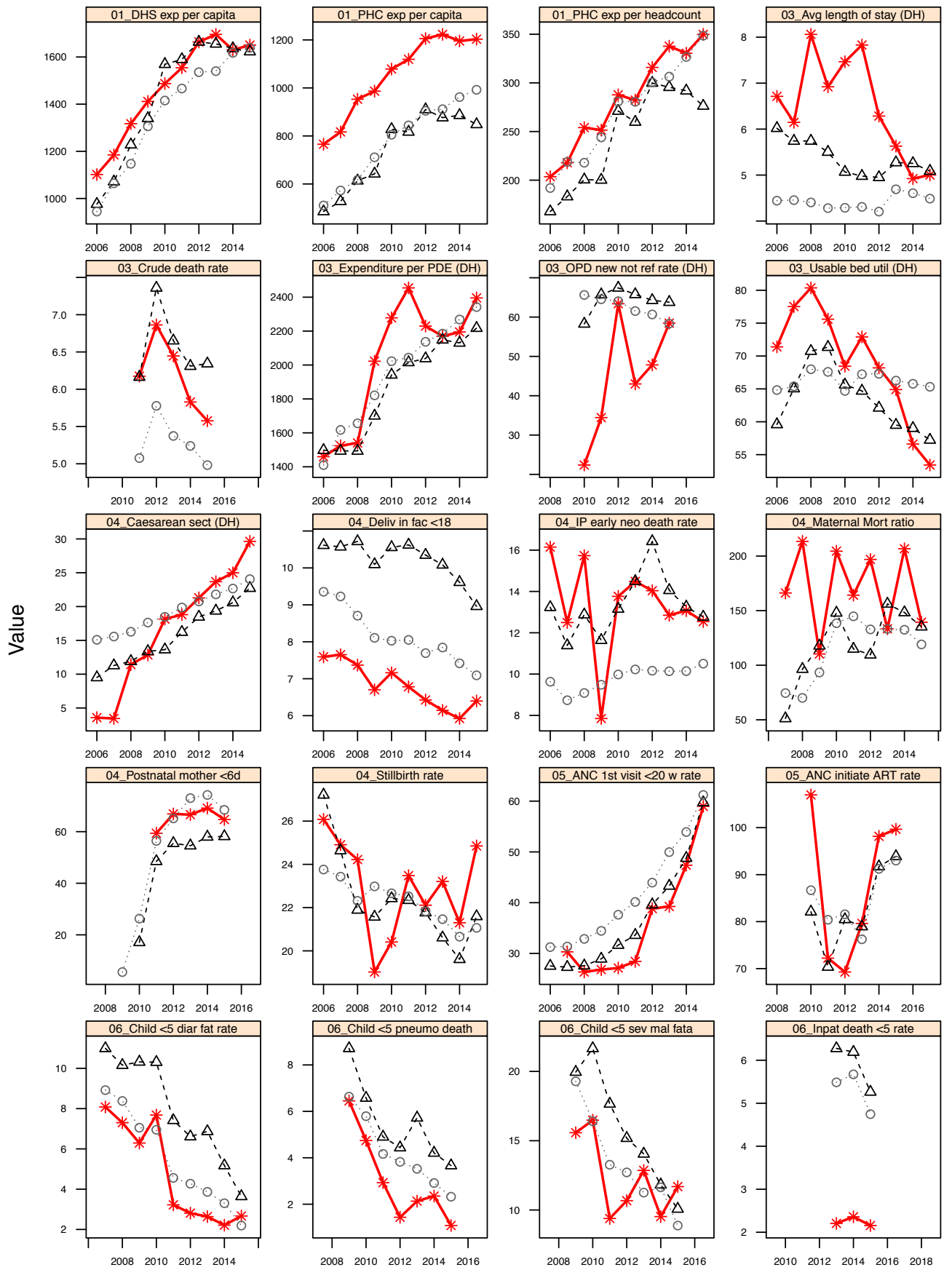
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

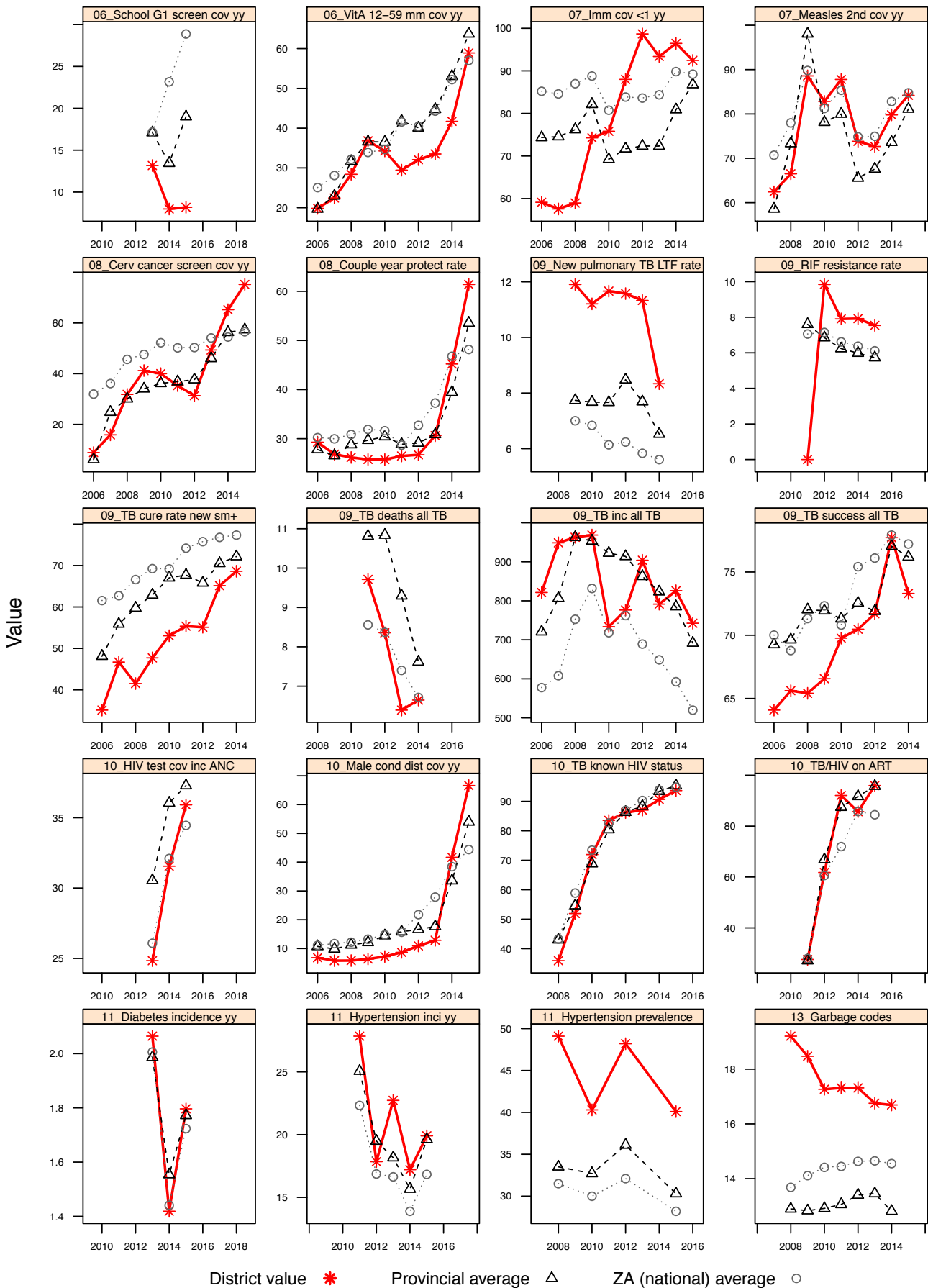
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Buffalo City (BUF)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Buffalo City (BUF)



Sarah Baartman District Municipality (DC10)

Sarah Baartman District (previously known as Cacadu) is situated in the Eastern Cape Province and comprises three sub-districts, namely Camdeboo, Kouga and Makana. The district has a population of 467 046, with a population density of 8.0 people per km², and falls into socio-economic Quintile 3. Estimated medical scheme coverage is 14.6%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
59	3	10	0	0	7

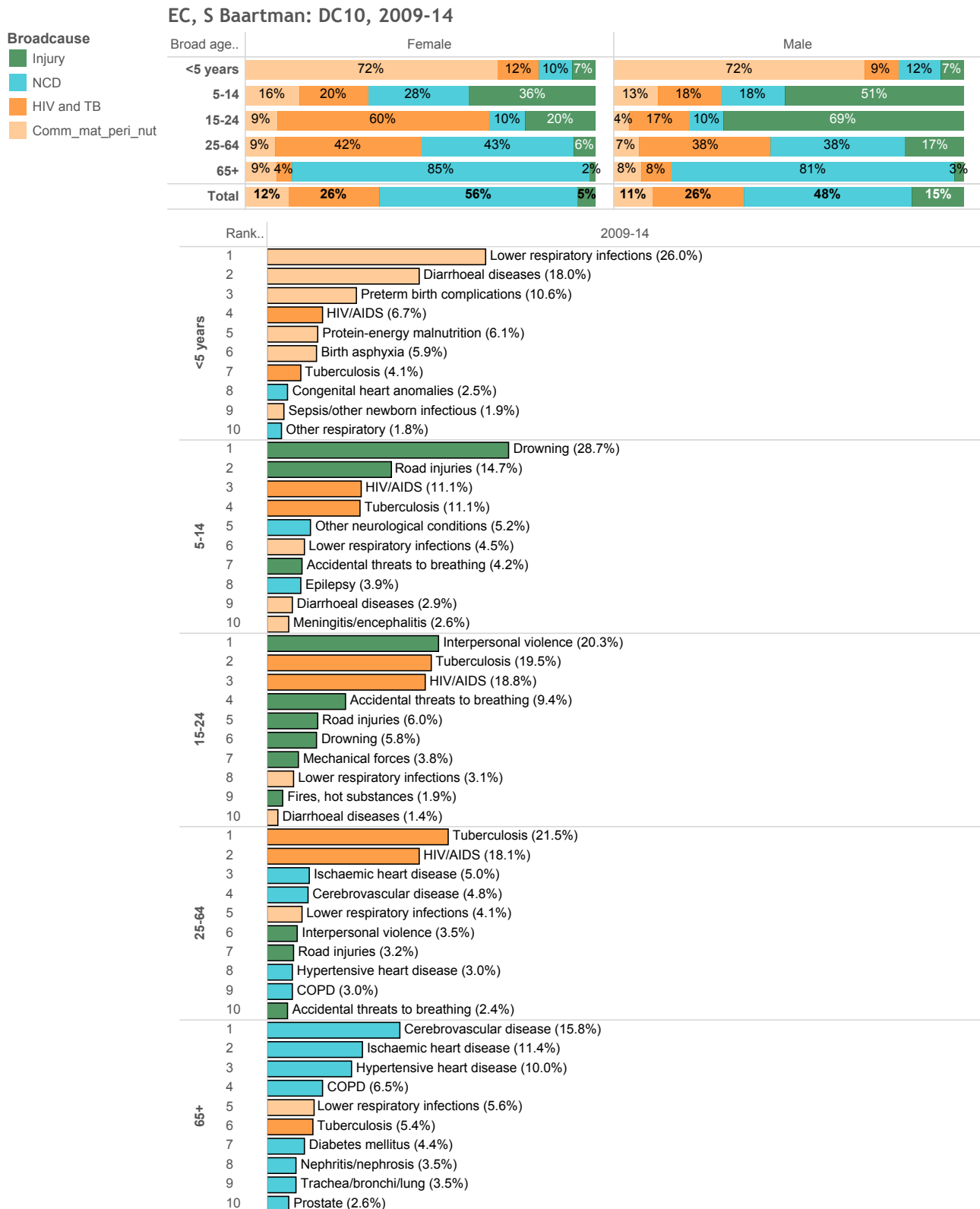
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	203 074	193 813	195 272
PHC headcount 5 years and older	1 291 067	1 275 971	1 306 057
Patient day equivalent	372 674	369 975	374 244
Deaths – total	1 875	1 763	2 025
Still births	135	128	133
Early neonatal deaths	44	74	65
Late neonatal deaths	3	3	5
Child under 5 years with diarrhoea death	10	6	1
Child under 5 years with pneumonia death	8	9	2
Child under 5 years with severe acute malnutrition death	4	7	6

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: S Bartaan (DC10)



Indicator Performance: S Bartaan (DC10)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			3.2	29	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			12.9	33	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.7	4.0	4.0	17	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 363.5	2 226.8	2 066.8	29	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	59.4	63.9	66.6	23	57.2	65.3	
	Inpatient crude death rate [Percentage]	4.6	4.6	5.3	23	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	71.8	70.3	65.9	35	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	24.6	24.7	24.4		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.9	8.2	7.2	21	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	6.7	11.4	10.8	33	12.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	121.7	61.7	99.4	25	135.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	68.6	71.1	70.5	18	58.2	68.5	
	Stillbirth in facility rate [per 1 000 births]	20.1	19.4	21.6	26	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	61.8	63.2	69.0	10	59.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	76.1	90.1	90.6	37	93.9	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.0	18	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	1.7	1.5	0.2	8	3.6	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	2.4	2.5	0.5	8	3.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	1.9	3.9	4.1	8	10.1	8.9	
	Inpatient death under 5 year rate [Percentage]	2.6	3.4	2.3	10	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	24.3	8.3	11.8	43	19.0	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	48.1	54.9	58.2	22	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	72.5	80.1	80.1	37	86.8	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	68.9	71.4	78.7	33	81.1	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	37.3	41.7	39.9	46	57.4	56.6	
	Couple year protection rate (annualised) [Percentage]	36.2	39.0	47.6	31	53.5	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	25.8	30.4	25.4	50	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	12.0	20.8	30.1	42	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.1	1.5	1.9		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	17.8	17.6	16.4		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			11.3	34	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		1 119.9	1 124.1	1 021.7	52	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.9	4.6	5.6	26	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	79.0	77.7	68.5		49	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	78.1	81.7	75.2		32	76.2	77.2	
	TB death rate (ETR.net) [Percentage]	8.4	7.4	6.4		20	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.7	7.5	8.2		44	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		36.6			43	33.9	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		94.4	93.7	96.1	15	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		84.3	93.1	94.1	14	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	43.0			37.5	39	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	42.3	42.0	42.9		40	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	31.2	32.5	28.0		30	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	11.8	11.9	12.9		10	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	14.9	13.3	13.0		23	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	14.7	13.6	16.2		43	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	14.3	13.6	12.8		34	20.3	13.8	

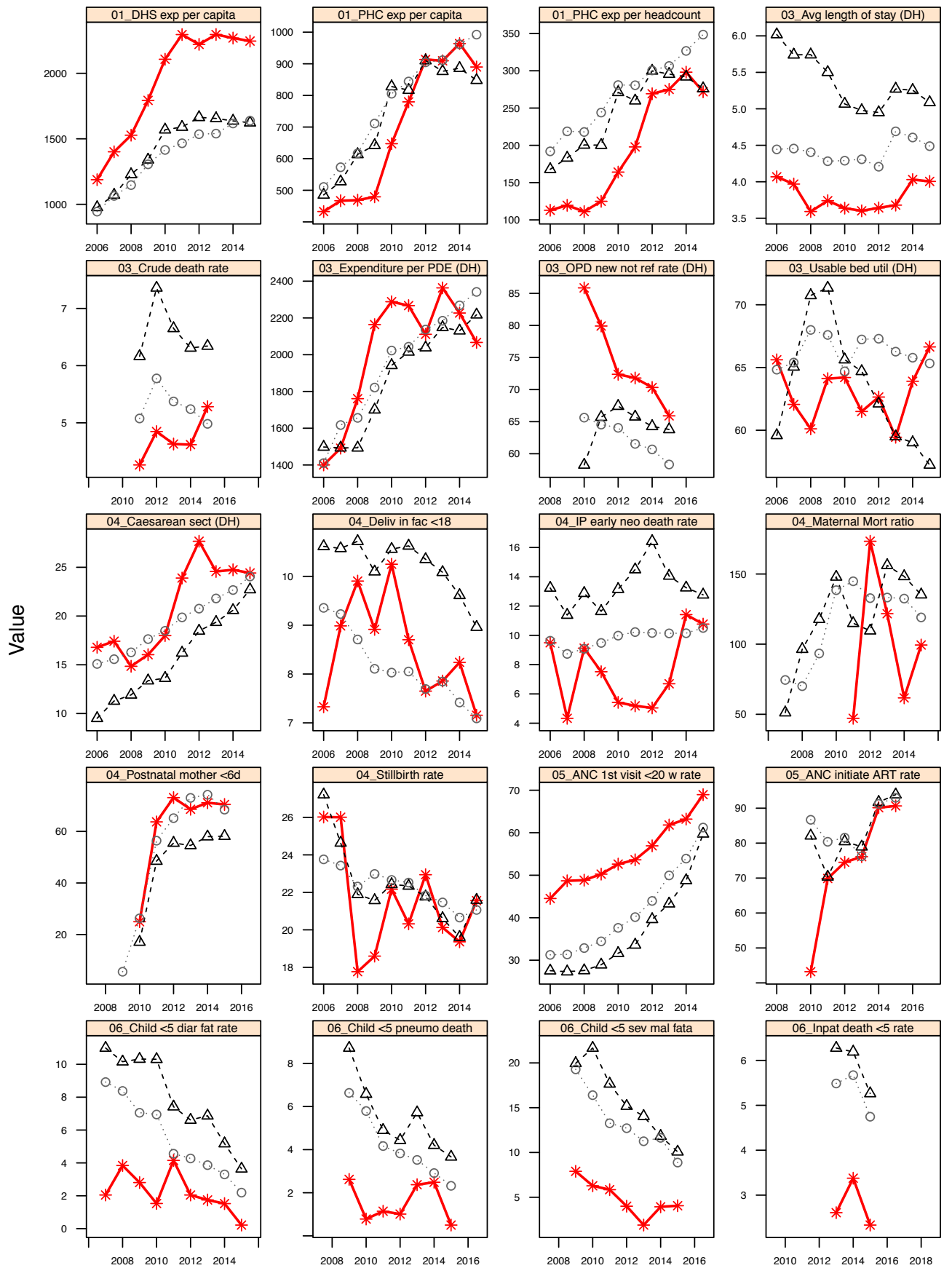
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

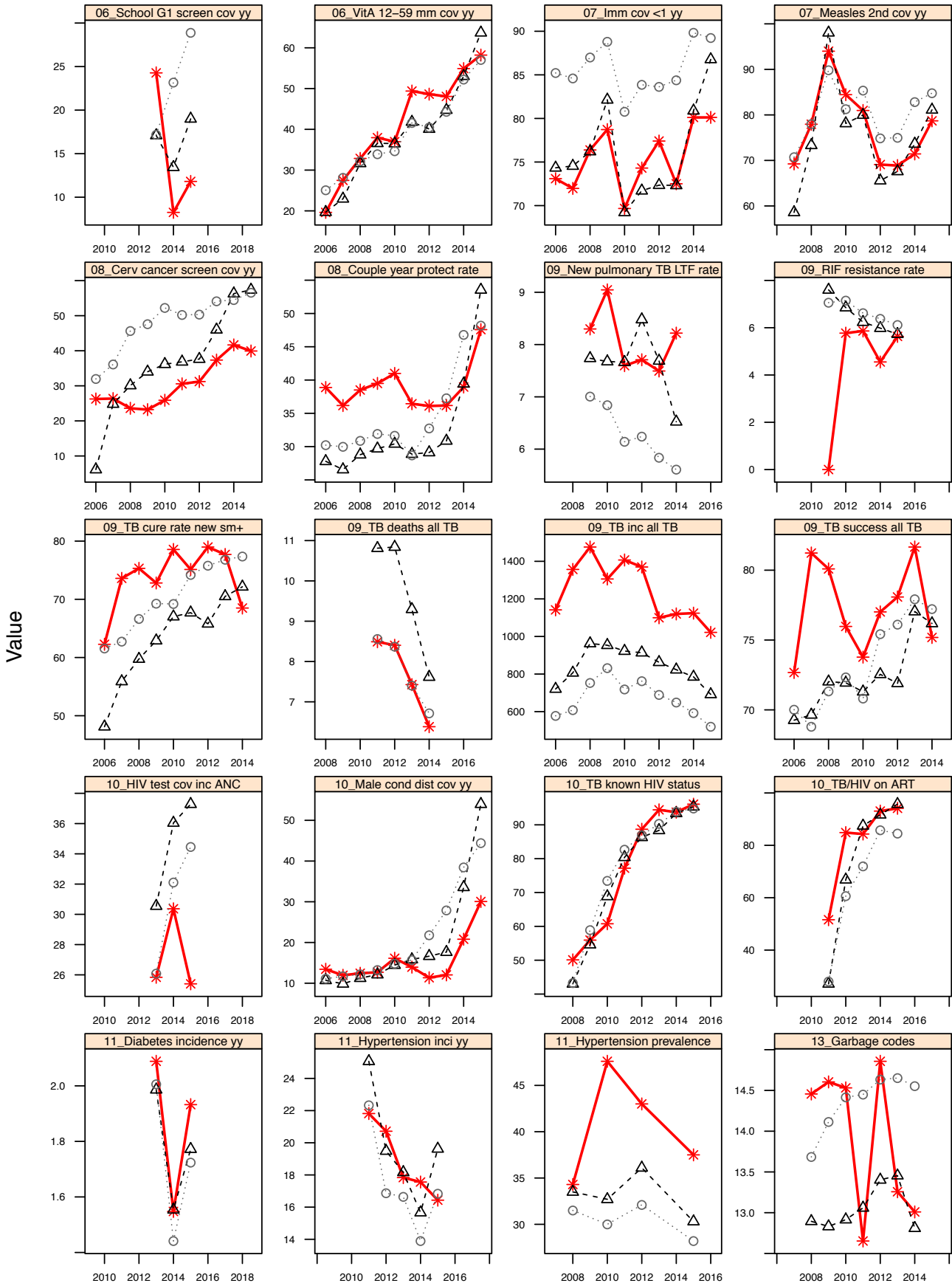
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: S Bartaan (DC10)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: S Bartaan (DC10)



District value * Provincial average Δ ZA (national) average ○

Amathole District Municipality (DC12)

Amathole is situated in the central part of the Eastern Cape Province and comprises four sub-districts: Mbhashe, Mnquma, Amahlathi and Nkonkobe. The district has a population of 895 462, with a population density of 41.5 people per km², and falls within Quintile 1, the lowest socio-economic group. Estimated medical scheme coverage is 8.7%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
153	5	12	0	0	2

Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	394 578	422 578	449 370
PHC headcount 5 years and older	2 440 642	2 653 701	3 094 535
Patient day equivalent	521 640	526 506	502 594
Deaths – total	3 545	3 306	3 346
Still births	181	139	127
Early neonatal deaths	109	110	69
Late neonatal deaths	10	15	19
Child under 5 years with diarrhoea death	66	30	27
Child under 5 years with pneumonia death	25	12	16
Child under 5 years with severe acute malnutrition death	27	35	31

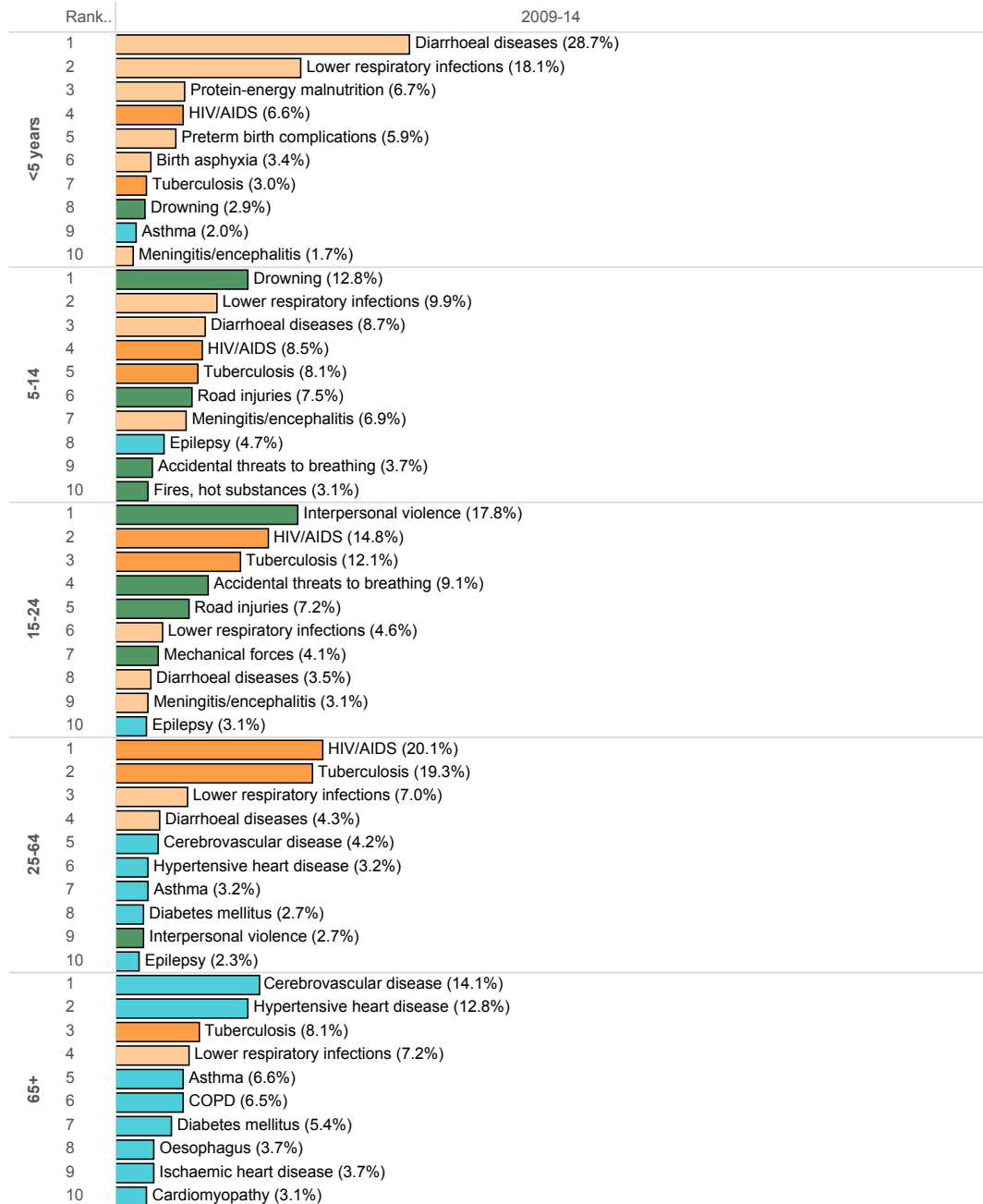
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Amathole (DC12)

EC, Amathole: DC12, 2009-14

Broadcause	Broad age..	Female					Male				
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other	Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other
	<5 years	70%	10%	13%	7%		68%	10%	12%	10%	
	5-14	34%	18%	24%	24%		27%	14%	19%	40%	
	15-24	20%	46%	18%	17%		8%	10%	13%	69%	
	25-64	17%	42%	37%	5%		13%	38%	34%	15%	
	65+	12%	7%	79%	2%		11%	12%	74%	3%	
	Total	17%	25%	53%	5%		15%	26%	45%	15%	



Indicator performance: Amathole (DC12)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			1.9	33	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			13.4	32	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.6	5.5	5.2	25	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 068.9	1 958.5	2 166.2	21	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	59.1	59.0	55.1	44	57.2	65.3	
	Inpatient crude death rate [Percentage]	7.1	6.5	6.3	43	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	72.9	74.8	67.8	39	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	14.9	17.9	24.6		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	11.7	11.3	9.8	44	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.4	10.8	7.7	11	12.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	86.3	58.8	44.8	4	135.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	68.7	73.3	67.4	28	58.2	68.5	
	Stillbirth in facility rate [per 1 000 births]	17.1	13.4	14.0	4	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	46.2	54.3	67.1	14	59.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	89.4	95.9	97.7	11	93.9	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.1	25	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.3	3.0	2.8	36	3.6	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	6.1	2.6	2.7	30	3.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	8.7	14.1	14.0	49	10.1	8.9	
	Inpatient death under 5 year rate [Percentage]	6.5	5.3	4.1	15	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	11.5	14.2	18.8	33	19.0	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	55.7	73.6	91.5	2	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	69.6	86.6	98.8	7	86.8	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	64.8	74.8	84.2	21	81.1	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	64.3	89.5	78.0	7	57.4	56.6	
	Couple year protection rate (annualised) [Percentage]	29.9	46.2	67.8	2	53.5	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	36.8	51.9	60.2	3	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	17.1	47.4	77.6	3	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.2	3.2	2.3		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	19.8	24.9	30.3		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			12.7	31	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			1.3	21	0.4	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		647.2	656.7	638.8	31	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.2	5.9	5.1	18	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	61.4	68.3	71.9		41	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.9	78.6	76.8		27	76.2	77.2	
	TB death rate (ETR.net) [Percentage]	10.8	9.2	8.4		31	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.8	5.7	5.3		28	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		38.3			38	33.9	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.5	95.0	95.6	21	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		84.2	90.1	95.0	11	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	37.5			39.7	41	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	36.8	38.8	41.2		37	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	32.0	29.6	27.1		27	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	17.1	16.3	15.6		11	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	13.1	14.1	14.3		34	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	14.1	15.2	16.1		41	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	16.6	14.9	14.3		38	20.3	13.8	

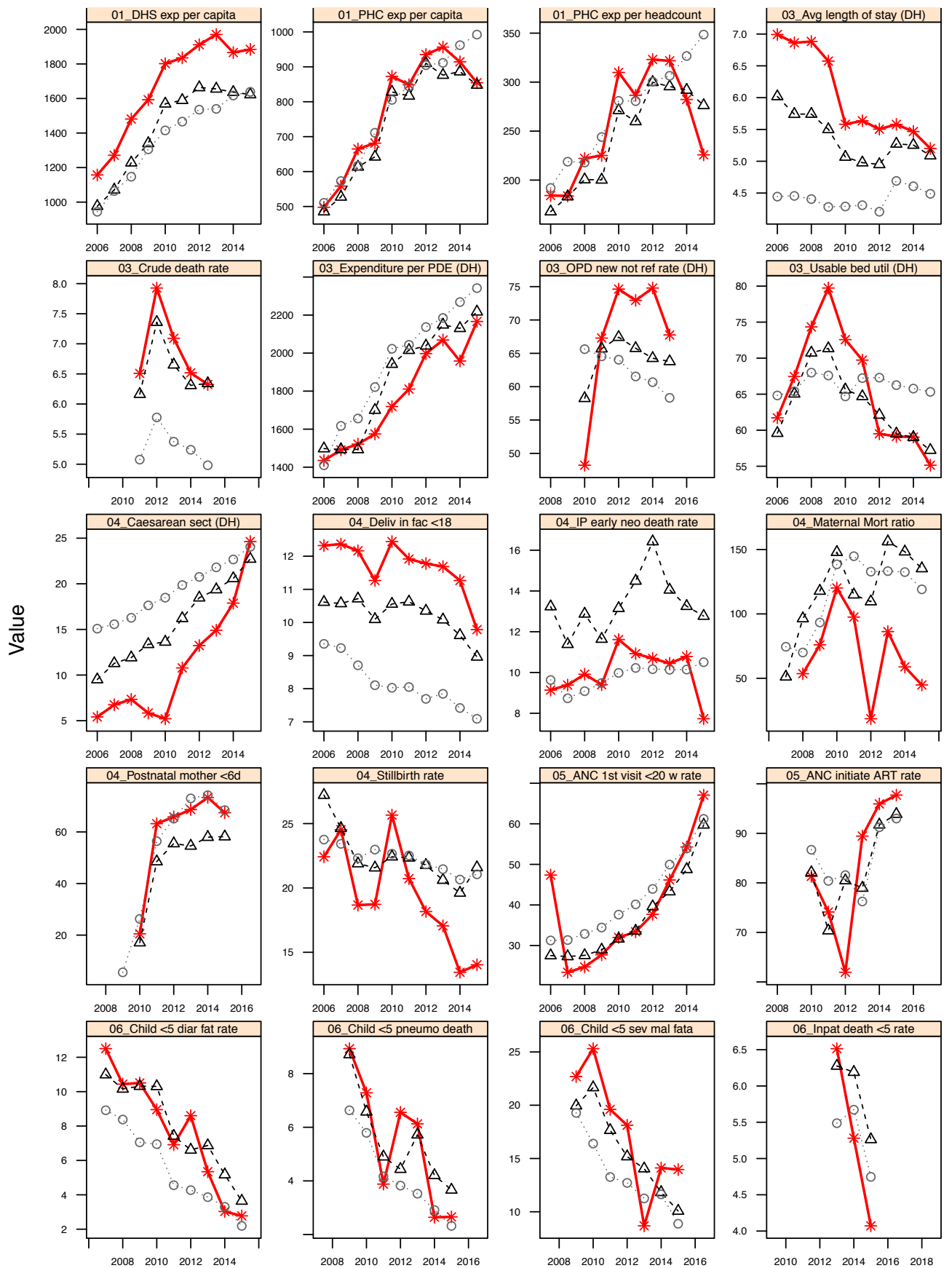
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

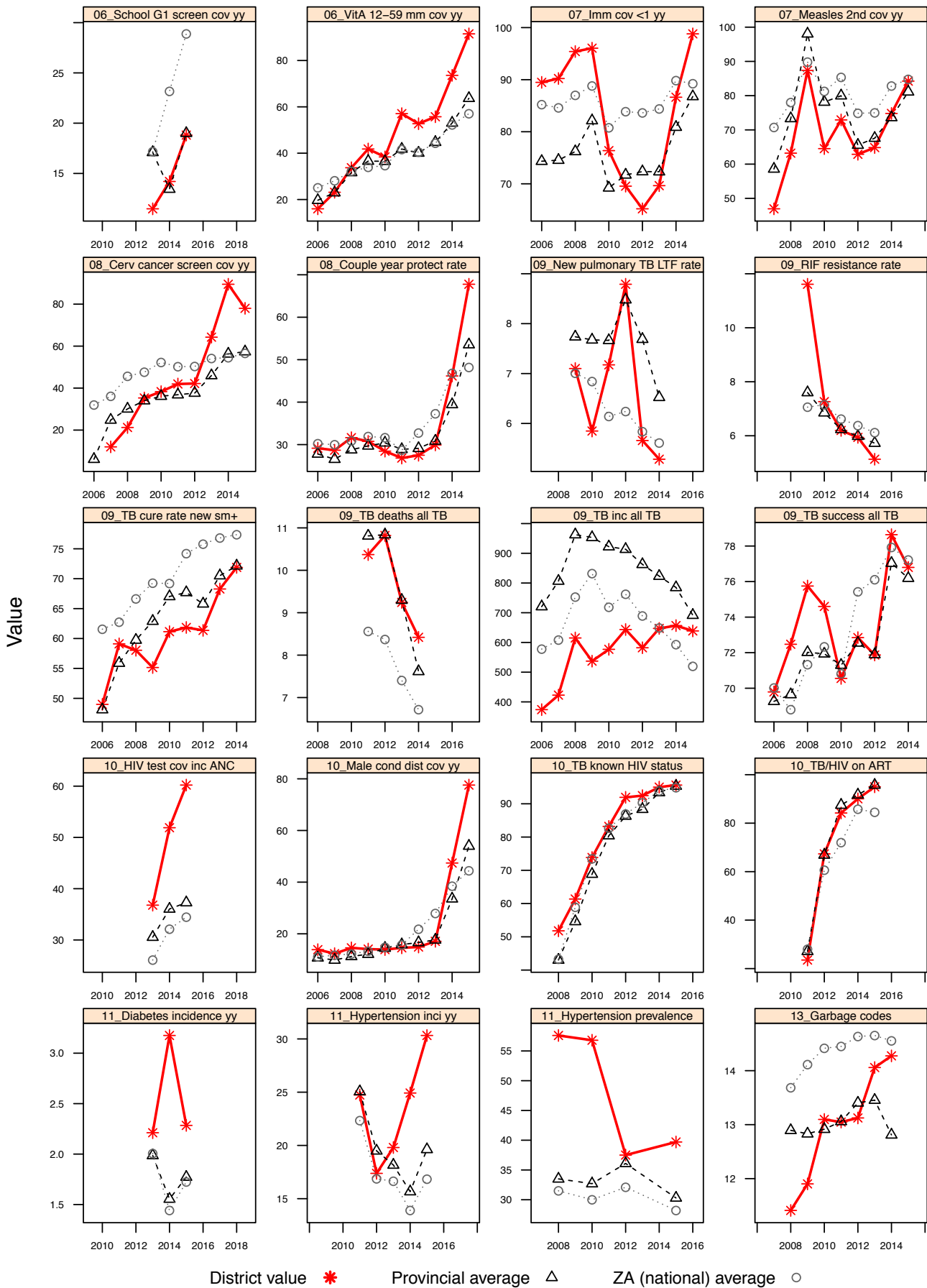
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Amathole (DC12)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Amathole (DC12)



Chris Hani District Municipality (DC13)

Chris Hani District is situated in the heart of the Eastern Cape Province. It comprises six sub-districts, namely Inxuba Yethemba, Lukhanji, Intsika Yethu, Emalahleni, Ngcobo and Sakhisizwe. The district has a population of 806 382, with a population density of 22.3 people per km², and falls into socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 5.9%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
148	7	14	1	0	2

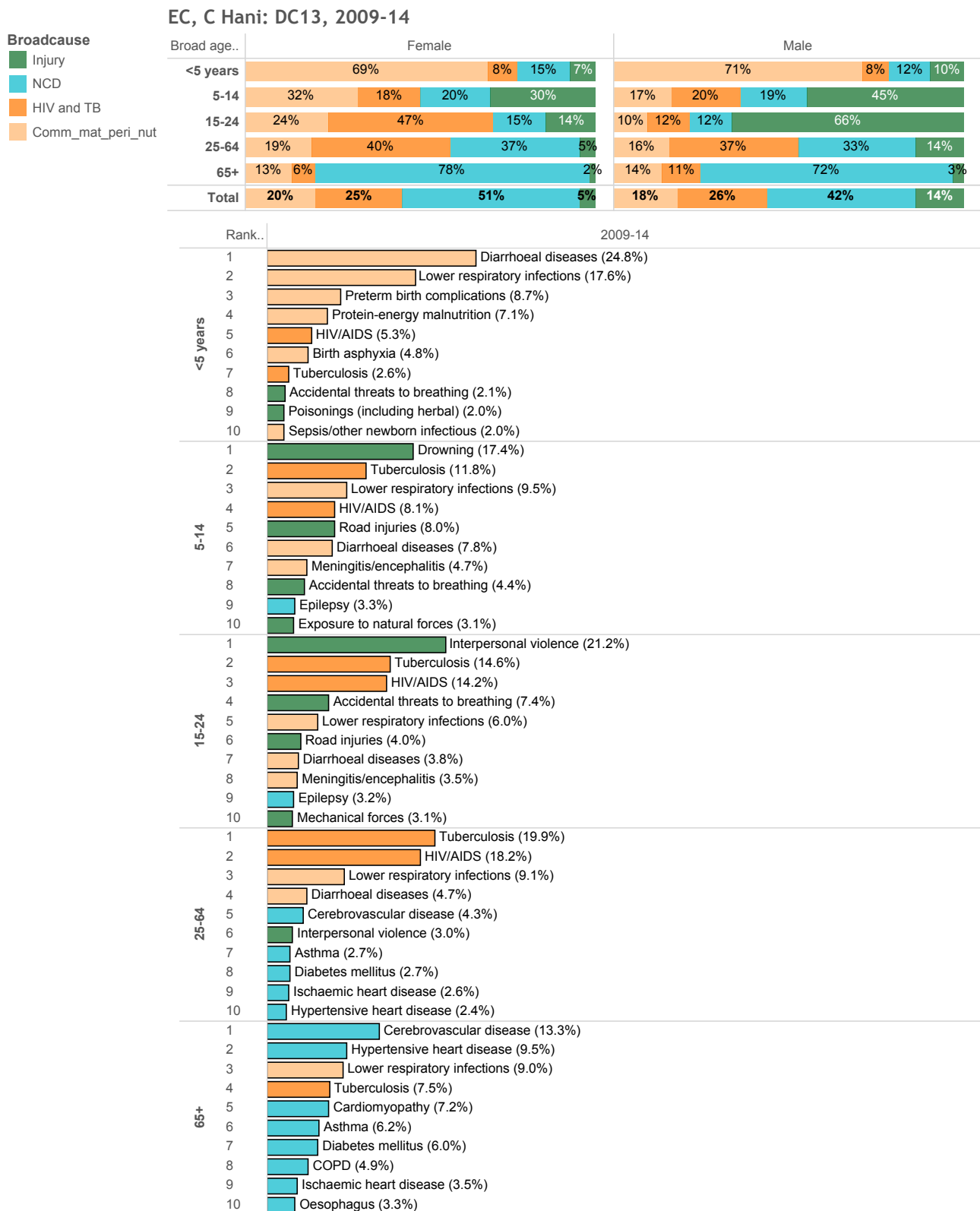
Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	399 699	386 983	374 774
PHC headcount 5 years and older	2 312 666	2 399 036	2 394 376
Patient day equivalent	534 748	515 852	528 929
Deaths – total	4 644	4 410	4 315
Still births	226	227	254
Early neonatal deaths	156	147	106
Late neonatal deaths	28	36	24
Child under 5 years with diarrhoea death	107	50	35
Child under 5 years with pneumonia death	46	33	18
Child under 5 years with severe acute malnutrition death	44	42	31

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: C Hani (DC13)



Indicator performance: C Hani (DC13)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			5.2	42	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.3	5.6	5.2	22	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 116.1	2 219.8	2 223.8	16	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	53.6	50.2	49.7	50	57.2	65.3	78.6
	Inpatient crude death rate [Percentage]	7.8	8.1	7.5	51	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	71.6	69.2	69.3	42	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	14.0	14.1	15.4		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.7	10.2	9.1	37	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	12.5	12.2	9.4	22	12.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	168.5	199.8	97.5	23	135.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	75.5	76.1	68.5	23	58.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	17.8	18.5	22.0	29	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	55.1	59.6	67.3	13	59.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	80.0	92.6	91.8	29	93.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.4	34	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.8	4.4	2.9	38	3.6	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.4	3.5	1.9	19	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	9.7	10.0	8.2	24	10.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	7.2	6.6	4.6	21	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	25.8	22.9	37.4	18	19.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	48.7	59.0	67.8	10	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	84.7	83.6	85.3	25	86.8	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	69.6	76.5	79.6	32	81.1	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	75.5	77.8	72.4	12	57.4	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	38.2	43.5	58.9	13	53.5	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	37.8	42.5	39.7	16	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	26.4	34.7	54.5	14	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.7	1.8	1.9		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	14.1	16.8	17.4		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			6.5	40	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		802.7	659.0	622.9	30	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.7	6.0	4.7	15	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	67.8	74.7	78.6		22	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	67.5	76.6	82.5		10	76.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	12.1	10.7	6.3		18	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.2	6.5	5.2		27	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		37.3			41	33.9	47.2	55.0

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		93.5	95.8	96.6	10	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		88.1	95.9	94.4	13	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	37.2			30.8	29	30.3	28.2	
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	37.7	37.0	37.3		26	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	30.5	31.8	30.9		35	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	18.8	17.3	17.8		19	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	13.5	13.3	11.8		15	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	13.0	13.8	13.9		32	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	14.3	13.3	16.1		40	20.3	13.8	

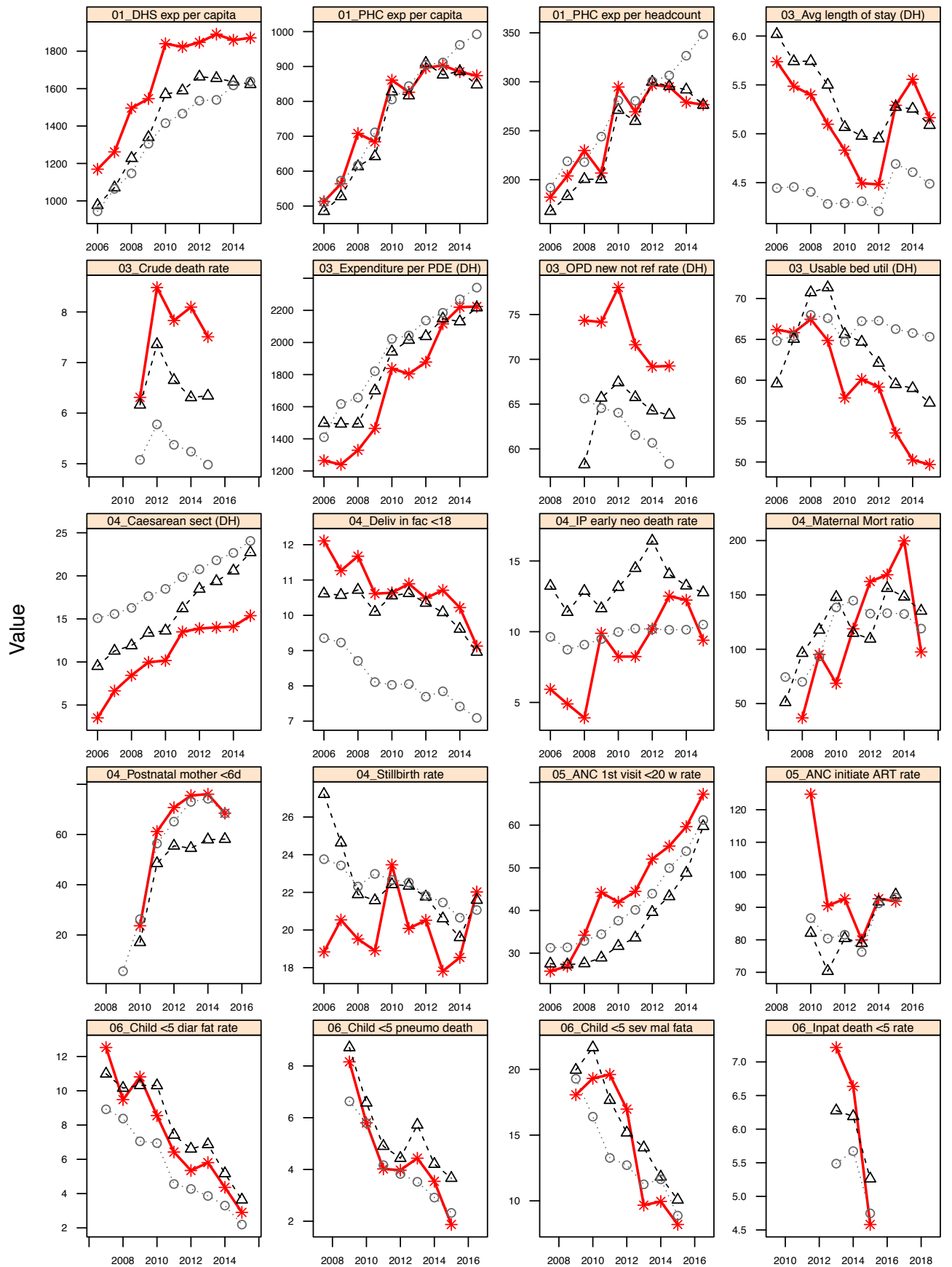
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

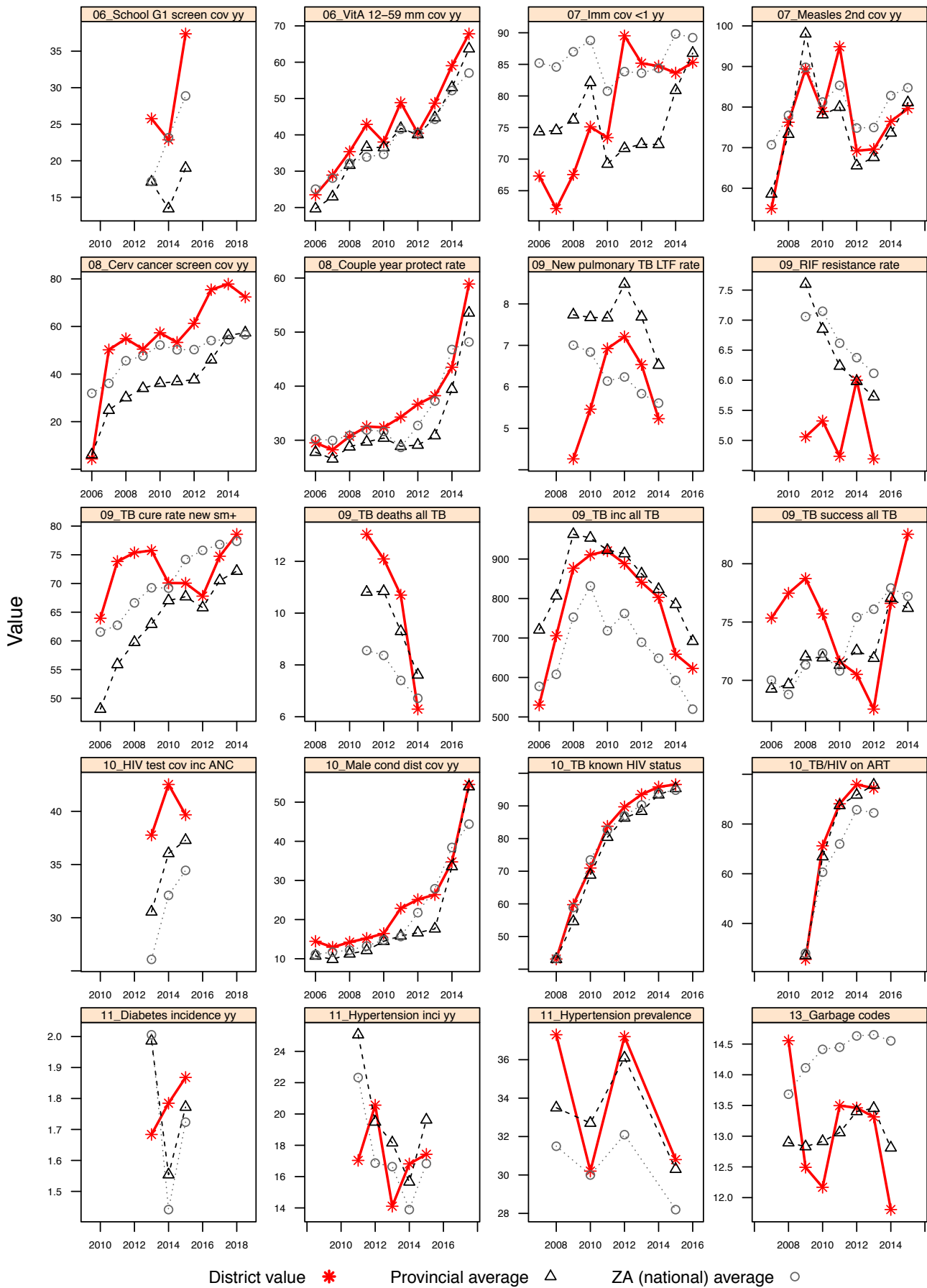
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: C Hani (DC13)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: C Hani (DC13)



Joe Gqabi District Municipality (DC 14)

Joe Gqabi District is located in the Eastern Cape Province, bordering the Free State Province and Lesotho to the north. It consists of three sub-districts, namely Elundini, Maletswai and Senqu. The population stands at 356 819, with a population density of 13.9 people per km². The district falls into socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 5.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
52	0	11	0	0	0

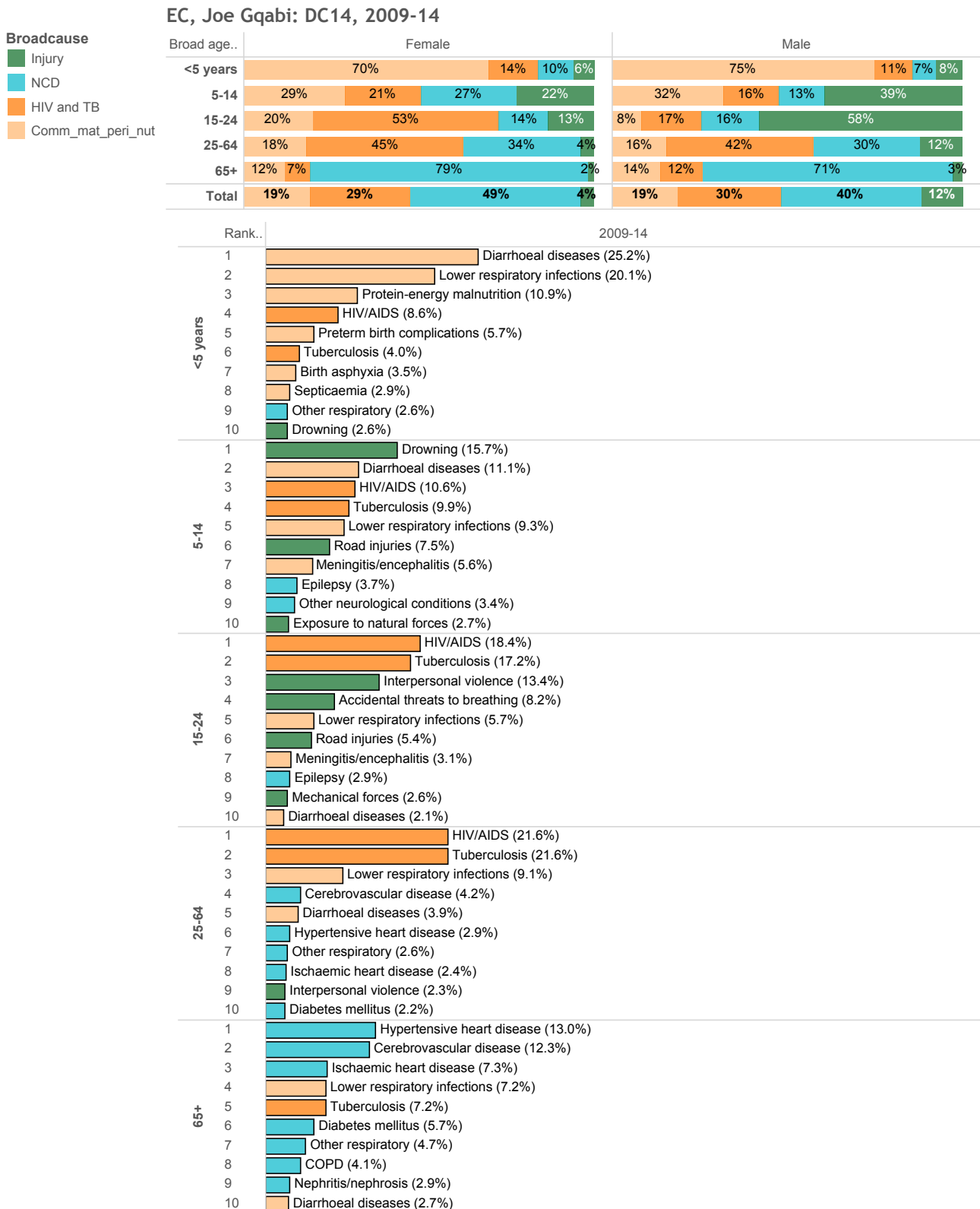
Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	167 421	159 842	153 289
PHC headcount 5 years and older	884 871	913 218	911 408
Patient day equivalent	185 738	187 064	177 729
Deaths – total	1 768	1 678	1 705
Still births	97	96	111
Early neonatal deaths	53	51	56
Late neonatal deaths	20	9	2
Child under 5 years with diarrhoea death	24	9	6
Child under 5 years with pneumonia death	24	1	10
Child under 5 years with severe acute malnutrition death	28	18	8

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Joe Gqabi (DC 14)



Indicator performance: Joe Gqabi (DC 14)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			7.7	21	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			21.2	24	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.7	5.6	5.4	30	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 917.6	2 166.9	2 422.7	8	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	70.7	70.4	64.3	27	57.2	65.3	78.6
	Inpatient crude death rate [Percentage]	7.2	6.7	7.3	49	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	76.4	74.3	72.0	44	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	9.5	12.0	12.7		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	12.4	11.7	10.7	48	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.3	8.9	11.4	36	12.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	105.2	104.6	61.0	7	135.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	89.5	72.8	73.1	14	58.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	16.7	16.5	22.1	30	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	47.0	50.9	57.0	45	59.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	88.3	96.0	96.5	17	93.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.6	40	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	6.0	3.0	1.7	20	3.6	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	10.5	0.5	4.5	48	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	16.0	11.3	4.4	11	10.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	8.0	6.2	5.6	29	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	34.3	33.5	45.7	9	19.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	39.3	45.6	53.1	34	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	63.9	73.9	80.2	35	86.8	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	61.7	69.0	86.2	19	81.1	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	56.1	55.6	61.5	22	57.4	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	30.4	34.6	53.6	21	53.5	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	28.2	32.1	31.2	32	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	19.7	30.8	59.1	12	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	0.9	1.7		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	26.0	17.2	29.7		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			19.2	24	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		651.6	673.6	550.4	24	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		7.7	6.2	4.5	9	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	67.4	68.3	73.0		38	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	66.3	73.1	73.2		40	76.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	14.3	13.0	10.2		43	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.4	6.3	6.2		37	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		30.6			49	33.9	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.1	96.1	94.5	32	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		83.4	93.8	97.4	6	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	34.8			31.8	33	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	35.7	35.0	32.2		12	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	34.5	32.9	39.3		51	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	18.6	19.5	17.0		15	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	12.4	13.0	10.3		6	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.2	12.5	11.5		12	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	29.7	29.7	34.2		50	20.3	13.8	

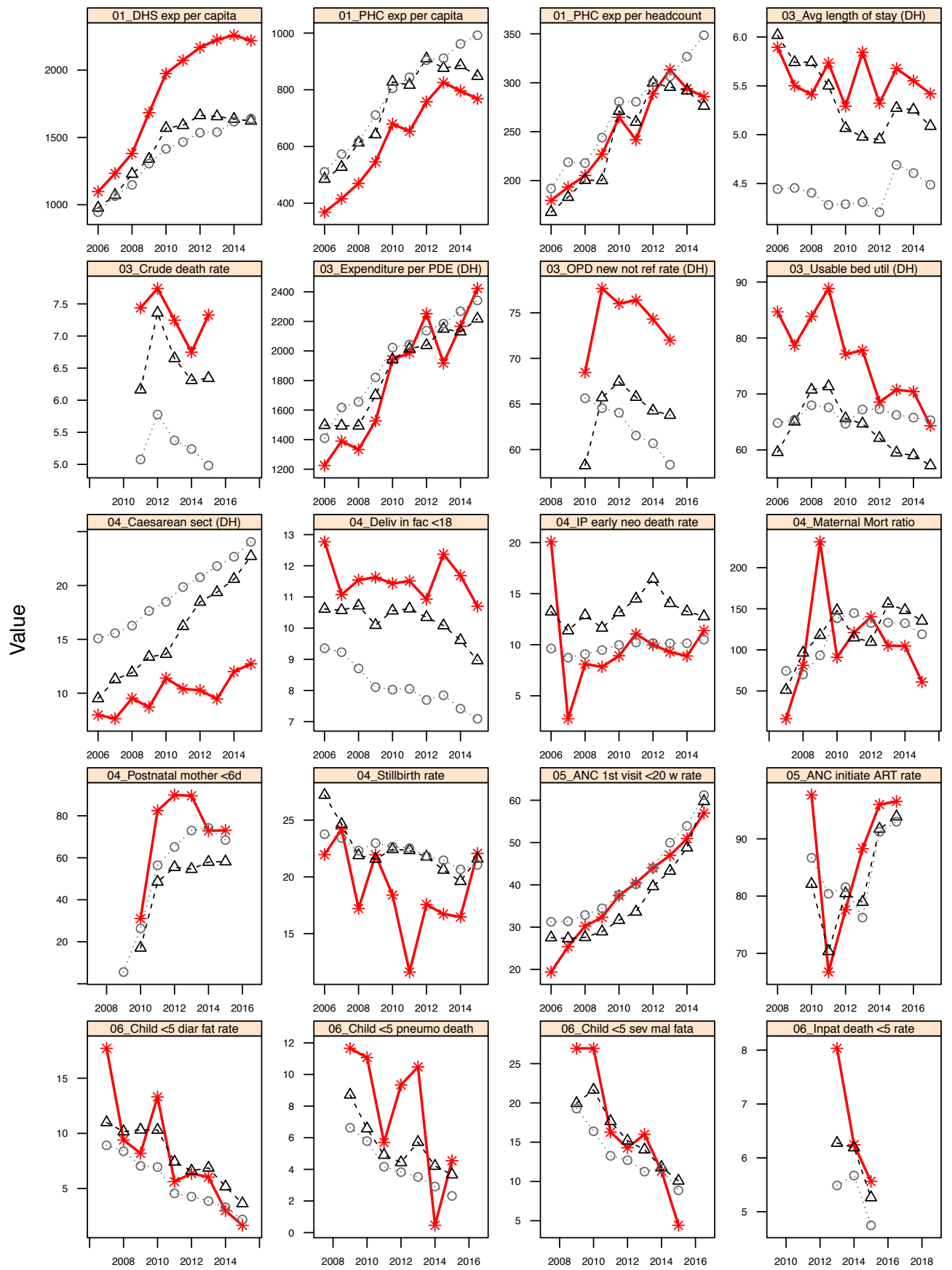
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

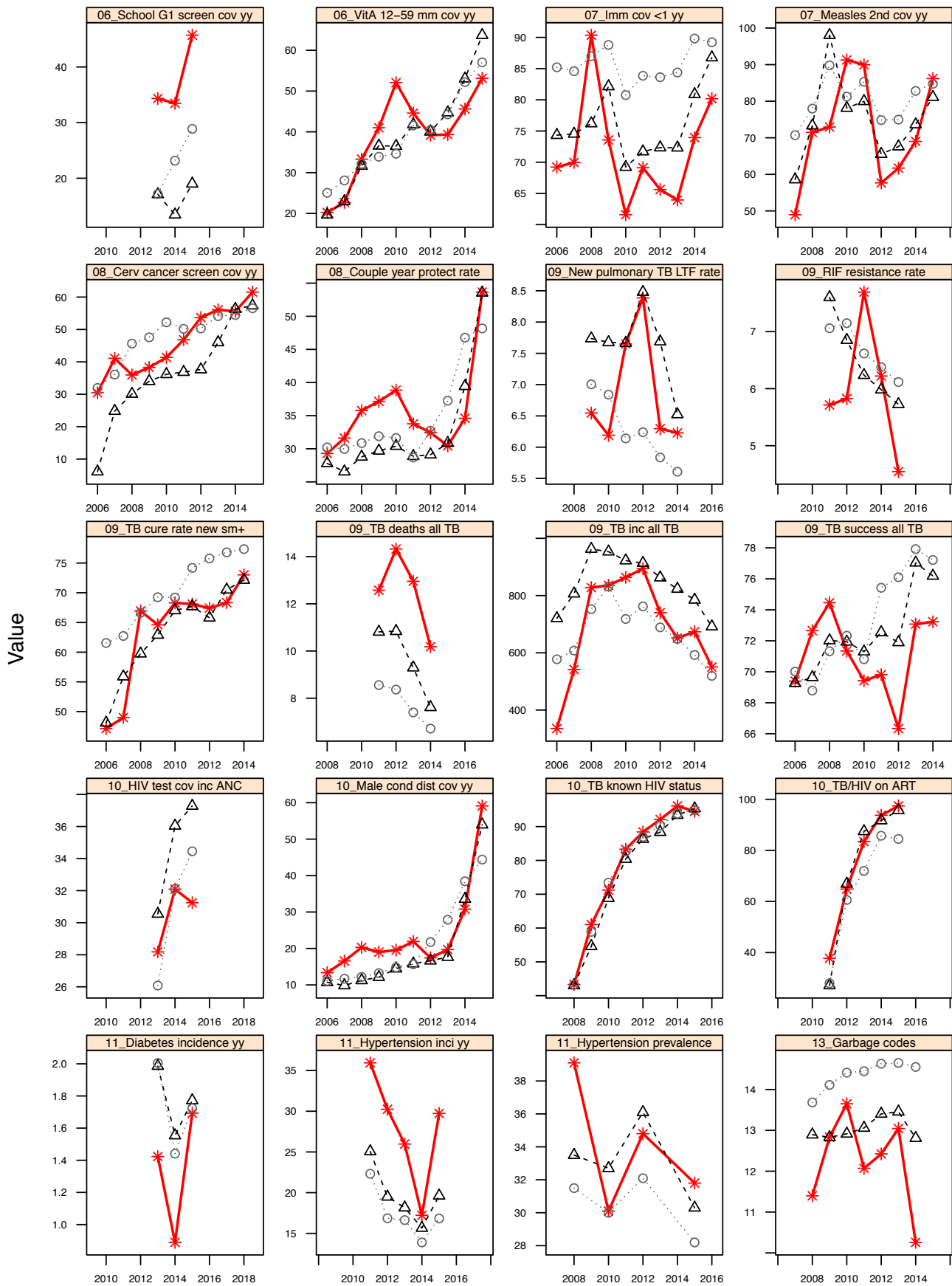
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Joe Gqabi (DC 14)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Joe Gqabi (DC 14)



District value * Provincial average Δ ZA (national) average ○

OR Tambo District Municipality (DC15)

OR Tambo District is the most populous of the six district municipalities in the Eastern Cape Province, with a population of 1 374 092 and a population density of 113.6 people per km². The district covers about 80% of what used to be Transkei and includes five sub-districts: King Sabata Dalindyebo, Nyandeni, Mhlontlo, Port St Johns and Ngquza Hill. The district falls into socio-economic Quintile 1, among the poorest districts, and has an estimated medical scheme coverage of 4.6%. It is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
136	10	9	2	1	4

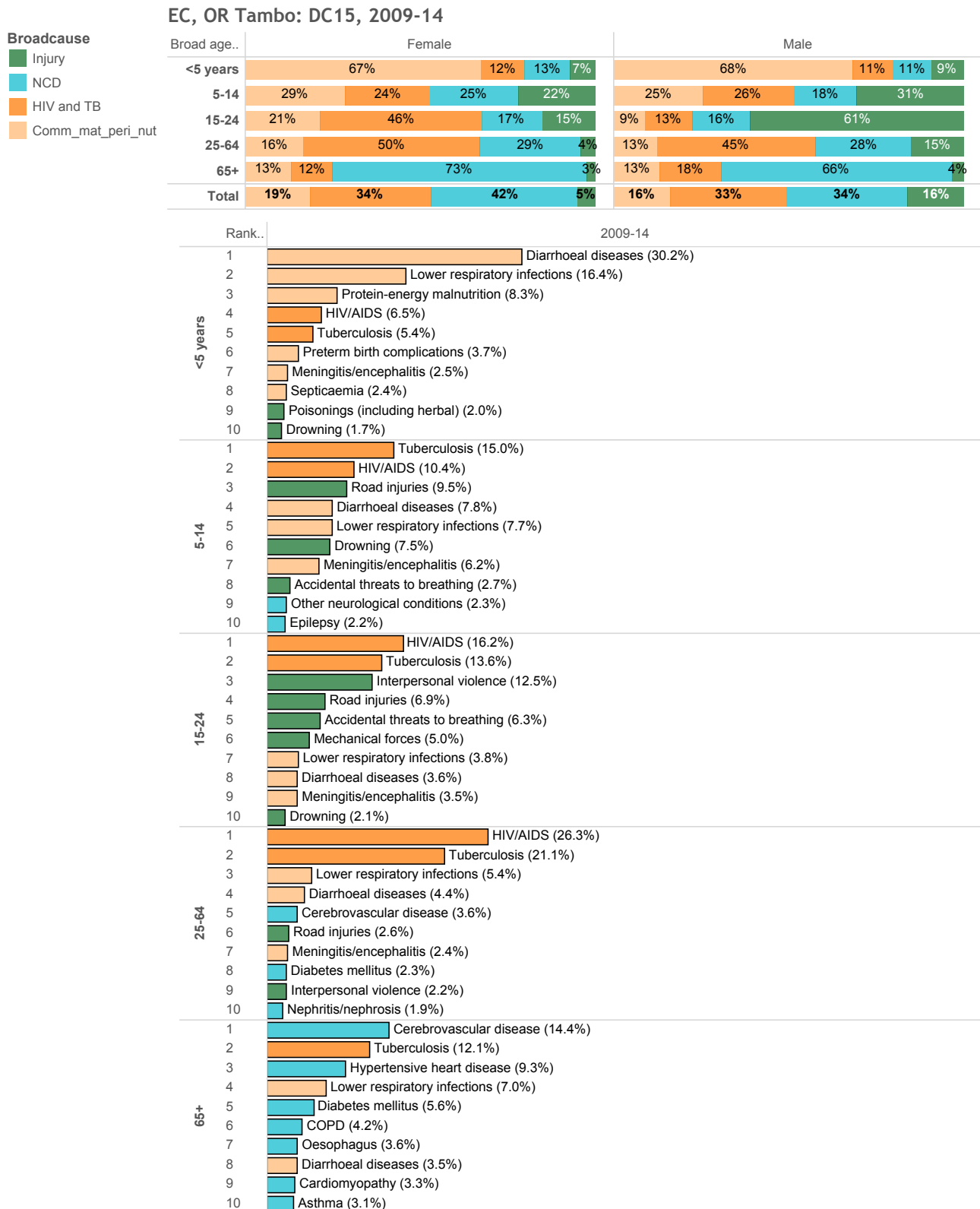
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	712 379	726 018	697 363
PHC headcount 5 years and older	3 582 258	3 772 244	3 704 826
Patient day equivalent	812 636	846 878	866 607
Deaths – total	6 604	6 565	6 273
Still births	845	815	807
Early neonatal deaths	429	455	539
Late neonatal deaths	96	331	161
Child under 5 years with diarrhoea death	224	173	129
Child under 5 years with pneumonia death	113	105	141
Child under 5 years with severe acute malnutrition death	154	119	128

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: OR Tambo (DC15)



Indicator performance: OR Tambo (DC15)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			1.4	34	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			15.2	30	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	7.1	6.4	6.3	49	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 034.6	2 110.7	2 111.8	23	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	58.8	55.5	56.4	42	57.2	65.3	78.6
	Inpatient crude death rate [Percentage]	7.8	7.3	7.5	50	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	56.9	52.0	57.4	24	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.0	21.1	24.3		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	12.2	11.5	11.1	51	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	13.3	13.7	18.1	51	12.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	229.7	198.5	244.7	50	135.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	31.0	40.7	48.2	47	58.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	25.6	23.9	26.3	45	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	34.4	41.8	60.1	39	59.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	69.2	86.6	90.6	38	93.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.5	35	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	14.7	9.6	5.8	51	3.6	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	9.4	5.3	5.3	51	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	21.9	11.6	11.0	39	10.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	16.2	17.7	16.8	52	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	19.8	12.9	16.5	36	19.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	36.2	50.0	59.6	18	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	58.0	74.9	88.9	16	86.8	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	59.6	74.0	82.9	25	81.1	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	27.2	51.8	59.2	24	57.4	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	29.2	40.0	58.7	14	53.5	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	35.2	40.8	41.5	10	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	23.0	41.2	72.5	8	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	3.2	1.5	2.1		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	29.1	14.8	29.9		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			13.8	30	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		875.6	775.8	570.9	25	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.7	5.5	5.4	20	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	72.6	71.6	77.6		26	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	72.0	76.2	74.0		36	76.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	13.7	11.4	9.2		38	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.7	5.3	3.4		7	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		39.2			36	33.9	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		88.6	91.3	94.7	30	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		89.7	94.7	97.8	4	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	32.2			22.1	5	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	29.7	29.9	30.3		10	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	38.9	37.7	37.6		50	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	16.9	16.3	17.6		16	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	13.4	13.7	12.1		18	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	14.6	16.1	14.6		36	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	33.7	31.8	31.2		49	20.3	13.8	

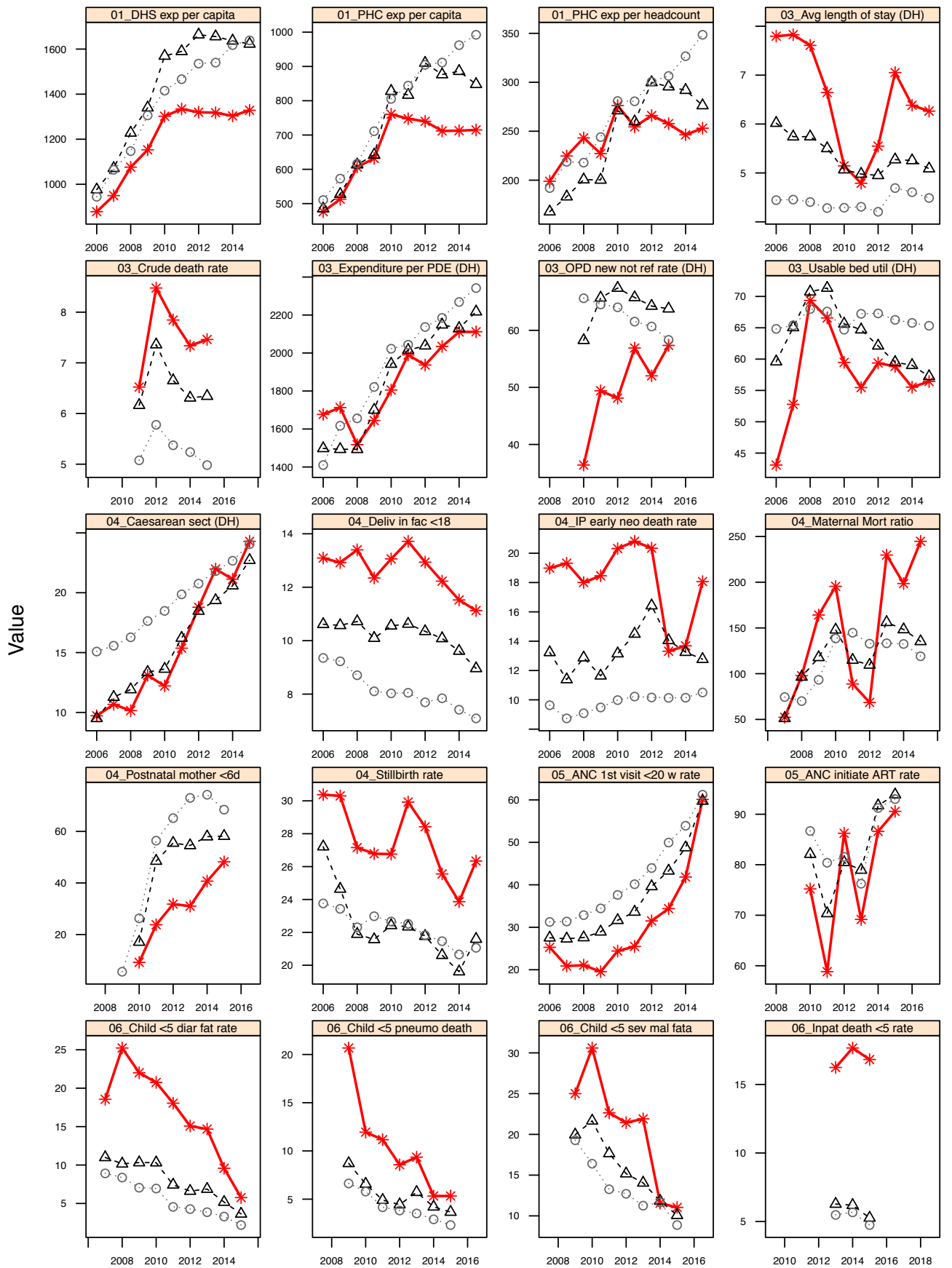
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

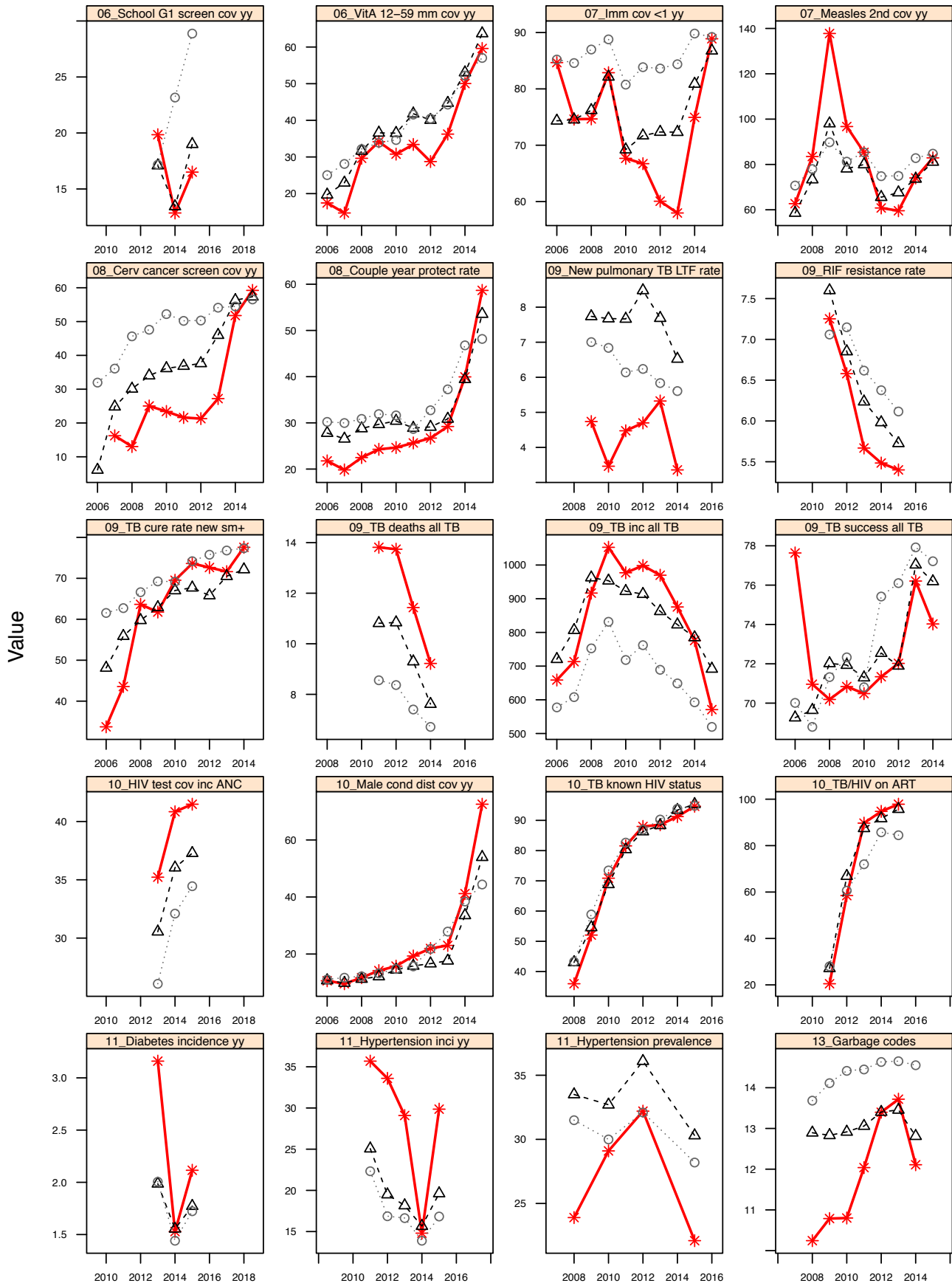
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: OR Tambo (DC15)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: OR Tambo (DC15)



Alfred Nzo District Municipality (DC44)

Alfred Nzo District is located in the north-eastern corner of the Eastern Cape Province, and has a population of 835 899 with a population density of 77.9 people per km². The district comprises Maluti and uMzimvubu sub-districts and falls within socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 3.5%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
73	2	6	0	0	2

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	440 916	417 067	416 476
PHC headcount 5 years and older	1 872 151	1 906 818	1 962 998
Patient day equivalent	301 853	328 463	306 904
Deaths – total	2 771	2 559	2 534
Still births	223	200	180
Early neonatal deaths	123	115	78
Late neonatal deaths	12	16	14
Child under 5 years with diarrhoea death	69	57	31
Child under 5 years with pneumonia death	43	41	24
Child under 5 years with severe acute malnutrition death	55	69	37

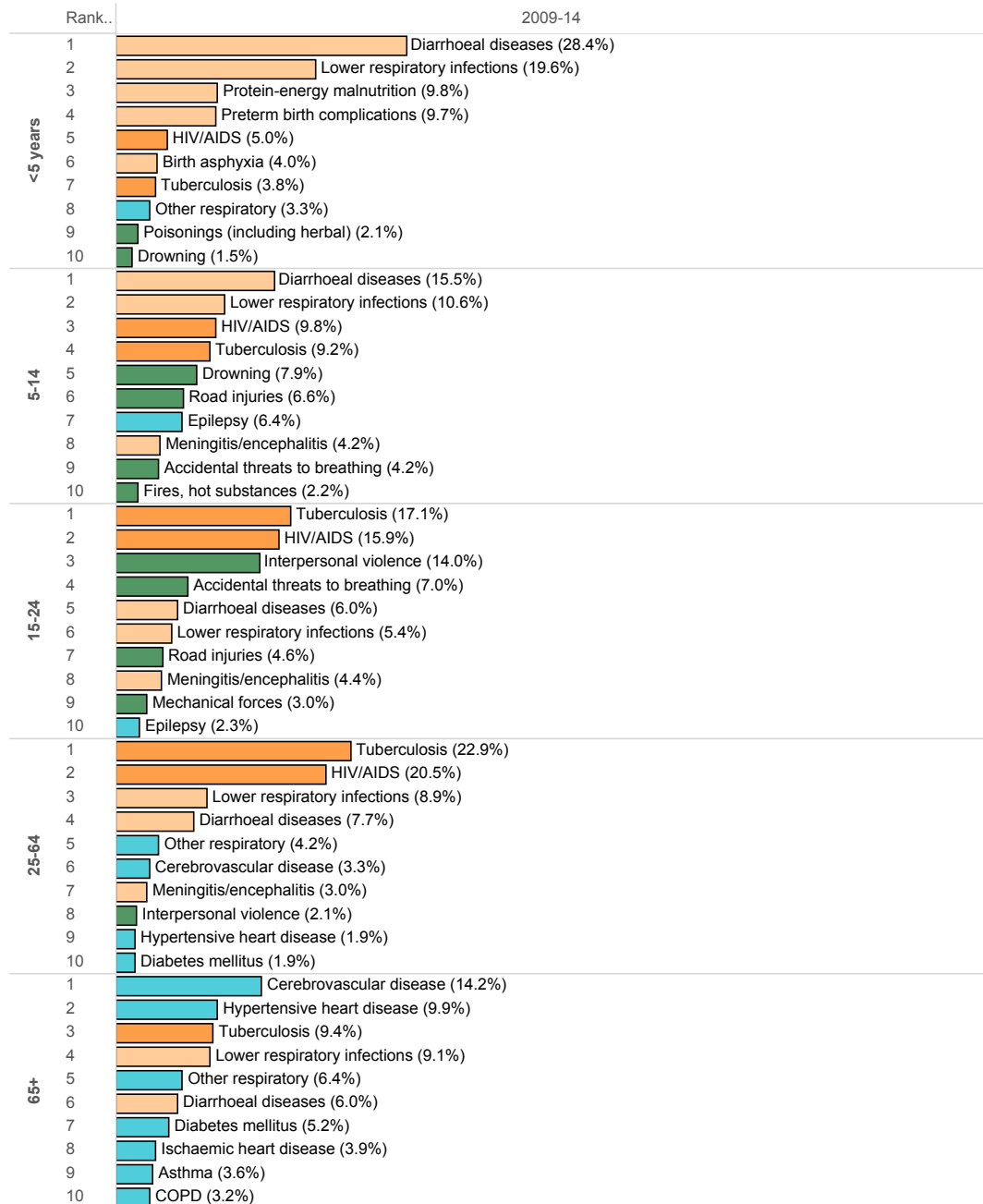
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: A Nzo (DC44)

EC, A Nzo: DC44, 2009-14

Broadcause	Female					Male				
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	76%	10%	8%	5%		75%	8%	10%	7%	
5-14	35%	24%	18%	23%		33%	14%	23%	30%	
15-24	25%	46%	18%	12%		11%	18%	13%	57%	
25-64	23%	44%	30%	3%		20%	43%	26%	11%	
65+	17%	9%	72%	2%		18%	15%	65%	3%	
Total	25%	29%	43%	4%		23%	31%	34%	12%	



Indicator performance: A Nzo (DC44)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			4.0	44	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.0	5.2	5.0	19	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 082.3	1 922.9	2 093.7	24	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	60.7	65.8	60.2	39	57.2	65.3	
	Inpatient crude death rate [Percentage]	7.5	6.6	7.0	48	6.3	5.0	
Delivery	OPD new client not referred rate (district hospitals) [Percentage]	55.1	52.8	57.9	25	63.8	58.3	
	Delivery by caesarean section rate (district hospitals) [Percentage]	19.2	22.2	21.3		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	12.9	12.8	12.1	52	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.5	8.7	6.5	3	12.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	123.2	67.9	50.2	5	135.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	49.1	53.3	54.9	41	58.2	68.5	
	Stillbirth in facility rate [per 1 000 births]	16.9	14.9	14.8	6	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	37.5	37.5	42.8	52	59.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	73.9	87.0	92.5	27	93.9	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.4	33	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	10.0	7.7	5.2	49	3.6	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	8.1	6.7	4.5	45	3.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	18.6	18.1	11.9	42	10.1	8.9	
	Inpatient death under 5 year rate [Percentage]	13.2	11.0	7.1	42	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	6.5	3.2	11.3	44	19.0	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	57.2	50.2	63.1	14	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	73.2	72.3	81.5	33	86.8	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	79.0	67.7	83.2	24	81.1	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	23.2	23.1	27.5	50	57.4	56.6	
	Couple year protection rate (annualised) [Percentage]	20.6	21.3	29.8	50	53.5	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	31.0	32.4	30.4	35	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	11.5	15.2	27.6	45	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.9	0.7	1.0		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.7	14.0	15.5		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			5.3	42	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.4	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		657.3	600.3	491.2	18	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.4	4.7	5.4	19	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	67.7	67.1	74.7		34	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	73.5	72.1	79.3		19	76.2	77.2	
	TB death rate (ETR.net) [Percentage]	13.1	12.7	10.4		44	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	5.9	5.5	5.4		30	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		38.6			37	33.9	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		82.3	95.9	96.5	11	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		82.4	86.5	95.0	12	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	25.3			25.0	17	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	28.1	27.8	29.5		6	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	37.9	37.0	32.5		39	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	25.2	24.6	23.3		32	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	8.5	8.9	7.8		2	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	8.9	10.6	14.7		37	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	55.0	52.4	54.8		52	20.3	13.8	

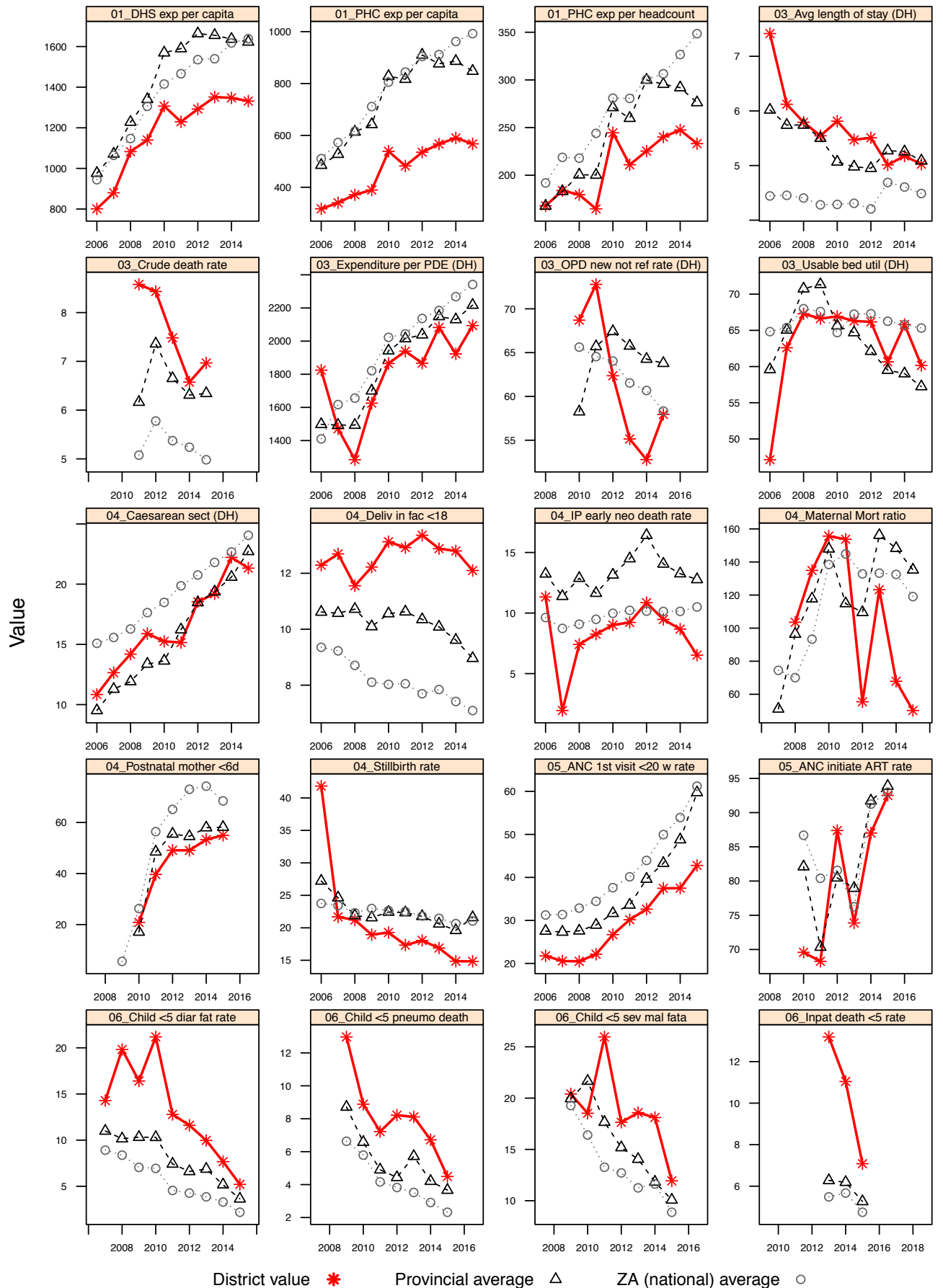
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

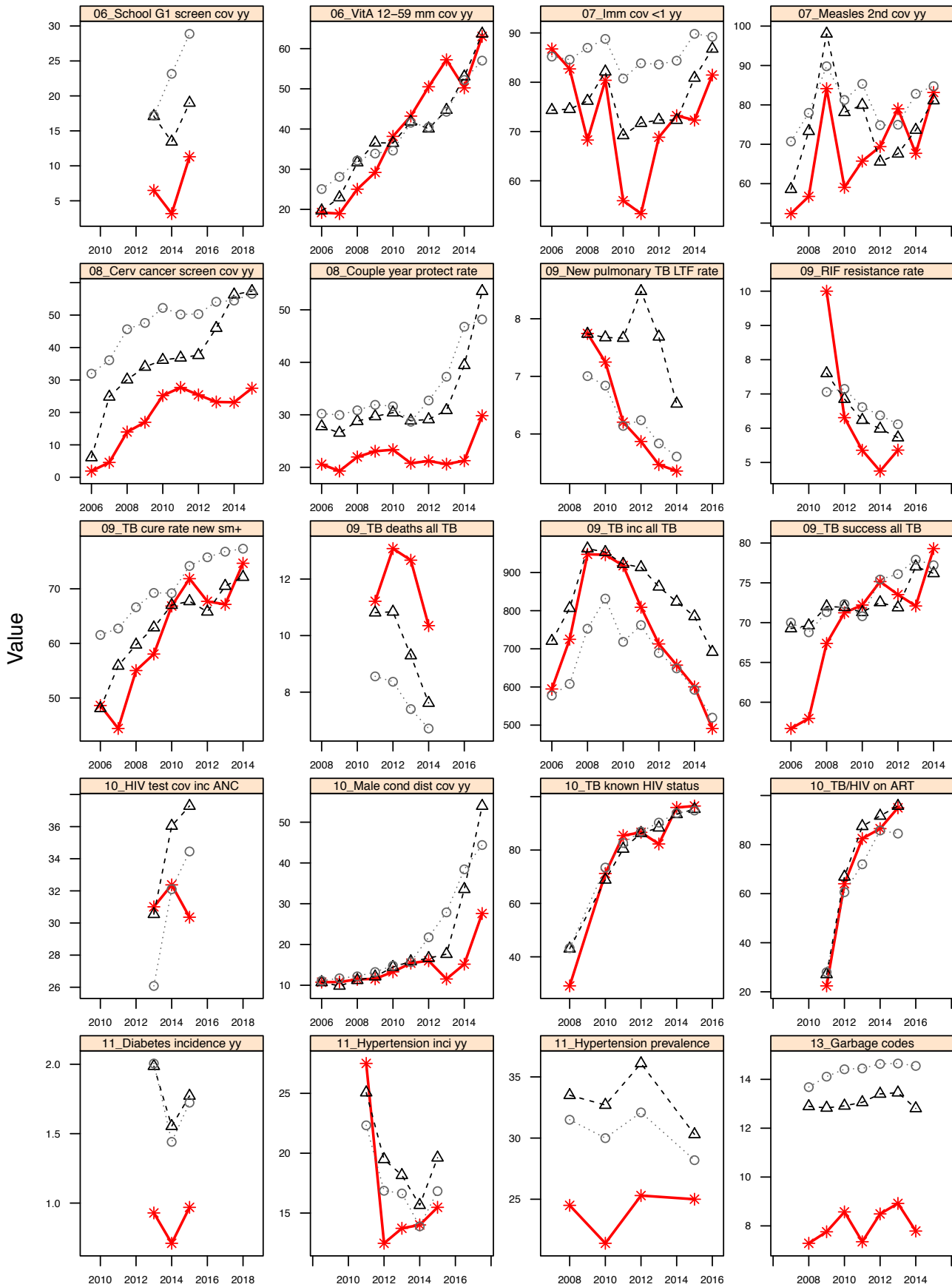
Value highlighted in yellow – performance is ranked among the 10 best in the country

Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: A Nzo (DC44)



Annual indicators for district: A Nzo (DC44)



District value * Provincial average Δ ZA (national) average ○

Nelson Mandela Bay Metropolitan District (NMA)

Nelson Mandela Bay is a Category A municipality in the Eastern Cape Province and comprises three health sub-districts, namely Nelson Mandela A, Nelson Mandela B and Nelson Mandela C. It has a population of 1 195 603, with a population density of 610.3 people per km², and falls into socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 22.6%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
40	9	1	1	2	8

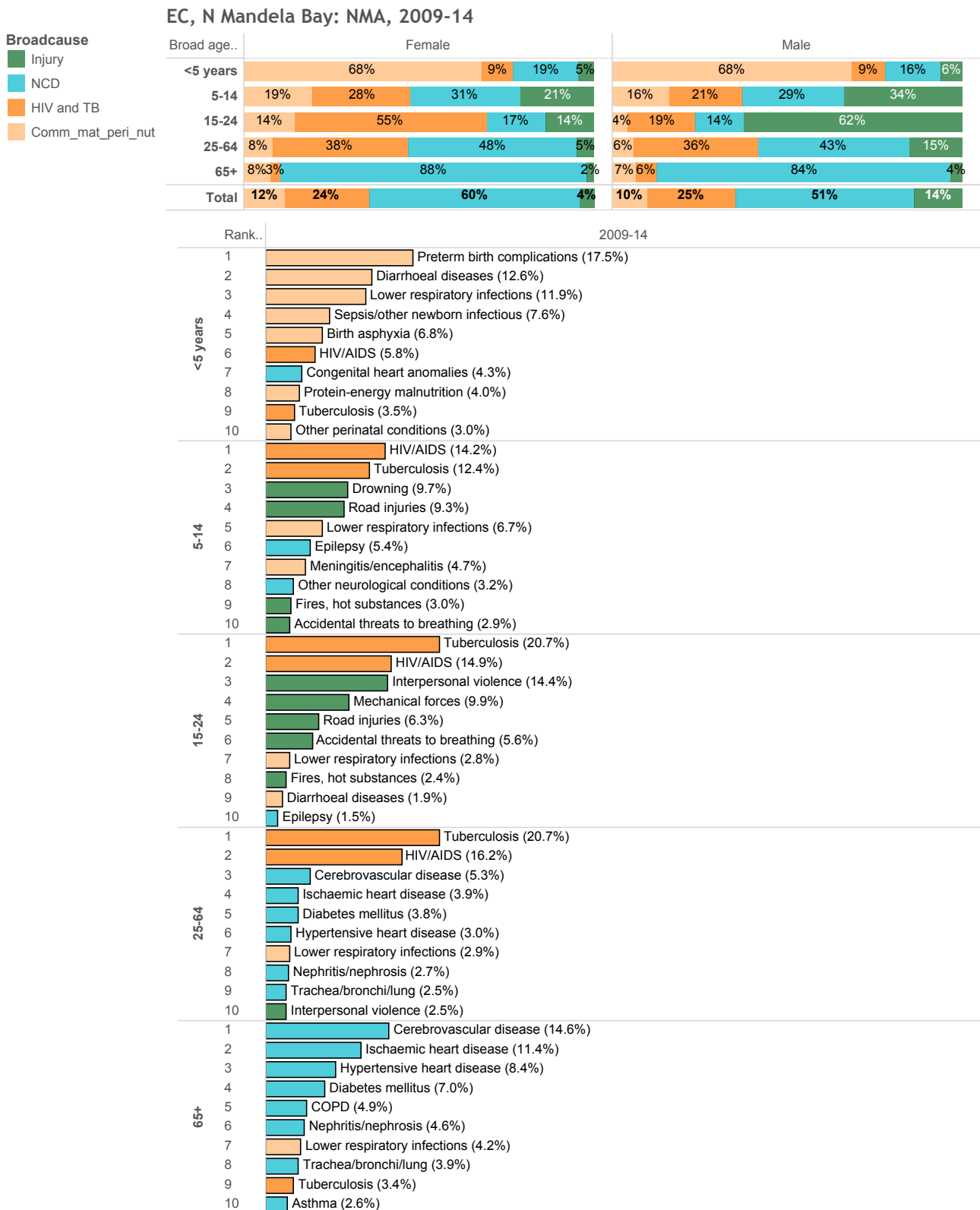
Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	381 909	386 741	384 794
PHC headcount 5 years and older	2 950 954	2 917 721	2 858 845
Patient day equivalent	981 950	1 000 520	1 004 851
Deaths – total	4 698	4 798	4 732
Still births	367	386	370
Early neonatal deaths	521	388	267
Late neonatal deaths	72	105	54
Child under 5 years with diarrhoea death	17	9	8
Child under 5 years with pneumonia death	46	53	37
Child under 5 years with severe acute malnutrition death	17	25	16

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: N Mandela Bay (NMA)



Indicator performance: N Mandela Bay (NMA)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			6.1	25	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			6.1	41	10.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.5	3.7	3.8	23	5.1	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	3 461.3	3 099.8	3 044.2	44	2 217.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	58.5	60.5	63.8	29	57.2	65.3	78.6
	Inpatient crude death rate [Percentage]	5.1	5.1	5.3	22	6.3	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	29.2	8.9	6.6	2	63.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	41.1	41.1	43.9		22.7	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.7	5.7	5.1	6	9.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	25.7	19.5	13.9	45	12.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	132.9	125.3	109.4	30	135.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	52.3	54.2	52.8	44	58.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	17.7	19.0	18.9	16	21.6	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	49.9	55.4	61.5	34	59.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	93.9	96.4	96.1	18	93.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.7	41	1.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	2.5	1.4	1.6	19	3.6	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.3	4.7	4.5	47	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	9.8	12.6	8.5	27	10.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	4.5	4.1	3.5	13	5.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	13.5	13.2	12.5	41	19.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	42.1	47.3	52.3	38	63.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	85.8	87.6	80.0	38	86.8	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	69.8	74.2	70.9	47	81.1	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	44.3	44.6	44.8	40	57.4	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	34.3	41.8	47.2	32	53.5	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	22.0	23.2	25.4	49	37.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	15.8	27.2	35.2	39	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.5	1.1	1.4		1.8	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	9.8	9.4	9.1		19.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			6.1	41	10.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.0	18	0.4	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		983.6	982.5	937.5	50	691.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.9	6.4	6.2	33	5.7	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	62.8	68.5	67.0		50	72.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.8	77.7	76.1		31	76.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	7.9	6.8	5.8		16	7.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	12.1	10.9	8.8		47	6.5	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		31.1			48	33.9	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		83.3	93.1	95.4	22	95.3	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		88.5	92.5	95.6	10	95.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	40.3			35.0	37	30.3	28.2	

Section B: Profile Eastern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	46.3	46.9	47.4		45	38.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	29.7	29.1	28.0		31	31.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	12.2	11.9	12.0		9	15.8	21.2	
	Percentage of deaths garbage codes [Percentage]	13.4	12.5	13.2		26	12.8	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.9	12.1	12.5		22	14.5	13.6	
	Percentage of deaths ill-defined [Percentage]	8.1	7.4	6.2		4	20.3	13.8	

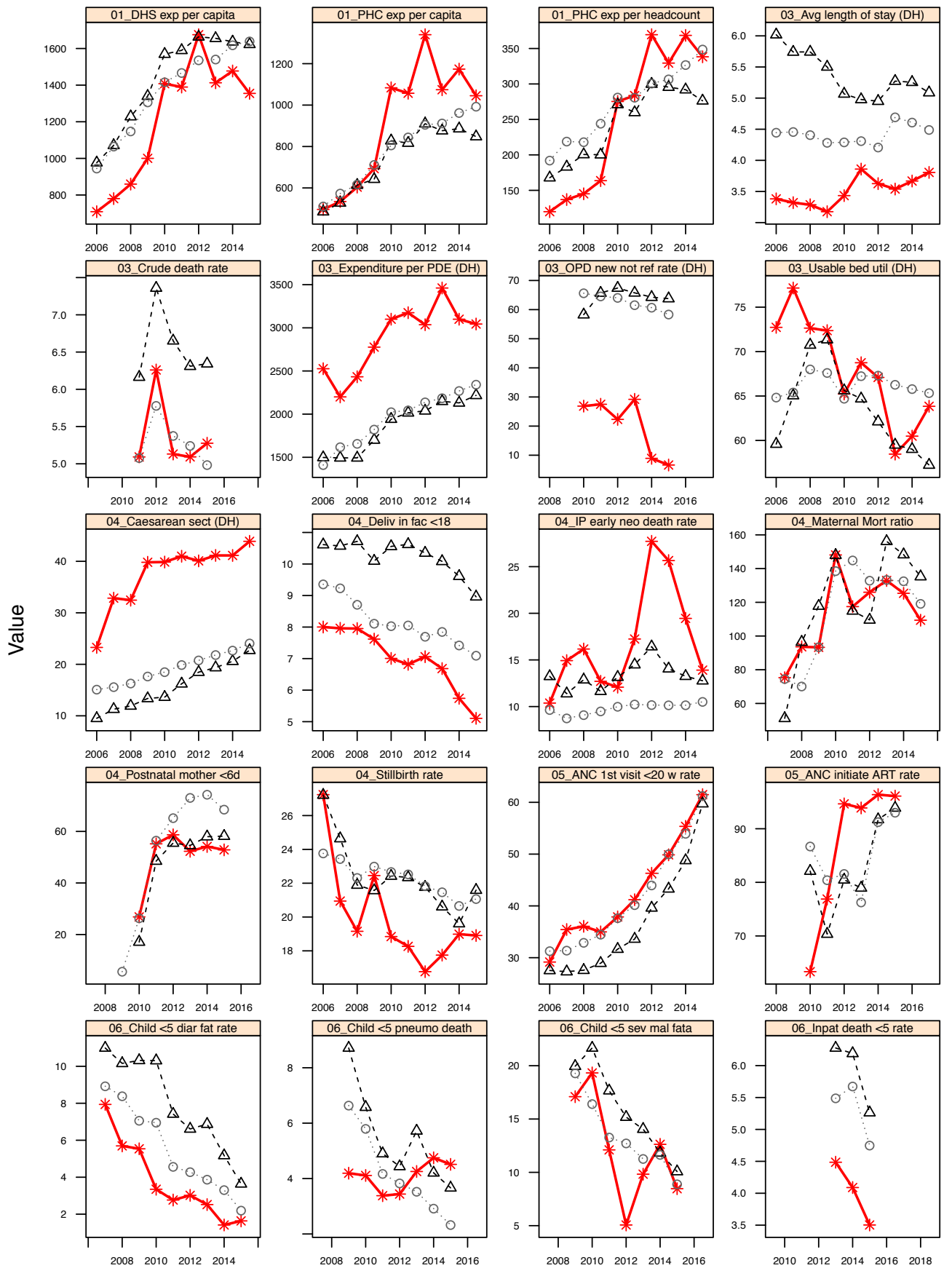
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

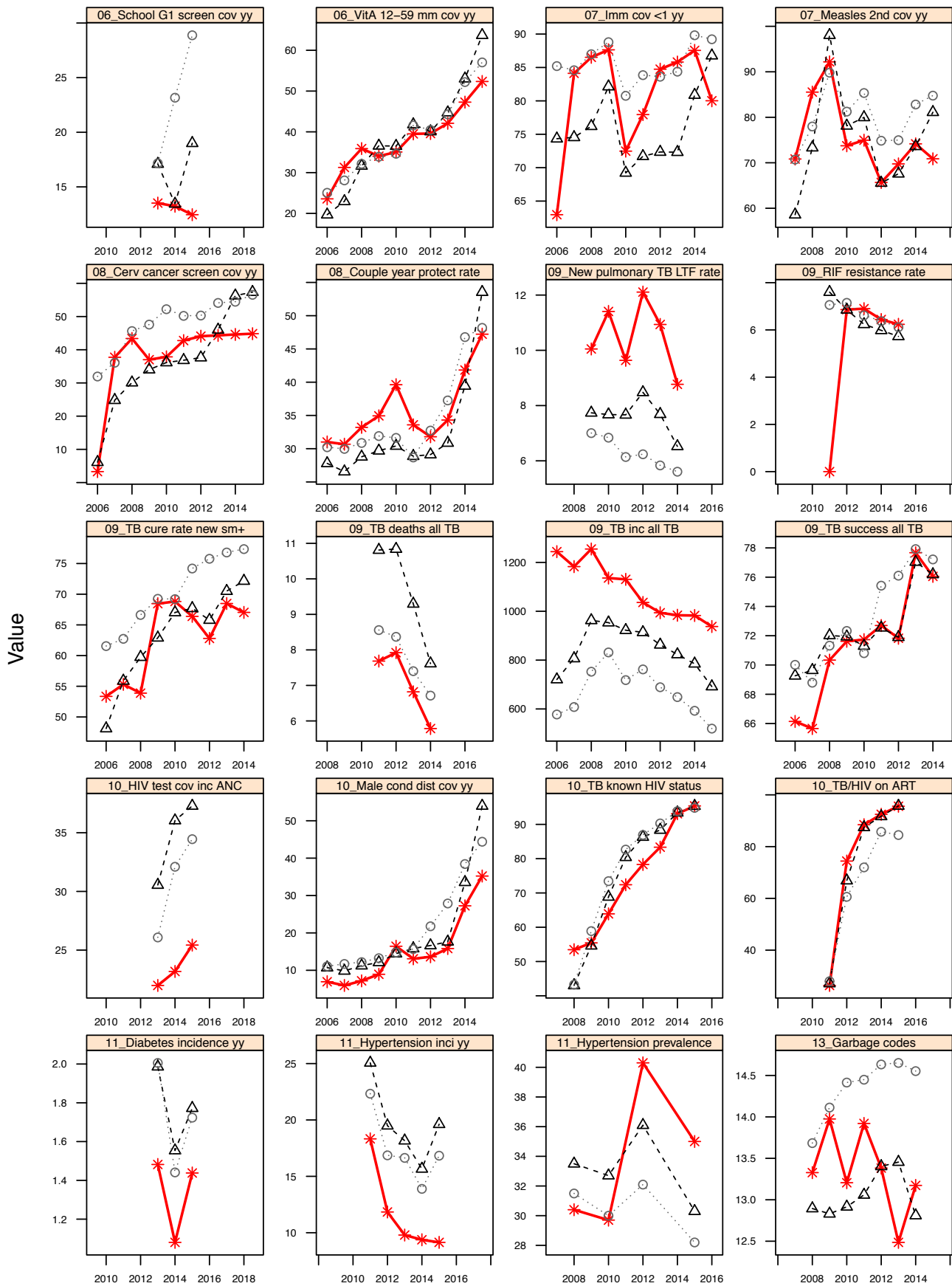
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: N Mandela Bay (NMA)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: N Mandela Bay (NMA)



District value * Provincial average Δ ZA (national) average ○

15 Free State Province

Xhariep District Municipality (DC16)

Xhariep is the southern most district in the Free State Province and is divided into four sub-districts, namely Letsemeng, Kopanong, Mohokare and Naledi. Geographically it is the largest of the five districts in the province, but it has the smallest population, at 137 273, with a population density of 3.6 people per km². The district falls into socio-economic Quintile 3. Estimated medical scheme coverage is 9.7%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
20	1	4	0	0	0

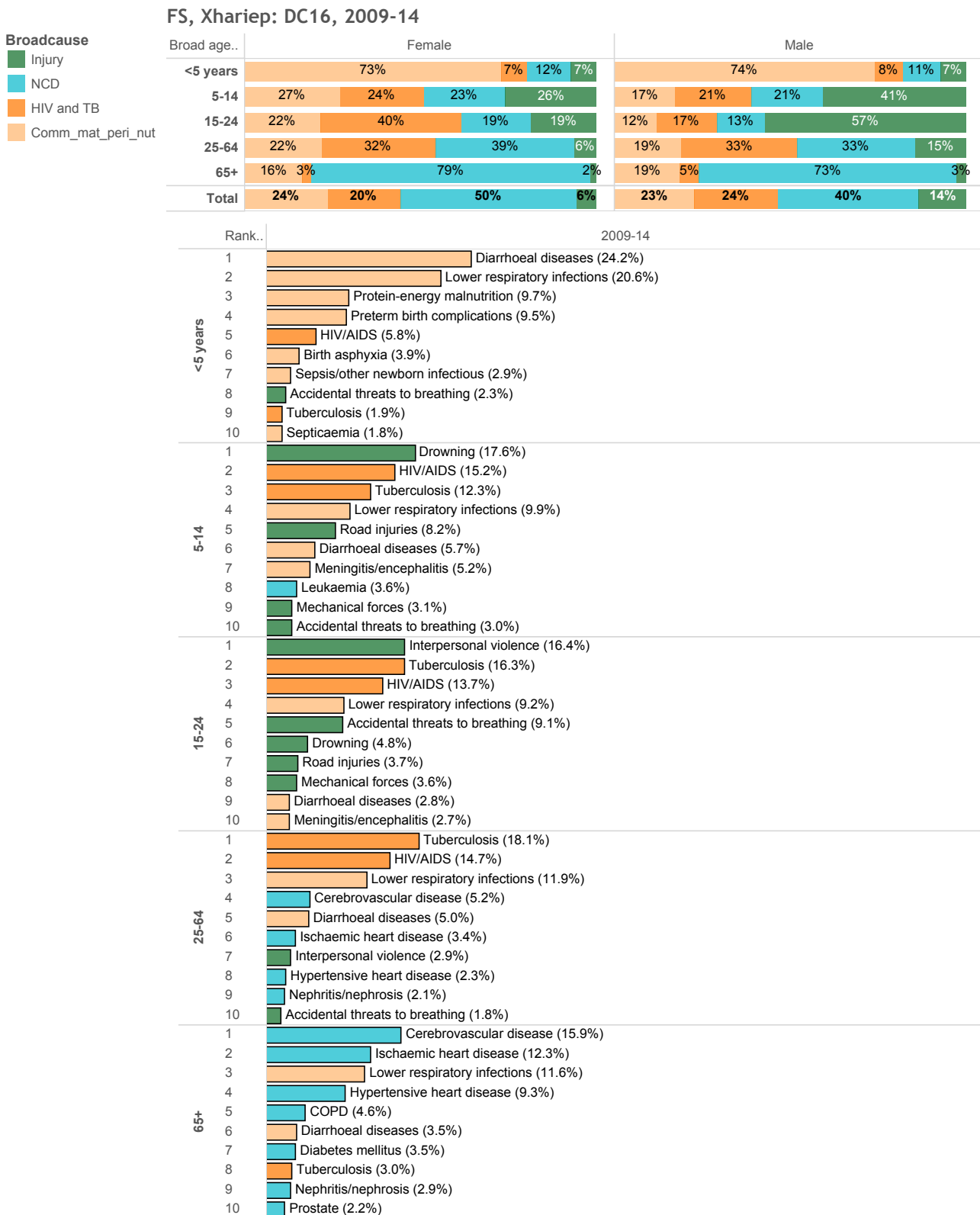
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	75 991	75 049	74 820
PHC headcount 5 years and older	472 863	488 548	479 045
Patient day equivalent	28 076	29 721	23 924
Deaths – total	329	356	356
Still births	19	20	23
Early neonatal deaths	8	8	2
Late neonatal deaths	3	1	1
Child under 5 years with diarrhoea death	2	1	0
Child under 5 years with pneumonia death	1	0	1
Child under 5 years with severe acute malnutrition death	12	5	1

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Xhariep (DC16)



Indicator performance: Xhariep (DC16)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			33.3	7	10.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			47.6	3	20.8	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.3	2.2	3.1	40	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 225.7	2 051.5	2 806.8	39	2 310.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	71.2	80.8	63.8	30	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	5.3	3.5	6.3	42	5.8	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	32.7	38.2	40.3	15	68.1	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	2.0	0.0	0.0		16.0	24.1	
	Delivery in facility under 18 years rate [Percentage]	5.6	8.9	6.5	14	6.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.8	9.2	2.7	1	10.6	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	-	115.5	269.9	51	130.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	219.6	211.8	190.9	1	71.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	20.9	22.6	30.1	51	27.1	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	67.4	68.7	75.3	3	62.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	85.9	93.9	91.7	30	86.8	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			0.0	1	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	1.7	0.8	0.0	1	2.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	1.4	0.0	1.4	14	2.4	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	15.9	9.3	2.3	6	8.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	3.6	1.9	1.5	6	5.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	29.3	25.5	30.1	21	24.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	76.0	93.1	94.4	1	58.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	90.2	112.7	123.2	1	86.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	92.9	114.5	133.3	1	92.3	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	80.6	87.2	101.6	2	58.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	38.8	56.6	65.7	4	57.4	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	43.4	52.6	65.4	1	31.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	15.7	37.5	43.0	30	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	0.9	0.9		1.1	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	20.5	12.0	18.8		17.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			47.6	2	20.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			9.5	2	3.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		987.4	978.7	783.8	41	574.8	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.8	5.2	5.6	25	5.5	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	81.4	80.7	79.6		19	75.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	78.1	81.3	76.6		29	78.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	10.4	11.5	10.0		42	10.7	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.5	4.0	4.6		20	5.2	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		51.4			21	41.7	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		87.7	95.8	98.5	3	93.0	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		88.4	97.5	96.2	7	84.5	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	41.4			36.8	38	28.4	28.2	

Section B: Profile Free State Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	37.6	40.6	37.5		30	37.2	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	30.9	24.9	22.9		11	27.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	17.7	21.1	20.3		27	23.6	21.2	
	Percentage of deaths garbage codes [Percentage]	15.2	14.5	14.9		41	13.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	13.8	13.4	19.3		51	12.1	13.6	
	Percentage of deaths ill-defined [Percentage]	20.1	18.4	16.8		44	12.3	13.8	

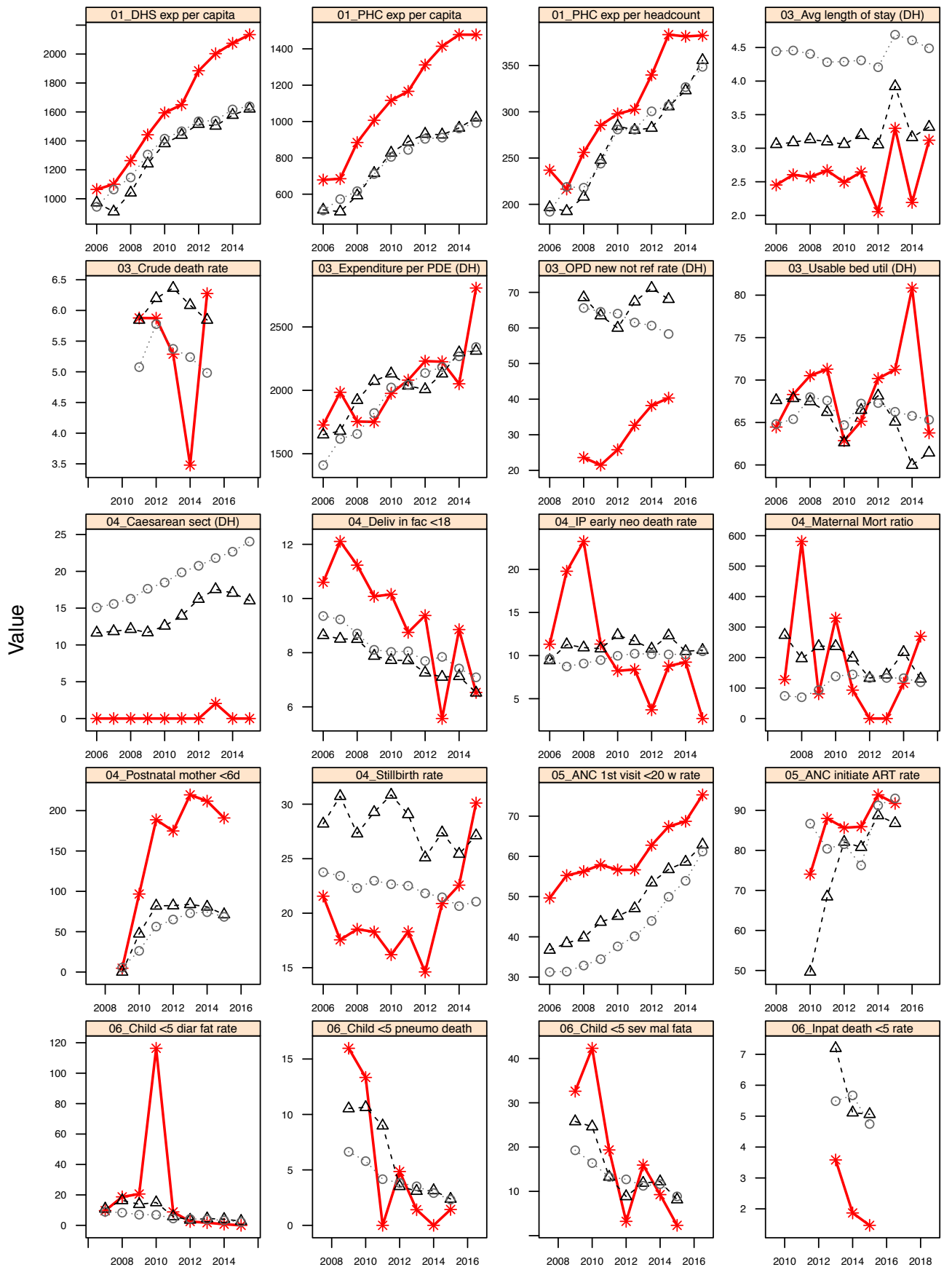
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

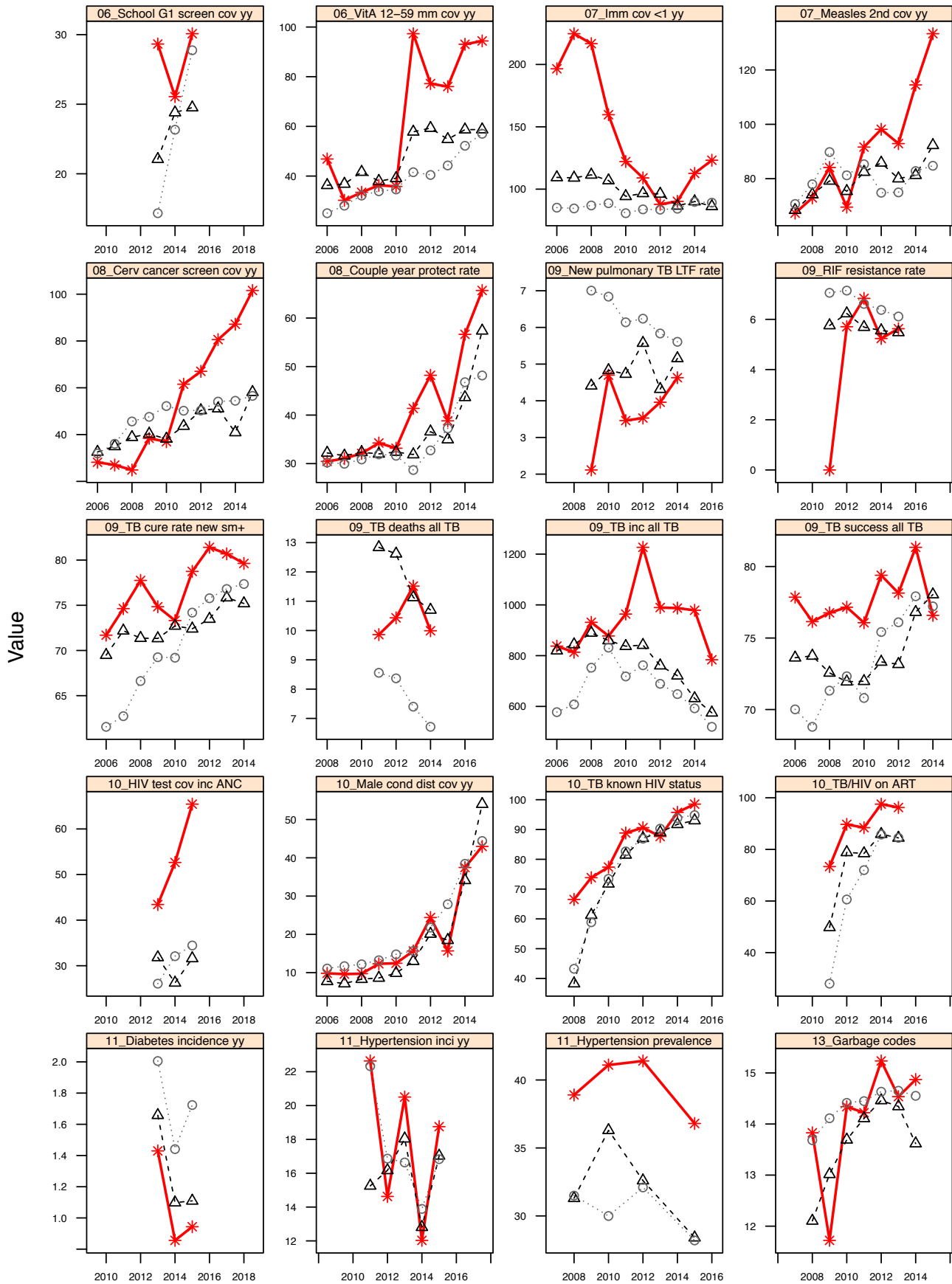
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Xhariep (DC16)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Xhariep (DC16)



District value * Provincial average Δ ZA (national) average ○

Lejweleputswa District Municipality (DC18)

Lejweleputswa District is located in the north-western part of the Free State Province. The district is divided into five sub-districts, namely Masilonyana, Tokologo, Tswelopele, Matjhabeng and Nala, with a population of 596 059 and a population density of 18.7 people per km². The district falls in socio-economic Quintile 4, among the wealthier districts. Estimated medical scheme coverage is 18.1%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
43	2	5	1	0	5

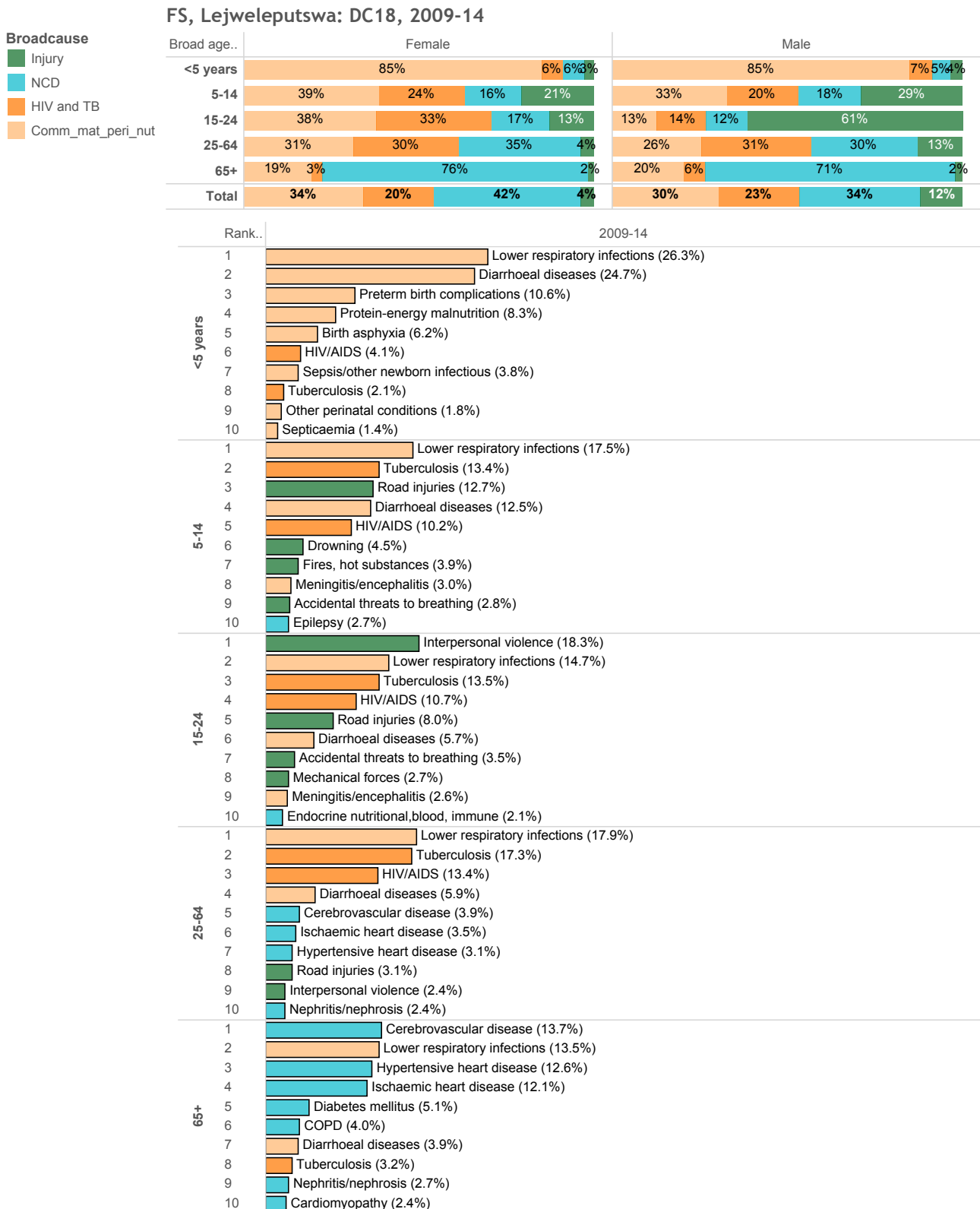
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	213 594	214 230	202 998
PHC headcount 5 years and older	1 544 090	1 553 410	1 512 899
Patient day equivalent	228 073	226 895	232 087
Deaths – total	2 688	2 658	2 581
Still births	307	313	297
Early neonatal deaths	146	134	107
Late neonatal deaths	34	13	34
Child under 5 years with diarrhoea death	29	16	11
Child under 5 years with pneumonia death	16	26	18
Child under 5 years with severe acute malnutrition death	33	44	34

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Lejweleputswa (DC18)



Indicator performance: Lejweleputswa (DC18)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			6.7	24	10.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			8.9	36	20.8	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	2.8	2.4	2.8	47	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 436.6	2 454.5	2 239.7	12	2 310.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	50.1	49.6	54.2	46	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	7.3	6.5	6.6	46	5.8	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	62.4	61.7	58.1	26	68.1	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	11.6	9.7	6.6		16.0	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.9	7.9	6.5	15	6.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	14.8	13.5	11.9	38	10.6	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	192.2	211.1	156.3	42	130.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	87.7	88.3	75.9	10	71.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	30.1	30.5	32.1	52	27.1	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	57.8	60.7	63.5	25	62.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	83.6	89.2	91.7	31	86.8	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.2	27	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.3	2.7	1.9	25	2.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	2.7	5.1	3.2	38	2.4	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	17.6	21.5	18.1	51	8.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	9.2	7.7	7.1	41	5.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	27.2	41.5	40.4	13	24.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	77.5	83.0	82.0	4	58.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	97.4	100.7	109.1	4	86.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	99.0	95.1	115.2	2	92.3	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	49.4	44.7	60.6	23	58.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	44.0	49.1	57.5	16	57.4	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	29.0	21.7	27.9	42	31.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	25.8	34.6	45.5	29	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.2	0.9	0.8		1.1	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	11.5	9.4	13.3		17.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			8.9	37	20.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	3.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		899.9	764.0	691.2	37	574.8	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.0	4.7	4.7	13	5.5	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	72.1	75.7	69.0		46	75.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	77.0	80.9	78.8		22	78.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	9.4	8.1	8.8		33	10.7	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	6.2	4.4	6.5		39	5.2	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		35.9			44	41.7	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		86.9	86.4	86.1	52	93.0	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		76.2	78.4	75.6	42	84.5	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	27.8			26.6	20	28.4	28.2	

Section B: Profile Free State Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	32.9	32.8	33.4		15	37.2	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	25.1	23.8	25.1		19	27.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	30.8	30.0	29.2		47	23.6	21.2	
	Percentage of deaths garbage codes [Percentage]	12.4	12.6	12.0		17	13.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.2	13.4	12.2		20	12.1	13.6	
	Percentage of deaths ill-defined [Percentage]	15.5	14.5	12.2		33	12.3	13.8	

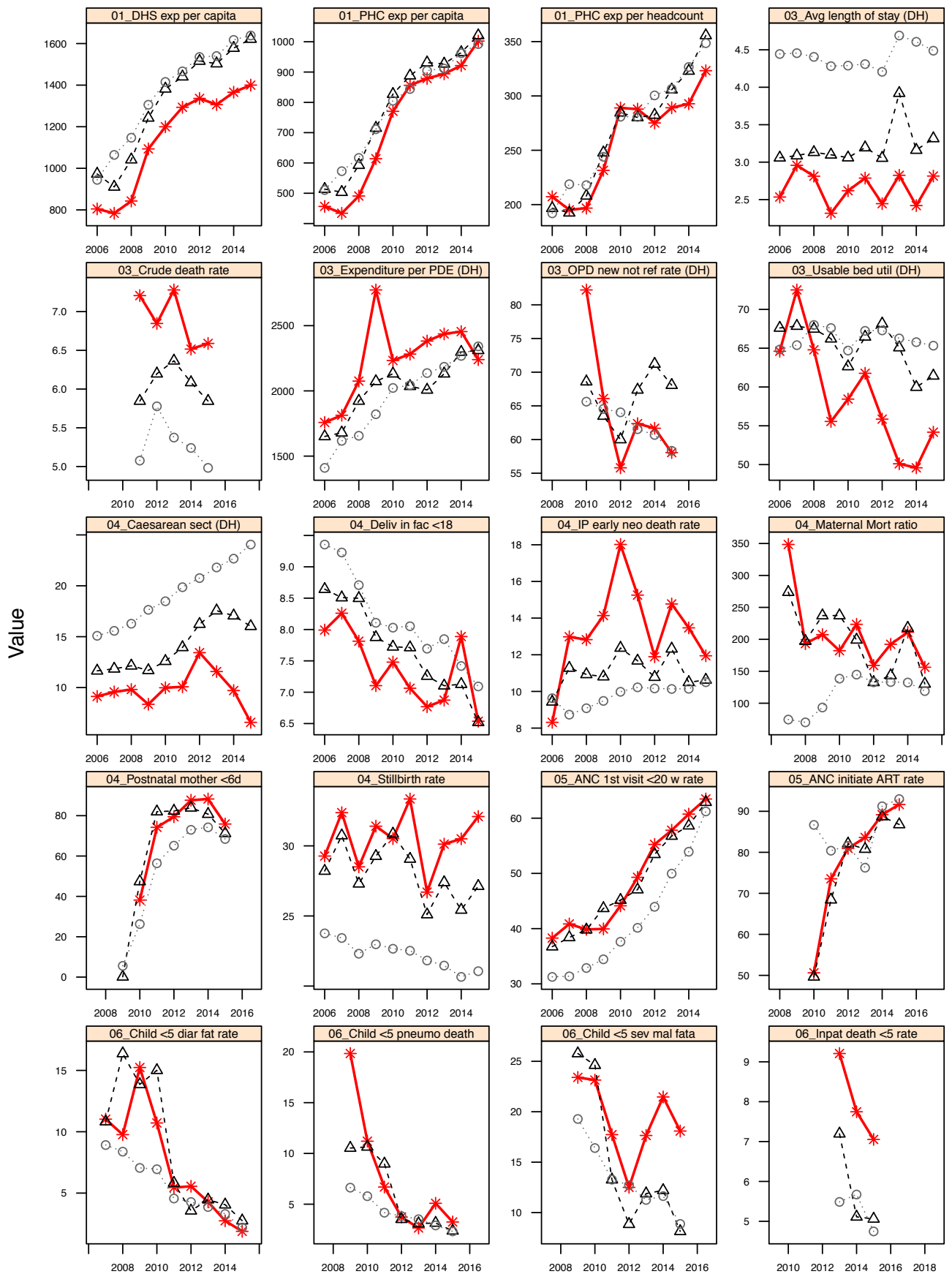
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

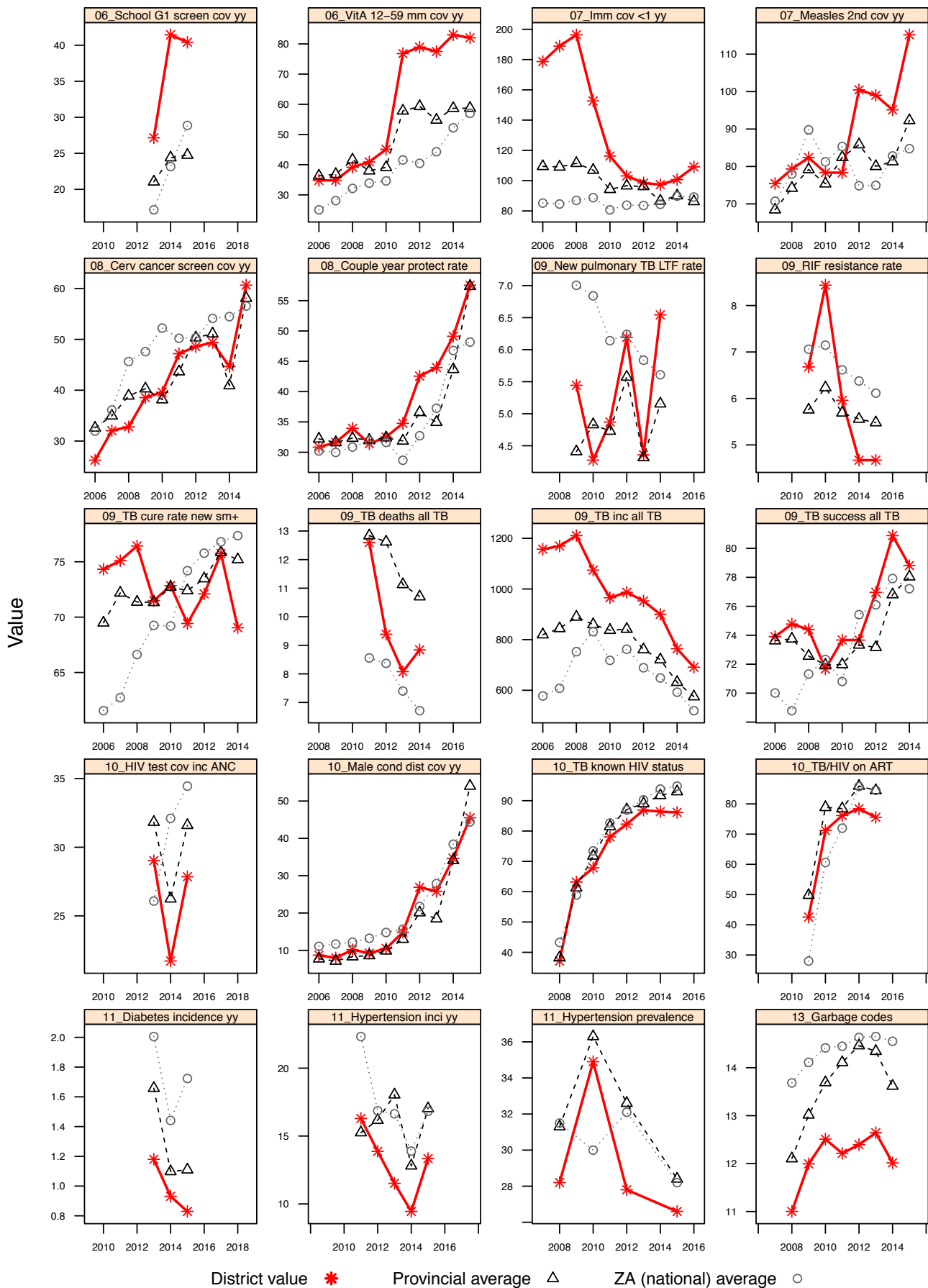
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Lejweleputswa (DC18)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Lejweleputswa (DC18)



Thabo Mofutsanyana District Municipality (DC19)

Thabo Mofutsanyana District is located in the eastern Free State Province and borders Lesotho and KwaZulu-Natal. It includes six sub-districts, namely Setsoto, Dihlabeng, Nketoana, Maluti-a-Phofung, Phumelela and Mantsopa. The district has a population of 714 061, with a population density of 21.5 people per km², and falls in socio-economic Quintile 3. Estimated medical scheme coverage is 6.1%. It is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
73	1	9	2	0	3

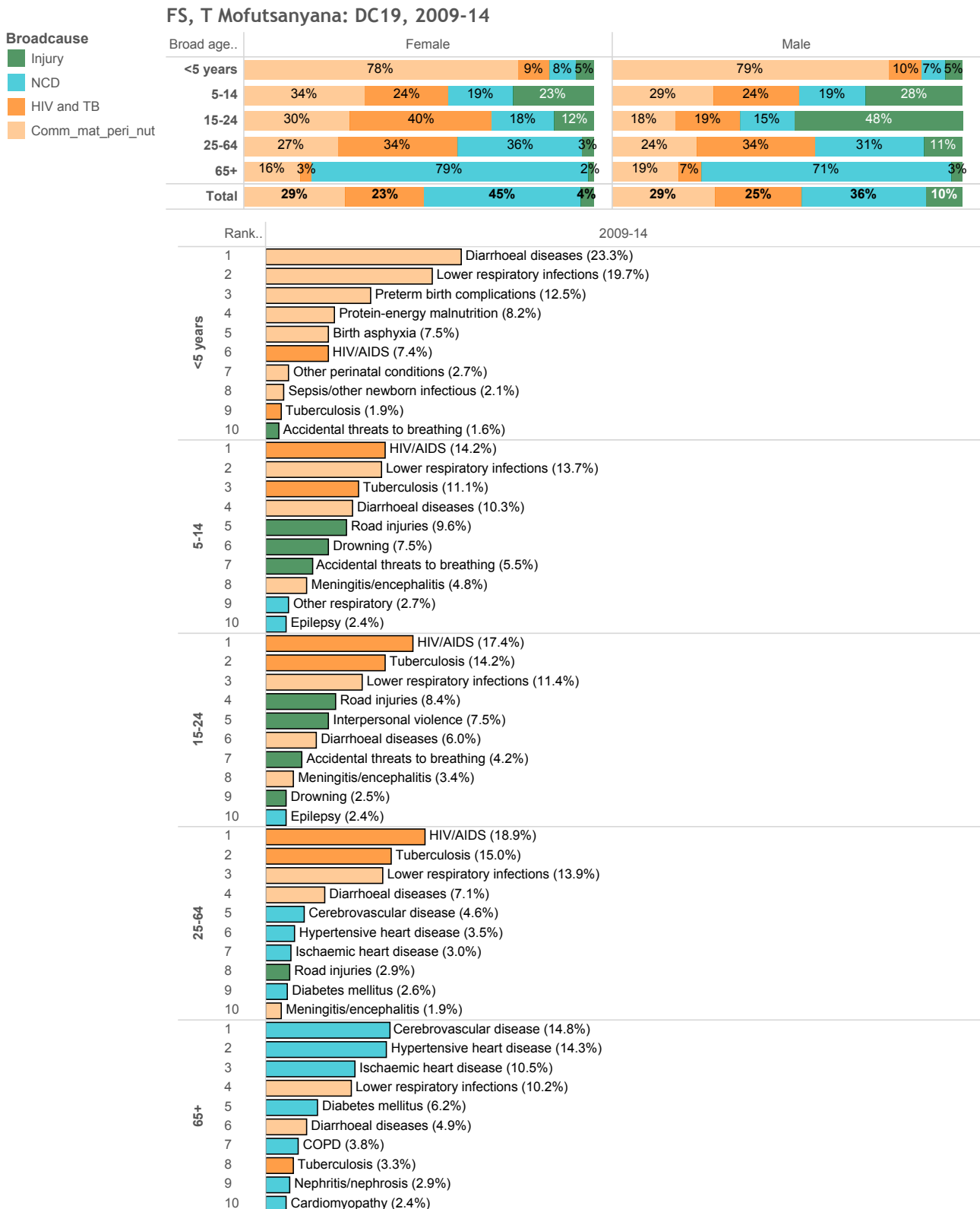
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	347 635	303 429	291 020
PHC headcount 5 years and older	2 133 440	1 980 496	1 902 125
Patient day equivalent	310 312	301 970	304 117
Deaths – total	2 931	3 441	2 982
Still births	348	327	290
Early neonatal deaths	157	101	65
Late neonatal deaths	31	24	29
Child under 5 years with diarrhoea death	40	29	20
Child under 5 years with pneumonia death	28	21	8
Child under 5 years with severe acute malnutrition death	52	52	26

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: T Mofutsanyana (DC19)



Indicator performance: T Mofutsanyana (DC19)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			13.7	16	10.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			17.8	29	20.8	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.5	2.8	2.8	46	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 079.1	2 087.4	2 090.3	25	2 310.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	51.9	50.6	50.1	49	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	6.7	6.9	5.8	33	5.8	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	67.5	69.6	67.9	40	68.1	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	10.7	8.7	8.3		16.0	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.8	7.6	7.2	22	6.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	12.9	8.0	5.5	2	10.6	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	123.3	213.1	110.4	31	130.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	92.2	89.6	77.1	6	71.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	27.5	25.2	24.0	36	27.1	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	55.7	58.5	63.0	29	62.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	82.7	89.3	90.4	39	86.8	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	16	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	6.5	4.5	3.7	45	2.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.7	5.1	2.2	22	2.4	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	16.6	13.0	7.5	19	8.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	9.0	7.6	4.9	23	5.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	26.0	21.8	26.1	25	24.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	59.8	59.9	61.1	16	58.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	91.7	92.5	88.8	17	86.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	89.5	83.9	94.6	9	92.3	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	68.5	43.4	70.0	16	58.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	38.9	37.8	54.4	20	57.4	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	35.0	28.4	33.5	27	31.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	19.0	21.6	46.4	28	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.2	0.9	0.9		1.1	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	25.5	10.1	15.7		17.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			17.8	27	20.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			5.5	6	3.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		547.1	507.8	473.6	16	574.8	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.1	5.1	4.9	17	5.5	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	77.2	77.2	82.5		11	75.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	74.8	76.9	81.1		12	78.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	14.6	12.4	12.0		48	10.7	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	2.4	2.9	4.2		14	5.2	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		60.2			8	41.7	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		91.4	92.9	94.2	35	93.0	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		84.3	91.8	90.6	20	84.5	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	30.8			26.7	21	28.4	28.2	

Section B: Profile Free State Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	32.4	33.1	34.4		20	37.2	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	29.4	28.1	31.4		36	27.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	27.9	28.0	24.2		34	23.6	21.2	
	Percentage of deaths garbage codes [Percentage]	15.1	14.2	14.4		35	13.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.3	10.7	10.1		4	12.1	13.6	
	Percentage of deaths ill-defined [Percentage]	7.3	8.2	10.0		22	12.3	13.8	

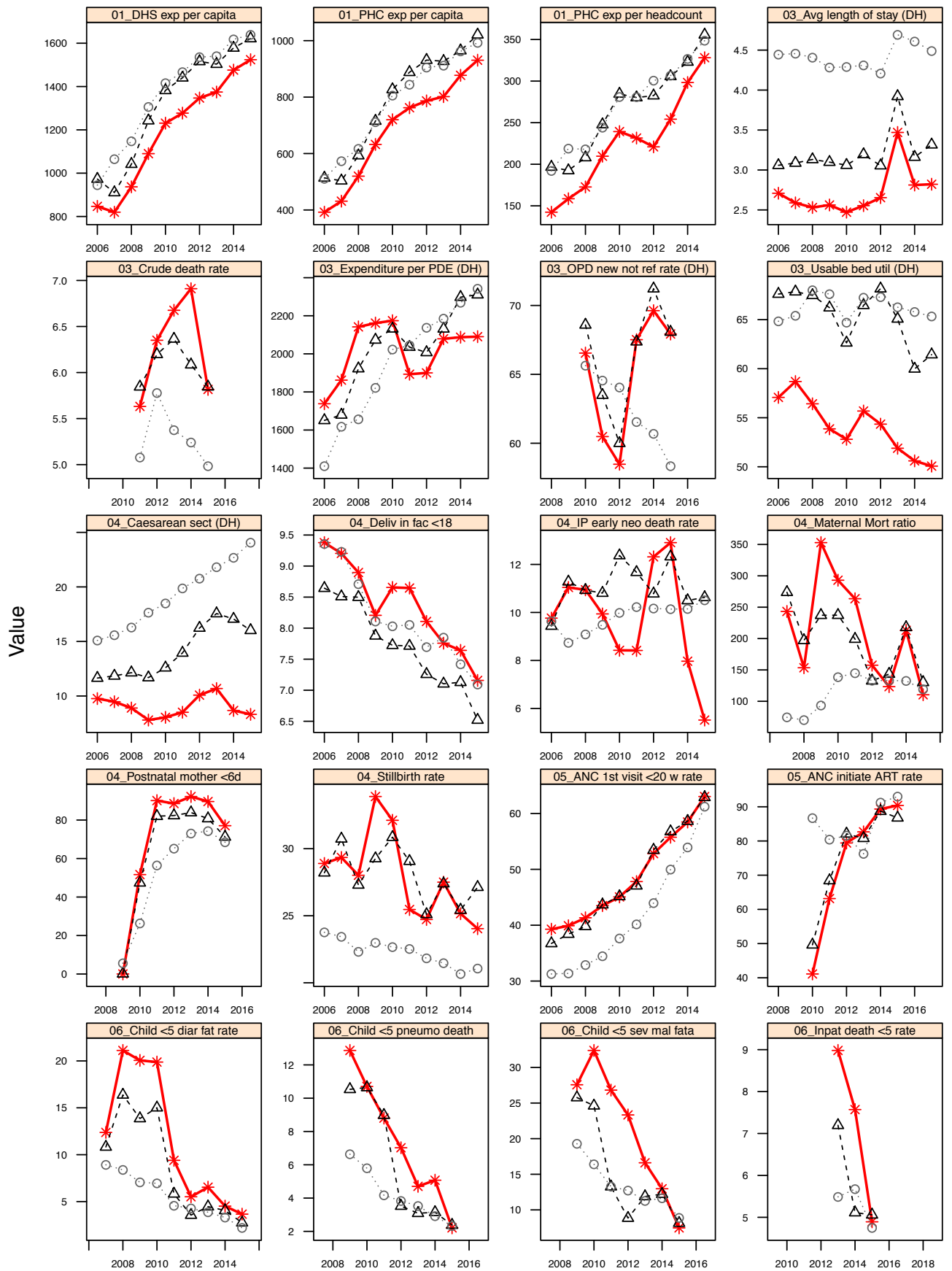
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

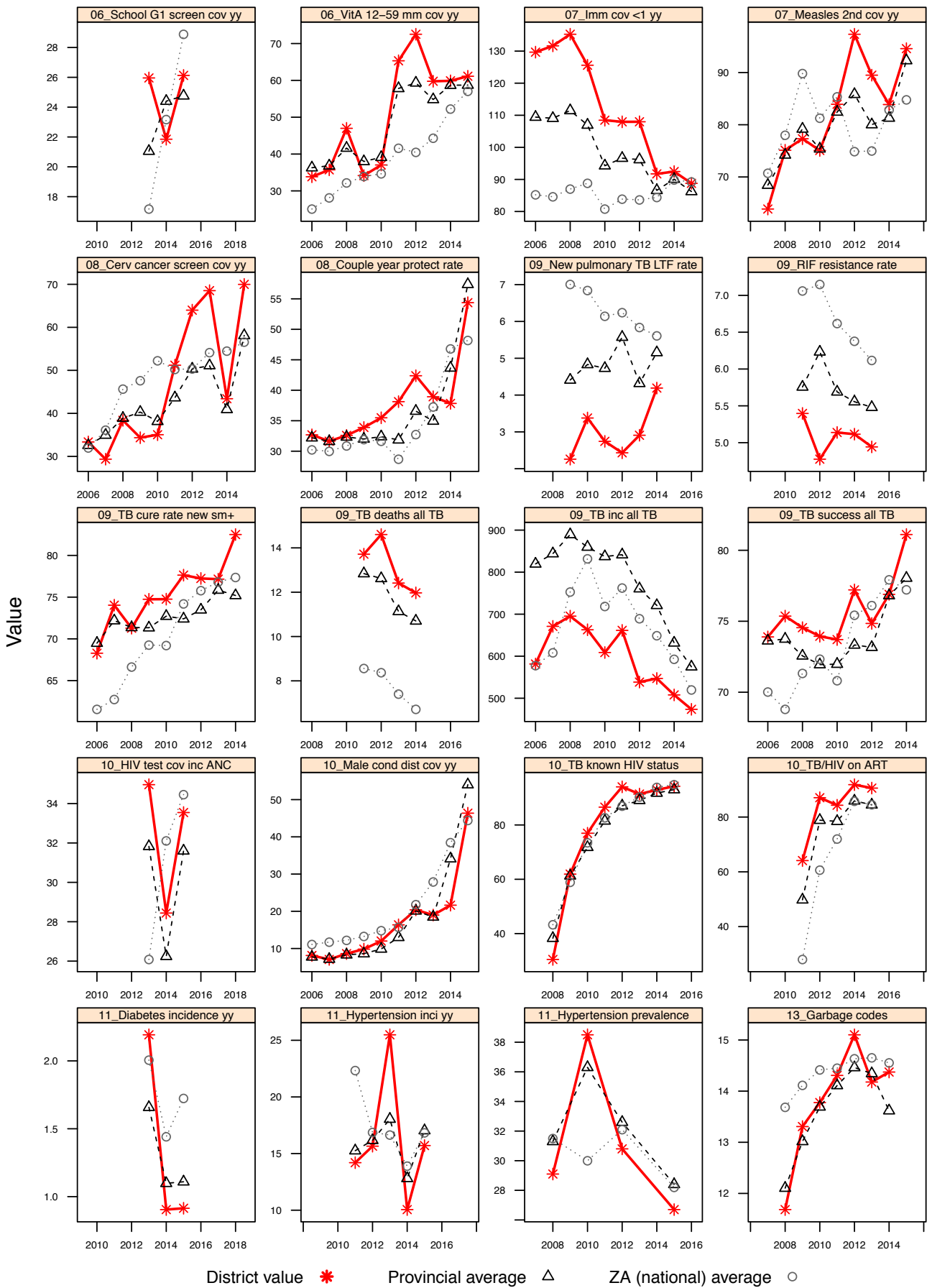
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: T Mofutsanyana (DC19)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: T Mofutsanyana (DC19)



Fezile Dabi District Municipality (DC20)

Fezile Dabi District is located in the northern Free State Province and is divided into four sub-districts, namely Moqhaka, Metsimaholo, Ngwathe and Mafube. The district has a population of 520 209, with a population density of 25.2 people per km² and falls in socio-economic Quintile 4. Estimated medical scheme coverage is 23.7%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
34	5	4	1	0	4

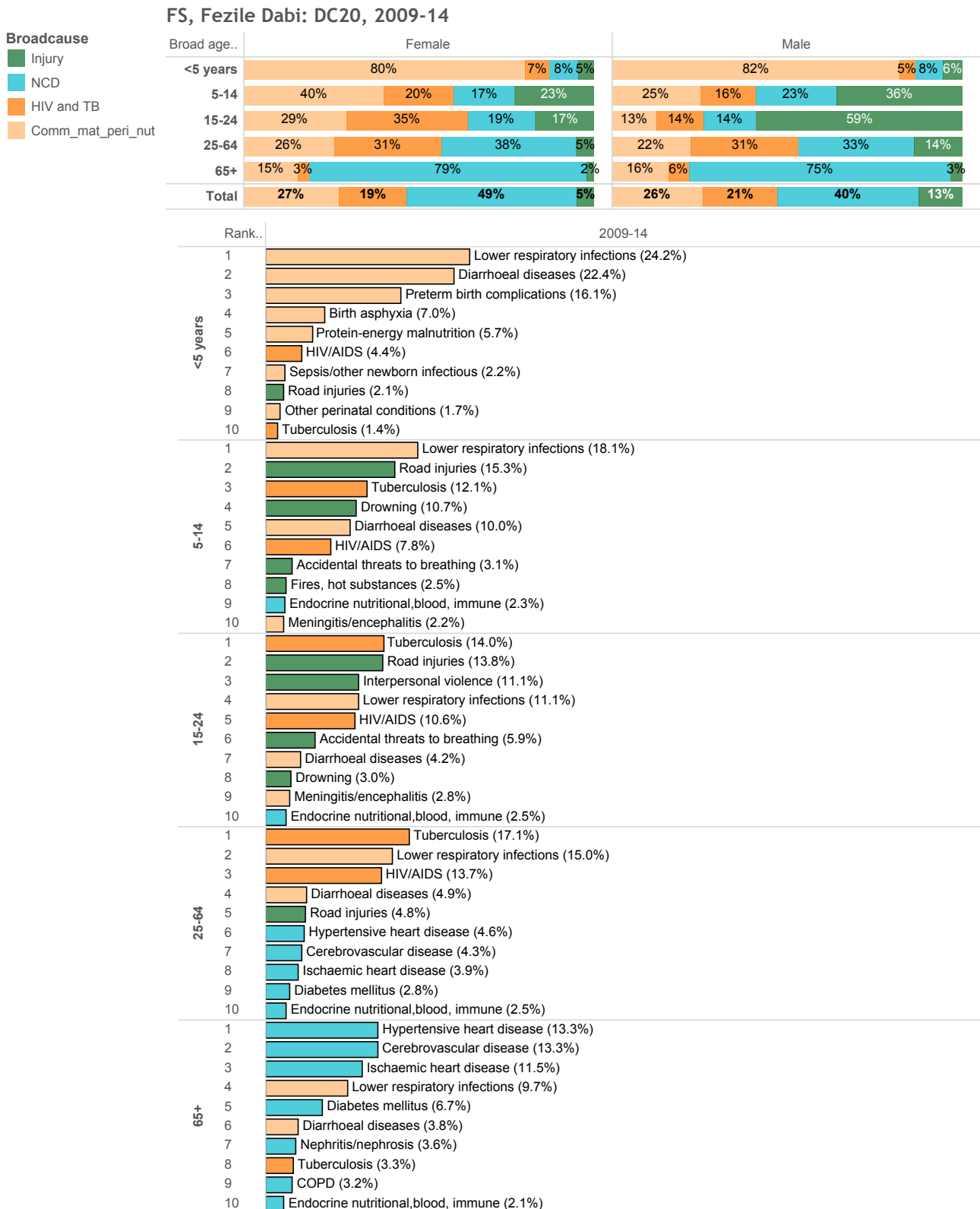
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	165 900	156 887	151 154
PHC headcount 5 years and older	1 005 174	1 041 452	1 044 232
Patient day equivalent	179 518	181 846	182 668
Deaths – total	2 230	2 348	2 267
Still births	187	174	187
Early neonatal deaths	95	85	106
Late neonatal deaths	15	14	19
Child under 5 years with diarrhoea death	12	12	3
Child under 5 years with pneumonia death	13	16	13
Child under 5 years with severe acute malnutrition death	16	18	13

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Fezile Dabi (DC20)



Indicator performance: Fezile Dabi (DC20)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			2.6	31	10.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			38.5	4	20.8	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.2	3.9	3.6	28	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 311.7	2 579.4	2 388.9	4	2 310.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	95.1	68.7	69.0	20	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	7.0	6.7	6.4	44	5.8	5.0	
	OPDnew client not referred rate (district hospitals) [Percentage]	78.6	80.6	75.7	47	68.1	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.8	23.1	23.6		16.0	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.1	6.9	6.1	11	6.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	12.4	11.1	14.7	47	10.6	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	117.8	221.2	83.1	14	130.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	75.5	77.4	67.8	25	71.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	23.9	22.1	25.3	39	27.1	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	53.2	55.8	58.0	43	62.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	73.3	87.9	76.4	48	86.8	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.3	29	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.6	2.4	0.8	13	2.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	6.3	3.3	3.8	43	2.4	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	17.2	20.5	8.7	30	8.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	8.2	6.6	6.5	37	5.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	13.9	12.7	13.3	40	24.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	54.5	57.0	55.0	27	58.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	73.7	79.6	71.3	49	86.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	66.8	75.0	75.5	41	92.3	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	46.7	37.1	43.7	43	58.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	34.0	43.2	53.1	23	57.4	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	31.0	22.6	29.0	39	31.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	20.1	33.7	48.9	26	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.1	1.4	1.3		1.1	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	16.5	16.5	22.3		17.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			38.5	3	20.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.6	14	3.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		616.9	519.0	461.7	15	574.8	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.0	6.2	6.4	36	5.5	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	79.6	81.2	79.3		21	75.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	72.3	76.0	74.8		34	78.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	15.5	16.6	14.4		52	10.7	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.4	4.5	3.5		9	5.2	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		32.7			46	41.7	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		88.8	94.5	96.0	18	93.0	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		75.0	85.9	80.2	36	84.5	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	38.1			29.8	26	28.4	28.2	

Section B: Profile Free State Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	35.8	39.5	39.4		34	37.2	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	23.6	24.7	24.1		15	27.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	28.2	24.1	24.3		35	23.6	21.2	
	Percentage of deaths garbage codes [Percentage]	15.9	16.6	14.8		39	13.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.4	11.7	12.2		18	12.1	13.6	
	Percentage of deaths ill-defined [Percentage]	6.1	6.9	7.4		9	12.3	13.8	

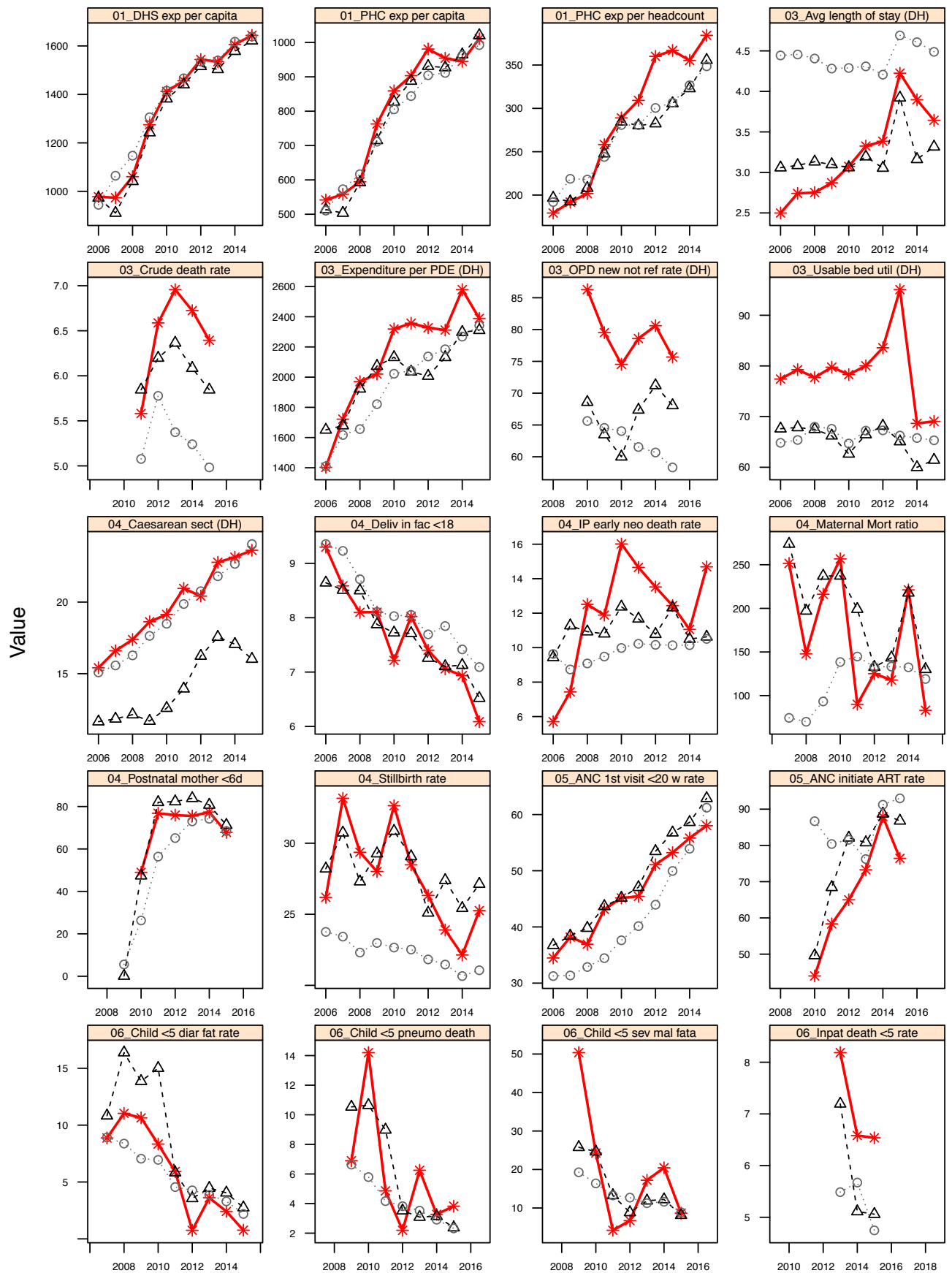
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

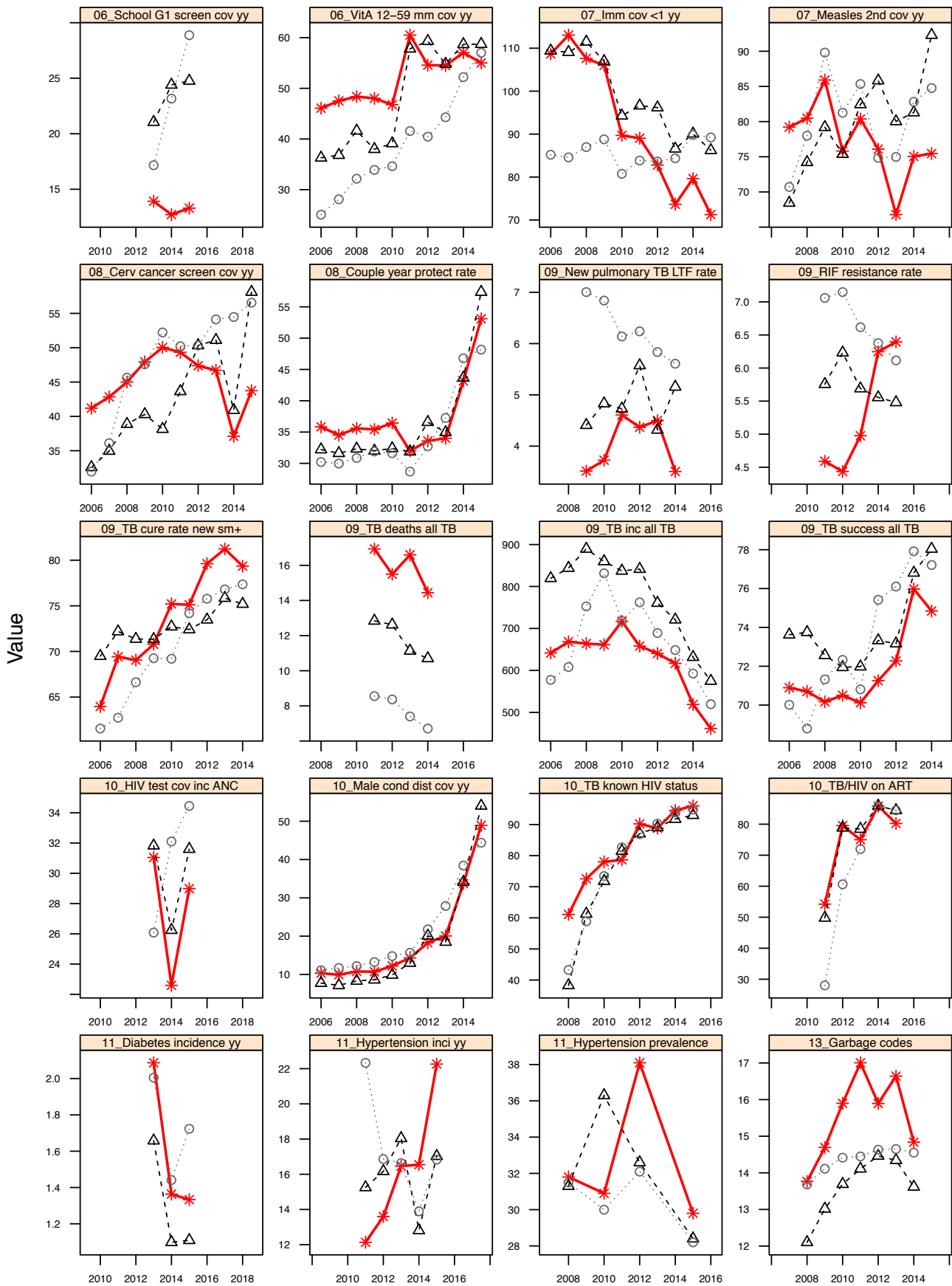
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Fezile Dabi (DC20)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Fezile Dabi (DC20)



District value * Provincial average Δ ZA (national) average ○

Mangaung Metropolitan Municipality (MAN)

Mangaung Metro is located in the central interior of Free State Province and comprises three sub-districts, namely Bloemfontein, Botshabelo and Thaba N'chu. The district has the largest population in the province at 795 416, with a population density of 126.6 people per km². It falls in socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 24.8%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
41	2	3	0	2	16

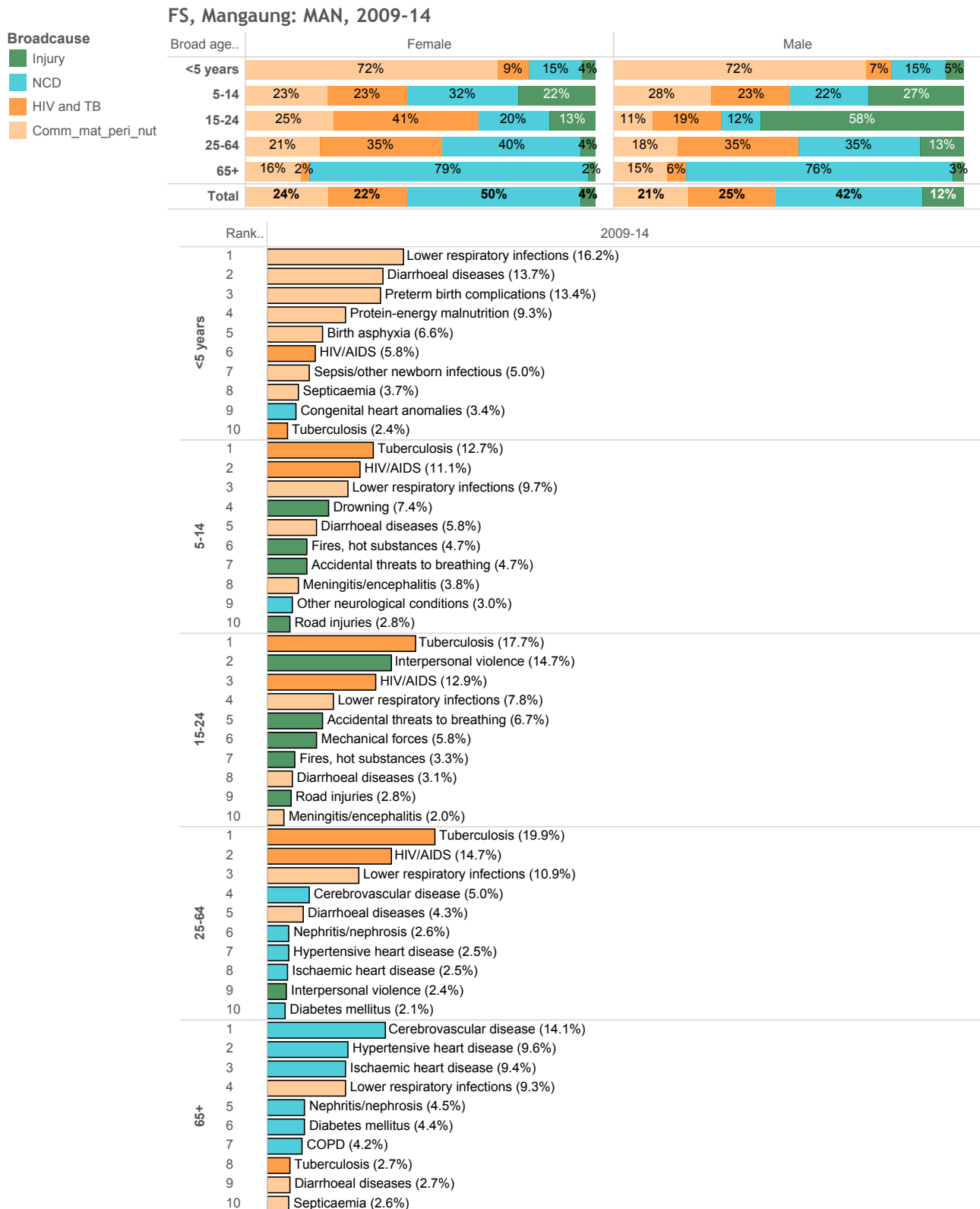
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	252 228	254 473	243 114
PHC headcount 5 years and older	1 713 007	1 714 875	1 598 349
Patient day equivalent	1 003 112	965 393	867 048
Deaths – total	4 099	4 348	4 061
Still births	402	364	381
Early neonatal deaths	145	154	169
Late neonatal deaths	47	34	64
Child under 5 years with diarrhoea death	28	42	28
Child under 5 years with pneumonia death	27	17	15
Child under 5 years with severe acute malnutrition death	20	29	17

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Mangaung (MAN)



Indicator performance: Mangaung (MAN)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			2.3	32	10.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			9.3	35	20.8	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.1	4.0	4.0	15	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 966.1	2 321.9	2 445.5	13	2 310.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	74.3	67.2	74.3	11	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	5.6	5.4	5.2	21	5.8	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	66.6	77.0	72.1	45	68.1	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	32.0	32.0	28.7		16.0	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.8	6.2	6.2	12	6.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.2	10.4	12.5	42	10.6	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	148.4	230.7	147.5	39	130.2	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	71.2	62.1	57.8	40	71.2	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	27.6	24.1	27.3	46	27.1	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	56.8	56.4	62.7	31	62.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	79.9	87.3	84.9	45	86.8	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	17	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.7	6.9	4.5	47	2.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	2.1	1.6	1.5	16	2.4	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	4.5	6.3	4.4	10	8.1	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	4.9	3.0	4.0	14	5.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	13.0	20.6	16.4	37	24.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	35.7	40.7	41.7	49	58.7	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	79.9	82.6	74.6	45	86.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	64.3	68.9	82.1	30	92.3	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	36.4	31.2	49.3	33	58.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	24.8	43.3	61.4	10	57.4	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	29.5	25.5	28.6	41	31.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	10.7	45.9	75.6	4	54.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.3	1.3	1.4		1.1	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	18.7	16.0	17.7		17.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			9.3	35	20.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.3	17	3.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		761.6	655.5	616.4	29	574.8	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.8	6.2	5.9	31	5.5	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	66.3	68.8	71.5		45	75.2	77.4	
	TB treatment success rate (ETR.net) [Percentage]	67.7	72.1	76.9		26	78.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	13.3	10.2	9.7		41	10.7	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.9	6.7	5.3		29	5.2	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		42.6			33	41.7	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		90.0	93.2	95.3	24	93.0	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		76.5	85.5	86.7	24	84.5	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	33.9			29.4	25	28.4	28.2	

Section B: Profile Free State Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	37.9	41.1	42.0		39	37.2	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	27.9	26.6	27.1		26	27.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	23.0	20.1	18.5		21	23.6	21.2	
	Percentage of deaths garbage codes [Percentage]	14.6	14.6	13.1		24	13.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.1	12.2	12.4		21	12.1	13.6	
	Percentage of deaths ill-defined [Percentage]	19.8	18.5	16.8		43	12.3	13.8	

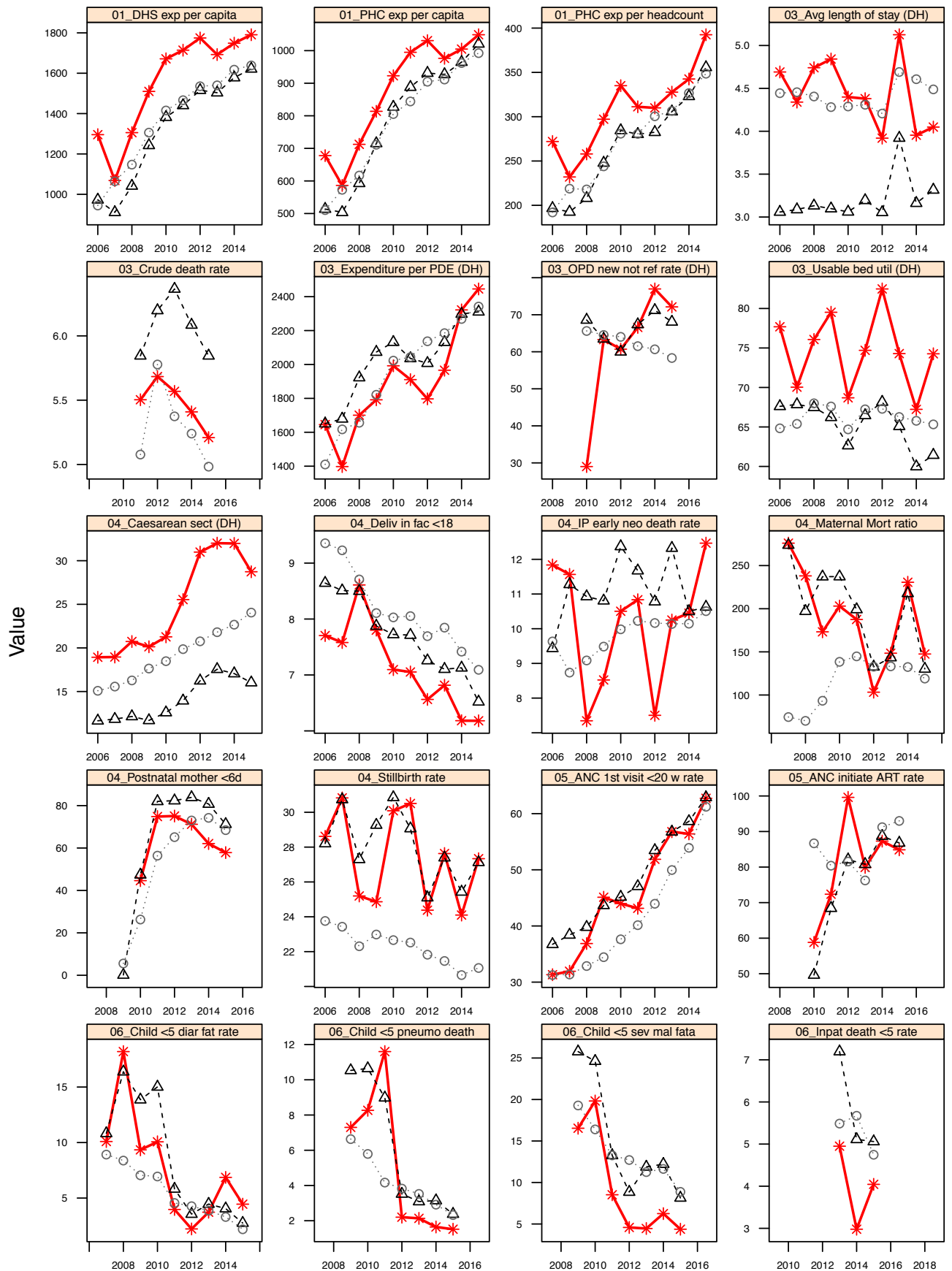
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

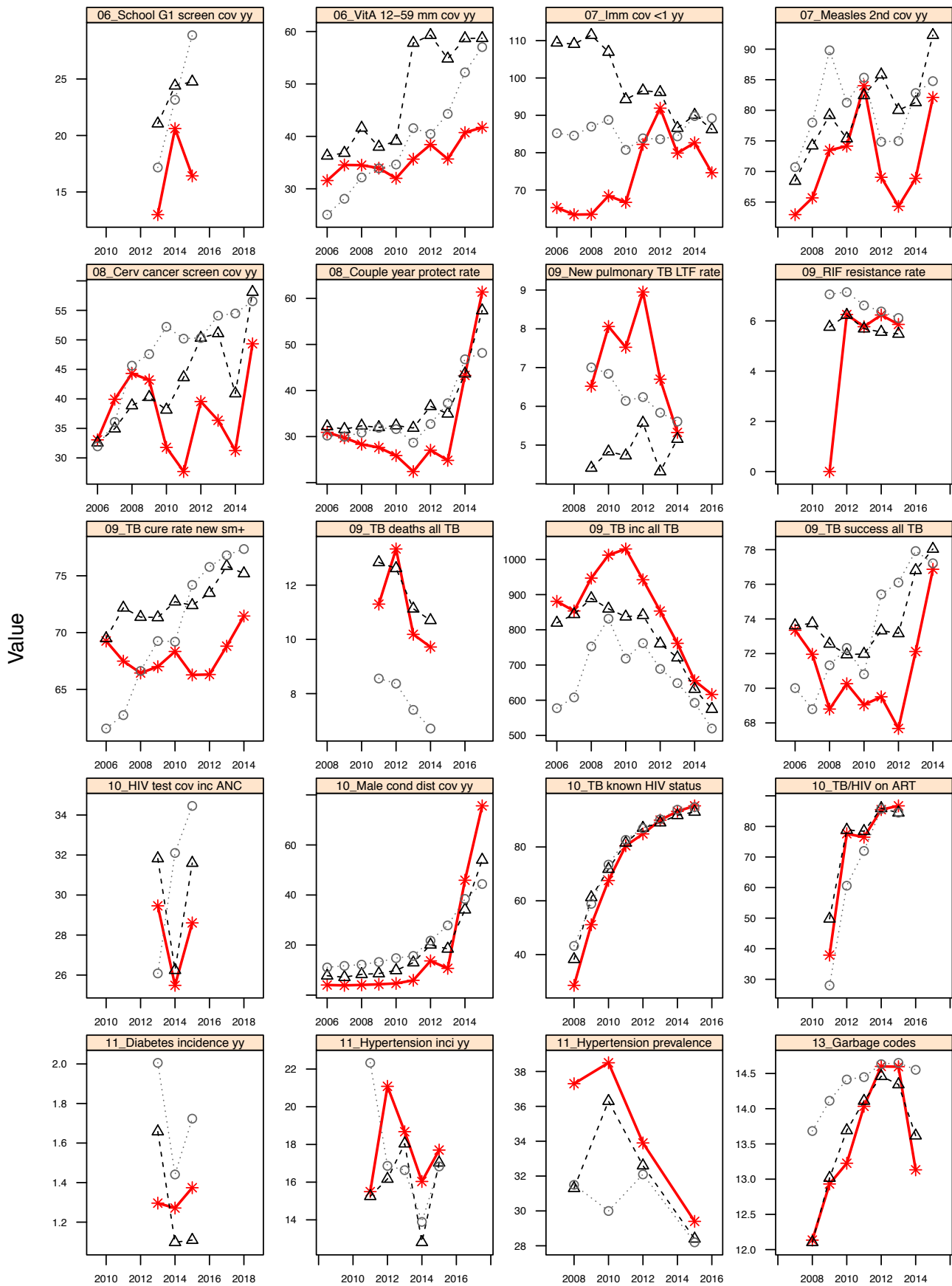
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Mangaung (MAN)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Mangaung (MAN)



District value * Provincial average Δ ZA (national) average ○

16 Gauteng Province

Sedibeng District Municipality (DC42)

Sedibeng District is situated in southern Gauteng Province and borders the Free State, North West and Mpumalanga provinces. It comprises three sub-districts, namely Emfuleni, Lesedi and Midvaal. The district has a population of 928 862, with a population density of 222.6 people per km² and falls in socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 19.4%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
31	4	2	1	0	5

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	291 235	304 740	309 205
PHC headcount 5 years and older	2 028 755	1 955 767	1 847 084
Patient day equivalent	402 841	406 118	412 348
Deaths – total	3 684	3 406	3 447
Still births	322	278	286
Early neonatal deaths	117	134	101
Late neonatal deaths	28	50	52
Child under 5 years with diarrhoea death	30	16	9
Child under 5 years with pneumonia death	34	20	19
Child under 5 years with severe acute malnutrition death	24	27	17

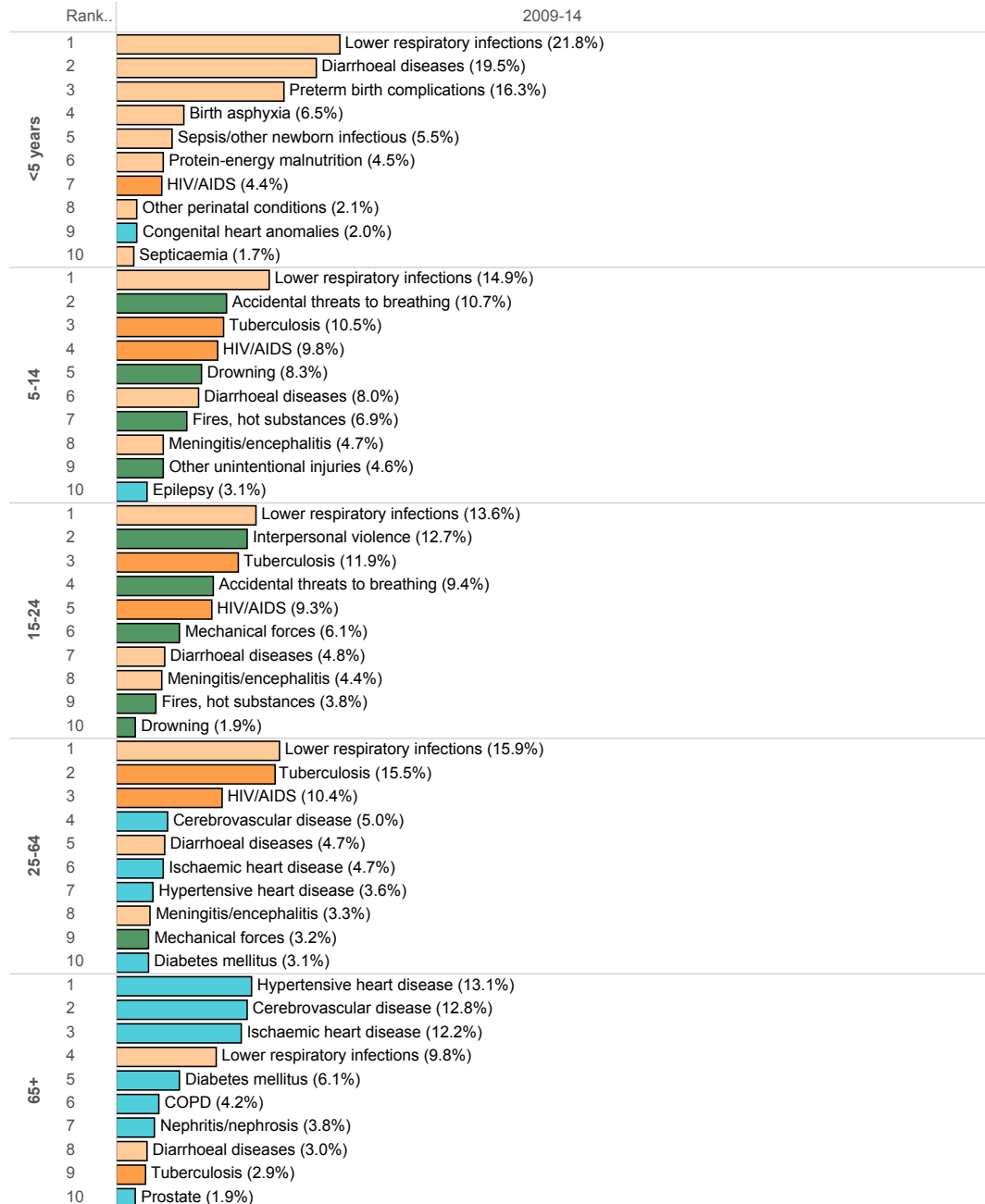
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Sedibeng (DC42)

GP, Sedibeng: DC42, 2009-14

Broadcause	Female					Male					
Injury											
NCD											
HIV and TB											
Comm_mat_peri_nut											
Broad age..	Female					Male					
<5 years	79%			6%	9%	5%	80%		5%	9%	6%
5-14	36%	21%	16%		26%	27%	17%	18%		38%	
15-24	37%	29%	19%		15%	17%	13%	15%		55%	
25-64	30%	24%	41%		4%	23%	27%	34%		15%	
65+	15%	2%	80%		2%	15%	5%	77%		3%	
Total	29%	16%	50%		4%	26%	19%	41%		14%	



Indicator performance: Sedibeng (DC42)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			7.7	21	24.3	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			7.7	37	33.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.5	3.5	3.6	31	4.4	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 403.9	2 544.3	2 612.5	28	2 656.1	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	67.1	69.5	73.9	13	65.8	65.3	78.6
	Inpatient crude death rate [Percentage]	6.2	5.7	5.2	20	4.7	5.0	
Delivery	OPD new client not referred rate (district hospitals) [Percentage]	53.1	63.9	71.2	43	52.3	58.3	
	Delivery by caesarean section rate (district hospitals) [Percentage]	26.7	27.8	28.2		25.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.9	5.6	5.7	9	5.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.0	9.1	7.1	7	9.5	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	122.5	122.3	105.9	28	107.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	78.6	71.6	74.9	11	76.9	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	21.4	18.5	19.8	19	19.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	51.1	56.9	65.3	20	54.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	65.2	90.0	97.7	12	92.4	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			0.4	3	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.3	2.5	1.5	17	1.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	5.1	3.1	2.7	32	1.9	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	8.1	11.3	13.8	47	7.5	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	5.7	11.0	13.9	51	6.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	29.1	24.0	30.7	20	37.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	61.2	66.7	71.4	6	58.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	104.0	104.6	112.5	3	106.4	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	96.7	96.5	104.9	3	92.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	29.9	39.2	49.0	34	45.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	27.7	41.9	59.4	12	42.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	18.1	30.5	40.3	13	32.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	9.6	18.2	53.4	18	37.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.0	0.9	2.1		1.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	18.5	16.6	29.4		19.1	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			7.7	38	25.1	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			7.7	4	3.3	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		523.6	461.0	405.7	10	329.9	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.6	4.8	5.5	23	5.9	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	78.6	80.2	78.5		23	85.1	77.4	
	TB treatment success rate (ETR.net) [Percentage]	75.0	77.5	73.8		37	83.4	77.2	83.0
	TB death rate (ETR.net) [Percentage]	12.0	9.3	8.9		34	6.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.1	8.2	7.0		40	4.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		35.4			45	41.1	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		95.9	97.8	98.0	4	95.9	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		83.1	87.4	92.3	17	84.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	27.3			26.7	21	27.7	28.2	

Section B: Profile Gauteng Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	36.3	37.4	37.4		28	42.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	22.1	21.7	20.7		6	22.7	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	29.6	27.1	27.4		43	22.3	21.2	
	Percentage of deaths garbage codes [Percentage]	19.2	18.5	20.5		52	18.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.1	13.7	14.5		34	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	7.5	7.7	8.2		17	14.6	13.8	

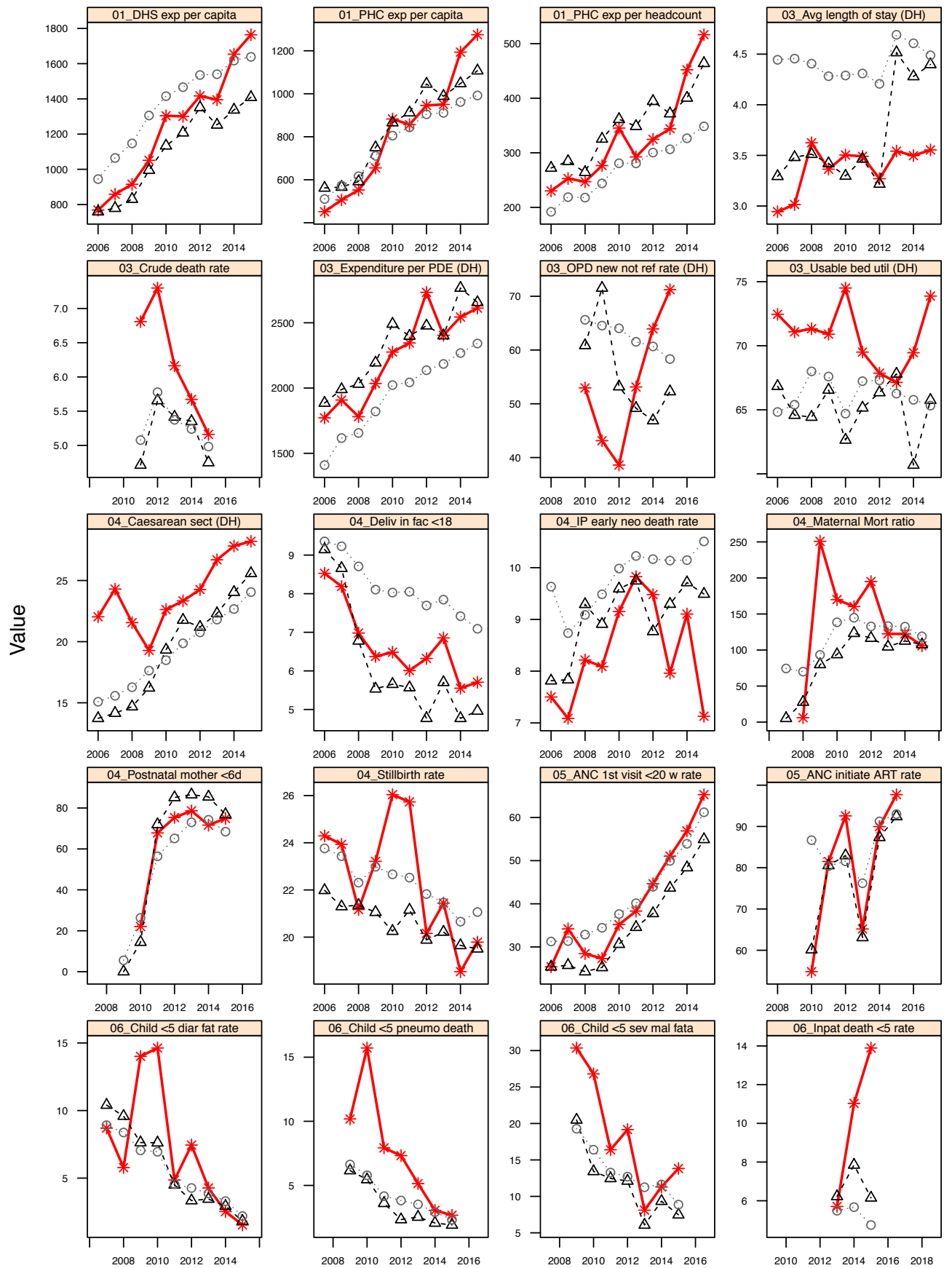
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

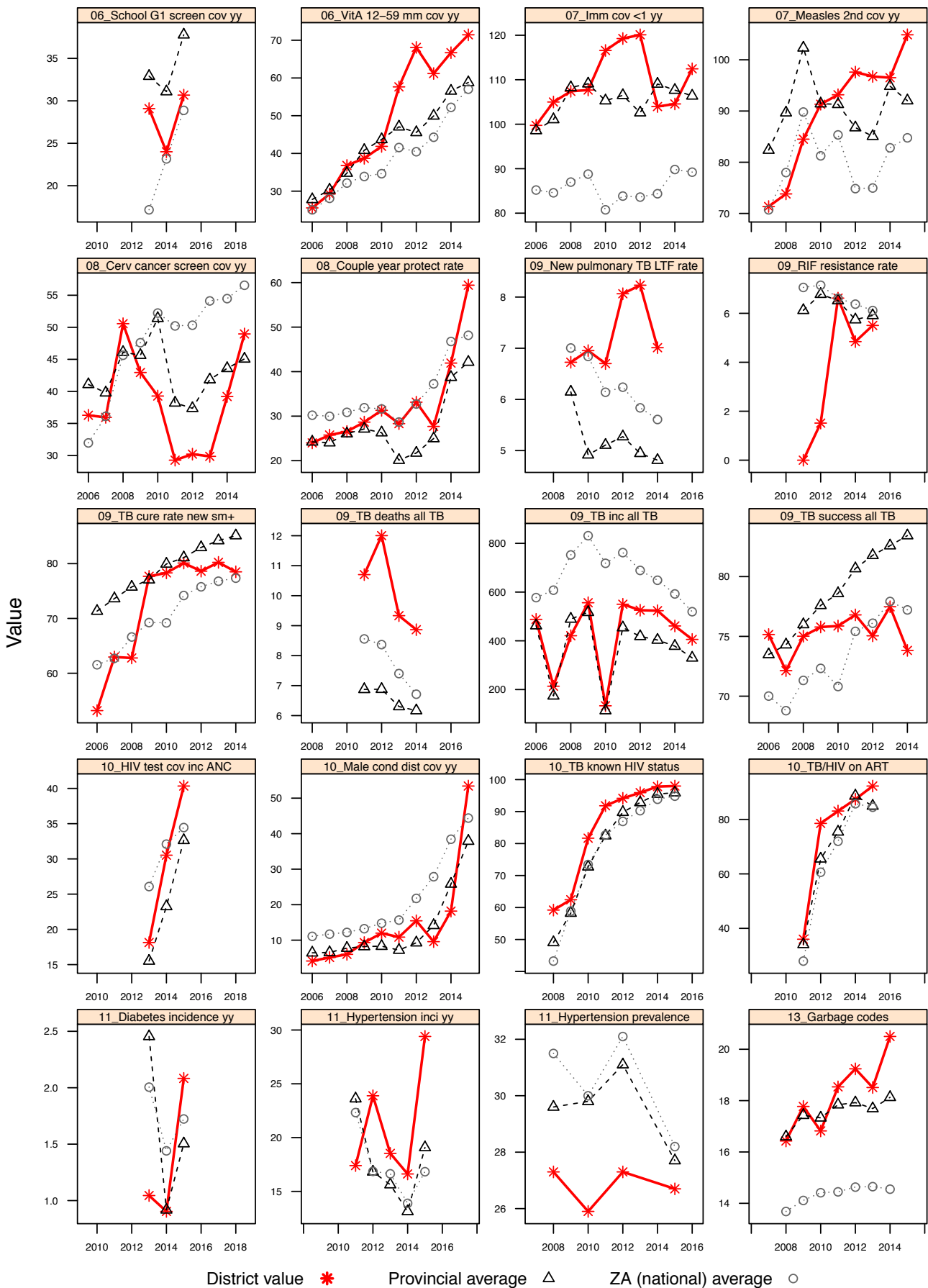
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Sedibeng (DC42)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Sedibeng (DC42)



West Rand District Municipality (DC48)

West Rand District is located in the western part of Gauteng Province and is divided into four sub-districts, namely Merafong City, Mogale City, Randfontein and Westonaria. It has a population of 872 102, with a population density of 213.4 people per km² and falls in socio-economic Quintile 4, among the wealthier districts. Estimated medical scheme coverage is 24.4%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
43	3	2	1	0	9

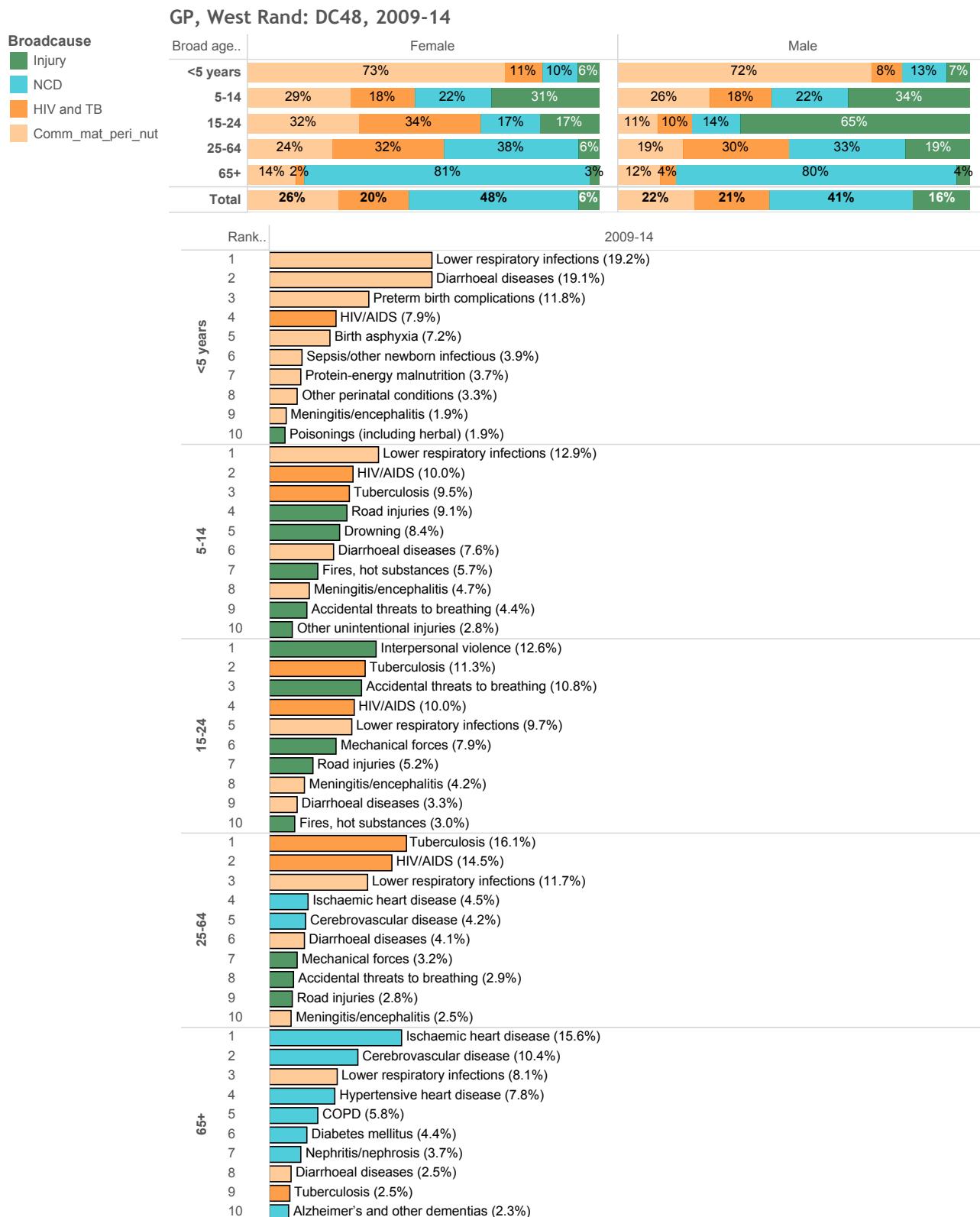
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	349 636	348 713	308 910
PHC headcount 5 years and older	1 917 612	1 844 022	1 659 024
Patient day equivalent	678 905	658 874	652 355
Deaths – total	4 559	4 144	3 976
Still births	245	219	217
Early neonatal deaths	115	84	121
Late neonatal deaths	28	10	7
Child under 5 years with diarrhoea death	22	10	2
Child under 5 years with pneumonia death	32	12	9
Child under 5 years with severe acute malnutrition death	17	19	8

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: West Rand (DC48)



Indicator performance: West Rand (DC48)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	24.3	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			18.2	28	33.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.8	4.8	4.6	6	4.4	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 368.2	2 817.9	3 226.2	49	2 656.1	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	70.3	66.7	60.5	38	65.8	65.3	
	Inpatient crude death rate [Percentage]	6.5	6.1	5.7	30	4.7	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	50.1	67.4	65.5	33	52.3	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	17.3	19.0	19.7		25.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	5.5	5.6	4.8	4	5.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	7.2	5.4	8.3	13	9.5	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	94.4	128.6	95.9	20	107.6	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	62.4	61.7	54.9	42	76.9	68.5	
	Stillbirth in facility rate [per 1 000 births]	15.2	13.9	14.7	5	19.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	54.5	57.6	61.6	33	54.9	61.2	
	Antenatal client initiated on ART rate [Percentage]	68.9	98.3	103.9	1	92.4	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.9	13	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.2	2.9	0.5	11	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	3.4	1.3	1.4	13	1.9	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	4.1	5.7	6.0	13	7.5	8.9	
	Inpatient death under 5 year rate [Percentage]	7.2	7.1	8.5	47	6.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	62.9	52.5	65.1	4	37.8	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	70.2	67.0	64.8	12	58.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	116.5	111.6	107.2	5	106.4	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	99.4	118.0	101.8	4	92.0	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	44.8	41.8	39.0	48	45.1	56.6	
	Couple year protection rate (annualised) [Percentage]	30.2	46.1	52.5	25	42.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	22.9	25.1	43.1	6	32.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	18.5	28.5	51.9	21	37.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.6	0.7	1.7		1.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	21.1	20.6	15.4		19.1	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			15.9	29	25.1	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			4.5	7	3.3	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		462.3	461.8	396.9	9	329.9	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		7.4	6.5	5.5	22	5.9	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	84.0	84.0	86.6		5	85.1	77.4	
	TB treatment success rate (ETR.net) [Percentage]	81.1	80.6	84.5		4	83.4	77.2	
	TB death rate (ETR.net) [Percentage]	8.7	8.7	6.3		19	6.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	2.8	3.5	3.6		11	4.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		30.5			51	41.1	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		93.8	97.5	96.0	17	95.9	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		96.2	97.8	97.5	5	84.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	35.5			42.2	49	27.7	28.2	

Section B: Profile Gauteng Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	34.6	37.3	39.7		36	42.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	26.1	23.4	21.4		7	22.7	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	24.1	23.8	23.6		33	22.3	21.2	
	Percentage of deaths garbage codes [Percentage]	17.7	18.8	18.9		47	18.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	15.2	15.5	15.2		40	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	16.0	14.7	16.6		41	14.6	13.8	

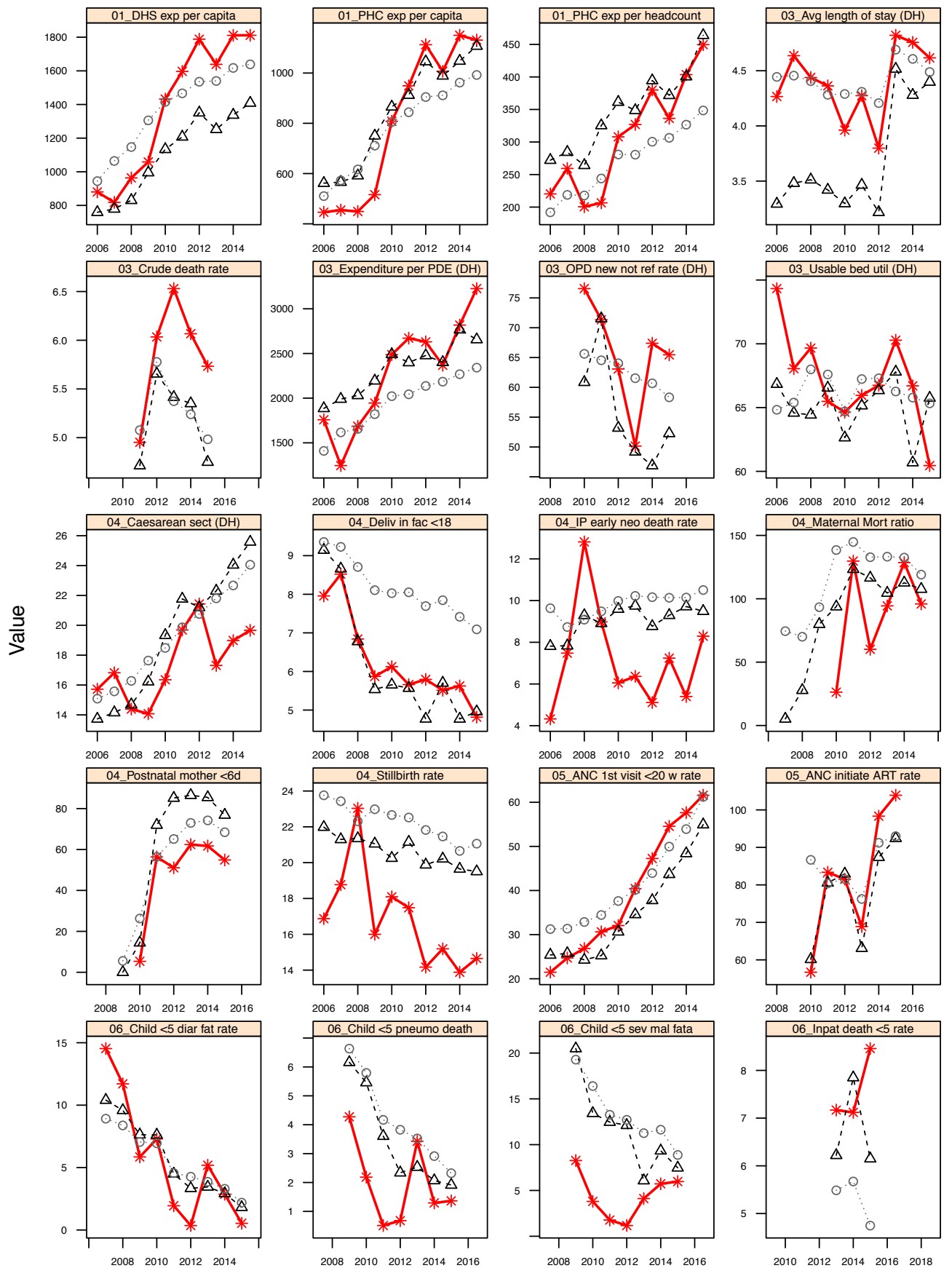
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

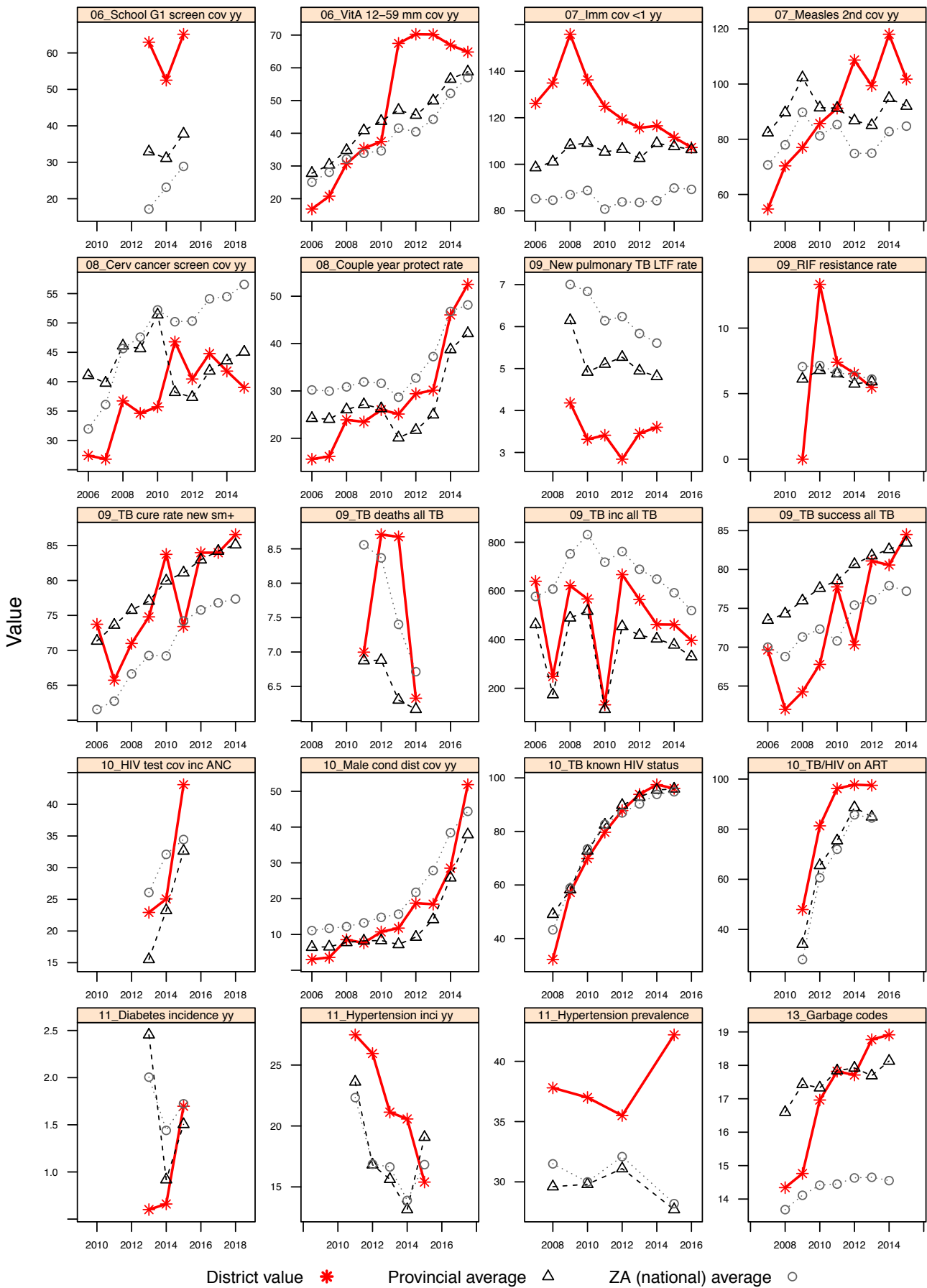
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: West Rand (DC48)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: West Rand (DC48)



Ekurhuleni Metropolitan Municipality (EKU)

Ekurhuleni Metro in Gauteng Province has a population of 3 338 697, with a population density of 1 690 people per km². It comprises six sub-districts, namely Ekurhuleni E1 and E2, Ekurhuleni N1 and N2, and Ekurhuleni S1 and S2, and falls in socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 27.9%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
84	7	1	4	1	13

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	1 151 905	1 168 056	1 159 242
PHC headcount 5 years and older	6 159 721	6 175 404	6 024 455
Patient day equivalent	1 343 164	1 314 310	1 385 568
Deaths – total	10 810	10 330	10 944
Still births	1 374	1 312	1 235
Early neonatal deaths	629	640	574
Late neonatal deaths	244	247	184
Child under 5 years with diarrhoea death	44	40	43
Child under 5 years with pneumonia death	41	50	50
Child under 5 years with severe acute malnutrition death	30	42	38

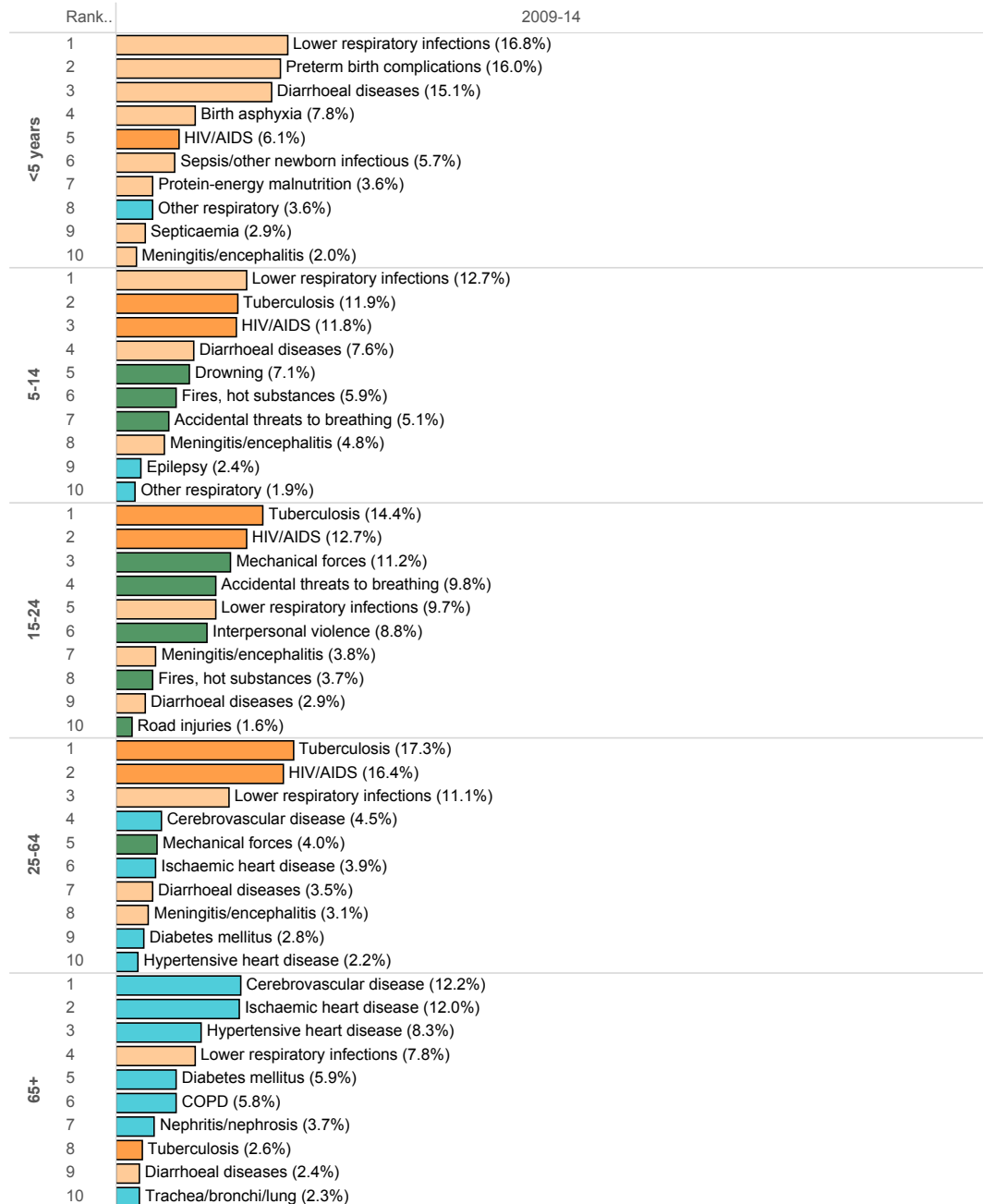
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Ekurhuleni (EKU)

GP, Ekurhuleni: EKU, 2009-14

Broadcause	Female					Male				
	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	73%	8%	14%	5%	73%	8%	13%	6%		
5-14	35%	24%	21%	20%	28%	22%	20%	30%		
15-24	28%	39%	18%	15%	13%	16%	14%	58%		
25-64	23%	35%	38%	4%	18%	33%	33%	16%		
65+	14%	3%	81%	2%	12%	5%	80%	3%		
Total	25%	23%	47%	5%	23%	23%	40%	14%		



Indicator performance: Ekurhuleni (EKU)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			39.1	2	24.3	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			54.3	1	33.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.4	4.3	4.1	14	4.4	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 541.2	2 679.3	2 326.2	2	2 656.1	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	89.2	69.0	69.2	19	65.8	65.3	
	Inpatient crude death rate [Percentage]	5.5	5.6	4.8	15	4.7	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	67.0	46.0	43.5	17	52.3	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	19.6	22.1	26.6		25.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	4.9	5.1	5.6	8	5.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.2	10.2	9.6	24	9.5	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	165.9	169.3	138.3	36	107.6	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	80.5	78.6	79.4	4	76.9	68.5	
	Stillbirth in facility rate [per 1 000 births]	21.9	21.5	20.2	22	19.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	45.8	49.0	54.9	50	54.9	61.2	
	Antenatal client initiated on ART rate [Percentage]	69.1	85.4	86.2	44	92.4	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.0	21	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.5	3.4	2.9	37	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	2.7	2.3	2.3	24	1.9	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	10.9	15.1	10.6	36	7.5	8.9	
	Inpatient death under 5 year rate [Percentage]	6.0	7.2	6.0	34	6.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	46.9	45.5	42.5	12	37.8	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	56.4	63.4	66.7	11	58.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	108.6	111.0	114.5	2	106.4	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	89.2	101.1	95.8	7	92.0	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	46.1	47.5	46.3	38	45.1	56.6	
	Couple year protection rate (annualised) [Percentage]	25.6	40.3	39.5	42	42.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	18.9	20.6	30.6	34	32.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	10.4	21.3	29.1	43	37.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.6	0.7	1.6		1.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	16.3	11.7	22.6		19.1	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			22.8	20	25.1	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	3.3	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		351.2	336.5	297.6	4	329.9	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		7.3	6.0	5.8	29	5.9	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	87.5	86.6	85.1		9	85.1	77.4	
	TB treatment success rate (ETR.net) [Percentage]	87.2	86.3	85.6		3	83.4	77.2	
	TB death rate (ETR.net) [Percentage]	5.1	5.3	5.6		14	6.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.8	4.4	4.6		21	4.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		26.5			52	41.1	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		89.8	94.7	95.0	28	95.9	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		52.8	81.4	79.0	38	84.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	34.0			22.1	5	27.7	28.2	

Section B: Profile Gauteng Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	35.4	35.6	37.4		29	42.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	28.8	27.9	25.4		22	22.7	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	24.4	24.3	24.4		37	22.3	21.2	
	Percentage of deaths garbage codes [Percentage]	16.5	16.3	17.3		46	18.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.3	12.1	12.7		25	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	17.5	18.5	18.1		46	14.6	13.8	

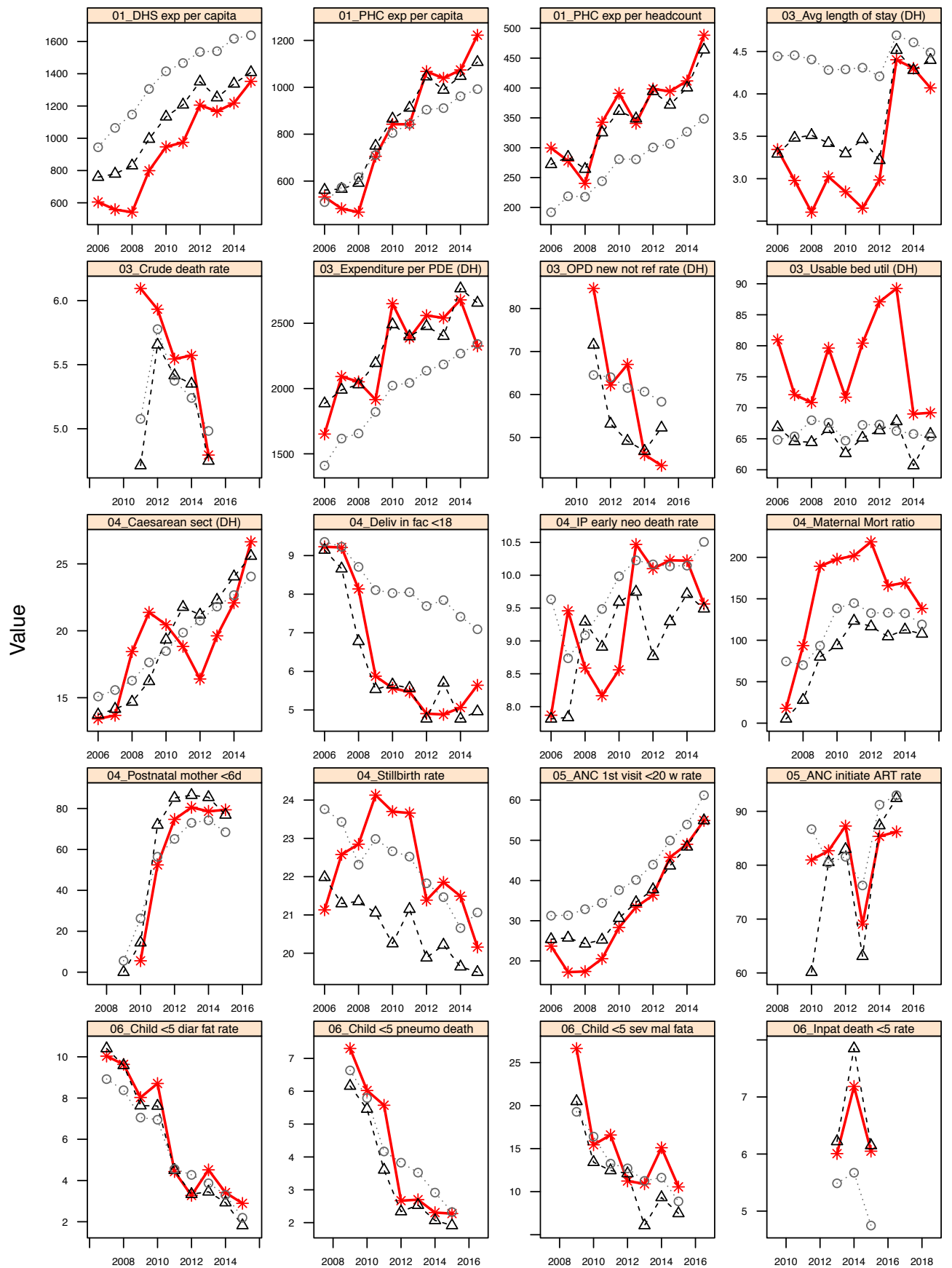
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

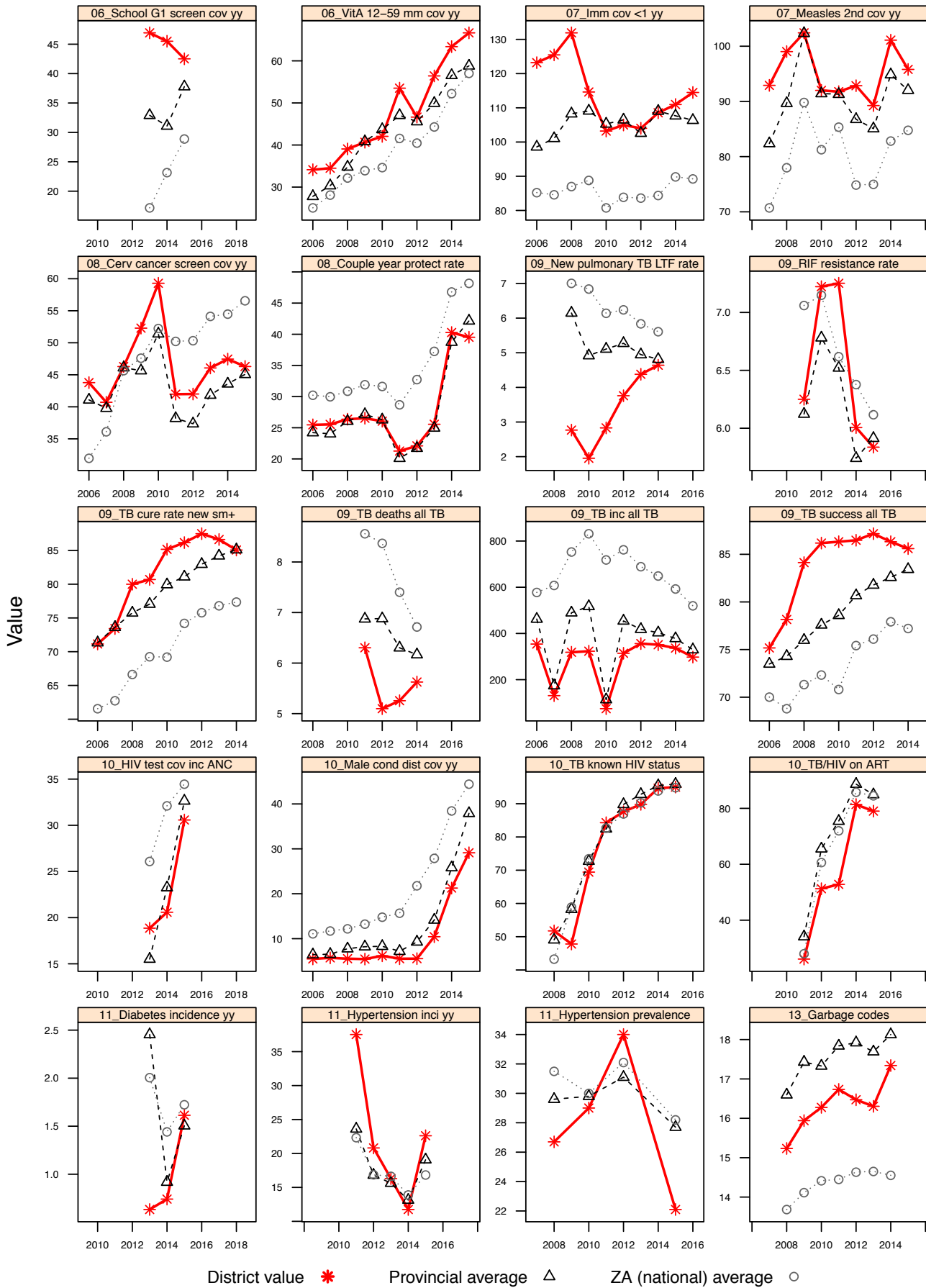
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Ekurhuleni (EKU)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Ekurhuleni (EKU)



Johannesburg Metropolitan Municipality (JHB)

Located in the heart of Gauteng Province, Johannesburg Metro is the most populous city in South Africa, with a population of 4 884 286 and a population density of 2 969 people per km². The district is divided into seven sub-districts, named Johannesburg Sub-district A to Johannesburg Sub-district G. The district falls in socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 33.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
111	10	3	2	3	21

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	1 425 207	1 467 860	1 437 382
PHC headcount 5 years and older	8 350 719	8 644 801	7 815 854
Patient day equivalent	2 407 673	2 356 620	2 432 536
Deaths – total	12 828	12 819	13 478
Still births	1 172	1 278	1 292
Early neonatal deaths	678	687	638
Late neonatal deaths	236	215	240
Child under 5 years with diarrhoea death	7	22	38
Child under 5 years with pneumonia death	16	30	29
Child under 5 years with severe acute malnutrition death	2	5	21

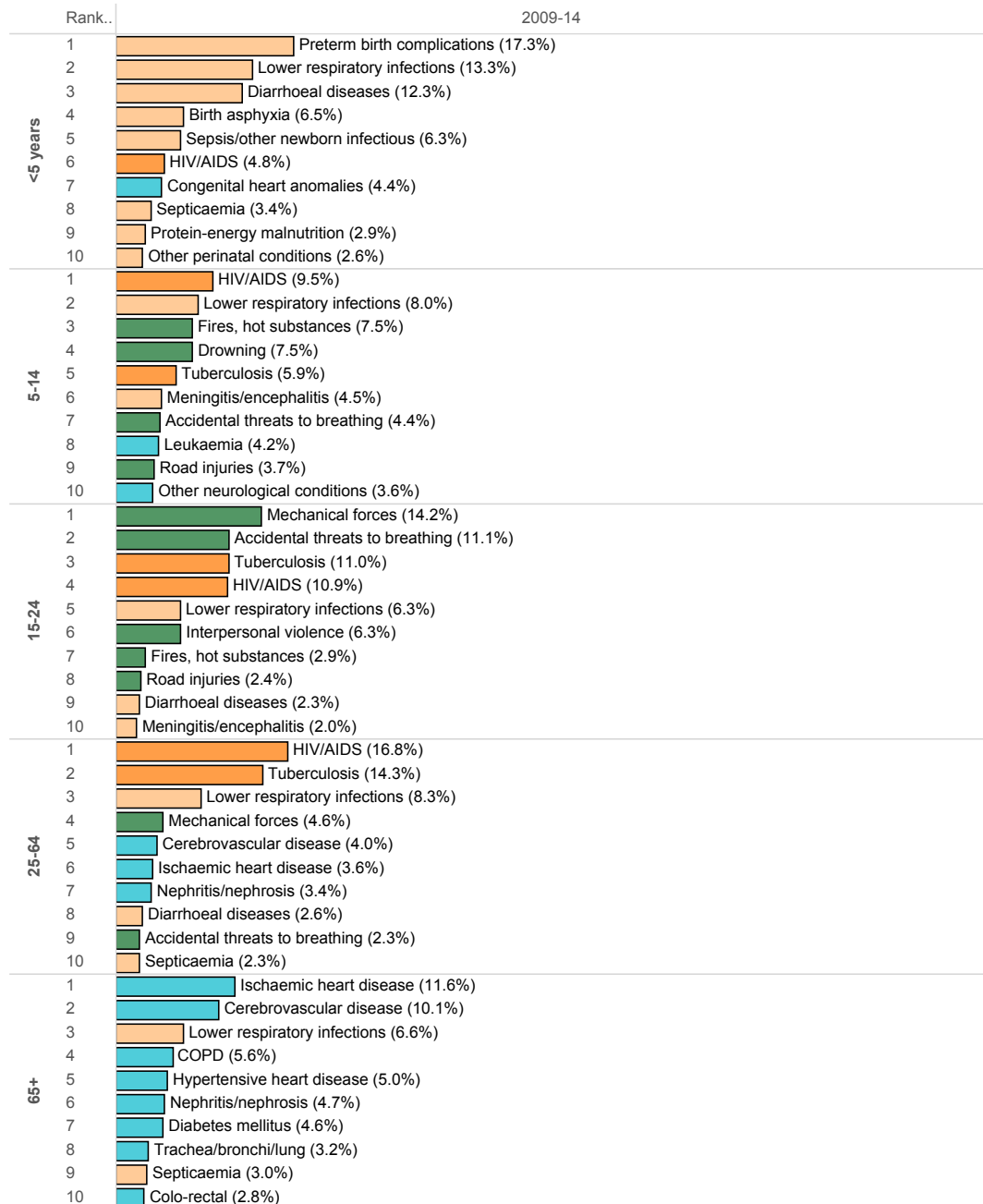
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Johannesburg (JHB)

GP, Johannesburg: JHB, 2009-14

Broadcause	Broad age..	Female				Male			
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Comm_mat_peri_nut	HIV and TB	NCD	Injury
	<5 years	68%	6%	20%	5%	68%	6%	20%	7%
	5-14	23%	17%	35%	25%	19%	14%	34%	33%
	15-24	22%	35%	26%	17%	10%	11%	19%	60%
	25-64	18%	34%	43%	5%	15%	29%	38%	17%
	65+	13%	2%	82%	3%	10%	3%	82%	4%
	Total	21%	20%	54%	5%	19%	20%	46%	15%



Indicator performance: Johannesburg (JHB)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			15.0	14	24.3	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			19.2	26	33.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.1	3.6	4.5	3	4.4	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 564.7	3 818.5	2 904.9	42	2 656.1	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	52.9	45.1	66.3	25	65.8	65.3	78.6
	Inpatient crude death rate [Percentage]	5.6	5.4	4.6	12	4.7	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]		78.3	65.9	34	52.3	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	36.6	39.2	36.8		25.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.5	4.0	4.6	2	5.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.0	9.2	9.8	26	9.5	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	76.9	90.4	98.2	24	107.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	94.3	100.0	86.0	2	76.9	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	19.5	18.9	19.4	18	19.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	40.4	46.1	52.1	51	54.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	65.6	86.9	92.1	28	92.4	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.3	28	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.2	4.9	1.5	16	1.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	2.3	2.7	1.3	12	1.9	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	2.5	5.0	4.2	9	7.5	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	5.4	6.1	4.6	20	6.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	22.5	14.6	16.1	39	37.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	52.9	57.6	59.4	19	58.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	107.5	109.1	105.7	6	106.4	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	86.4	90.7	91.5	12	92.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	47.8	45.7	44.5	42	45.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	26.2	36.0	43.1	37	42.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	15.8	18.8	23.3	52	32.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	17.7	24.5	41.9	32	37.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	4.7	1.2	1.1		1.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	12.6	11.5	13.7		19.1	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			21.7	22	25.1	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.5	16	3.3	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		420.7	387.3	325.8	6	329.9	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.3	5.7	6.0	32	5.9	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	80.8	83.7	86.5		6	85.1	77.4	
	TB treatment success rate (ETR.net) [Percentage]	81.0	83.1	84.5		5	83.4	77.2	83.0
	TB death rate (ETR.net) [Percentage]	5.3	5.4	5.1		11	6.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	6.2	5.1	5.0		24	4.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		49.1			24	41.1	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		91.9	94.4	95.8	19	95.9	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		73.5	88.3	81.5	31	84.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	31.8			30.8	29	27.7	28.2	

Section B: Profile Gauteng Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	41.2	43.2	43.8		42	42.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	24.4	22.6	21.8		8	22.7	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	21.9	20.7	20.9		29	22.3	21.2	
	Percentage of deaths garbage codes [Percentage]	17.2	16.9	17.1		45	18.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.5	13.6	13.5		30	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	20.4	20.4	18.4		47	14.6	13.8	

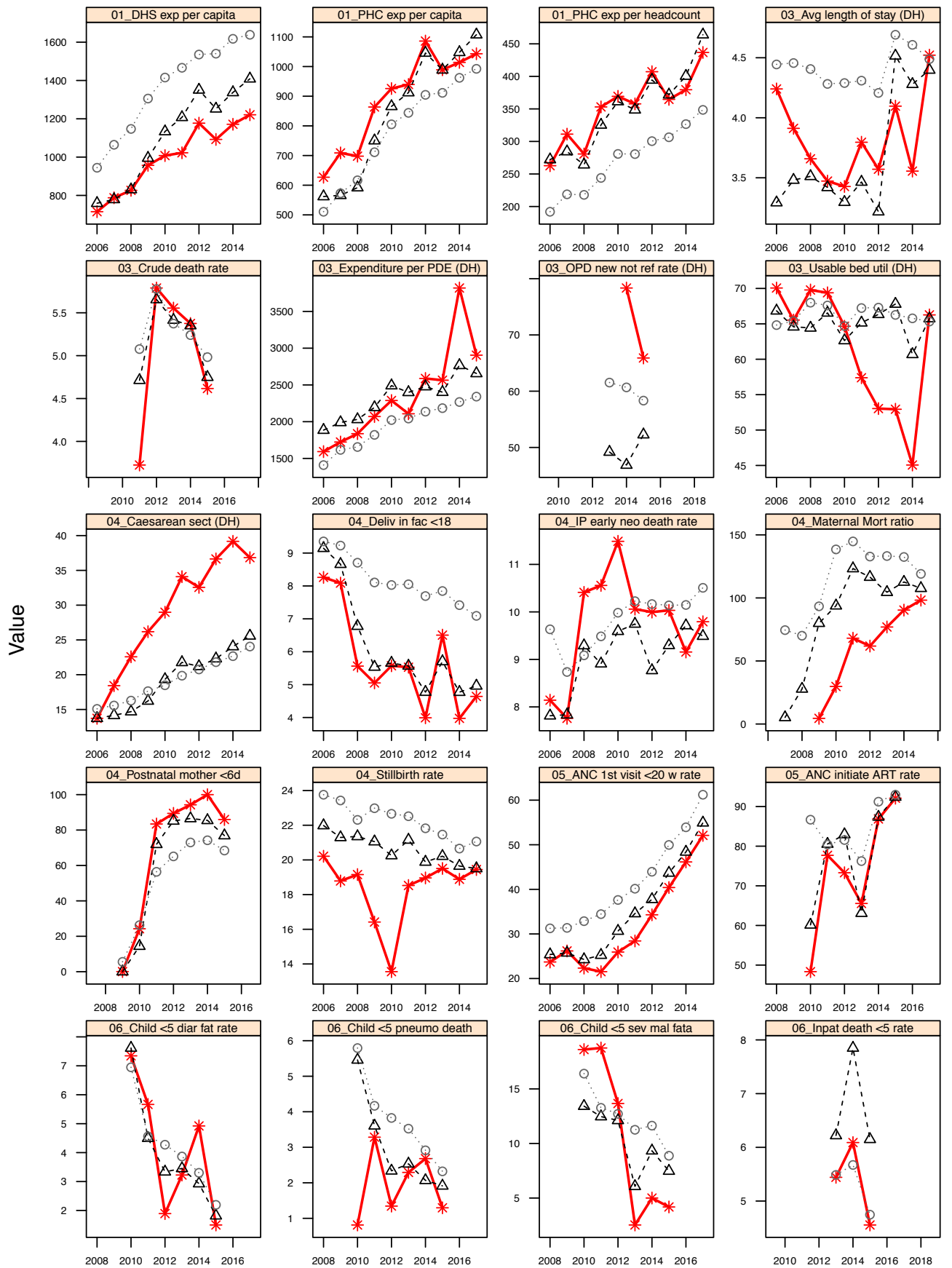
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

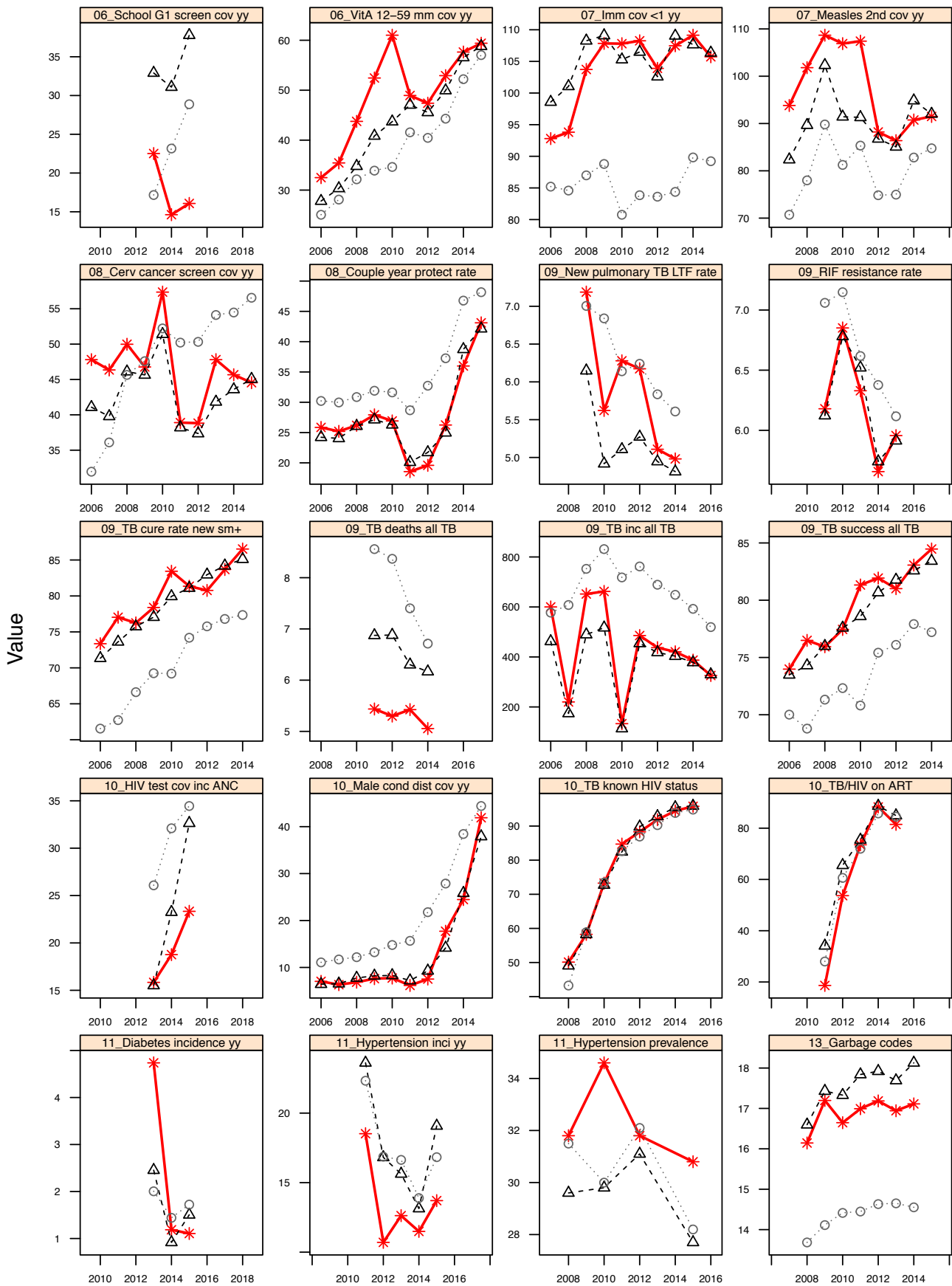
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Johannesburg (JHB)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Johannesburg (JHB)



District value * Provincial average Δ ZA (national) average ○

Tshwane Metropolitan Municipality (TSH)

Tshwane is situated in Gauteng Province and is divided into seven sub-districts, named Tshwane Sub-district One to Tshwane Sub-district Seven. It has a population of 3 243 597, with a population density of 515.0 people per km², and falls in socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 33.0%. It is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
68	8	4	1	3	27

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	874 521	892 653	856 328
PHC headcount 5 years and older	4 923 878	5 211 069	4 753 067
Patient day equivalent	1 922 916	1 978 261	2 051 410
Deaths – total	8 414	8 730	9 542
Still births	1 050	1 049	999
Early neonatal deaths	417	569	488
Late neonatal deaths	65	111	211
Child under 5 years with diarrhoea death	6	20	25
Child under 5 years with pneumonia death	15	39	50
Child under 5 years with severe acute malnutrition death	9	33	29

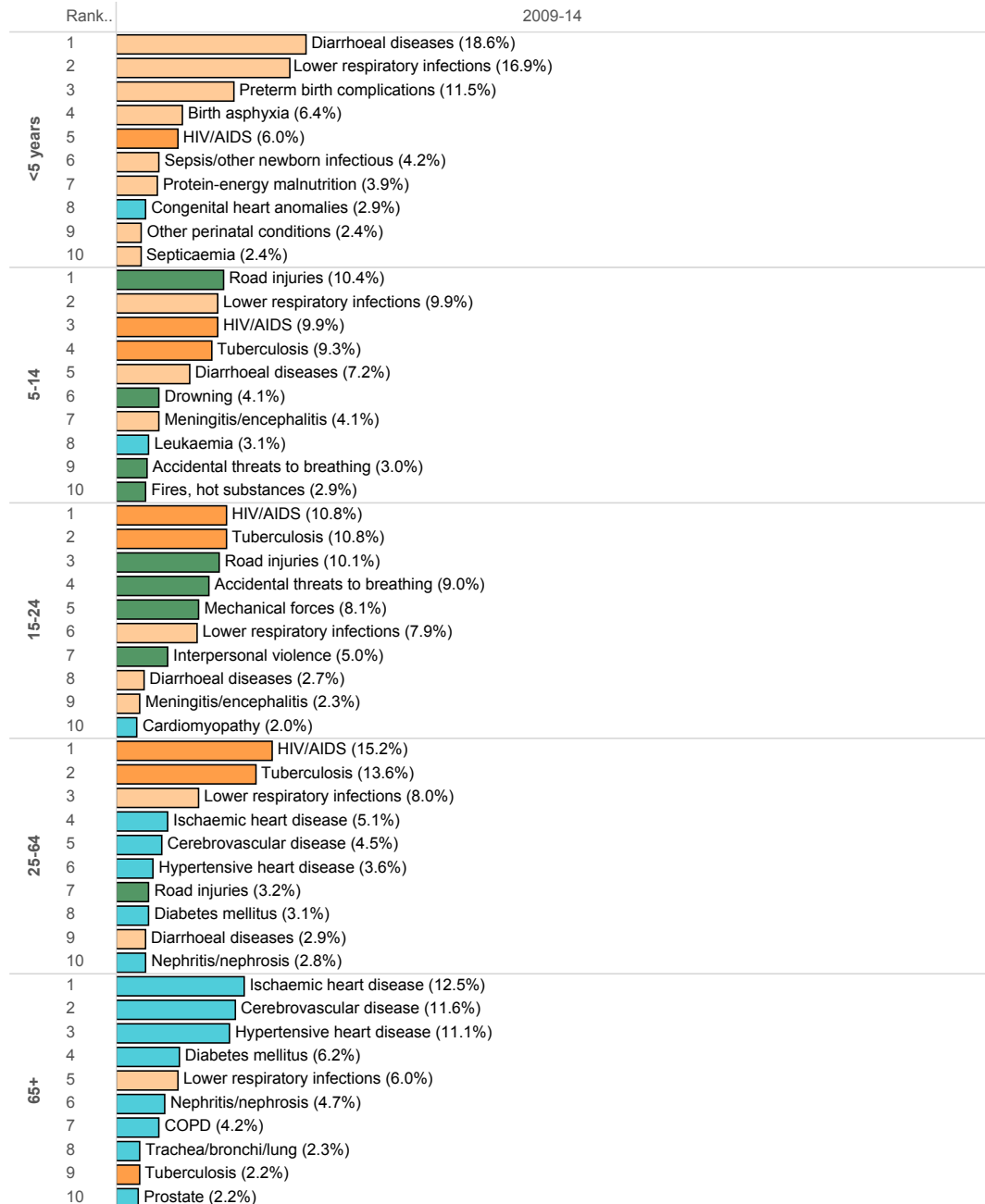
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Tshwane (TSH)

GP, Tshwane: TSH, 2009-14

Broadcause	Female					Male				
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	69%	8%	17%	6%		68%	8%	17%	7%	
5-14	28%	20%	32%	21%		24%	18%	31%	27%	
15-24	26%	33%	24%	17%		10%	11%	22%	57%	
25-64	18%	29%	47%	5%		13%	28%	43%	16%	
65+	11%	2%	84%	3%		9%	4%	83%	4%	
Total	19%	17%	58%	5%		17%	19%	51%	13%	



Indicator performance: Tshwane (TSH)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			44.4	1	24.3	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			52.8	2	33.2	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.0	4.9	4.8	11	4.4	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 349.6	2 500.0	2 470.4	19	2 656.1	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	67.5	62.4	64.3	28	65.8	65.3	78.6
	Inpatient crude death rate [Percentage]	4.5	4.7	4.4	10	4.7	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	24.4	24.5	33.0	11	52.3	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	20.6	20.2	21.3		25.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	5.4	5.0	4.4	1	5.0	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.2	11.3	10.0	27	9.5	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	63.3	63.7	86.4	18	107.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	93.3	85.7	68.9	22	76.9	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	20.3	20.5	20.1	21	19.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	40.9	46.4	55.0	49	54.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	45.2	86.2	96.6	16	92.4	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	19	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.7	1.8	1.7	21	1.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.9	1.6	2.1	21	1.9	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	3.1	8.2	7.4	18	7.5	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	9.5	13.4	7.5	45	6.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	23.2	32.9	55.5	6	37.8	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	31.3	43.2	45.7	44	58.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	111.2	101.9	97.6	8	106.4	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	72.1	88.6	83.4	23	92.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	31.0	38.2	45.2	39	45.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	20.2	38.5	35.8	48	42.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	8.8	30.3	44.0	5	32.6	34.5	
	Male condom distribution coverage [Condoms per male 15+]	13.2	34.3	33.2	40	37.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.8	0.8	1.8		1.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	16.8	13.9	21.4		19.1	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			48.6	1	25.1	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			5.6	5	3.3	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		379.8	360.9	329.7	8	329.9	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.4	5.6	6.3	34	5.9	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.3	83.6	85.0		10	85.1	77.4	
	TB treatment success rate (ETR.net) [Percentage]	80.3	80.9	82.8		9	83.4	77.2	83.0
	TB death rate (ETR.net) [Percentage]	8.8	6.8	7.4		28	6.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	5.4	4.6	4.5		18	4.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		37.4			40	41.1	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		95.8	96.3	96.1	14	95.9	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		89.1	93.7	88.8	23	84.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	28.0			24.5	15	27.7	28.2	

Section B: Profile Gauteng Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	43.8	46.0	47.2		44	42.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	24.1	22.9	22.2		10	22.7	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	20.4	19.6	19.1		23	22.3	21.2	
	Percentage of deaths garbage codes [Percentage]	20.2	19.6	19.0		48	18.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.7	11.5	11.5		13	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	6.2	7.1	7.9		12	14.6	13.8	

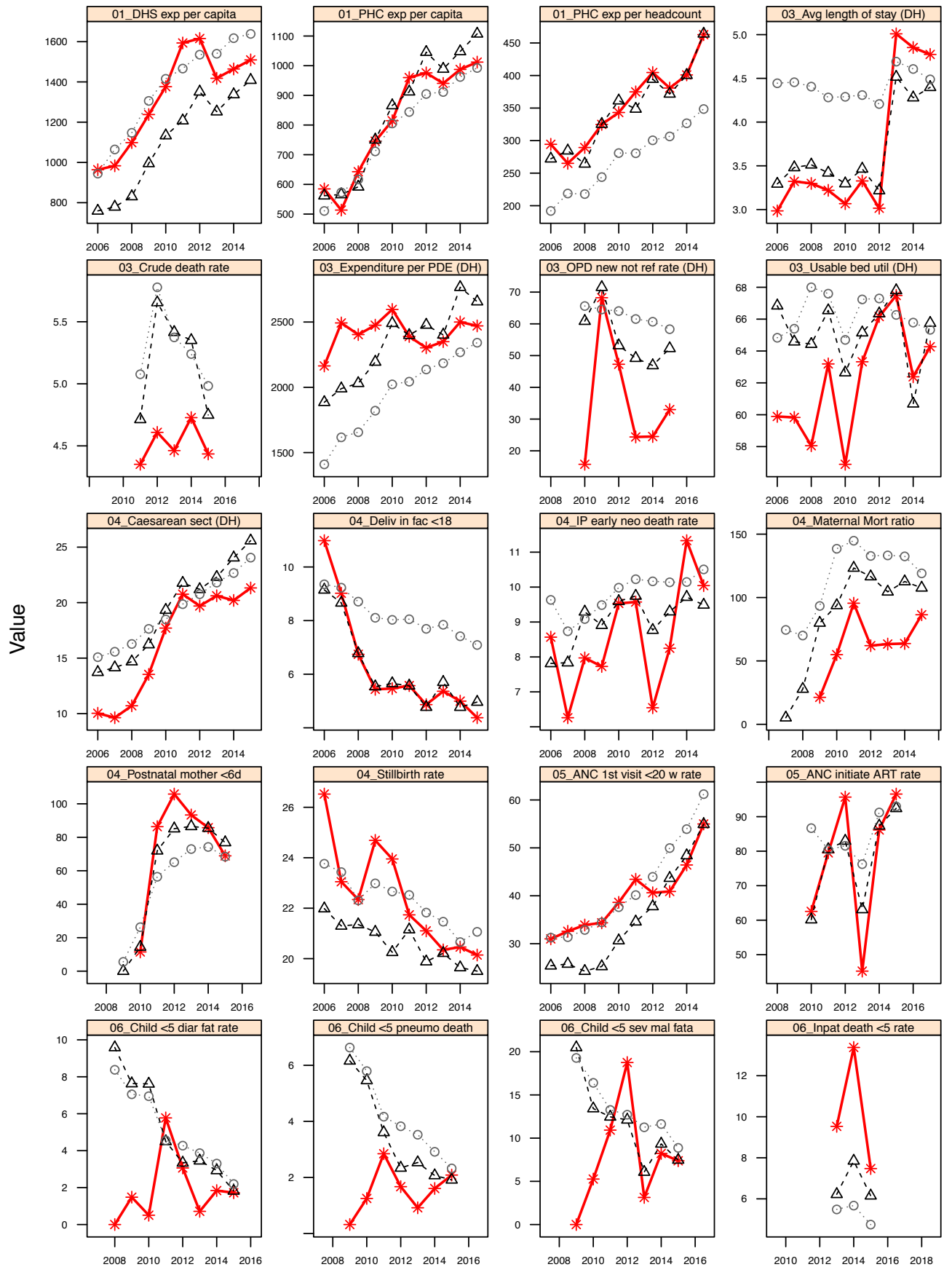
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

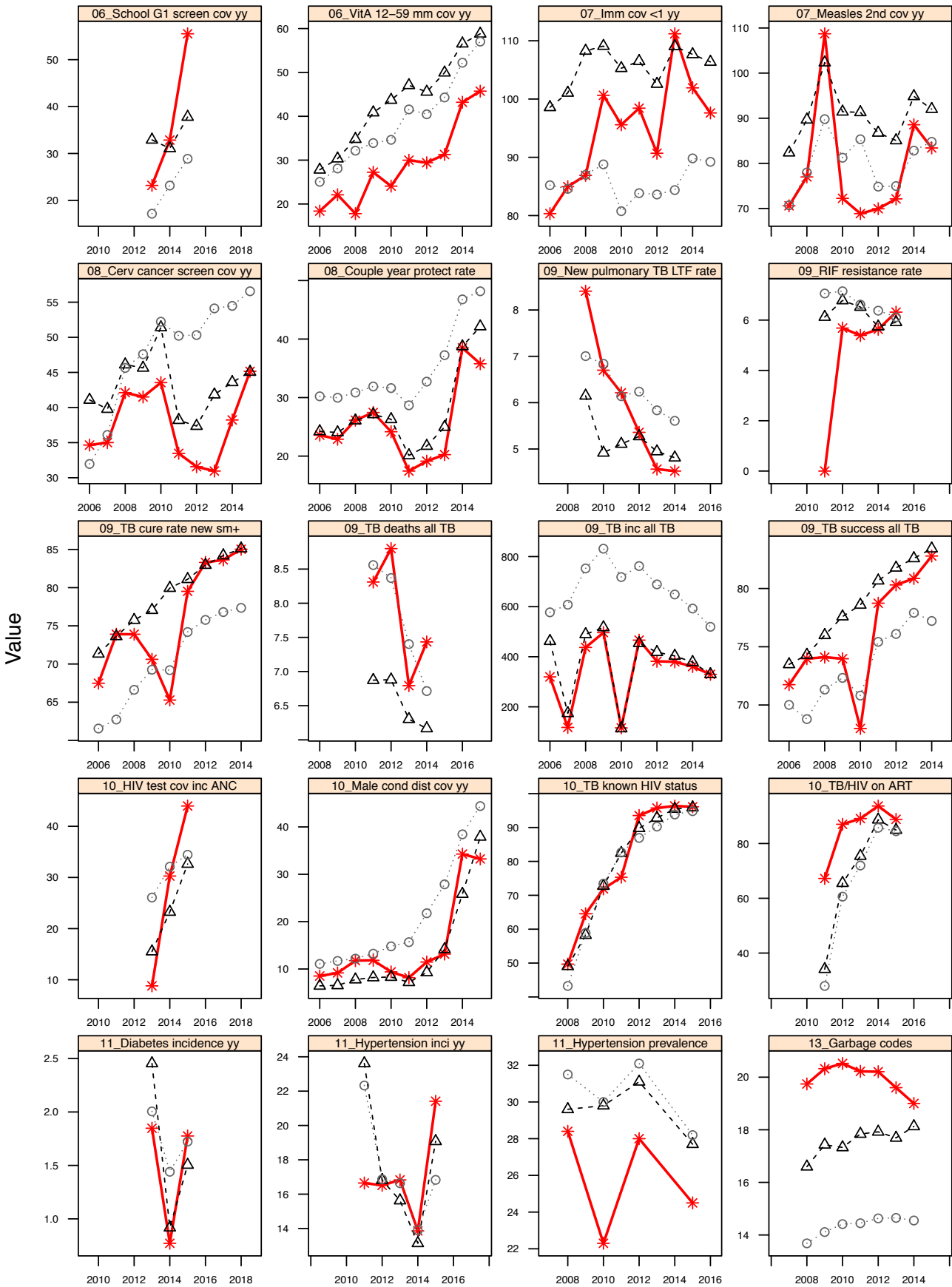
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Tshwane (TSH)



District value * Provincial average △ ZA (national) average ○

Annual indicators for district: Tshwane (TSH)



District value * Provincial average Δ ZA (national) average ○

17 KwaZulu-Natal Province

Ugu District Municipality (DC21)

Ugu District is situated in KwaZulu-Natal Province and has a population of 750 214, with a population density of 148.6 people per km². The district comprises six sub-districts, namely Vulamehlo, Umdoni, uMzumbe, Hibiscus Coast, Ezinqoleni and uMuziwabantu, and falls in socio-economic Quintile 2. Estimated medical scheme coverage is 7.3%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
54	2	3	1	0	2

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	397 883	396 618	417 218
PHC headcount 5 years and older	2 451 122	2 532 251	2 542 248
Patient day equivalent	497 652	482 994	467 783
Deaths – total	3 286	3 246	3 178
Still births	336	313	304
Early neonatal deaths	155	138	113
Late neonatal deaths	69	39	29
Child under 5 years with diarrhoea death	41	22	17
Child under 5 years with pneumonia death	35	30	32
Child under 5 years with severe acute malnutrition death	46	34	32

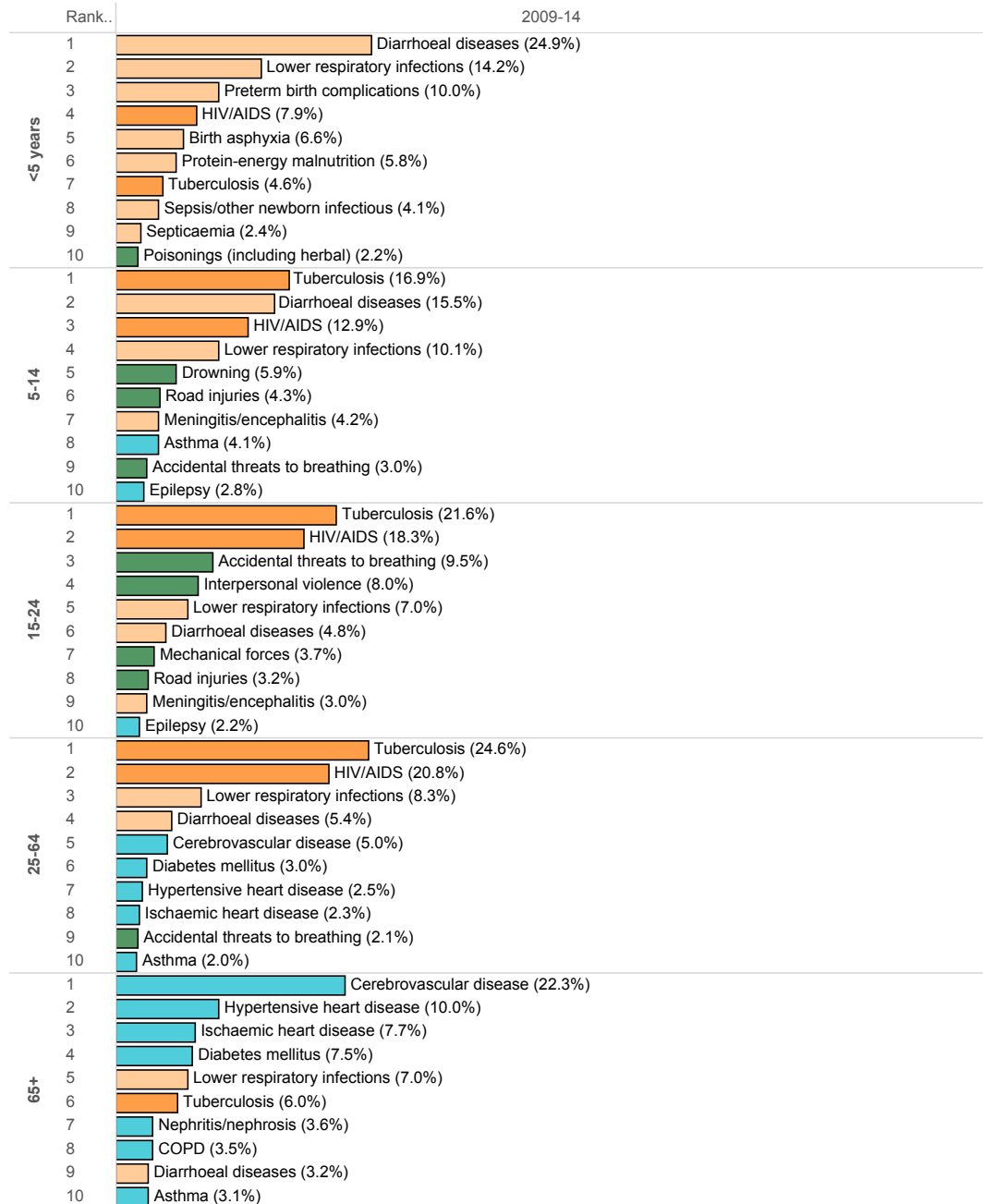
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Ugu (DC21)

KZN, Ugu: DC21, 2009-14

Broadcause	Female					Male				
	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	73%	12%	9%	6%	71%	12%	9%	8%		
5-14	36%	29%	20%	16%	30%	30%	19%	22%		
15-24	23%	53%	13%	12%	12%	24%	12%	52%		
25-64	18%	47%	31%	4%	16%	44%	26%	14%		
65+	12%	6%	80%	3%	12%	10%	74%	4%		
Total	20%	30%	46%	4%	20%	33%	34%	13%		



Indicator performance: Ugu (DC21)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			8.9	19	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			35.7	6	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.9	5.7	5.7	36	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 915.1	1 960.1	2 218.0	18	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	72.0	69.4	66.3	24	60.2	65.3	78.6
	Inpatient crude death rate [Percentage]	6.0	5.9	5.9	36	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	15.4	27.0	41.1	16	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	36.3	37.5	39.2	19	28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.6	10.0	9.4	41	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.1	9.6	8.7	18	10.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	161.0	111.7	92.4	19	121.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	60.1	60.3	63.6	33	69.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	24.0	21.4	22.9	33	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	58.4	61.6	65.8	19	64.8	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	91.3	98.0	98.3	8	97.6	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	15	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.3	2.5	2.3	31	2.2	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	3.1	2.2	2.6	29	2.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.5	9.1	9.4	33	7.7	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	5.9	4.7	4.1	16	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	7.2	20.4	19.4	32	22.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	41.9	49.1	58.0	23	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	73.8	78.3	82.9	29	85.0	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	69.6	72.9	84.9	20	82.6	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	87.8	80.1	73.4	10	72.7	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	41.9	47.0	52.3	27	52.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	48.5	46.4	43.0	7	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	34.3	38.1	54.3	15	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.8	1.7	2.1		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	30.1	22.4	19.9		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			26.8	13	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	2.7	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		1 042.2	996.3	810.0	44	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		8.3	8.0	7.3	41	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	73.7	80.1	76.6		29	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	74.7	77.8	71.6		43	73.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	8.0	7.3	5.7		15	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.7	4.2	3.8		12	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		59.2			11	57.3	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		84.8	92.1	92.0	45	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		60.8	82.0	92.7	15	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	35.6			31.7	32	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	31.3	31.3	34.1		19	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	37.5	35.7	33.7		43	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	20.3	18.9	17.7		18	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	13.5	13.9	14.9		40	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.9	14.1	14.5		35	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	11.6	9.8	9.3		20	10.0	13.8	

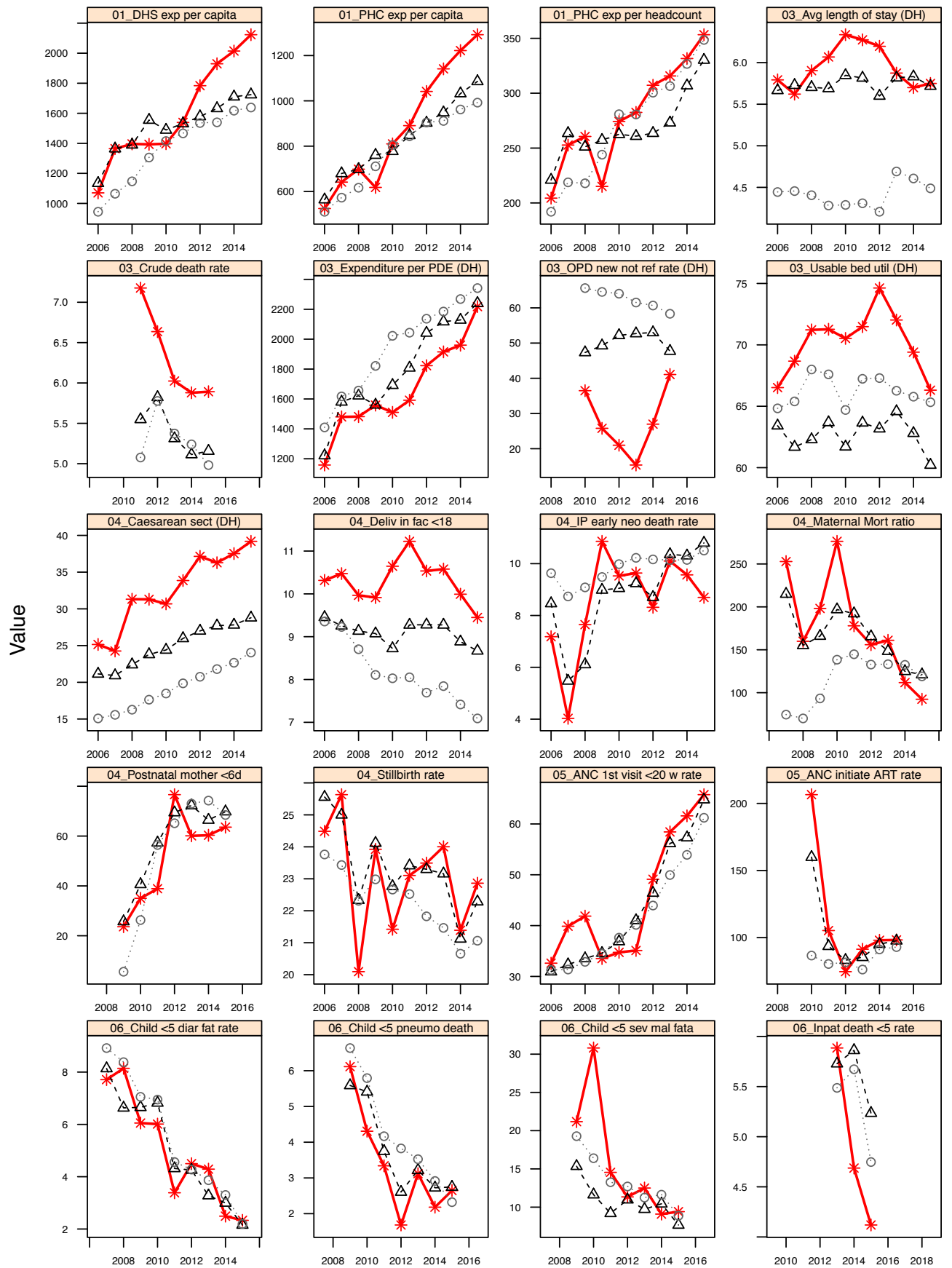
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

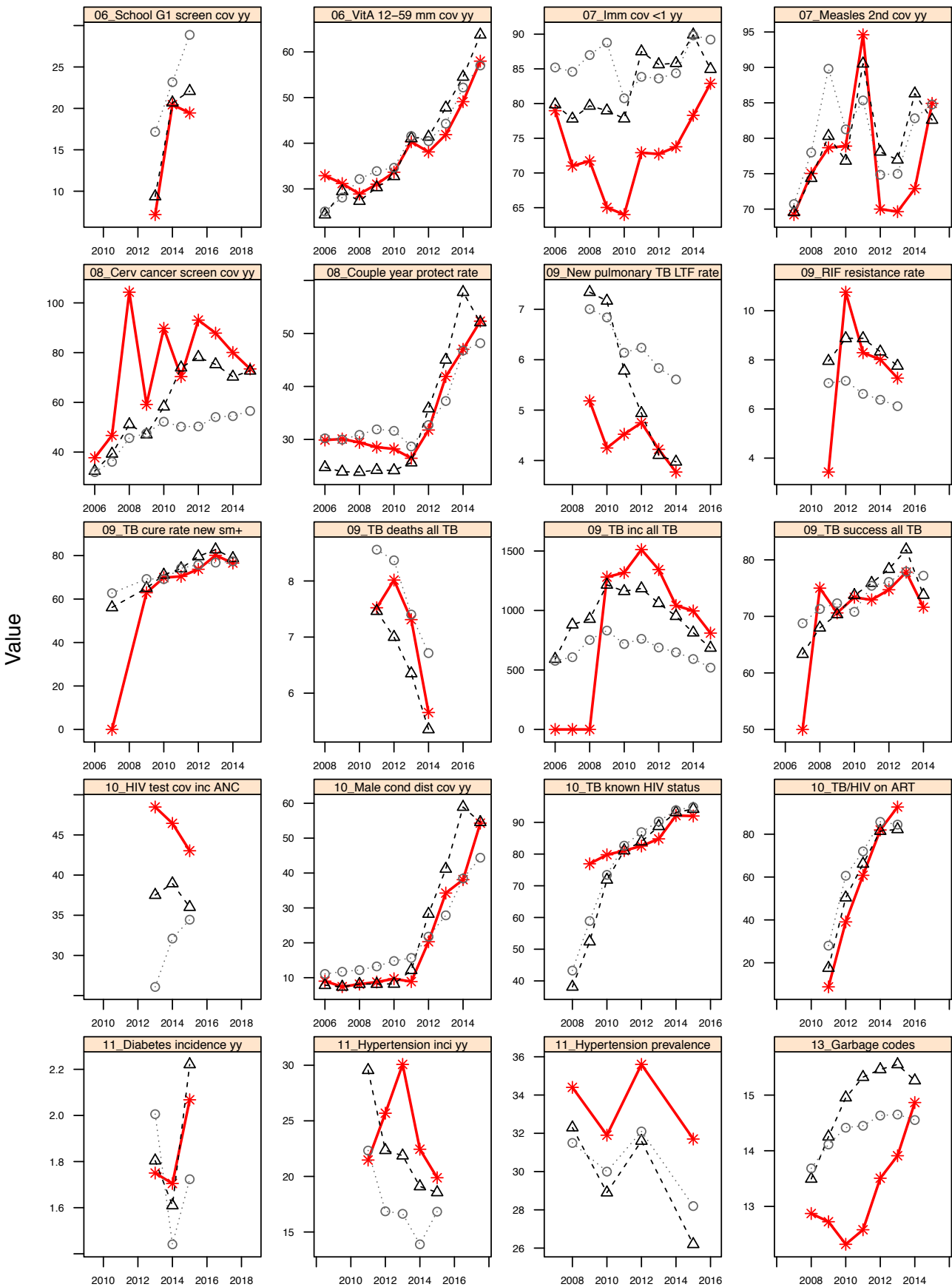
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Ugu (DC21)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Ugu (DC21)



District value * Provincial average Δ ZA (national) average ○

uMgungundlovu District Municipality (DC22)

uMgungundlovu District, one of the 11 National Health Insurance (NHI) pilot districts, is situated in the midlands of KwaZulu-Natal Province and comprises seven sub-districts, namely Impendle, Mkhambathini, Mooi Mpofana, Msunduzi, Richmond, uMngeni, and uMshwathi. The district has a population of 1 087 086, with a population density of 114.3 people per km², and falls in socio-economic Quintile 3. Estimated medical scheme coverage is 15.7%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
50	3	2	1	1	10

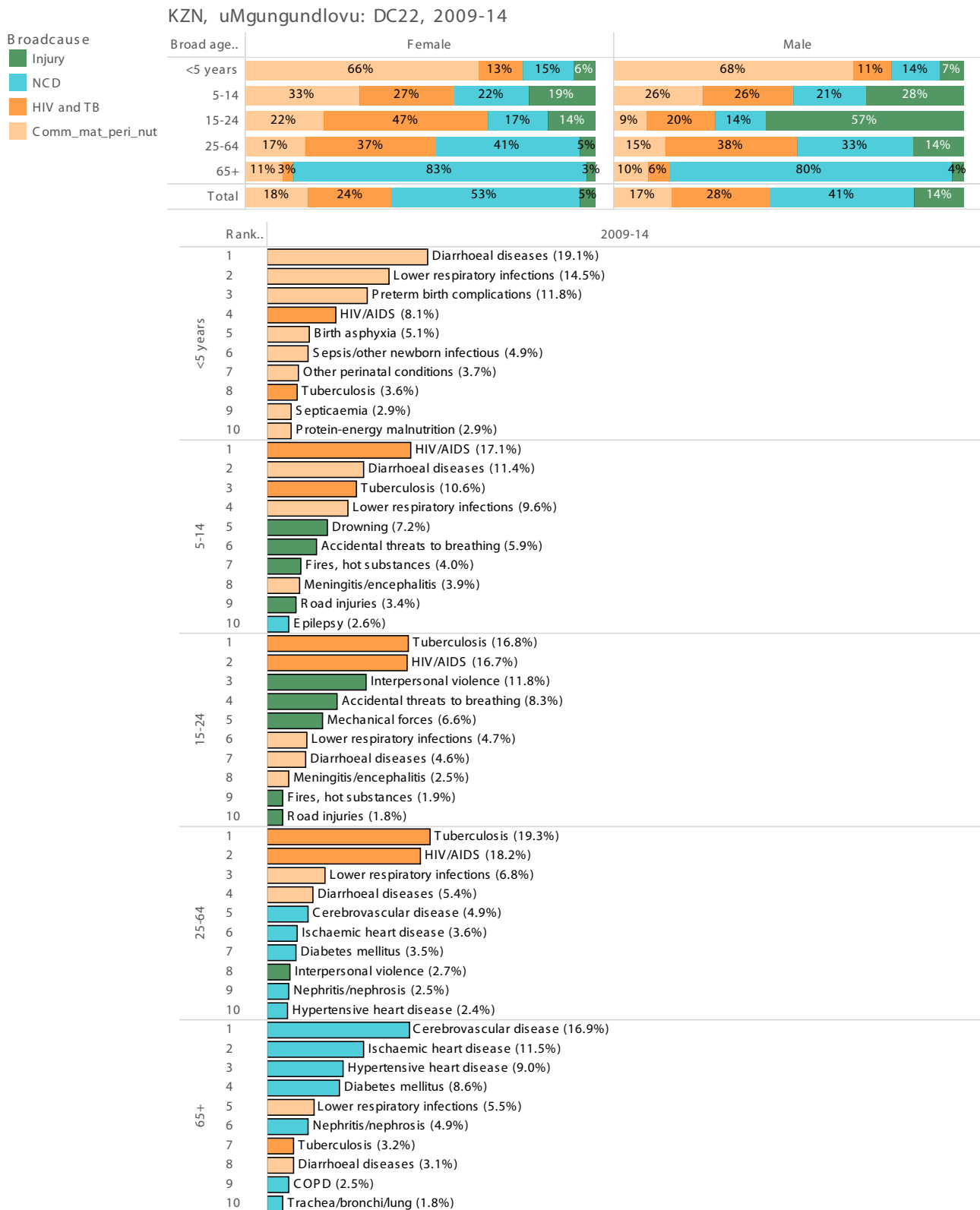
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	435 725	482 082	487 314
PHC headcount 5 years and older	2 941 215	3 169 491	3 000 317
Patient day equivalent	1 189 164	1 147 256	1 137 614
Deaths – total	4 182	4 484	4 476
Still births	533	510	450
Early neonatal deaths	208	163	177
Late neonatal deaths	67	65	64
Child under 5 years with diarrhoea death	38	24	16
Child under 5 years with pneumonia death	21	22	33
Child under 5 years with severe acute malnutrition death	28	20	17

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: uMgungundlovu (DC22)



Indicator performance: uMgungundlovu (DC22)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			23.1	10	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			34.6	8	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.2	5.6	5.4	29	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 047.3	1 949.1	2 034.0	32	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	74.6	79.6	80.5	4	60.2	65.3	78.6
	Inpatient crude death rate [Percentage]	5.1	5.5	5.6	28	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	29.7	44.1	35.7	13	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	31.1	31.7	33.1		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.1	8.6	8.2	30	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	13.2	9.1	10.3	29	10.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	208.3	185.9	191.7	49	121.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	63.5	66.8	65.1	30	69.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	32.4	27.9	25.5	40	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	58.8	59.9	68.7	11	64.8	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	102.9	98.7	97.2	14	97.6	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			0.7	8	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.4	2.5	1.8	22	2.2	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	1.6	2.1	2.5	28	2.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	6.8	7.0	6.1	14	7.7	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	9.4	6.7	6.1	35	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	6.2	18.6	20.5	31	22.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	36.9	58.5	56.0	26	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	96.3	91.2	72.9	48	85.0	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	65.1	75.2	69.4	50	82.6	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	78.9	73.3	71.4	14	72.7	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	110.7	152.9	62.9	7	52.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	28.2	37.1	41.3	12	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	153.4	216.8	73.4	6	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.9	2.2	4.0		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	19.4	26.3	30.5		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			30.8	9	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		853.4	775.6	678.1	34	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.1	6.4	6.4	37	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.4	83.4	86.5		7	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	81.0	82.9	83.0		8	73.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	7.3	6.4	5.8		17	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	5.2	4.7	4.5		17	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		59.2			10	57.3	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.1	98.5	98.7	1	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		77.9	93.4	98.8	3	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	34.3			30.4	28	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	38.5	40.6	41.5		38	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	31.6	29.2	28.6		32	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	17.1	17.3	16.4		13	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	14.2	14.3	12.8		20	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.8	12.9	13.5		31	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	13.1	11.9	10.6		26	10.0	13.8	

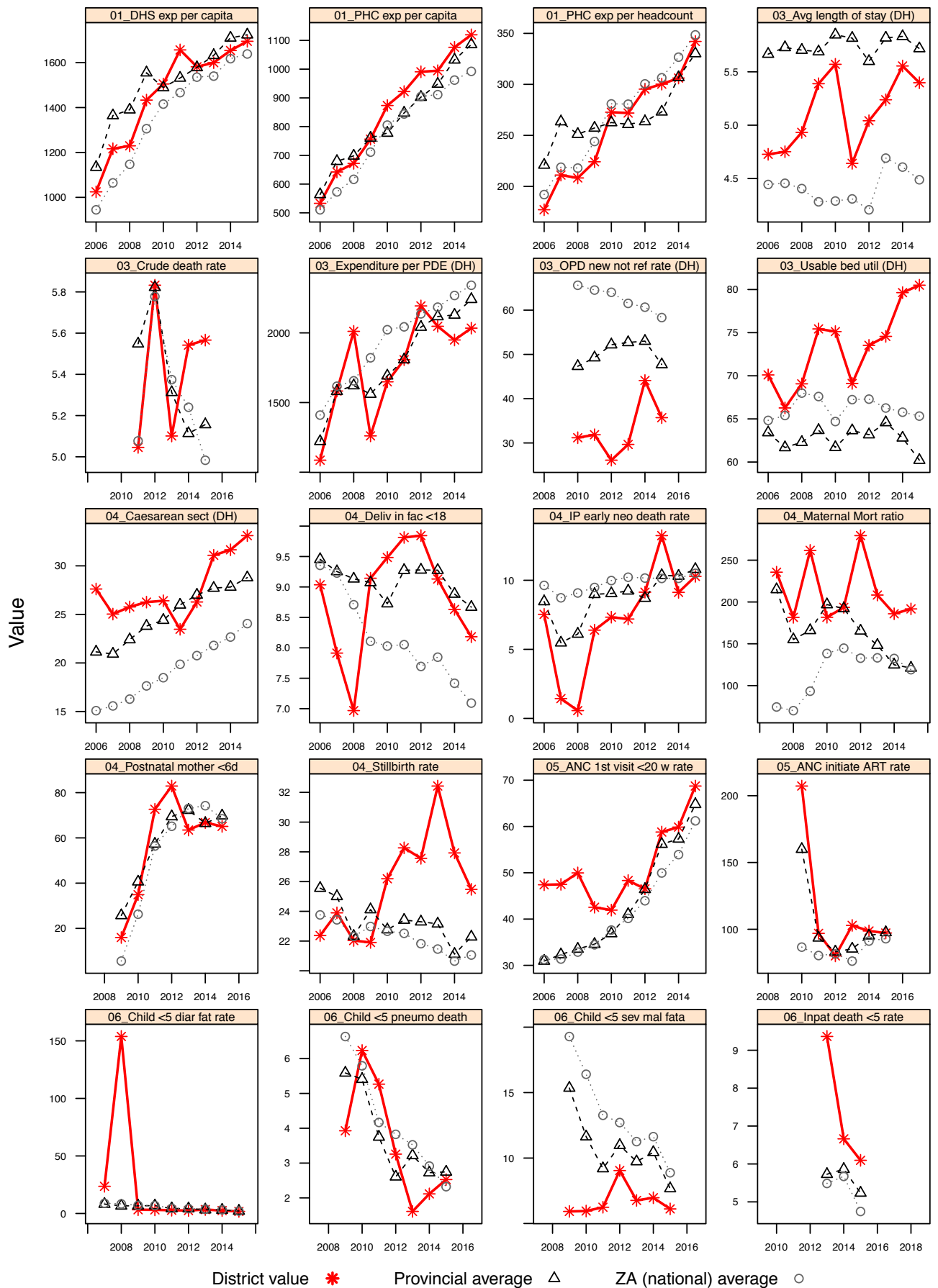
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

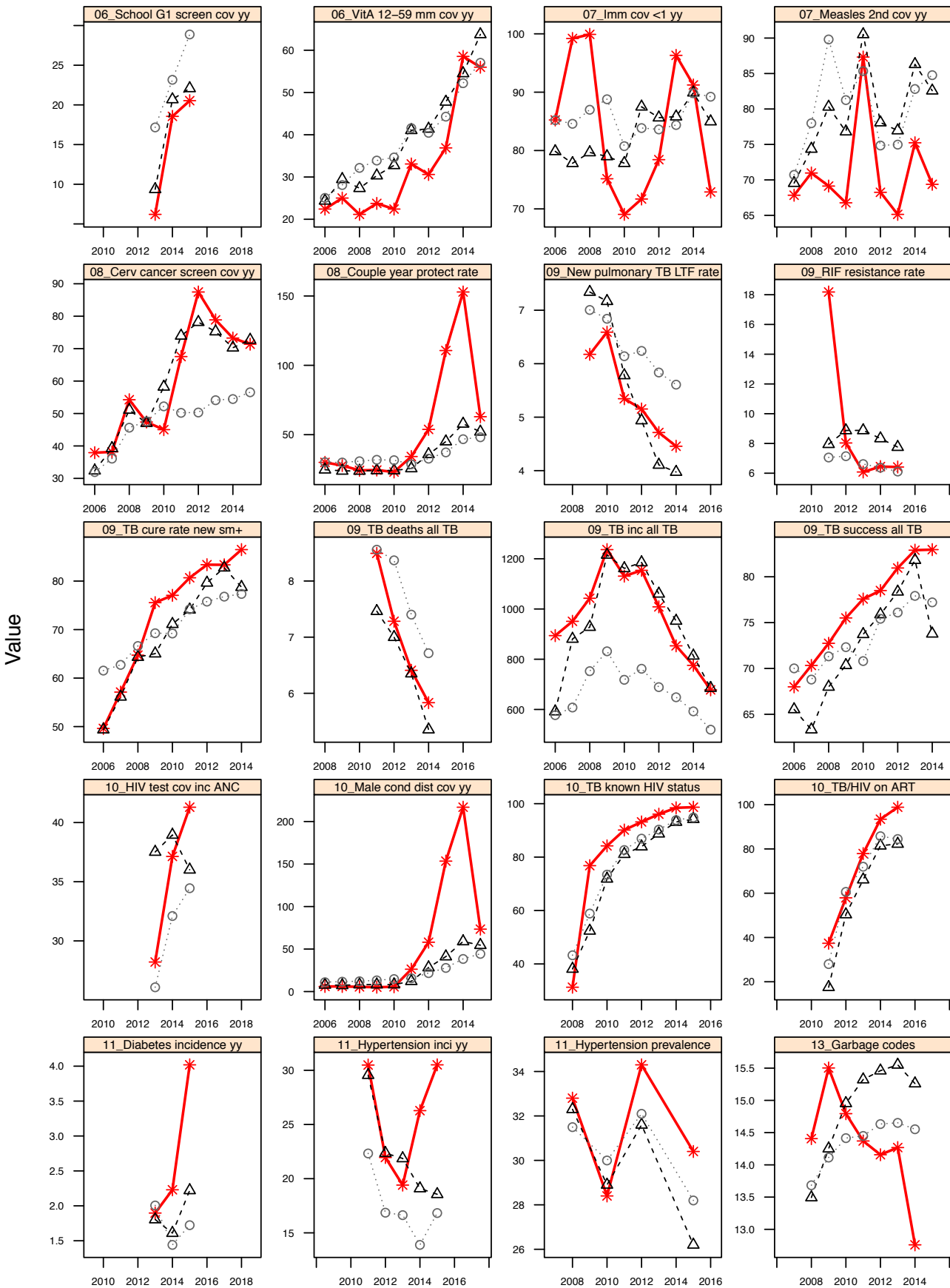
Value highlighted in yellow – performance is ranked among the 10 best in the country

Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: uMgungundlovu (DC22)



Annual indicators for district: uMgungundlovu (DC22)



District value * Provincial average Δ ZA (national) average ○

uThukela District Municipality (DC23)

uThukela District is located on the western boundary of Kwazulu-Natal Province. It consists of five sub-districts: Indaka, Emnambithi/Ladysmith, uMtshezi, Okhahlamba and Imbabazane. The district has a population of 695 671, with a population density of 61.4 people per km² and falls in socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 7.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
37	1	2	1	0	0

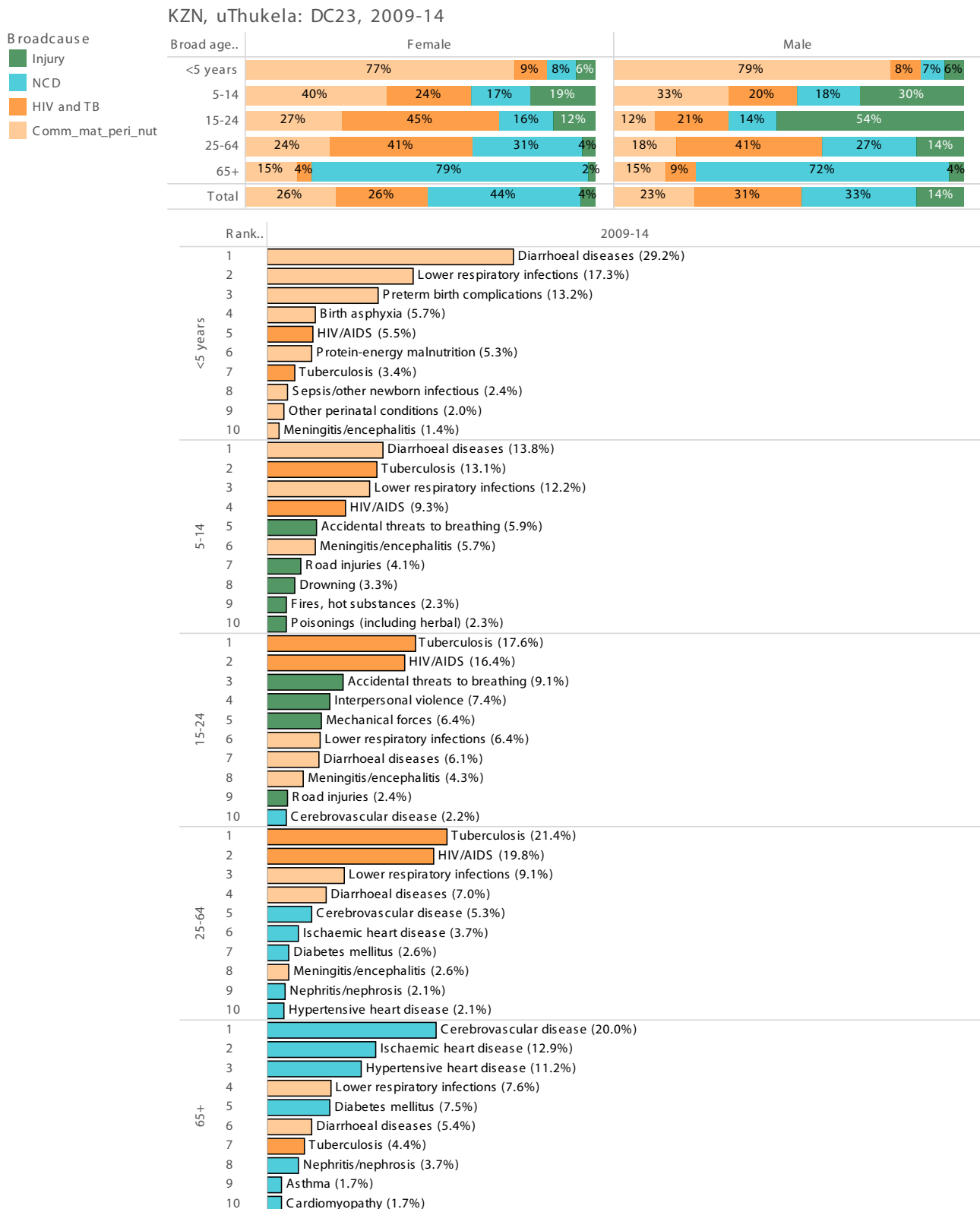
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	320 711	309 466	331 771
PHC headcount 5 years and older	1 700 282	1 794 366	1 837 583
Patient day equivalent	369 502	343 224	333 282
Deaths – total	2 769	2 583	2 482
Still births	296	345	344
Early neonatal deaths	119	104	99
Late neonatal deaths	30	47	36
Child under 5 years with diarrhoea death	42	27	14
Child under 5 years with pneumonia death	16	25	19
Child under 5 years with severe acute malnutrition death	33	37	22

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: uThukela (DC23)



Indicator performance: uThukela (DC23)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			27.0	8	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			37.8	5	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.3	5.4	5.5	32	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 199.8	2 146.2	2 383.1	3	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	63.4	63.7	61.7	35	60.2	65.3	78.6
	Inpatient crude death rate [Percentage]	6.4	6.1	6.0	38	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	42.9	52.8	47.3	19	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	23.0	21.5	26.1		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.3	8.8	8.7	33	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.0	8.2	8.3	14	10.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	123.0	175.8	160.0	44	121.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	67.1	75.8	77.0	7	69.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	23.7	26.8	28.2	49	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	54.4	57.0	61.3	35	64.8	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	98.9	95.9	98.6	7	97.6	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			0.6	6	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.3	2.8	1.8	23	2.2	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	2.6	3.4	2.9	35	2.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	19.9	14.9	8.9	31	7.7	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	5.0	5.8	4.4	18	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	11.8	15.5	24.8	26	22.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	33.9	52.4	83.6	3	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	76.5	86.0	84.7	27	85.0	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	70.2	84.7	82.5	28	82.6	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	63.8	61.8	82.7	4	72.7	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	53.1	57.7	53.6	22	52.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	35.7	33.0	26.3	45	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	60.5	70.5	61.6	10	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.8	0.7	1.9		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	15.6	15.4	21.4		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			37.8	5	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	2.7	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		711.0	601.8	533.0	22	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		8.6	7.8	8.0	44	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	76.9	84.9	78.2		24	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	74.1	84.5	75.1		33	73.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	8.8	9.9	7.3		27	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.4	1.1	1.3		3	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		63.0			5	57.3	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		93.0	94.7	93.8	37	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		87.7	90.1	86.4	25	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	29.5			23.2	8	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	28.4	29.7	32.6		14	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	34.1	34.0	35.4		45	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	27.6	23.3	21.4		30	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	15.8	15.7	15.1		42	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	9.9	13.0	10.6		6	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	10.7	6.4	4.2		2	10.0	13.8	

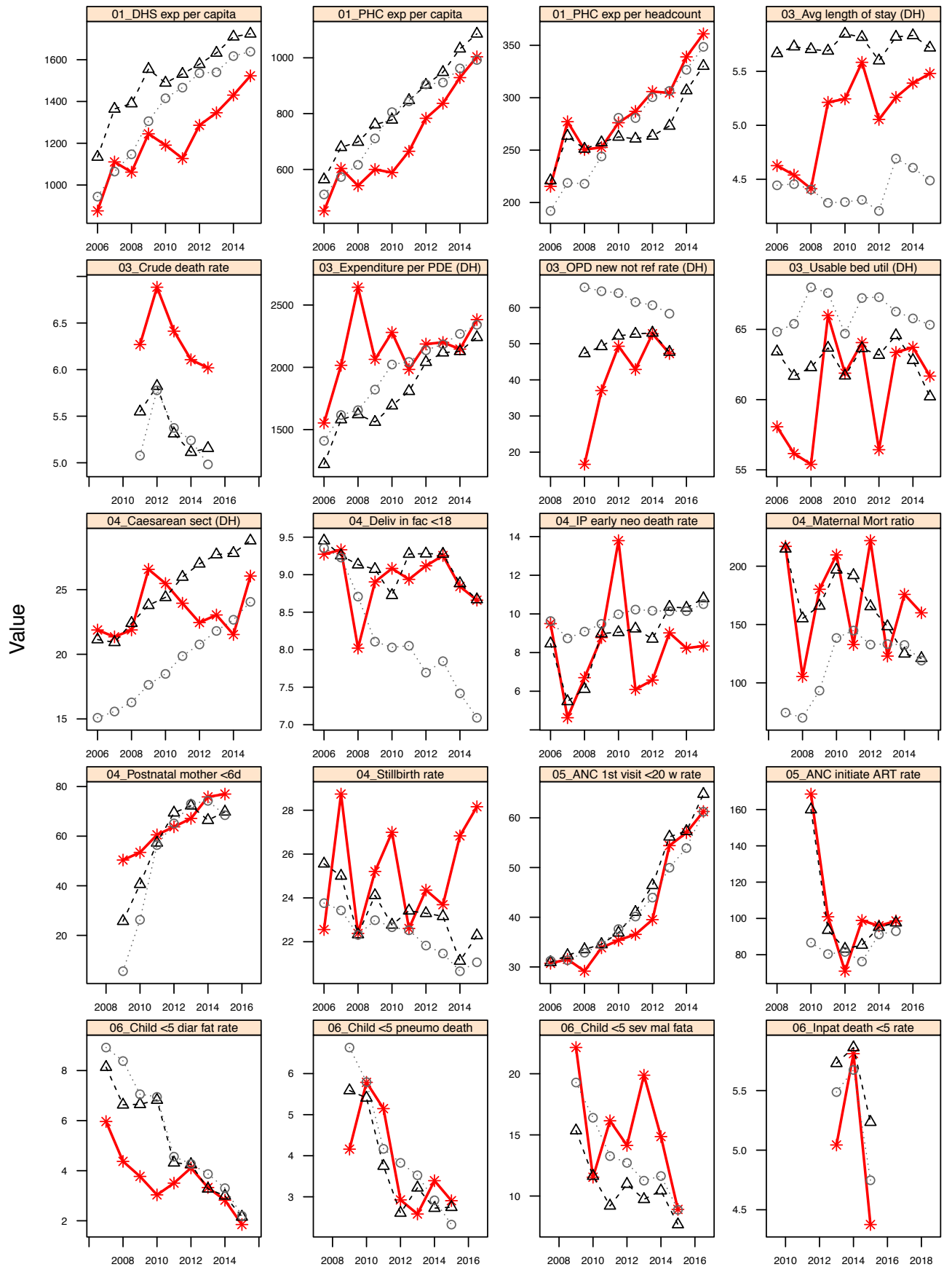
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

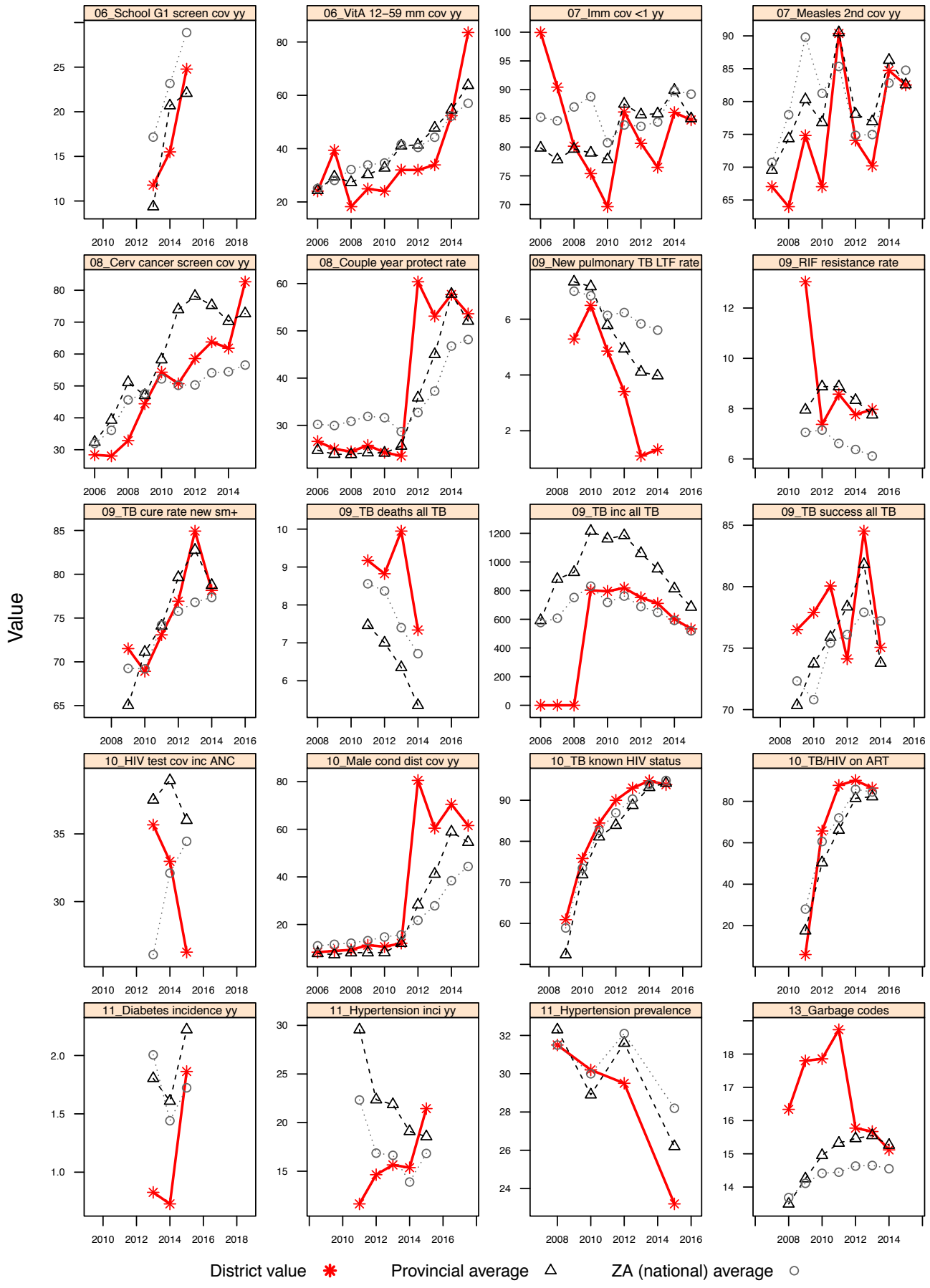
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: uThukela (DC23)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: uThukela (DC23)



uMzinyathi District Municipality (DC24)

uMzinyathi District is situated in the north-central region of KwaZulu-Natal Province and includes four sub-districts, namely Endumeni, Nquthu, Msinga and uMvoti. The district has a total population of 522 803, with a population density of 60.9 people per km² and falls into socio-economic Quintile 1, among the poorest districts, and has an estimated medical scheme coverage of 7.0%. uMzinyathi is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
51	1	4	0	0	1

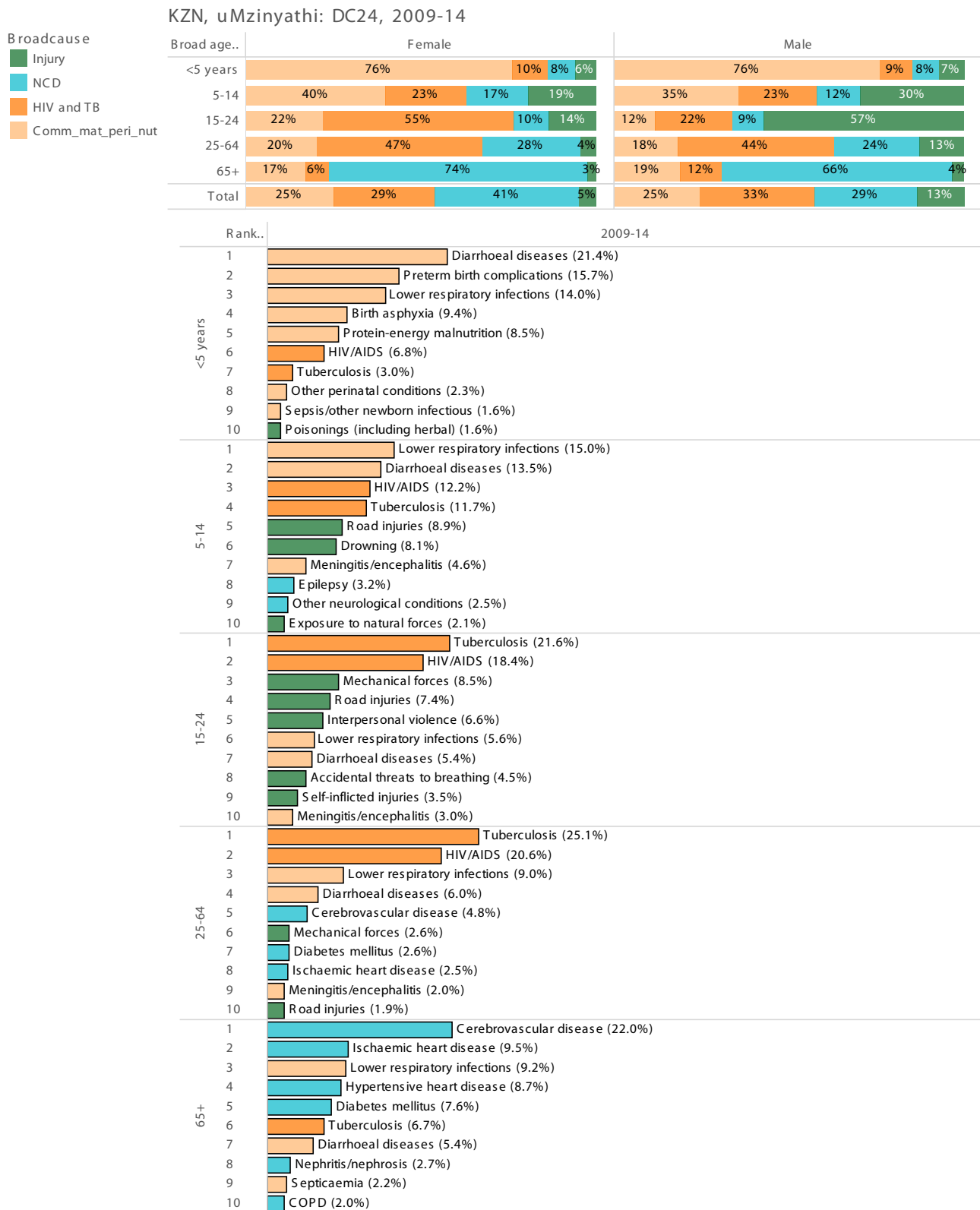
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	303 980	293 324	319 663
PHC headcount 5 years and older	1 557 375	1 552 544	1 632 000
Patient day equivalent	332 357	322 410	326 214
Deaths – total	2 624	2 326	2 234
Still births	209	202	178
Early neonatal deaths	123	106	130
Late neonatal deaths	24	26	20
Child under 5 years with diarrhoea death	41	30	14
Child under 5 years with pneumonia death	38	15	21
Child under 5 years with severe acute malnutrition death	31	35	24

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: uMzinyathi (DC24)



Indicator performance: uMzinyathi (DC24)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			34.6	4	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			34.6	8	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	6.1	6.1	6.1	45	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 303.8	2 347.8	2 326.4	1	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	63.6	53.6	54.4	45	60.2	65.3	
	Inpatient crude death rate [Percentage]	6.6	6.2	5.8	31	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	70.4	61.7	55.9	22	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	20.6	23.2	24.4		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.0	9.8	8.8	34	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	11.4	9.4	12.0	40	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	71.6	79.6	101.3	27	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	66.9	72.1	76.4	8	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	18.4	17.6	16.1	8	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	59.6	60.9	68.4	12	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	93.5	98.3	95.5	21	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.6	4	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.6	3.8	2.0	27	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	6.1	2.4	3.1	37	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.7	12.4	8.7	29	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	6.0	5.9	5.6	31	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	7.2	14.2	18.5	34	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	51.4	60.3	71.2	7	63.8	57.0	
	Immunisation coverage under 1 year [Percentage]	77.2	81.5	92.2	13	85.0	89.2	
Reproductive health	Measles 2nd dose coverage (annualised) [Percentage]	80.1	85.0	95.2	8	82.6	84.8	
	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	102.2	71.6	109.2	1	72.7	56.6	
HIV	Couple year protection rate (annualised) [Percentage]	59.9	76.7	85.2	1	52.1	48.2	
	HIV testing coverage (including ANC) [Percentage]	60.6	62.5	52.0	4	36.0	34.5	
Non-communicable diseases	Male condom distribution coverage [Condoms per male 15+]	85.3	113.4	136.3	1	54.6	44.4	
	Diabetes incidence (annualised) [per 1 000 population]	1.1	0.9	1.5		2.2	1.7	
Human Resources	Hypertension incidence (annualised) [per 1 000 population 40+]	20.0	20.0	20.6		18.6	16.8	
	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			34.6	6	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		682.6	615.9	518.0	20	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		10.2	8.4	8.3	46	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	79.6	88.1	87.2		4	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	77.0	82.9	78.3		23	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	11.1	11.5	9.1		36	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	1.9	1.4	3.2		6	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		64.7			2	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.6	95.0	96.6	8	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		89.1	92.1	91.4	19	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	27.3			27.5	23	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	25.5	27.4	30.1		8	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	37.1	32.2	33.3		42	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	26.8	27.4	24.6		38	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	12.2	13.1	14.2		32	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.6	12.9	12.0		14	13.1	13.6	

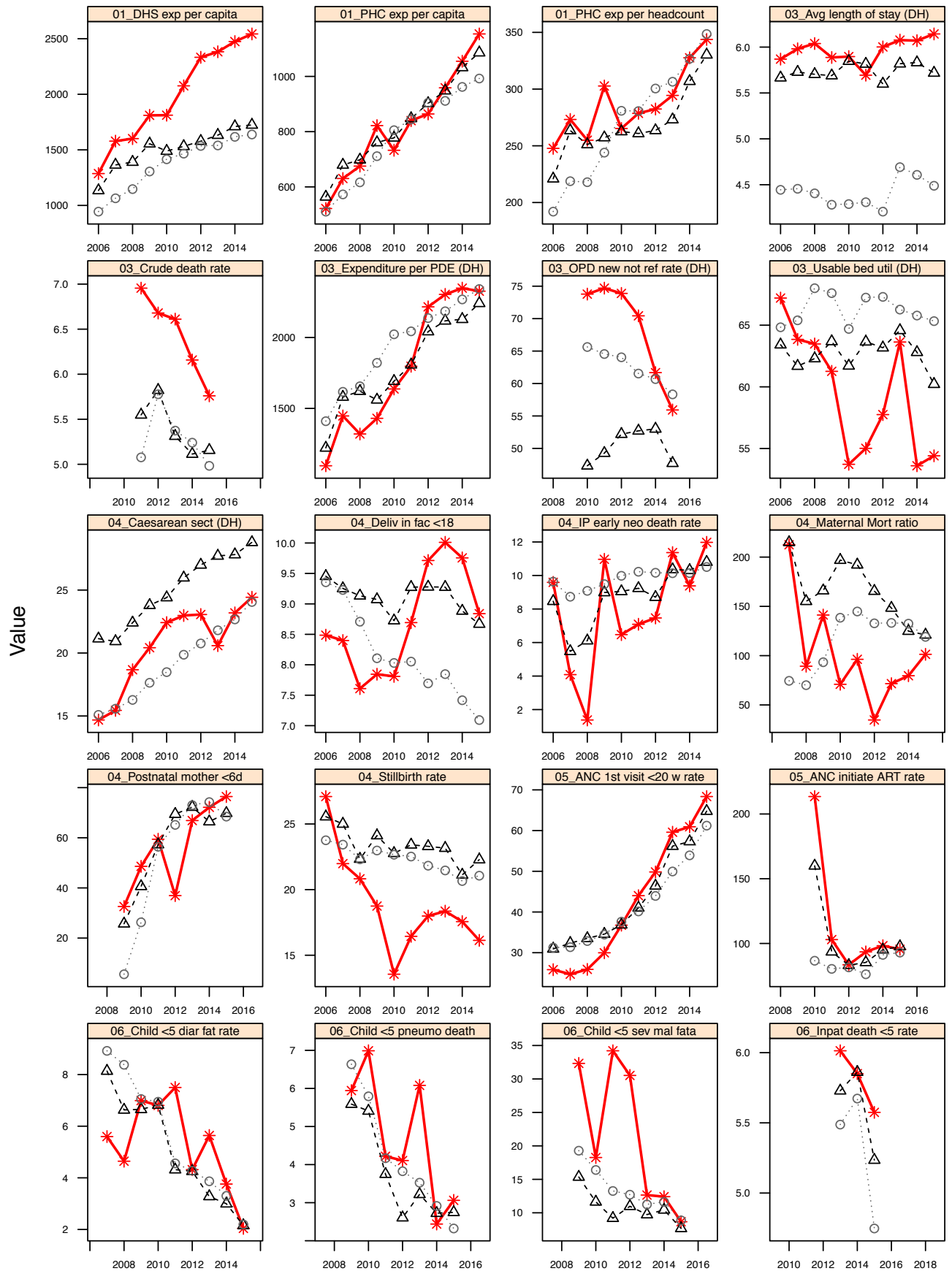
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

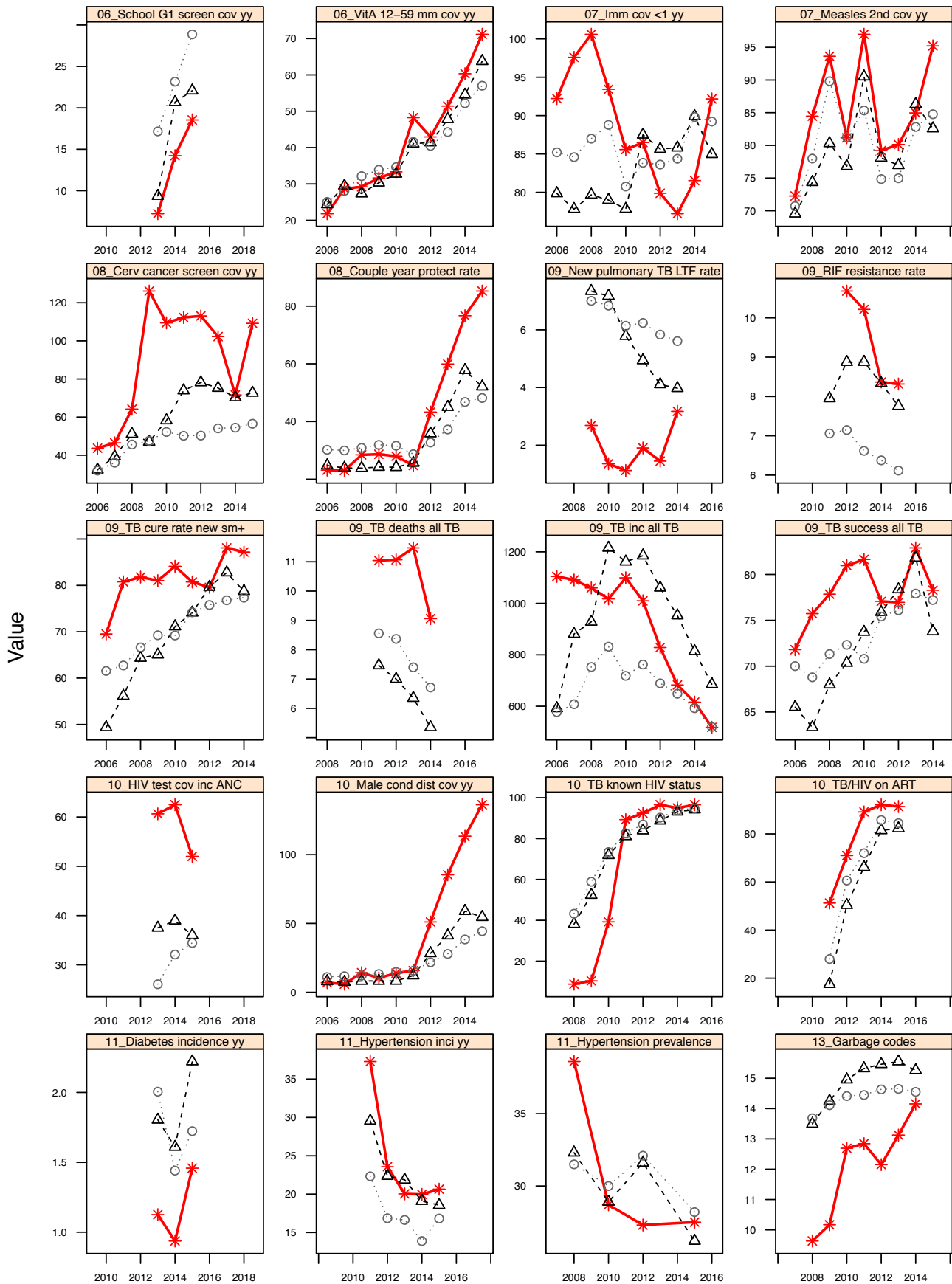
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: uMzinyathi (DC24)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: uMzinyathi (DC24)



District value * Provincial average Δ ZA (national) average ○

Amajuba District Municipality (DC25)

Amajuba District is located in the north-western corner of KwaZulu-Natal Province and comprises three sub-districts, namely Dannhauser, Emadlangeni and Newcastle. The district has a population of 522 638, with a population density of 75.6 people per km² and falls into socio-economic Quintile 3. Estimated medical scheme coverage is 9.4%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
25	1	1	2	0	0

Headcounts and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	187 364	194 978	202 275
PHC headcount 5 years and older	1 217 741	1 321 245	1 197 090
Patient day equivalent	377 249	389 178	357 377
Deaths – total	2 166	2 145	2 175
Still births	261	315	229
Early neonatal deaths	84	109	90
Late neonatal deaths	16	32	28
Child under 5 years with diarrhoea death	5	16	6
Child under 5 years with pneumonia death	3	5	8
Child under 5 years with severe acute malnutrition death	16	20	12

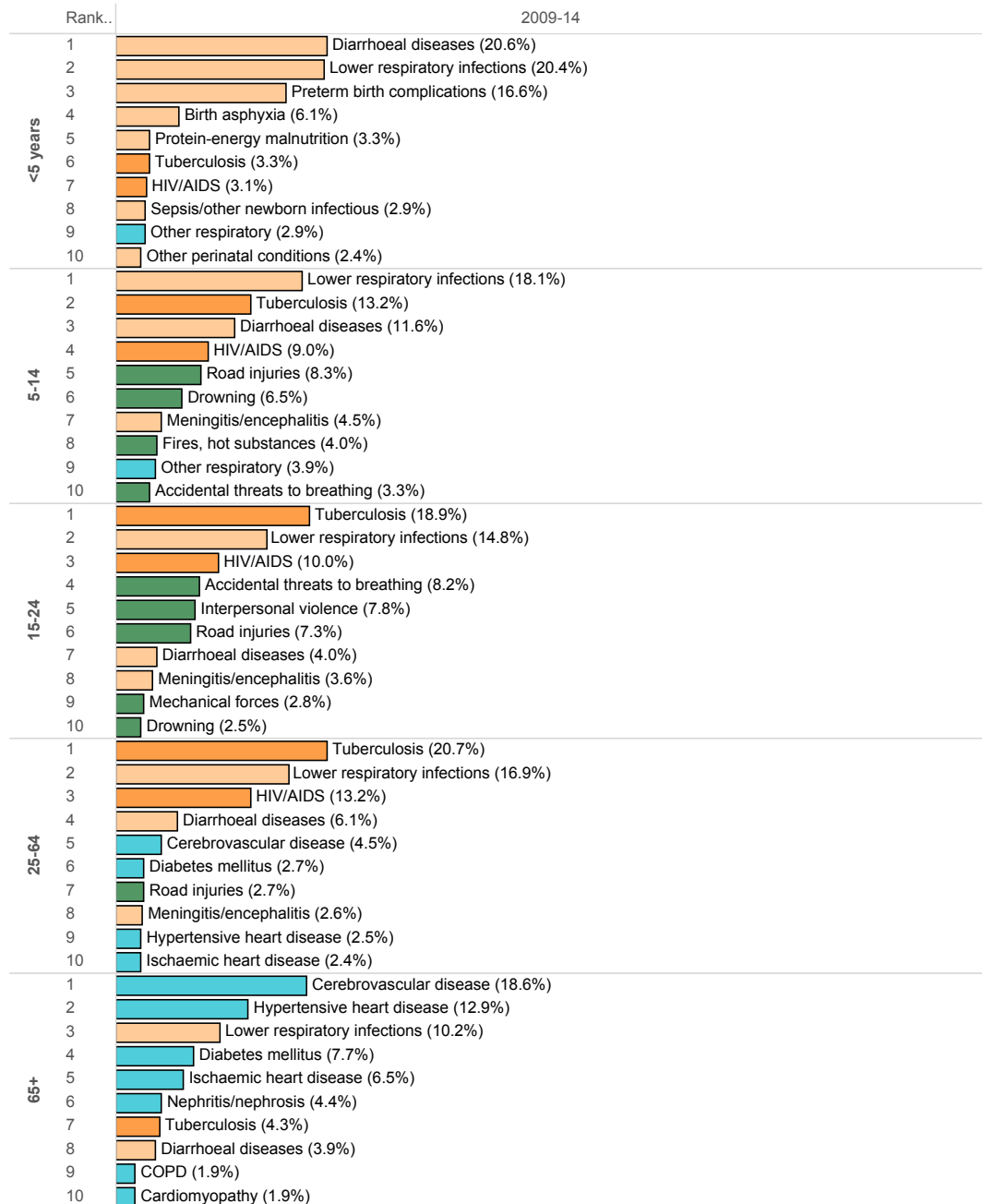
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Amajuba (DC25)

KZN, Amajuba: DC25, 2009-14

Broadcause	Broad age..	Female					Male				
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other	Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other
	<5 years	75%	6%	13%	6%	6%	75%	6%	11%	7%	6%
	5-14	35%	23%	23%	19%	6%	35%	20%	20%	26%	6%
	15-24	34%	39%	16%	11%	6%	16%	16%	14%	54%	6%
	25-64	29%	34%	33%	4%	6%	26%	33%	29%	12%	6%
	65+	15%	4%	80%	2%	6%	19%	7%	71%	3%	6%
	Total	29%	23%	44%	4%	6%	28%	25%	35%	12%	6%



Indicator performance: Amajuba (DC25)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			34.6	4	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			34.6	8	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.7	4.8	4.4	4	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 011.1	2 070.3	2 692.3	35	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	44.3	62.6	60.8	37	60.2	65.3	
	Inpatient crude death rate [Percentage]	6.3	6.0	5.8	32	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	40.0	43.8	48.4	20	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.9	28.9	29.4	37	28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.8	8.9	8.3	31	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.2	7.8	10.4	32	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	109.8	143.2	161.7	46	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	79.1	50.1	71.9	17	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	27.9	14.6	25.8	42	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	59.5	52.8	58.5	42	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	92.4	94.2	92.6	26	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.4	2	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.9	3.0	1.3	15	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	0.8	0.9	1.5	15	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	10.3	11.0	6.5	16	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	4.8	6.3	4.2	17	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	14.6	25.2	16.3	38	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	34.7	50.2	52.7	36	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	70.3	79.2	80.9	34	85.0	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	59.2	98.8	87.3	17	82.6	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	53.0	62.8	57.5	25	72.7	56.6	
	Couple year protection rate (annualised) [Percentage]	34.9	51.9	50.8	28	52.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	46.2	48.4	39.0	17	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	22.0	52.9	55.9	13	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.1	0.8	0.8		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.7	14.8	13.6		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			38.5	3	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			3.8	9	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		510.4	527.4	484.3	17	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		9.4	8.5	8.3	47	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	71.0	76.1	73.3		36	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	76.2	79.1	79.3		20	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	11.4	11.2	11.7		47	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.3	5.1	4.8		23	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		60.3			7	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.9	97.9	96.6	9	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		62.8	76.5	67.3	49	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	27.2			25.9	18	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	30.3	31.9	33.6		18	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	28.1	33.5	19.8		4	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	31.0	24.2	28.3		45	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	17.3	13.9	13.8		30	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.6	10.4	18.3		47	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	7.5	5.5	6.8		5	10.0	13.8	

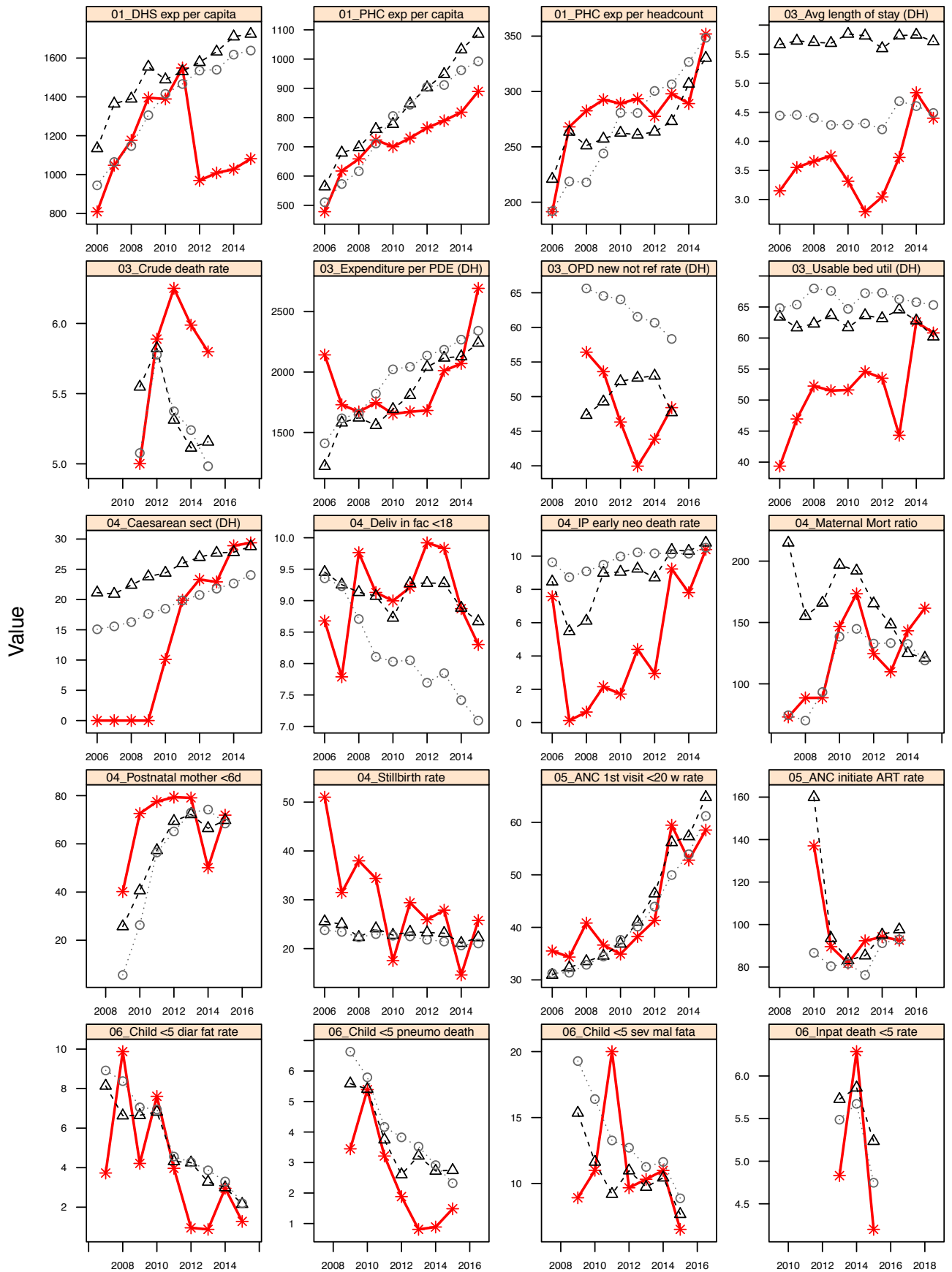
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

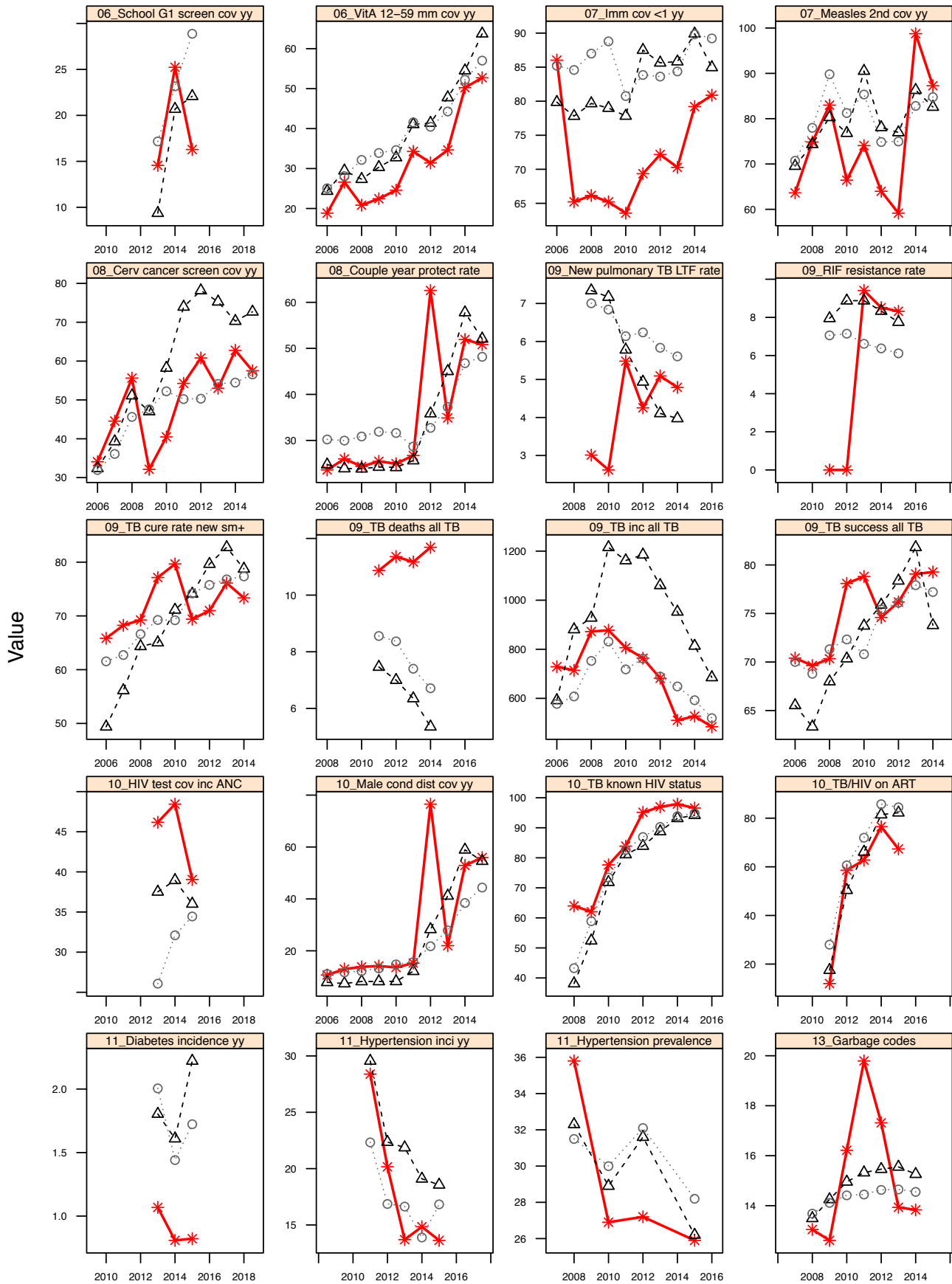
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Amajuba (DC25)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Amajuba (DC25)



District value * Provincial average Δ ZA (national) average ○

Zululand District Municipality (DC26)

Zululand District is situated in the north-eastern part of KwaZulu-Natal Province. It is primarily a rural district and comprises five sub-districts, namely Nongoma, Ulundi, eDumbe, uPhongolo and Abaqulusi. The district has a population of 844 531, with a population density of 57.1 people per km², and falls into socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 6.5%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
72	1	5	0	0	5

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	380 404	399 484	399 164
PHC headcount 5 years and older	2 139 221	2 266 105	2 239 755
Patient day equivalent	496 638	485 428	462 629
Deaths – total	3 387	3 213	3 008
Still births	367	267	296
Early neonatal deaths	123	169	111
Late neonatal deaths	16	34	24
Child under 5 years with diarrhoea death	52	52	34
Child under 5 years with pneumonia death	30	32	31
Child under 5 years with severe acute malnutrition death	42	47	22

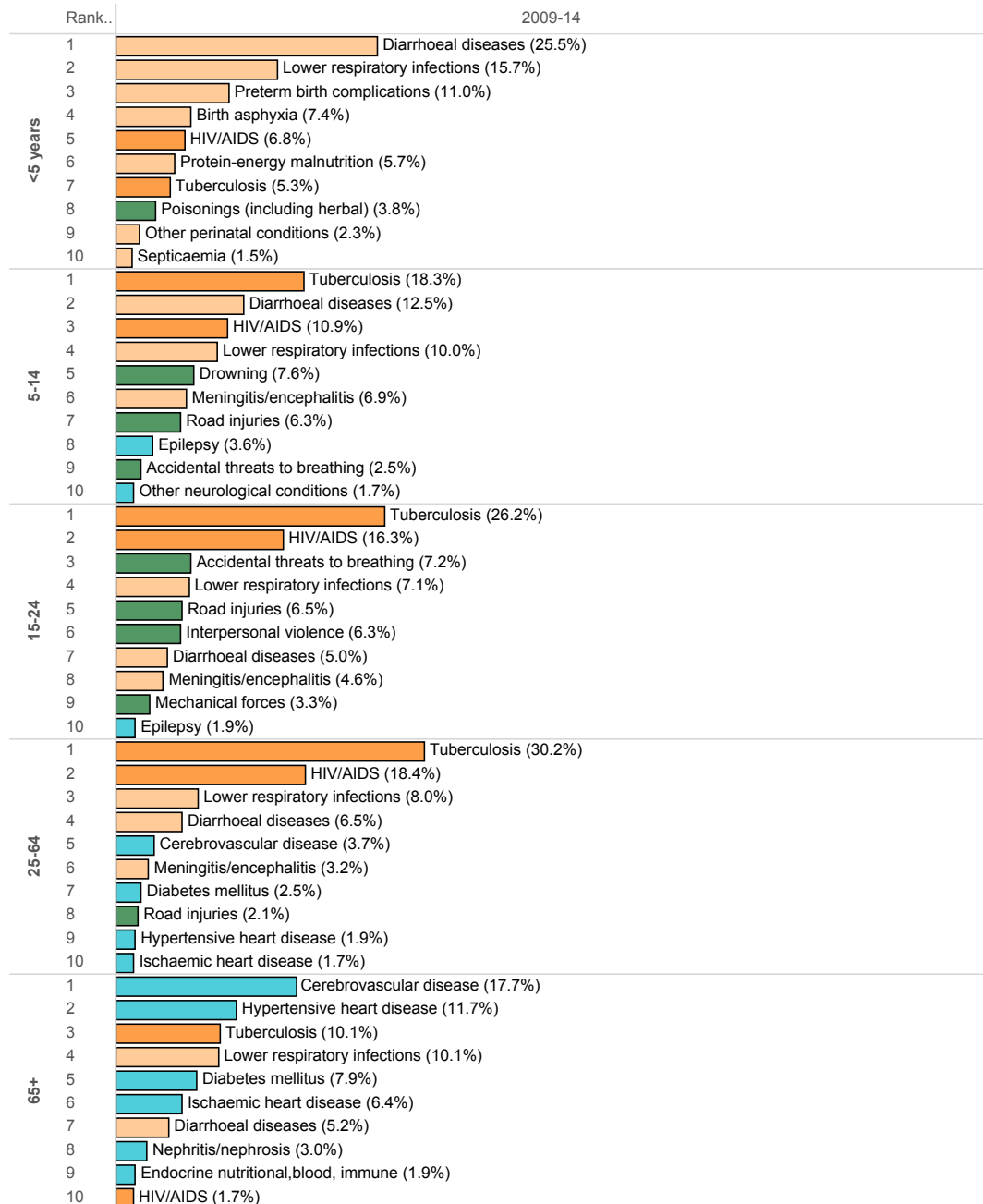
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Zululand (DC26)

KZN, Zululand: DC26, 2009-14

Broadcause	Broad age..	Female				Male			
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Comm_mat_peri_nut	HIV and TB	NCD	Injury
	<5 years	72%	13%	7%	8%	73%	11%	8%	9%
	5-14	34%	31%	18%	17%	32%	26%	18%	24%
	15-24	25%	53%	12%	11%	13%	26%	12%	49%
	25-64	21%	49%	26%	4%	19%	48%	22%	11%
	65+	18%	9%	71%	2%	17%	17%	63%	3%
	Total	26%	33%	36%	5%	25%	37%	27%	12%



Indicator performance: Zululand (DC26)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			33.8	6	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			33.8	12	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	6.2	5.9	5.8	37	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 084.0	2 157.1	2 233.8	14	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	67.5	67.0	62.7	33	60.2	65.3	
	Inpatient crude death rate [Percentage]	6.1	5.7	5.5	27	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	61.7	35.6	37.2	14	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	25.4	24.8	25.0	16	28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.2	10.1	9.8	42	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	7.6	10.2	7.3	8	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	123.3	60.3	85.2	16	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	51.2	58.3	59.1	38	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	21.9	15.8	19.0	17	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	58.1	60.7	67.0	16	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	85.6	98.1	99.3	4	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.7	7	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.1	4.7	3.0	39	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	6.5	4.5	3.8	42	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	26.9	20.3	7.8	22	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	7.9	7.3	4.4	19	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	23.0	22.7	38.7	16	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	48.3	54.3	54.7	30	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	80.6	87.9	78.1	40	85.0	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	70.3	88.9	72.6	45	82.6	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	78.0	60.9	80.6	5	72.7	56.6	
	Couple year protection rate (annualised) [Percentage]	37.0	43.2	58.0	15	52.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	40.4	37.9	31.9	31	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	33.6	41.3	72.6	7	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	0.9	1.9		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	12.8	13.9	14.5		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			33.8	8	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			4.2	8	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		936.8	783.5	682.7	35	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		15.6	12.0	9.5	51	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	81.1	83.3	86.2		8	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	77.5	80.5	81.4		11	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	10.2	9.0	6.7		23	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.8	3.4	4.1		13	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		56.8			14	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		97.2	97.3	97.4	6	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		89.2	86.0	78.3	40	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	30.0			24.7	16	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	24.5	24.1	27.4		2	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	37.1	41.4	36.1		47	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	27.5	23.8	24.3		36	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	12.5	13.0	13.6		28	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.9	10.7	12.2		19	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	15.5	12.7	11.8		31	10.0	13.8	

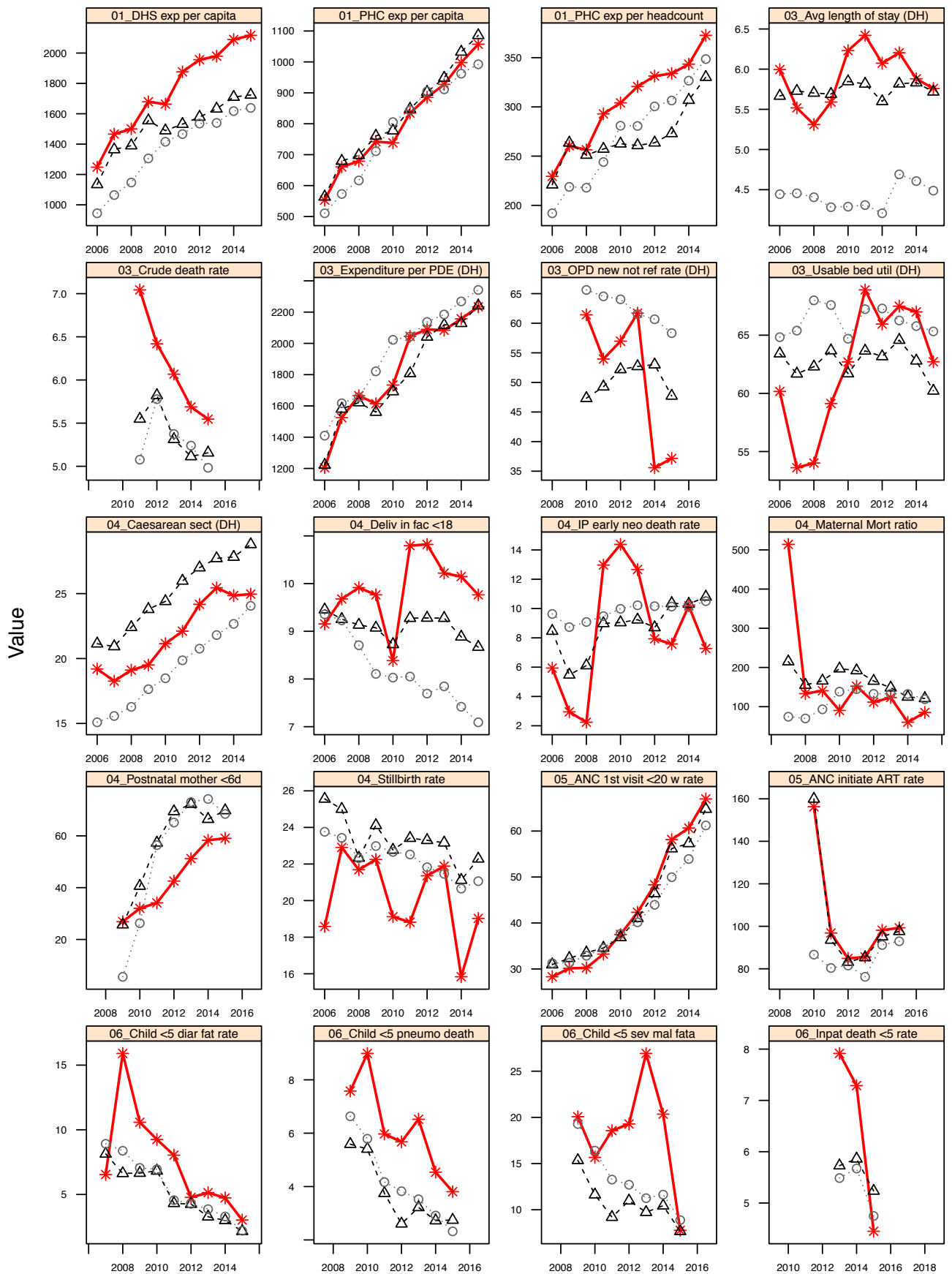
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

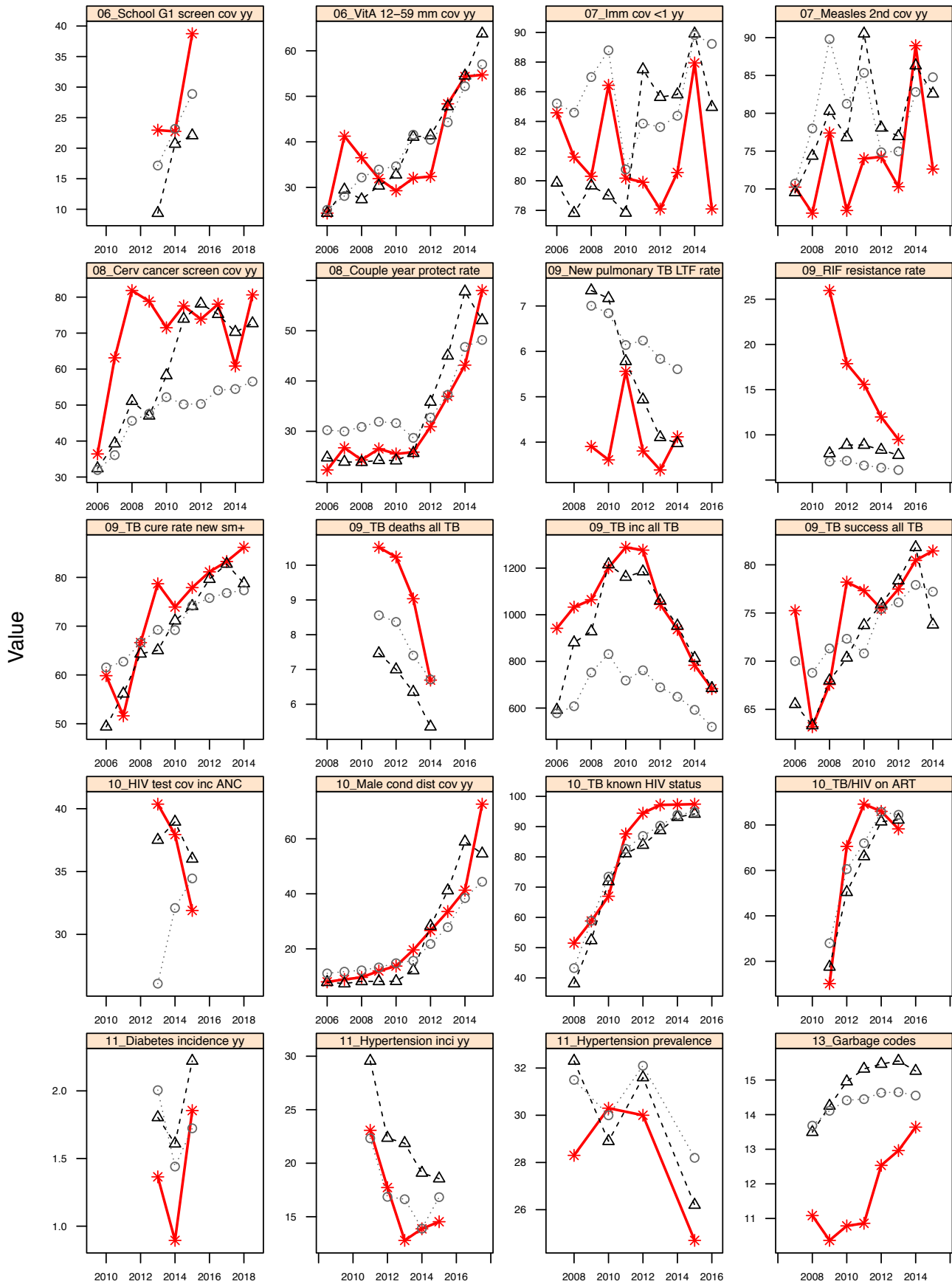
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Zululand (DC26)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Zululand (DC26)



District value * Provincial average Δ ZA (national) average ○

uMkhanyakude District Municipality (DC27)

uMkhanyakude District is located in the far north of KwaZulu-Natal Province and borders with Swaziland and Mozambique. The district comprises five sub-districts, namely Hlabisa, Jozini, Mtubatuba, The Big 5 False Bay and uMhlabuyalingana. The district has a population of 649 645, with a population density of 46.9 people per km² and falls in socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 3.9%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
57	0	5	0	0	0

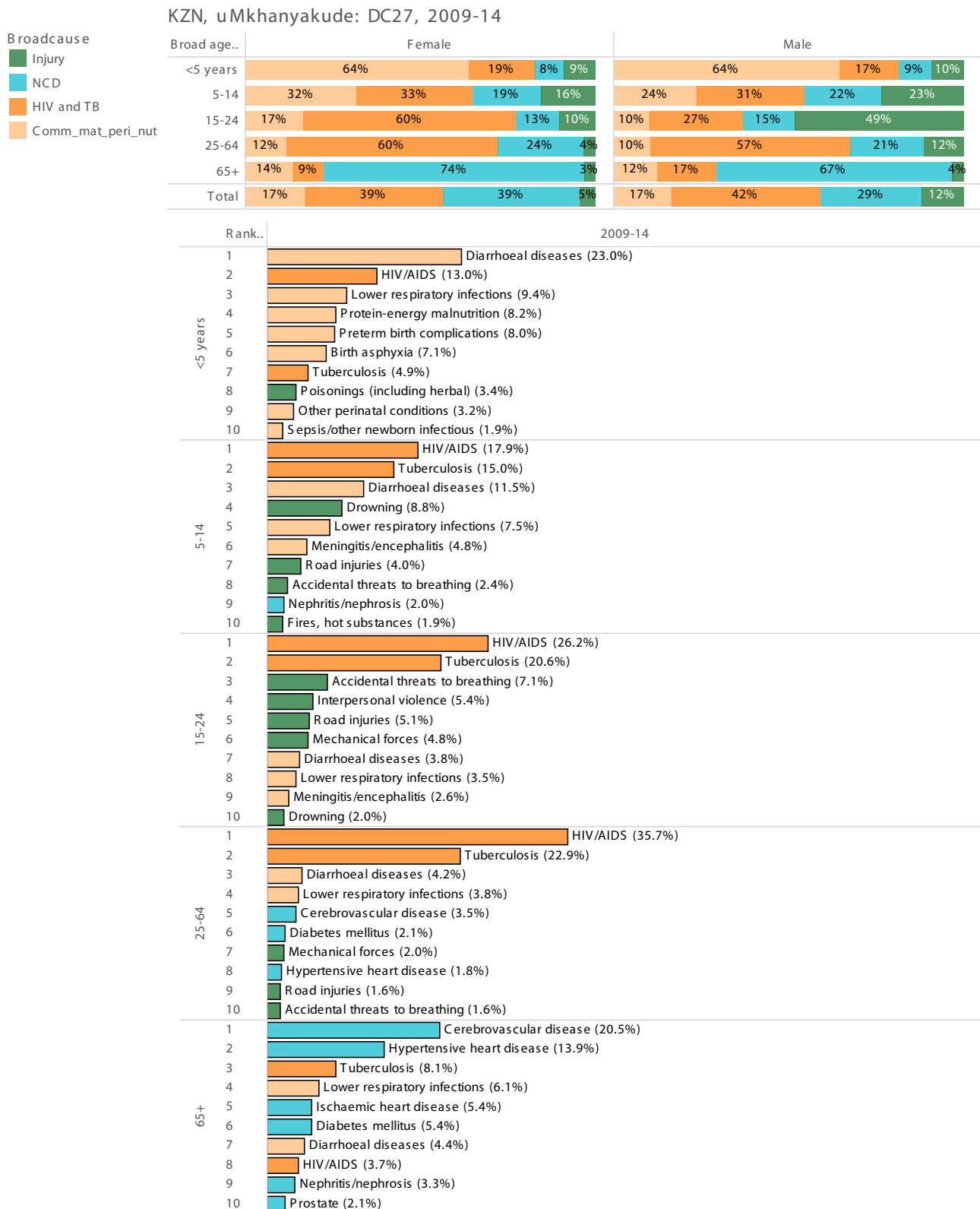
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	415 911	419 021	422 897
PHC headcount 5 years and older	2 290 996	2 196 876	2 253 400
Patient day equivalent	386 777	374 543	345 035
Deaths – total	2 295	2 219	2 071
Still births	248	260	246
Early neonatal deaths	59	84	103
Late neonatal deaths	12	19	21
Child under 5 years with diarrhoea death	45	44	12
Child under 5 years with pneumonia death	26	27	13
Child under 5 years with severe acute malnutrition death	32	29	24

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: uMkhanyakude (DC27)



Indicator performance: uMkhanyakude (DC27)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			35.1	3	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			35.1	7	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.5	6.0	5.8	38	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 153.9	2 305.1	2 606.5	26	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	60.7	60.2	56.0	43	60.2	65.3	
	Inpatient crude death rate [Percentage]	4.7	4.9	4.8	16	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	50.3	46.9	45.7	18	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	21.6	20.4	21.4		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	11.3	11.1	10.9	50	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	4.0	5.5	7.3	9	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	53.6	59.4	85.2	17	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	87.4	73.1	79.8	3	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	16.3	16.8	17.2	11	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	61.2	59.3	66.4	17	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	73.1	90.0	98.8	6	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.6	5	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.5	4.8	1.6	18	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	2.9	3.0	1.9	20	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.2	10.8	7.9	23	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	5.3	5.4	4.9	24	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	7.7	10.7	21.9	29	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	39.4	47.5	62.4	15	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	74.3	83.0	87.5	21	85.0	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	69.8	87.2	82.3	29	82.6	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	51.4	43.8	72.2	13	72.7	56.6	
	Couple year protection rate (annualised) [Percentage]	32.6	41.0	46.3	33	52.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	37.1	35.8	25.9	48	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	22.0	35.8	49.1	25	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.8	0.8	1.0		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	22.1	22.0	18.7		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			26.3	14	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			1.8	19	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		907.0	732.4	577.4	26	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		16.2	13.2	12.4	52	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	75.7	80.9	79.4		20	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	74.4	84.0	79.8		17	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	8.3	6.9	2.8		2	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.6	1.3	0.1		1	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		61.9			6	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		87.8	93.0	92.4	44	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		52.4	80.5	99.4	2	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	24.3			24.2	12	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	26.1	27.3	28.8		5	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	45.1	43.5	40.2		52	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	18.9	17.7	17.6		17	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	11.4	11.9	13.2		25	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	9.9	11.5	13.5		29	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	14.7	13.5	13.2		36	10.0	13.8	

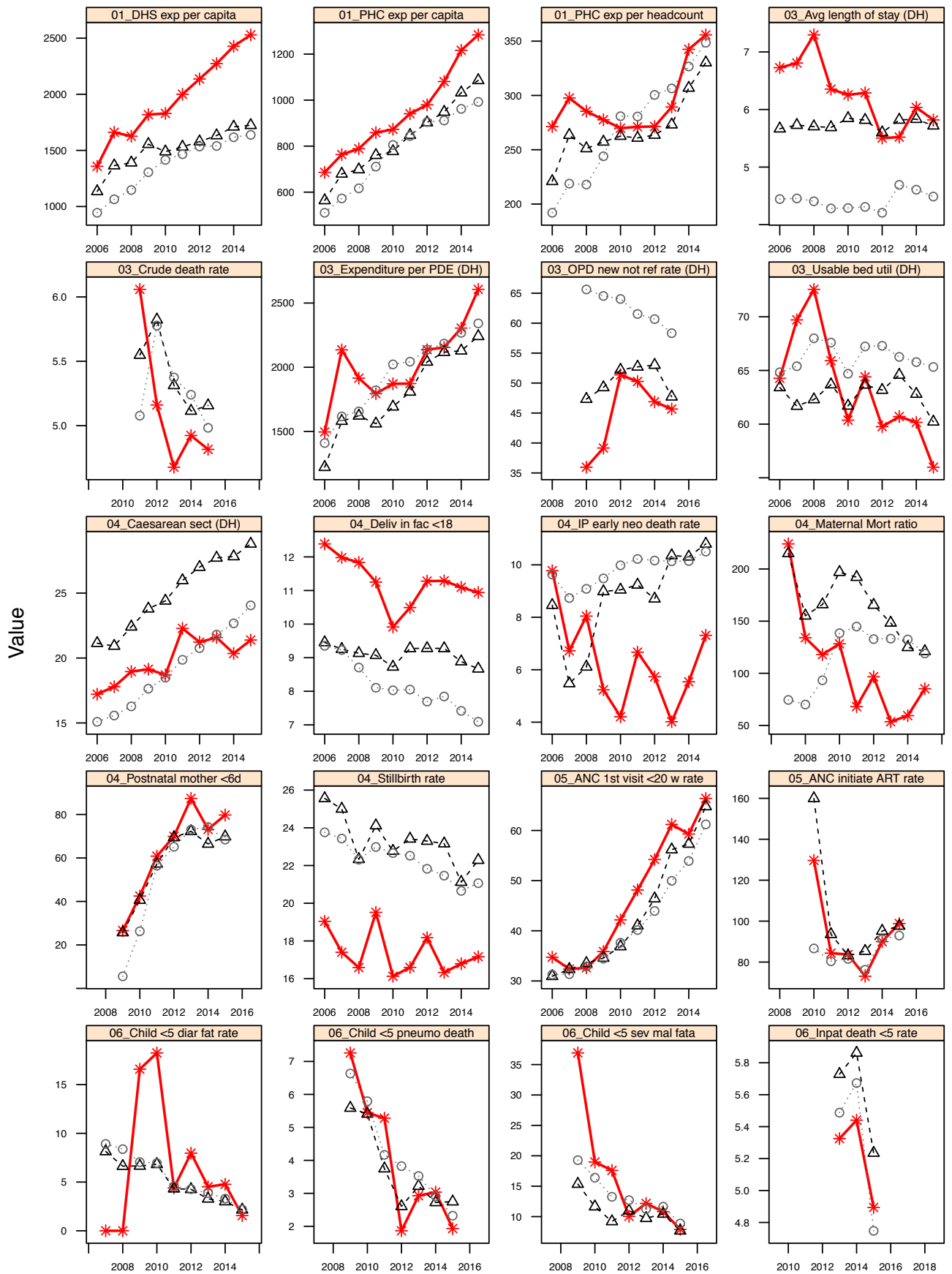
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

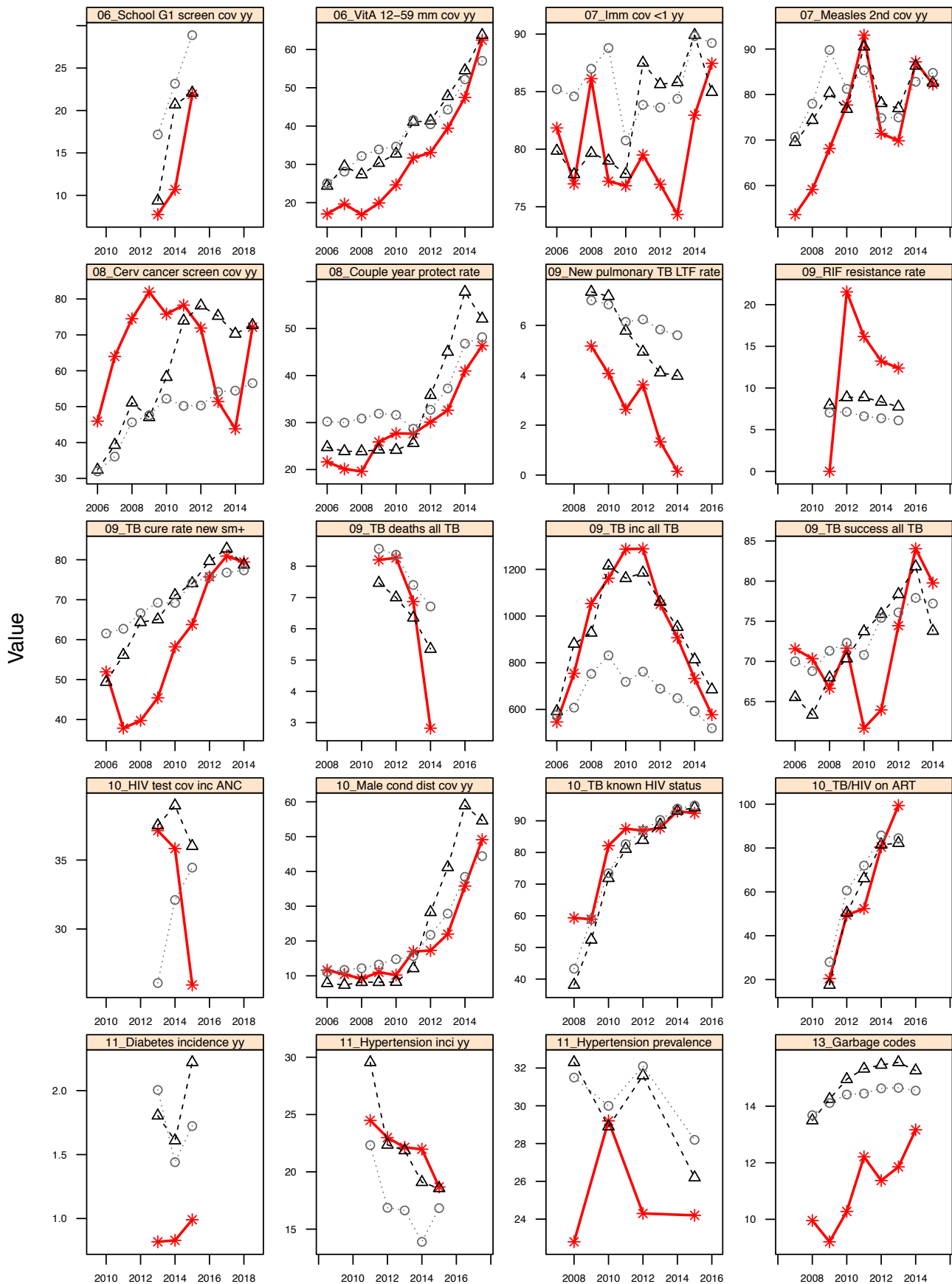
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: uMkhanyakude (DC27)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: uMkhanyakude (DC27)



District value * Provincial average Δ ZA (national) average ○

uThungulu District Municipality (DC28)

uThungulu District lies in the north-eastern area of KwaZulu-Natal Province and includes six sub-districts, namely uMlalazi, Mthonjaneni, Nkandla, Mbonambi, Ntambanana and uMhlathuze. The district has a population of approximately 947 926, with a population density of 115.4 people per km² and falls in socio-economic Quintile 2, among the poorer districts. Estimated medical scheme coverage is 7.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
63	1	6	1	1	0

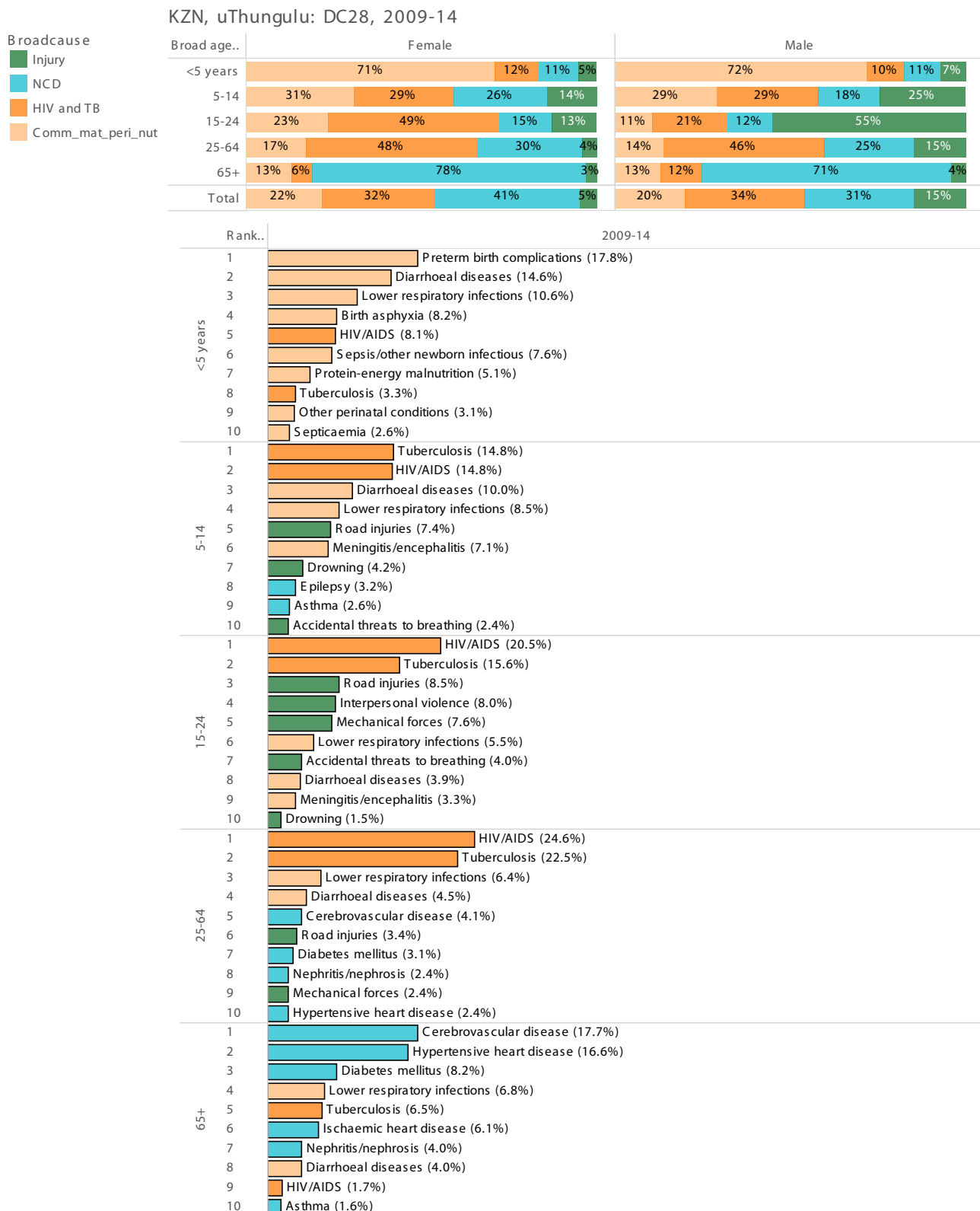
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	503 307	514 933	518 623
PHC headcount 5 years and older	2 762 539	2 864 288	2 762 385
Patient day equivalent	648 887	665 510	637 126
Deaths – total	4 714	4 452	4 194
Still births	562	506	500
Early neonatal deaths	260	253	263
Late neonatal deaths	123	83	89
Child under 5 years with diarrhoea death	34	48	21
Child under 5 years with pneumonia death	34	53	43
Child under 5 years with severe acute malnutrition death	33	64	33

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: uThungulu (DC28)



Indicator performance: uThungulu (DC28)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			21.7	12	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			28.3	14	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	6.1	6.2	6.6	52	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 214.0	2 082.2	2 244.8	10	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	47.2	50.0	46.9	51	60.2	65.3	78.6
	Inpatient crude death rate [Percentage]	6.3	6.4	6.5	45	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	62.6	64.2	62.9	31	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	28.8	28.7	28.6		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.0	7.9	8.5	32	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	14.9	12.4	14.0	46	10.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	186.6	216.5	153.8	41	121.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	60.1	70.0	67.7	26	69.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	26.8	24.3	25.8	43	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	57.1	58.3	63.1	28	64.8	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	94.0	96.5	99.3	5	97.6	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.1	23	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.3	3.8	1.9	24	2.2	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	5.1	5.3	5.6	52	2.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	11.7	16.9	8.4	26	7.7	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	7.3	7.2	6.8	39	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	19.9	29.8	23.5	28	22.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	41.7	51.3	54.5	31	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	81.2	88.5	81.5	32	85.0	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	76.1	86.6	88.9	15	82.6	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	68.0	64.3	68.5	18	72.7	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	36.0	45.8	37.9	45	52.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	43.3	41.5	29.1	38	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	28.8	38.4	38.6	35	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	1.1	2.8		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	22.9	18.3	16.9		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			28.3	10	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			3.3	12	2.7	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		1 100.1	959.8	859.4	48	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		10.0	9.6	8.6	48	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	93.8	95.7	96.1		1	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	88.0	90.1	76.7		28	73.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	4.3	3.1	4.9		9	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	0.5	0.2	0.4		2	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		52.9			18	57.3	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		85.2	93.0	95.7	20	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		65.2	92.4	91.5	18	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	33.8			24.0	11	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	27.7	29.4	33.4		16	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	39.2	35.3	32.1		38	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	21.7	23.0	20.5		28	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	13.8	14.6	14.2		33	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.4	12.4	14.0		33	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	11.2	8.6	8.2		15	10.0	13.8	

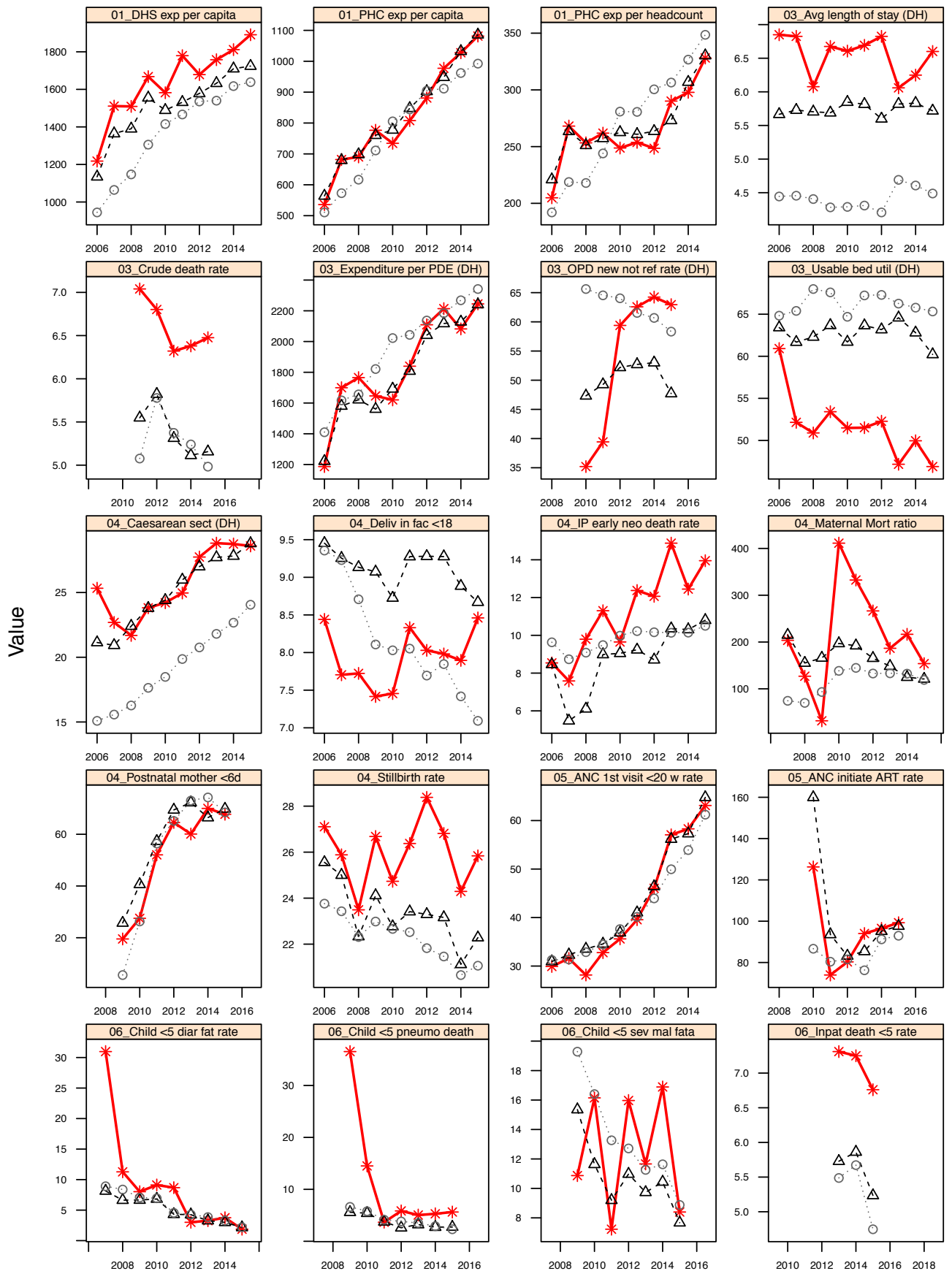
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

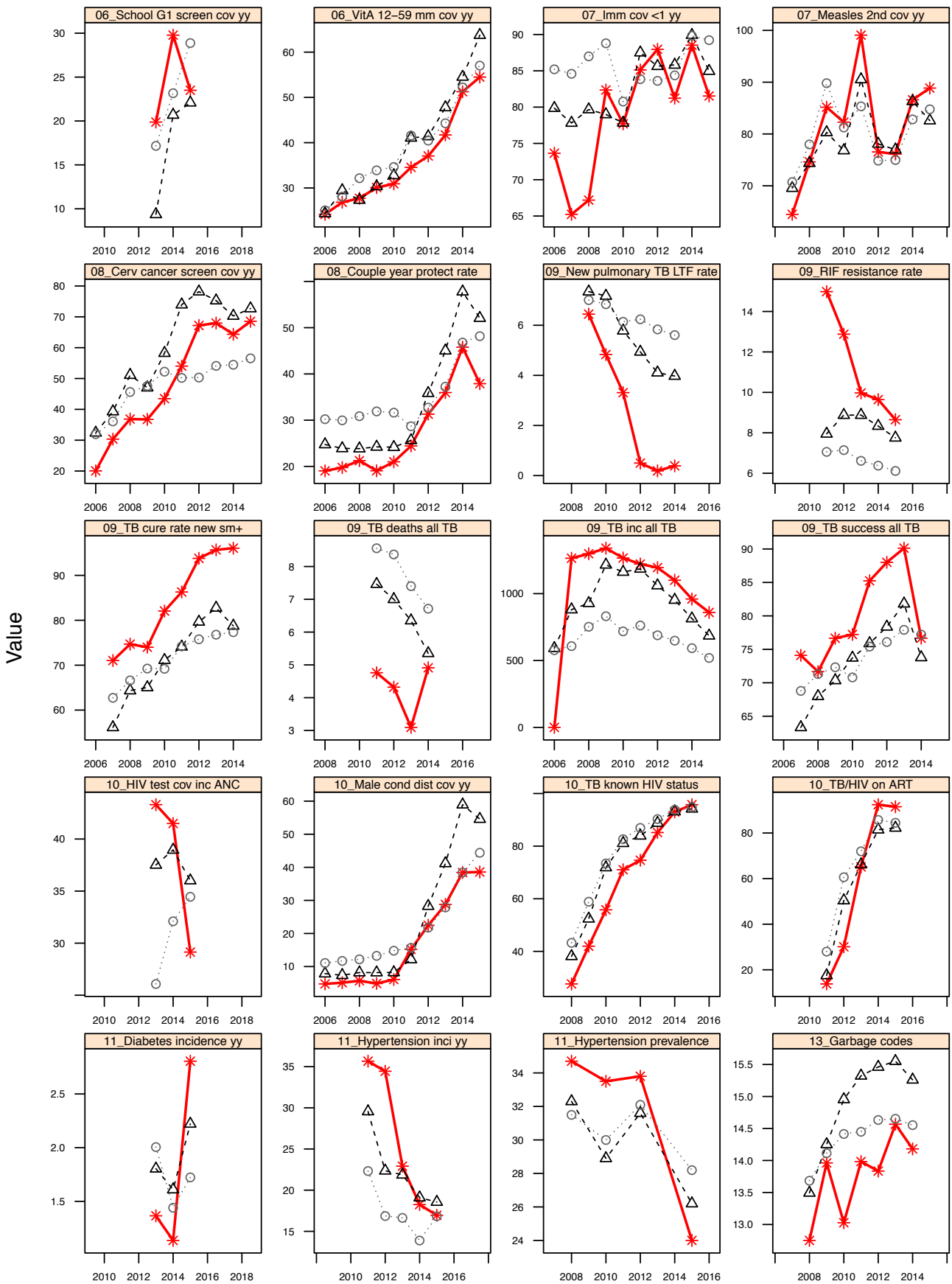
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: uThungulu (DC28)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: uThungulu (DC28)



District value * Provincial average Δ ZA (national) average ○

iLembe District Municipality (DC29)

iLembe District is situated on the east coast of KwaZulu-Natal Province; it is the smallest of the province's districts and includes four sub-districts, namely Mandeni, KwaDukuza, Maphumulo and Ndwedwe. It has a population of 651 445, with a population density of 199.30 people per km² and falls in socio-economic Quintile 2, among the poorer districts. Estimated medical scheme coverage is 7.3%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
34	2	3	1	0	1

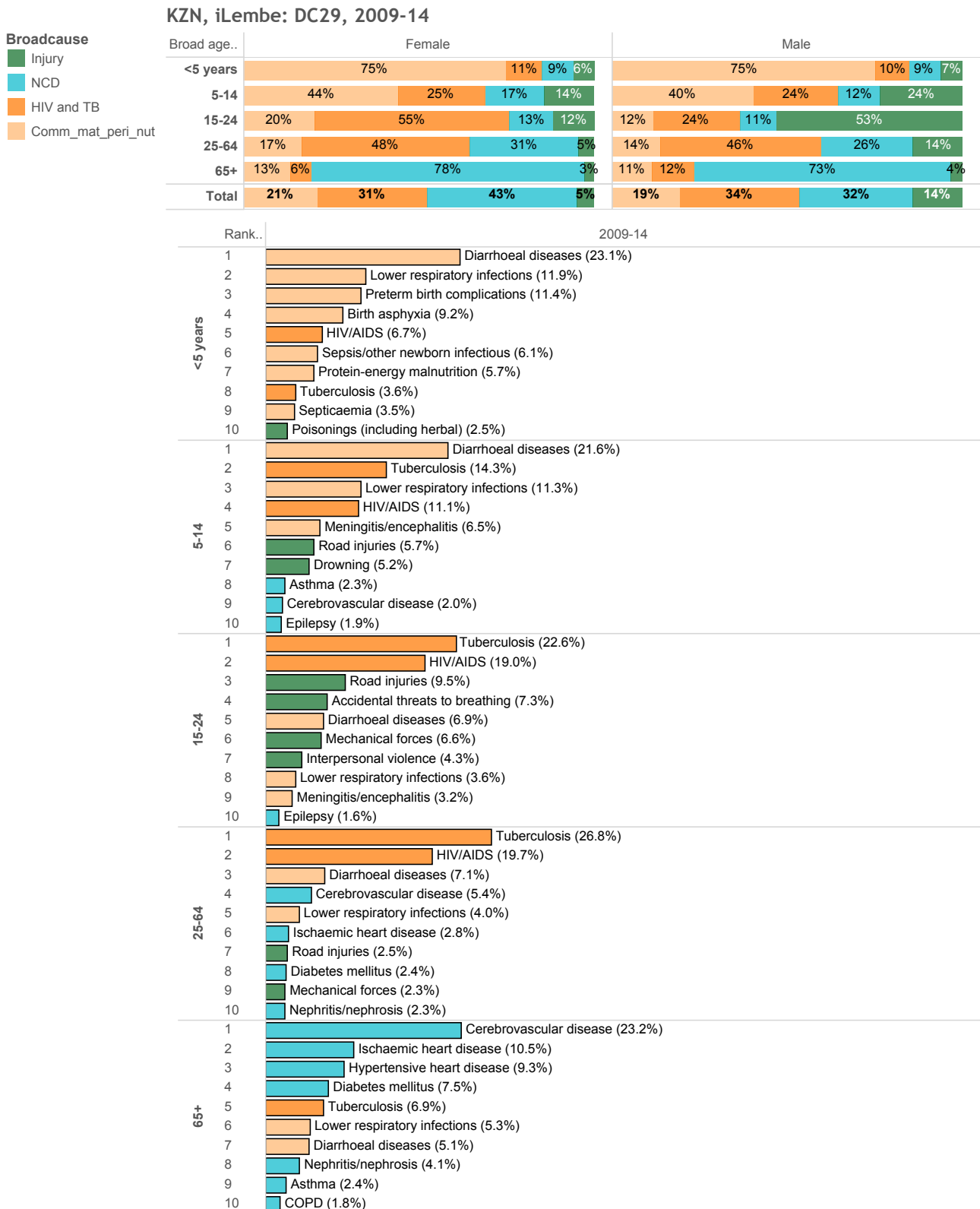
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	333 047	353 902	364 010
PHC headcount 5 years and older	2 016 413	2 033 823	2 059 710
Patient day equivalent	334 773	334 046	315 473
Deaths – total	2 255	2 053	2 102
Still births	257	268	230
Early neonatal deaths	128	132	120
Late neonatal deaths	15	25	20
Child under 5 years with diarrhoea death	21	11	12
Child under 5 years with pneumonia death	8	8	11
Child under 5 years with severe acute malnutrition death	12	28	25

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: iLembe (DC29)



Indicator performance: iLembe (DC29)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			22.2	11	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			33.3	13	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	6.3	6.0	6.4	51	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 620.3	2 774.2	3 078.9	46	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	56.7	56.5	56.9	41	60.2	65.3	
	Inpatient crude death rate [Percentage]	4.8	4.1	4.4	11	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	84.9	66.5	66.7	37	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	28.1	31.4	30.9		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.7	10.1	9.8	45	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	11.8	11.7	11.7	37	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	194.1	151.2	116.7	32	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	158.4	70.2	74.2	12	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	23.2	23.3	21.9	28	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	52.1	57.6	65.9	18	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	96.2	100.3	100.0	2	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.9	11	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	2.5	1.9	2.4	32	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	1.1	1.2	1.8	17	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	3.2	6.7	7.7	20	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	6.4	7.4	5.0	27	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	3.6	18.0	30.0	22	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	52.5	58.0	74.3	5	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	75.2	81.0	77.6	42	85.0	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	73.4	79.5	75.1	44	82.6	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	53.2	65.4	79.0	6	72.7	56.6	
	Couple year protection rate (annualised) [Percentage]	32.7	36.2	40.9	40	52.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	33.9	32.1	29.6	37	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	16.3	24.2	40.5	33	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.0	1.5	1.1		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	17.9	17.5	15.4		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			27.8	11	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.8	13	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		932.6	875.0	800.7	42	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		9.9	8.1	9.3	50	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	86.4	88.6	87.3		3	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	77.9	79.5	69.8		46	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	6.1	5.3	4.6		7	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	2.9	2.0	3.0		5	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		53.3			16	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		89.4	93.0	94.4	33	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		53.4	90.7	81.3	32	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	20.1			32.3	34	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	29.0	28.0	35.3		23	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	36.8	38.6	31.9		37	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	23.4	19.6	20.1		26	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	17.4	18.8	19.7		50	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.8	13.9	12.7		24	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	11.0	8.8	7.2		7	10.0	13.8	

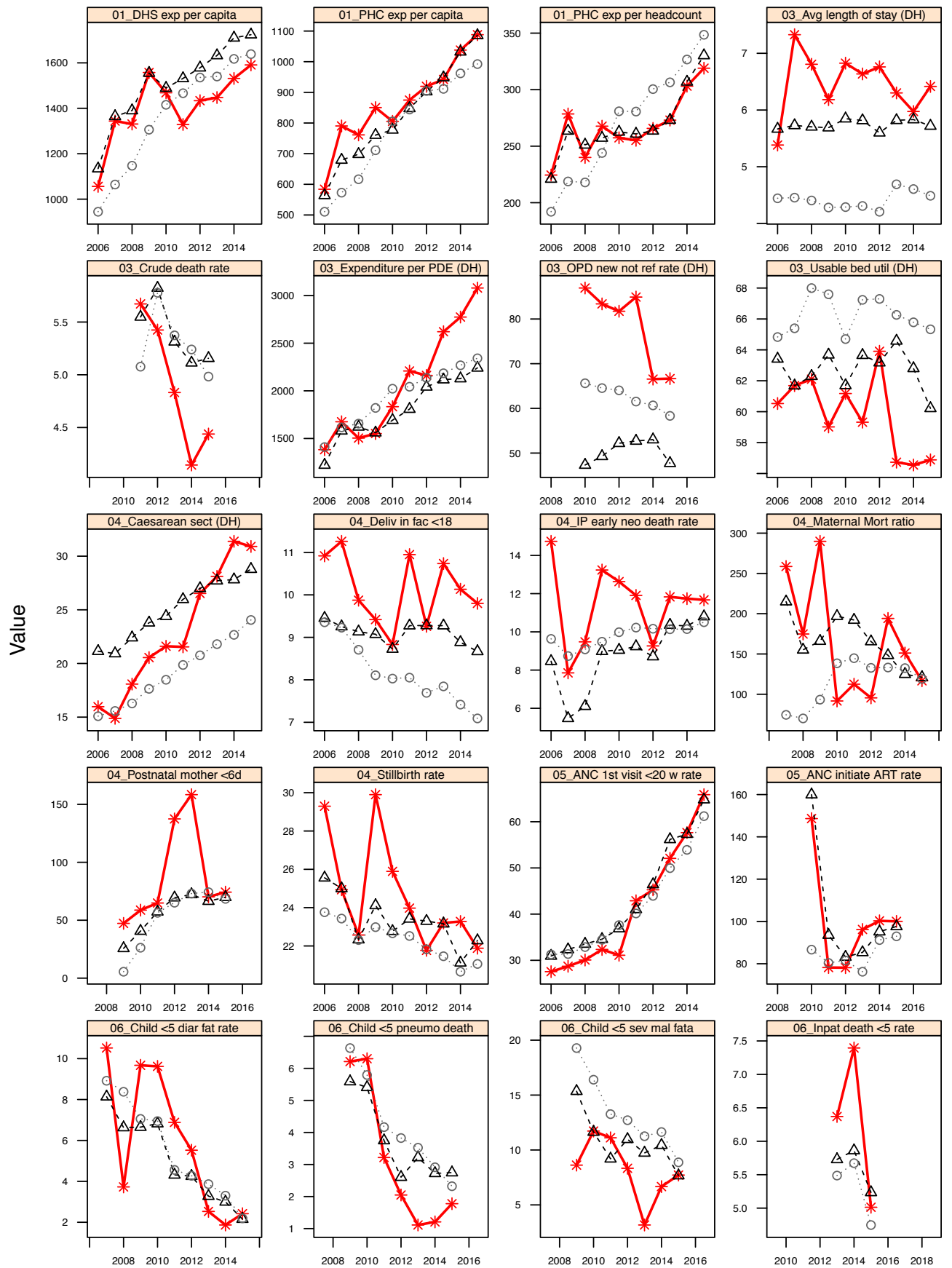
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

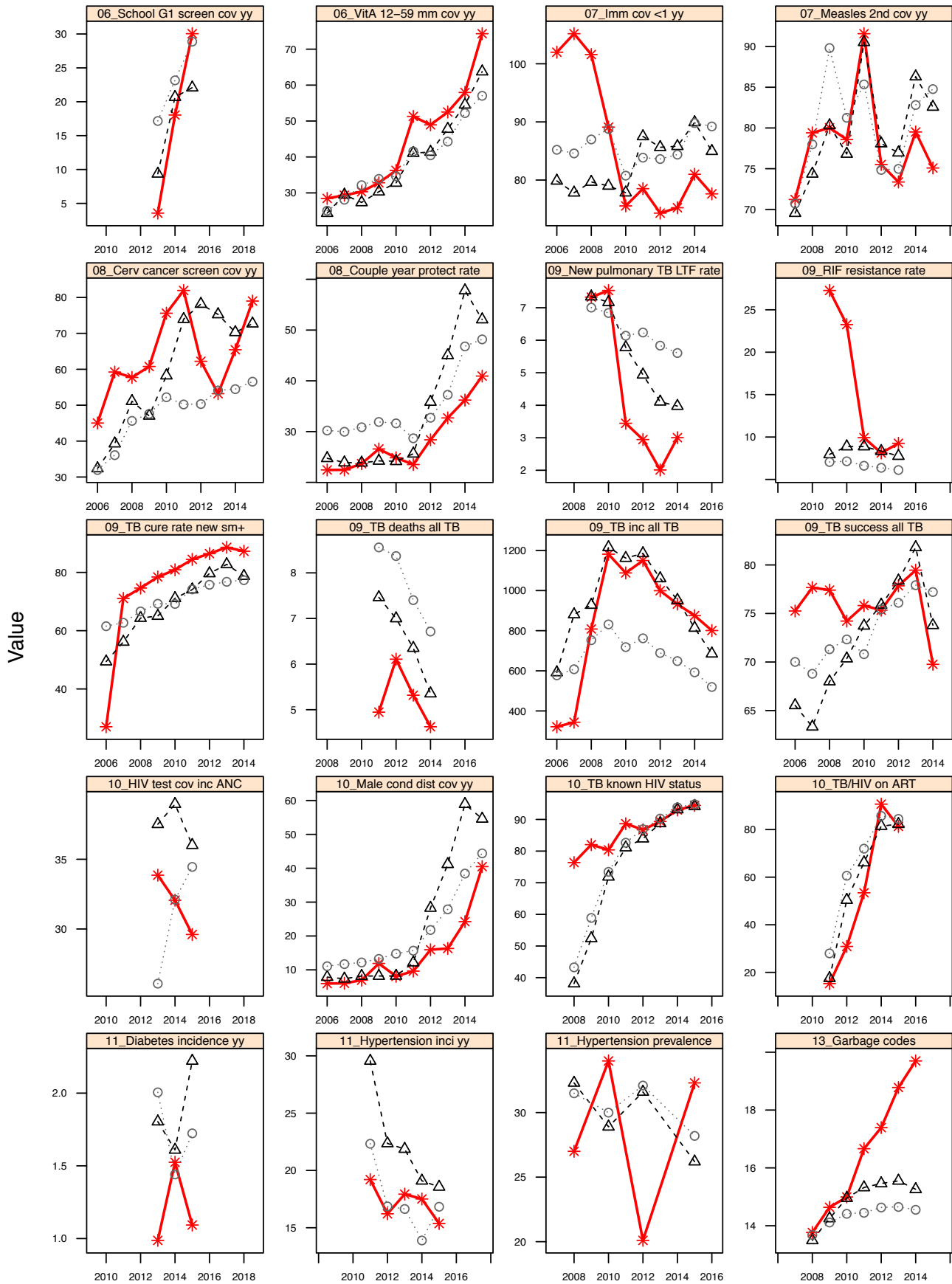
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: iLembe (DC29)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: iLembe (DC29)



District value * Provincial average Δ ZA (national) average ○

Harry Gwala District Municipality (DC43)

Harry Gwala District (previously known as Sisonke) is situated in the south of KwaZulu-Natal Province and comprises five sub-districts, namely Ingwe, KwaSani, uMzimkhulu, Greater Kokstad and Ubuhlebezwe. The district has a population of 485 308, with a population density of 46.0 people per km² and falls in socio-economic Quintile 1, among the poorest districts in South Africa. Estimated medical scheme coverage is 6.3%

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
39	1	4		0	3

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	250 035	252 714	280 736
PHC headcount 5 years and older	1 342 220	1 404 242	1 457 778
Patient day equivalent	344 617	344 500	339 072
Deaths – total	1 956	1 827	1 716
Still births	153	139	140
Early neonatal deaths	120	143	87
Late neonatal deaths	10	20	22
Child under 5 years with diarrhoea death	30	24	13
Child under 5 years with pneumonia death	28	12	11
Child under 5 years with severe acute malnutrition death	23	23	17

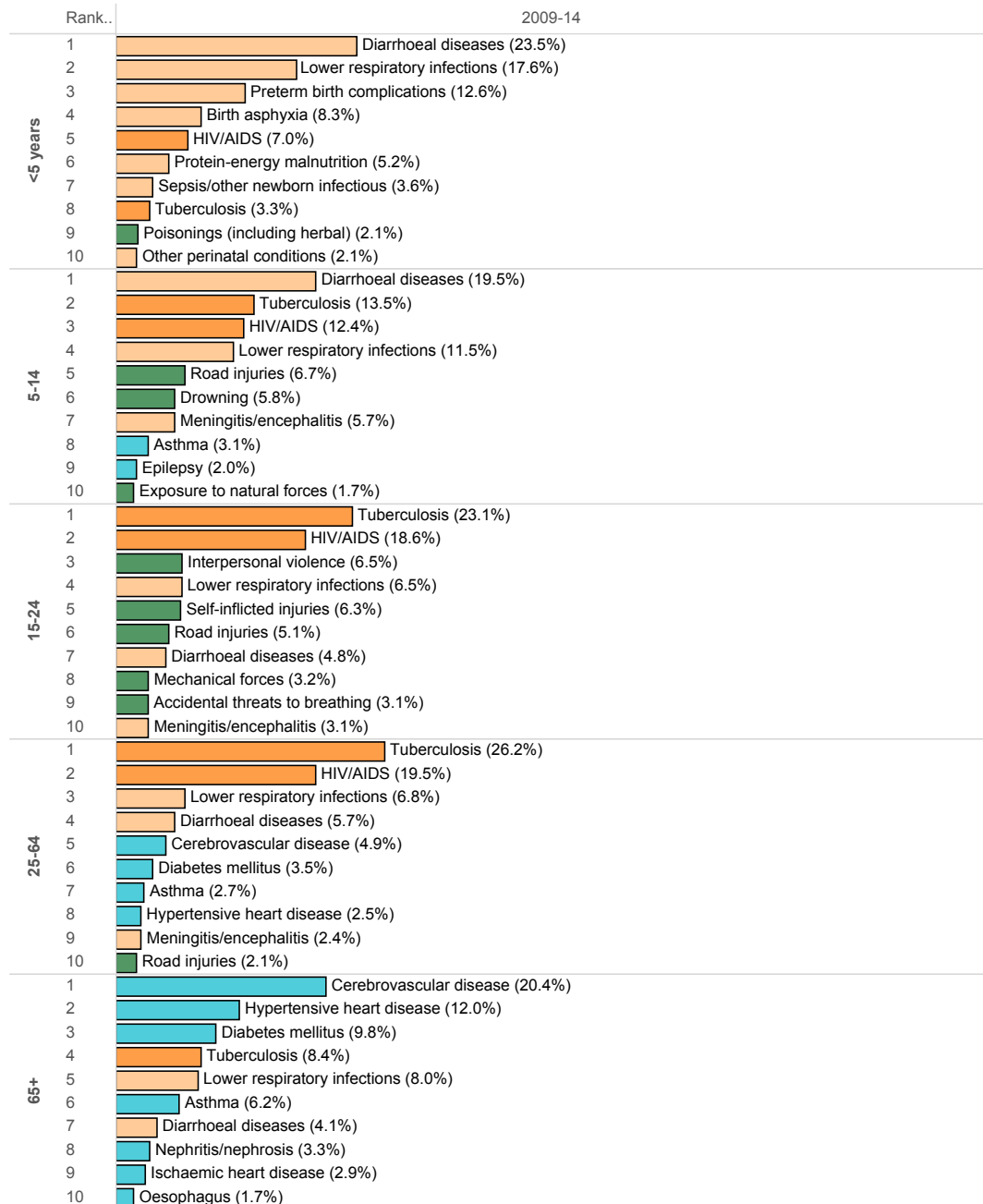
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Harry Gwala (DC43)

KZN, Harry Gwala: DC43, 2009-14

Broadcause	Injury	NCD	HIV and TB	Comm_mat_peri_nut	Female		Male						
					Broad age..								
					<5 years	77%	10%	9%	4%	75%	10%	9%	6%
					5-14	46%	23%	18%	13%	36%	27%	16%	21%
					15-24	21%	54%	15%	10%	13%	24%	14%	49%
					25-64	18%	46%	33%	4%	16%	46%	28%	11%
					65+	14%	7%	77%	2%	14%	14%	69%	3%
					Total	22%	30%	44%	4%	21%	35%	33%	11%



Indicator performance: Harry Gwala (DC43)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			25.0	9	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			27.5	15	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.5	5.1	5.0	16	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 136.9	2 258.1	2 199.9	20	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	66.8	64.9	63.6	31	60.2	65.3	78.6
	Inpatient crude death rate [Percentage]	6.1	5.4	5.0	18	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	69.1	78.0	74.9	46	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	25.8	26.7	29.0		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.0	9.7	9.9	46	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	14.4	16.4	10.9	35	10.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	84.0	137.9	99.9	26	121.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	65.1	72.0	72.8	16	69.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	18.0	15.6	17.2	12	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	53.5	57.1	64.6	21	64.8	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	96.3	97.6	93.4	25	97.6	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			0.8	10	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.4	3.1	2.5	33	2.2	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.3	1.8	2.4	26	2.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	7.3	8.7	8.2	25	7.7	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	7.0	6.9	5.0	26	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	9.6	32.3	48.7	7	22.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	51.3	49.4	64.2	13	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	80.9	77.0	68.5	50	85.0	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	80.2	79.1	75.2	43	82.6	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	79.7	77.2	73.4	11	72.7	56.6	60.0
	Condom use protection rate (annualised) [Percentage]	51.7	54.1	60.4	11	52.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	52.8	46.3	40.2	14	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	57.1	59.9	78.5	2	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.6	1.3	2.0		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	37.7	25.8	27.1		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			27.5	12	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			10.0	1	2.7	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		937.7	814.8	677.7	33	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		8.5	7.2	7.3	42	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.1	78.6	80.6		17	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.9	74.3	77.2		25	73.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	7.0	8.8	7.7		29	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.9	4.8	5.1		26	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		59.5			9	57.3	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.6	95.2	95.4	23	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		65.2	83.9	80.4	35	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	18.2			30.3	27	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	30.0	31.8	31.7		11	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	37.8	35.9	36.4		49	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	22.4	21.7	19.8		24	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	12.7	11.7	11.0		12	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	9.9	10.6	12.1		16	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	17.7	15.1	17.5		45	10.0	13.8	

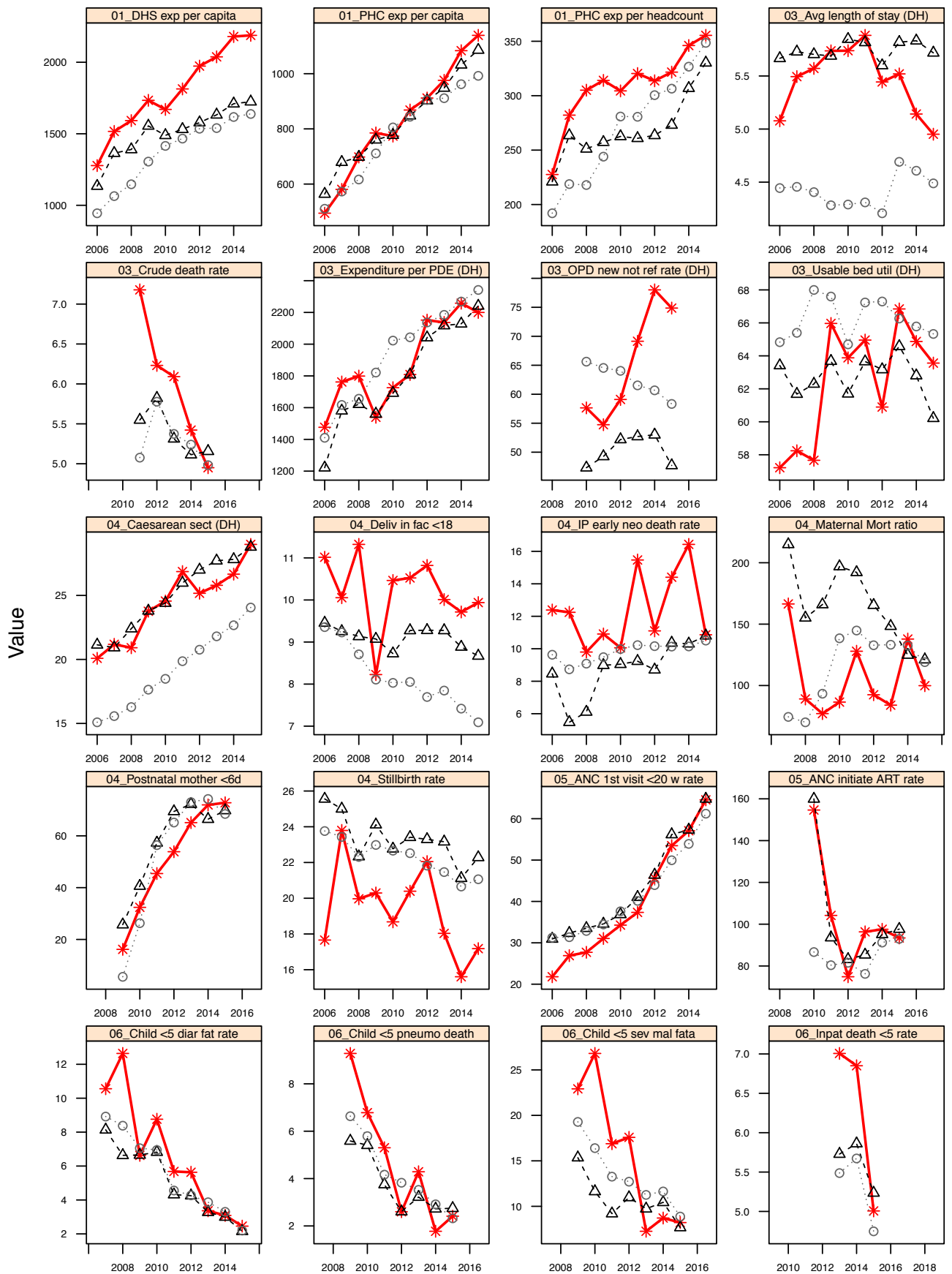
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

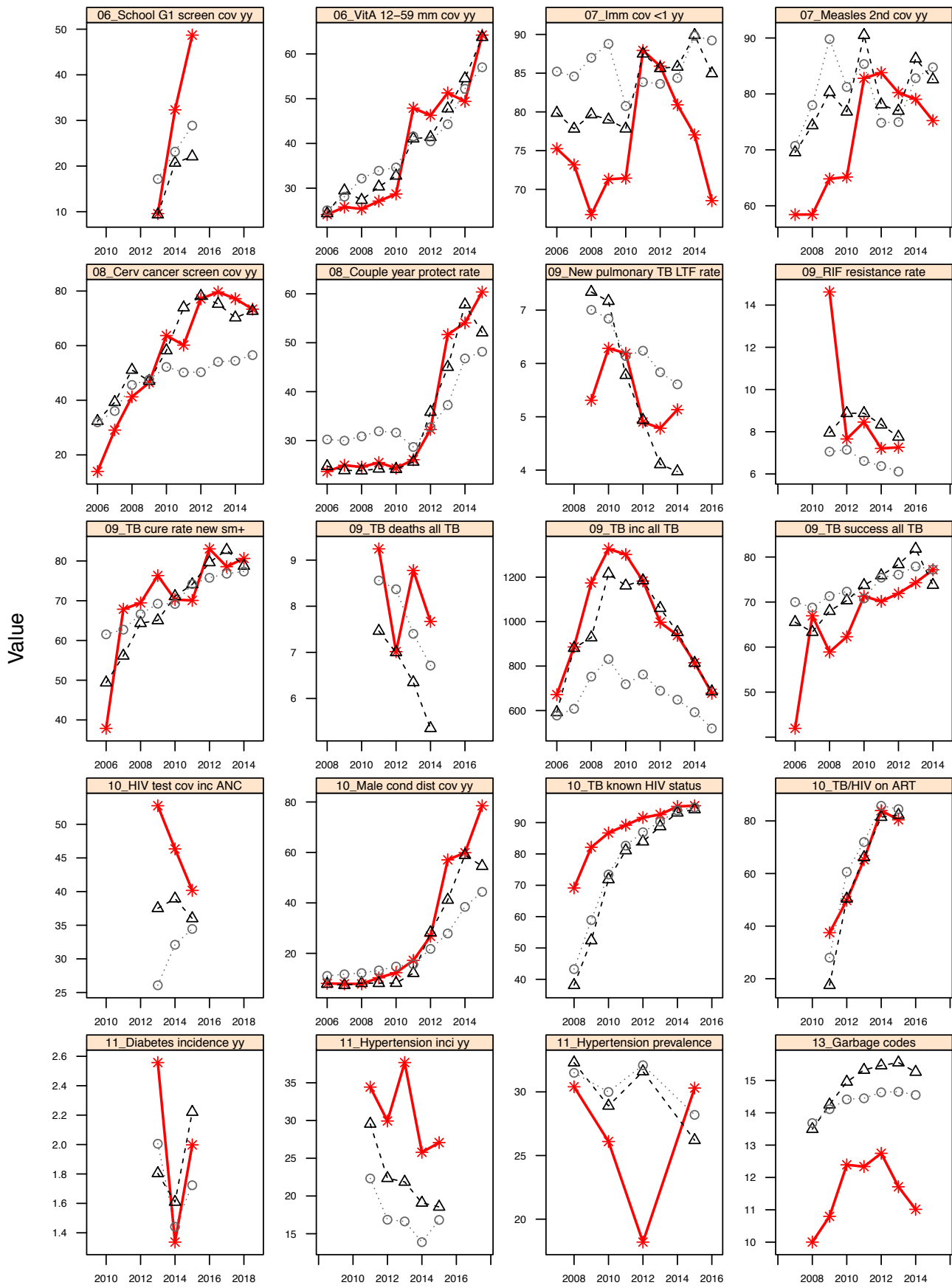
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Harry Gwala (DC43)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Harry Gwala (DC43)



District value * Provincial average Δ ZA (national) average ○

eThekweni Metropolitan Municipality (ETH)

eThekweni Metro is situated in KwaZulu-Natal Province and has a population of 3 520 558, with a population density of 1 536.5 people per km². The metro falls into socio-economic Quintile 5, placing it among the wealthiest districts in South Africa. Estimated medical scheme coverage is 19.2%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
113	8	4	5	2	13

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	1 584 544	1 448 998	1 450 647
PHC headcount 5 years and older	11 233 519	10 099 651	9 889 431
Patient day equivalent	3 053 601	3 023 244	2 890 931
Deaths – total	11 882	12 107	12 272
Still births	1 316	1 339	1 281
Early neonatal deaths	544	682	696
Late neonatal deaths	118	182	187
Child under 5 years with diarrhoea death	32	50	62
Child under 5 years with pneumonia death	57	71	86
Child under 5 years with severe acute malnutrition death	39	67	53

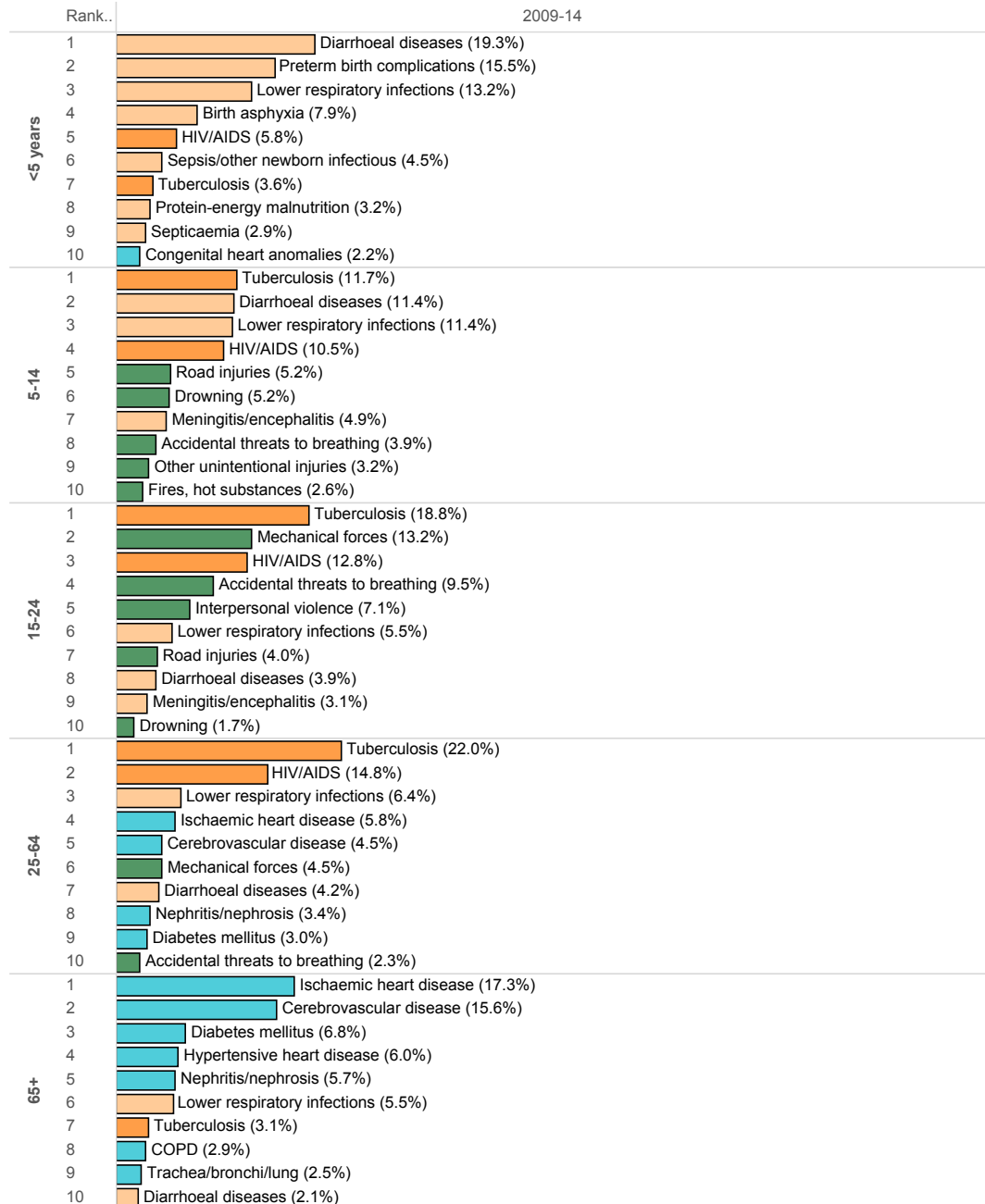
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: eThekweni (ETH)

KZN, eThekweni: ETH, 2009-14

Broadcause	Broad age..	Female					Male				
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other	Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other
	<5 years	71%	10%	13%	6%		70%	9%	14%	7%	
	5-14	35%	23%	25%	18%		29%	22%	22%	28%	
	15-24	23%	47%	15%	14%		9%	17%	12%	62%	
	25-64	17%	39%	40%	5%		13%	35%	35%	17%	
	65+	10%	3%	85%	2%		9%	5%	82%	3%	
	Total	18%	25%	52%	5%		16%	25%	42%	16%	



Indicator performance: eThekweni (ETH)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			10.6	18	23.5	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			18.6	27	30.7	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	6.1	6.1	5.3	26	5.7	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 865.0	1 710.6	1 626.9	45	2 240.9	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	83.2	74.5	68.5	22	60.2	65.3	
	Inpatient crude death rate [Percentage]	4.4	4.2	4.4	9	5.2	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	50.1	68.4	30.3	9	47.7	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	40.6	36.4	35.8		28.8	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.0	7.6	7.5	26	8.7	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.8	11.4	12.4	41	10.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	174.4	100.1	106.9	29	121.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	69.9	66.4	69.5	20	69.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	21.9	21.9	22.3	32	22.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	53.5	54.1	63.8	23	64.8	61.2	
	Antenatal client initiated on ART rate [Percentage]	72.9	92.1	97.4	13	97.6	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.7	9	0.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	1.6	1.8	2.3	30	2.2	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	3.2	2.6	2.5	27	2.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	5.8	7.2	6.4	15	7.7	8.9	
	Inpatient death under 5 year rate [Percentage]	4.3	5.1	5.4	28	5.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	2.1	21.2	9.2	47	22.1	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	60.9	58.3	67.9	9	63.8	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	104.7	106.5	97.6	9	85.0	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	92.3	94.3	87.1	18	82.6	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	81.0	76.7	67.0	19	72.7	56.6	
	Couple year protection rate (annualised) [Percentage]	30.4	42.2	47.7	30	52.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	30.8	35.0	37.2	21	36.0	34.5	
	Male condom distribution coverage [Condoms per male 15+]	14.6	27.7	39.3	34	54.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.6	2.3	2.5		2.2	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	23.5	17.9	15.9		18.6	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			18.6	25	28.5	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			3.5	10	2.7	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		1 093.9	871.3	698.4	38	685.2	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		7.7	7.6	6.8	39	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	75.9	79.5	71.6		44	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	78.3	80.9	67.9		48	73.8	77.2	
	TB death rate (ETR.net) [Percentage]	5.7	5.0	4.1		5	5.4	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.6	6.2	5.6		33	4.0	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		55.9			15	57.3	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		84.9	90.0	91.7	47	94.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		57.7	69.0	69.6	48	82.2	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	34.5			24.4	14	26.2	28.2	

Section B: Profile KwaZulu-Natal Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	38.6	39.7	38.5		33	34.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	29.9	27.3	30.3		34	32.3	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	16.9	17.1	18.0		20	19.9	21.2	
	Percentage of deaths garbage codes [Percentage]	19.0	19.2	19.1		49	15.3	14.6	
	Percentage of YLLs due to injuries [Percentage]	14.7	16.0	13.2		27	13.1	13.6	
	Percentage of deaths ill-defined [Percentage]	12.4	13.3	11.7		30	10.0	13.8	

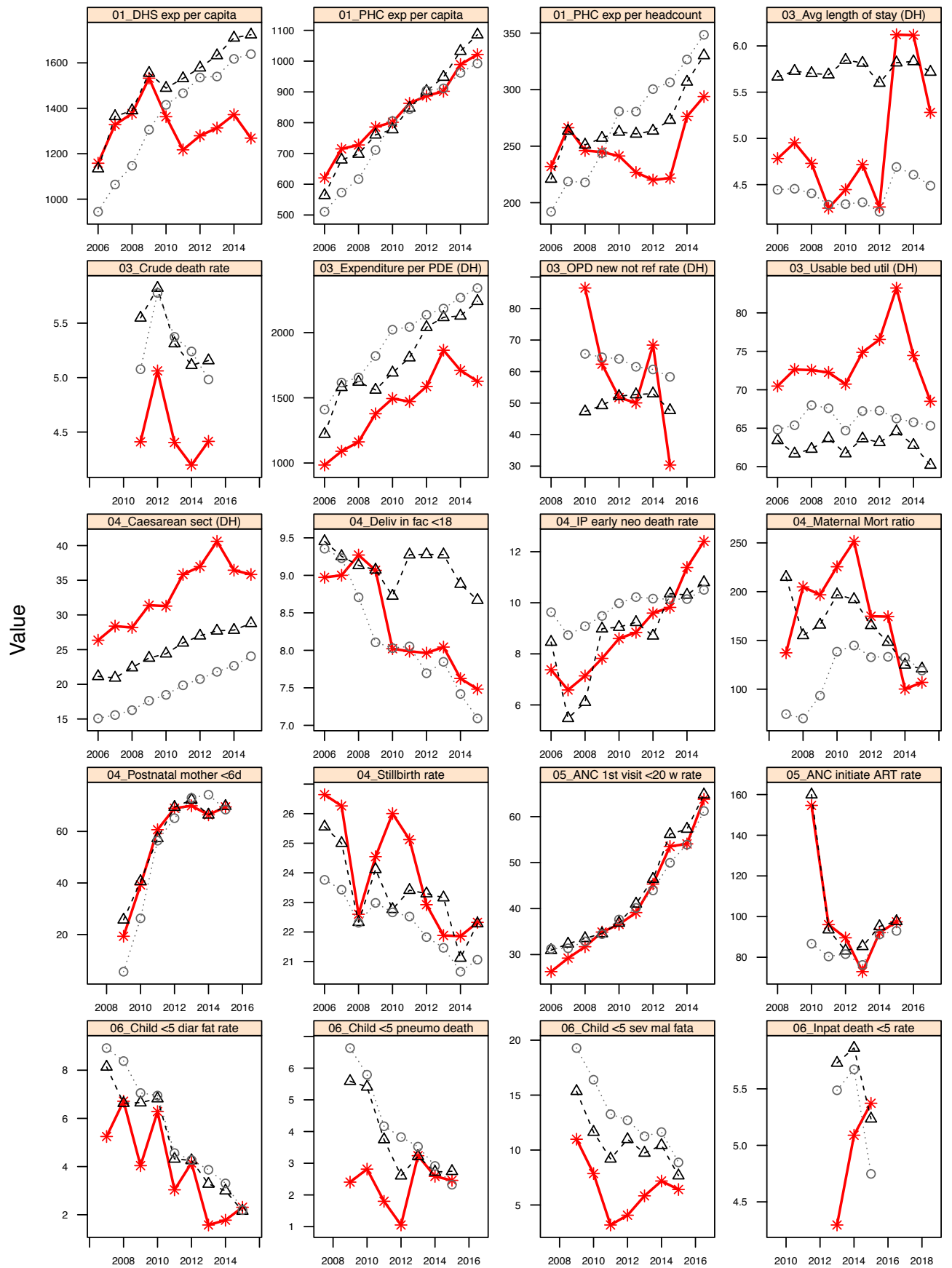
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

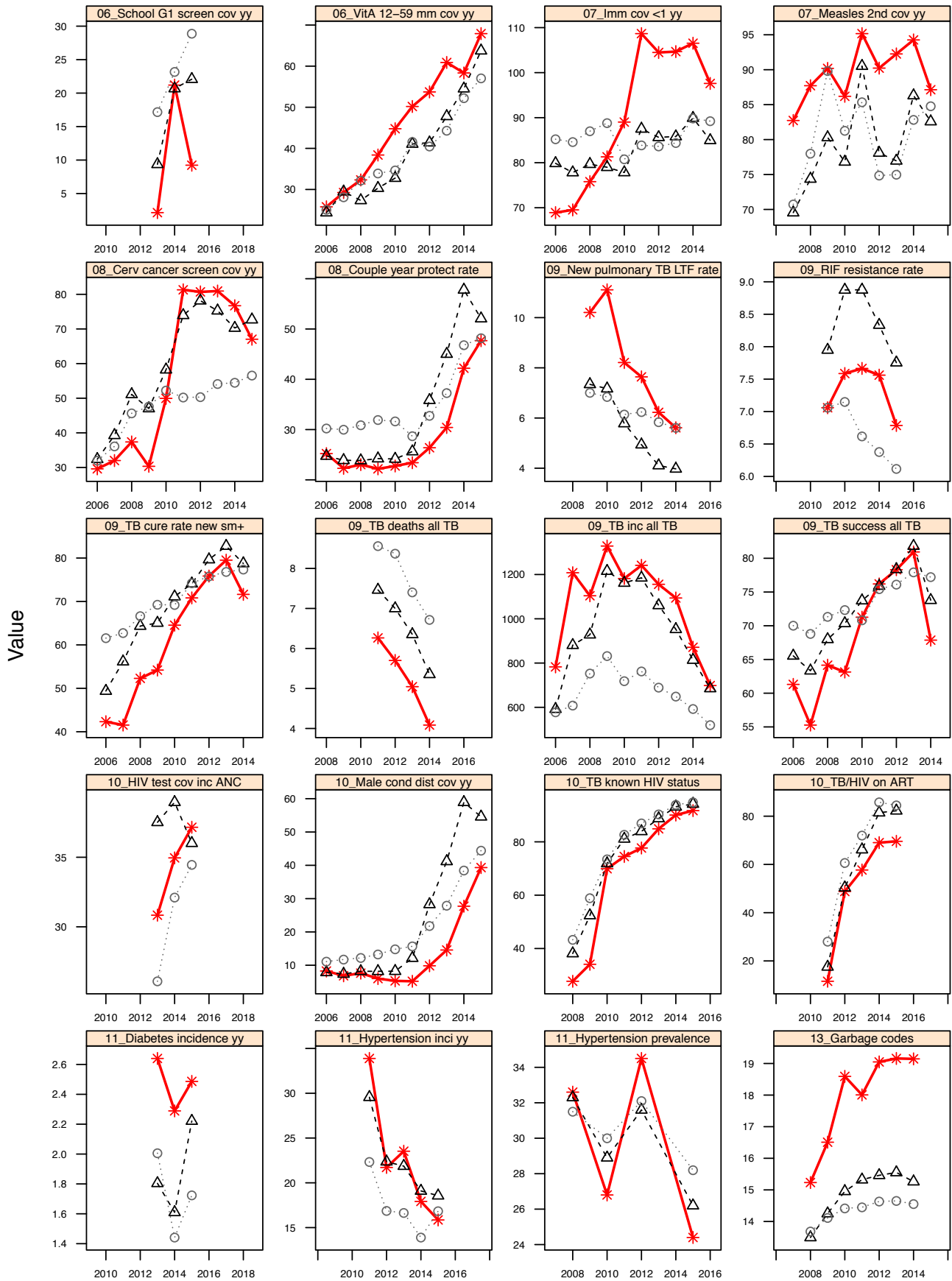
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: eThekwi (ETH)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: eThekweni (ETH)



District value * Provincial average Δ ZA (national) average ○

18 Limpopo Province

Mopani District Municipality (DC33)

Mopani is located in the north-eastern quadrant of Limpopo Province and comprises five sub-districts: Ba-Phalaborwa, Greater Giyani, Greater Letaba, Greater Tzaneen and Maruleng. It has a population of 1 128 332, with a population density of 56.4 people per km² and falls in socio-economic Quintile 2. Estimated medical scheme coverage is 9.4%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
98	8	6	1	0	2

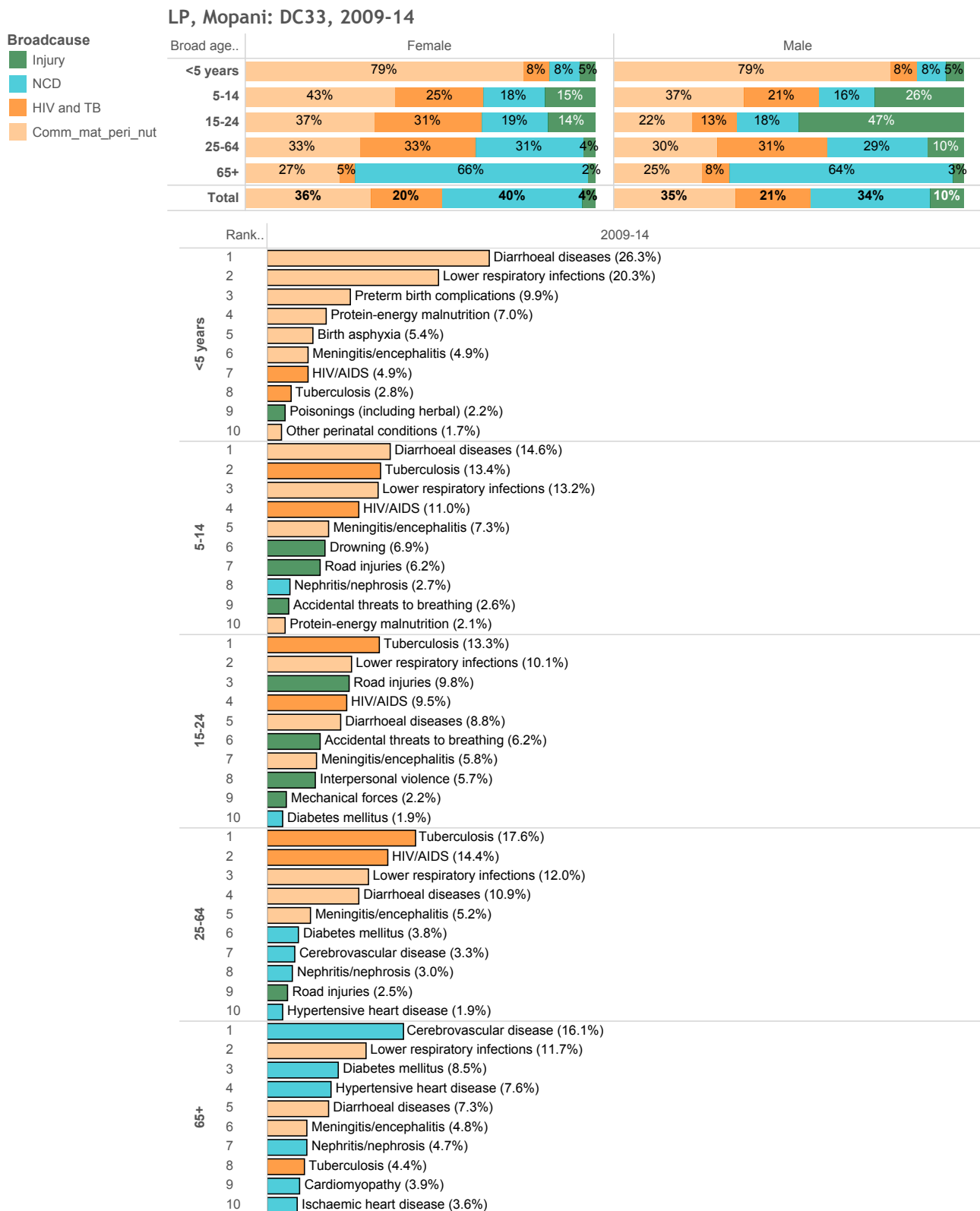
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	690 982	700 779	675 779
PHC headcount 5 years and older	3 179 329	3 279 708	3 140 699
Patient day equivalent	568 953	539 423	556 325
Deaths – total	3 880	3 862	3 838
Still births	536	549	429
Early neonatal deaths	294	275	252
Late neonatal deaths	53	33	30
Child under 5 years with diarrhoea death	59	86	45
Child under 5 years with pneumonia death	74	66	34
Child under 5 years with severe acute malnutrition death	48	70	44

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Mopani (DC33)



Indicator performance: Mopani (DC33)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	5.7	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			13.6	31	15.1	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.5	4.4	4.5	1	4.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 249.0	2 279.0	2 425.9	9	2 790.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	74.2	78.8	74.1	12	70.4	65.3	
	Inpatient crude death rate [Percentage]	6.1	5.5	5.9	35	5.4	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	79.2	79.1	76.2	48	73.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	19.0	19.9	21.5		22.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.1	7.9	7.2	24	7.1	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	11.2	10.3	10.1	28	12.6	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	95.7	131.3	120.7	33	140.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	80.7	81.0	73.0	15	66.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	20.1	20.2	17.0	10	20.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	50.1	55.0	63.3	27	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	80.0	92.7	94.1	24	92.8	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.8	46	1.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.4	7.9	4.0	46	3.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	6.2	5.9	2.9	36	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	13.5	21.1	12.9	44	11.6	8.9	
	Inpatient death under 5 year rate [Percentage]	12.1	9.8	7.5	44	7.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	15.6	17.5	38.9	15	29.5	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	36.6	50.8	57.5	24	50.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	75.5	90.5	88.7	19	79.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	78.0	92.3	98.1	6	87.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	61.7	58.5	52.1	30	50.1	56.6	
	Condom use protection rate (annualised) [Percentage]	36.5	50.6	54.6	19	50.4	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	37.4	42.2	39.9	15	39.1	34.5	
	Male condom distribution coverage [Condoms per male 15+]	21.6	36.1	54.2	17	51.2	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	3.9	3.0	3.4		2.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	23.8	18.0	19.7		18.3	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			16.5	28	15.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		364.4	336.2	287.1	3	300.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.7	6.2	6.5	38	5.2	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	79.2	76.7	81.2		15	76.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.7	74.1	80.5		14	71.8	77.2	
	TB death rate (ETR.net) [Percentage]	14.3	12.1	10.5		45	11.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.0	4.5	3.4		8	4.9	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		72.3			1	53.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		94.0	94.1	96.5	13	95.4	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		64.4	95.1	92.3	16	79.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	38.1			23.4	9	21.4	28.2	

Section B: Profile Limpopo Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	26.3	31.4	32.3		13	34.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	24.6	22.8	24.1		14	25.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	41.2	37.5	34.8		52	30.4	21.2	
	Percentage of deaths garbage codes [Percentage]	9.1	13.3	14.5		37	11.5	14.6	
	Percentage of YLLs due to injuries [Percentage]	7.9	8.3	8.8		3	10.5	13.6	
	Percentage of deaths ill-defined [Percentage]	20.9	16.9	15.0		39	16.5	13.8	

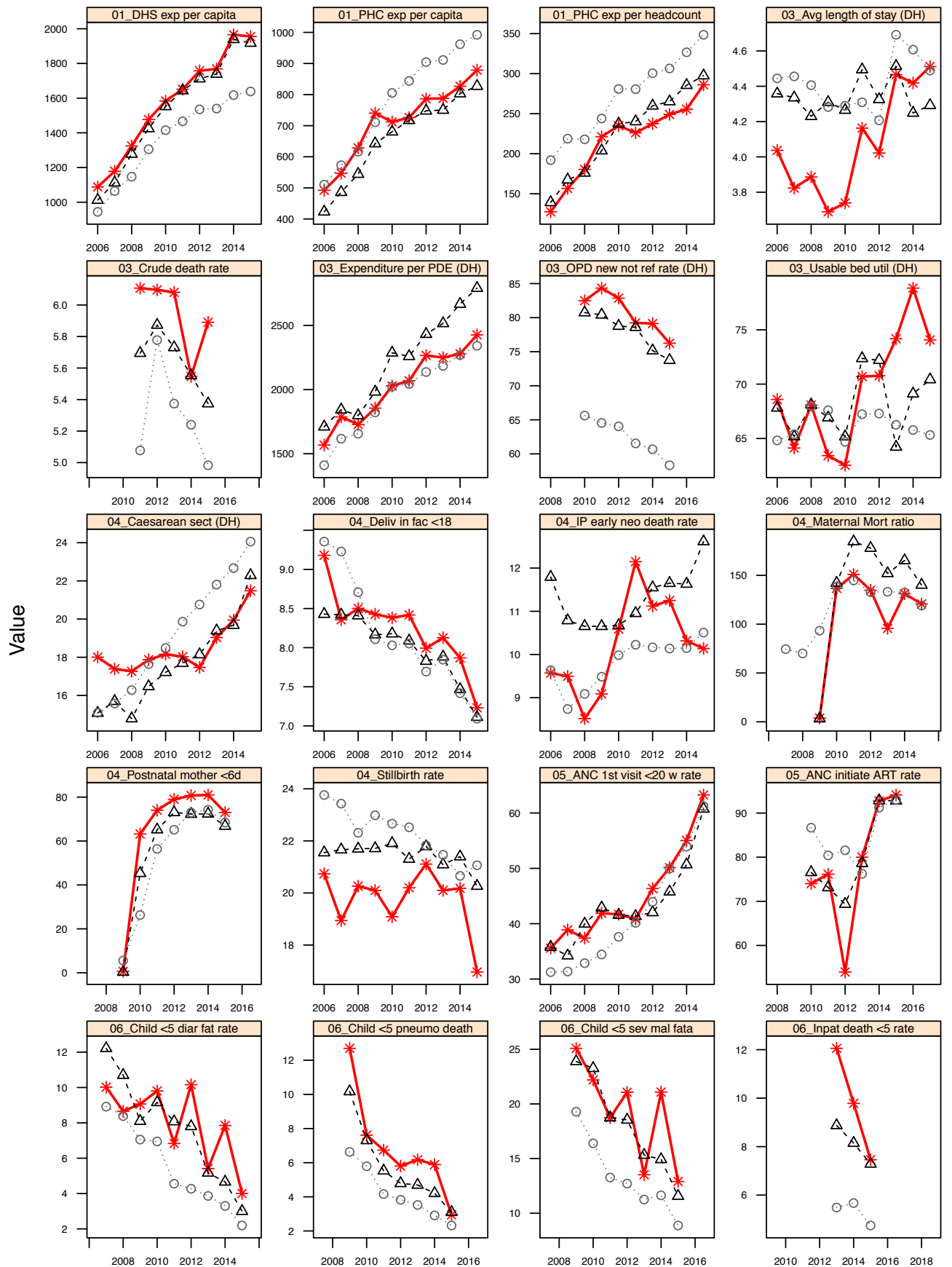
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

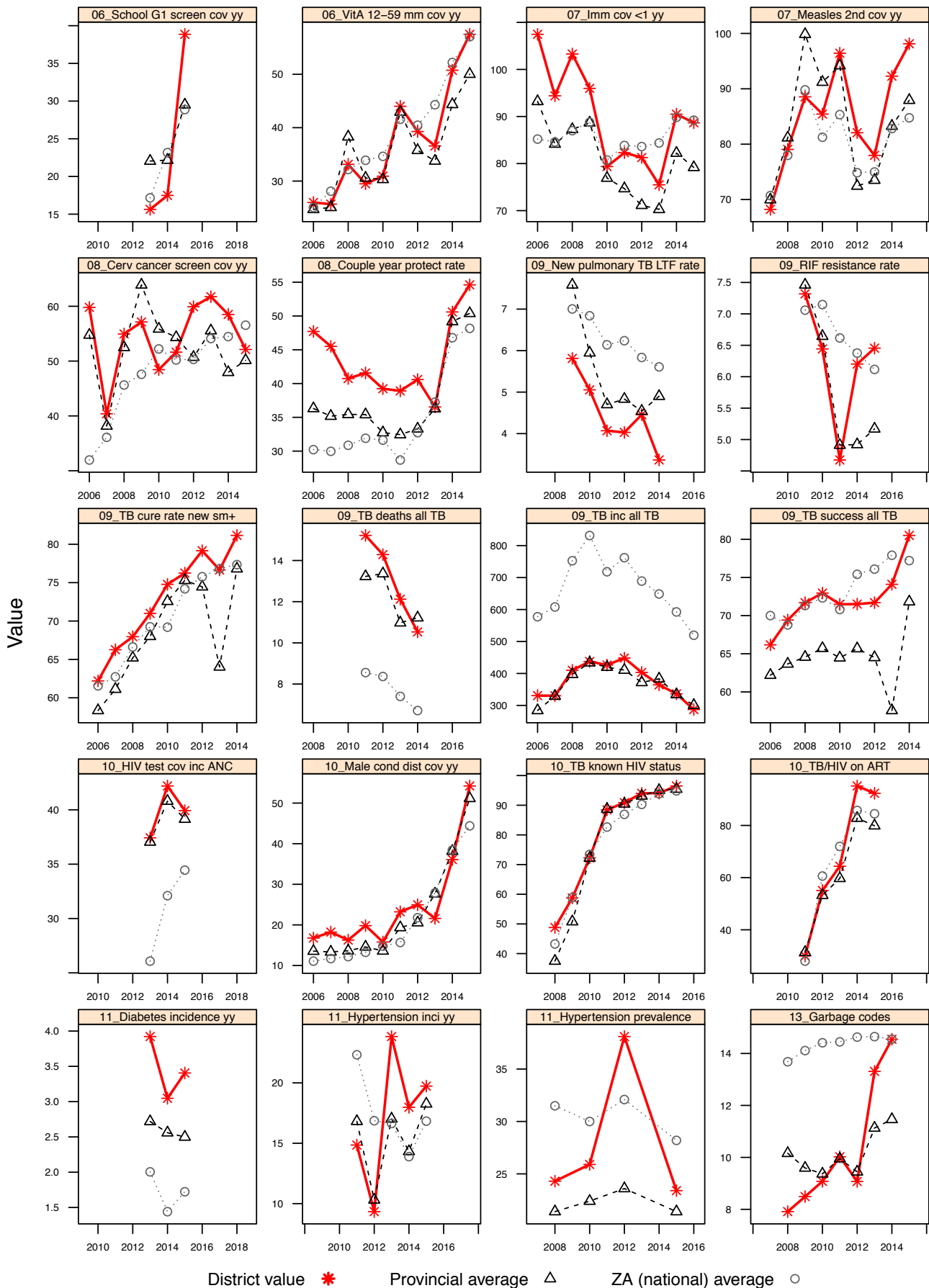
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Mopani (DC33)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Mopani (DC33)



Vhembe District Municipality (DC34)

Vhembe District is located in the northern part of Limpopo Province. It comprises four sub-districts, namely Musina, Mutale, Thulamela and Makhado. The district has a population of 1 367 186, with a population density of 53.4 people per km² and falls in socio-economic Quintile 2, among the poorer districts, and has an estimated medical scheme coverage of 7.2%. Vhembe is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
116	8	6	1	0	3

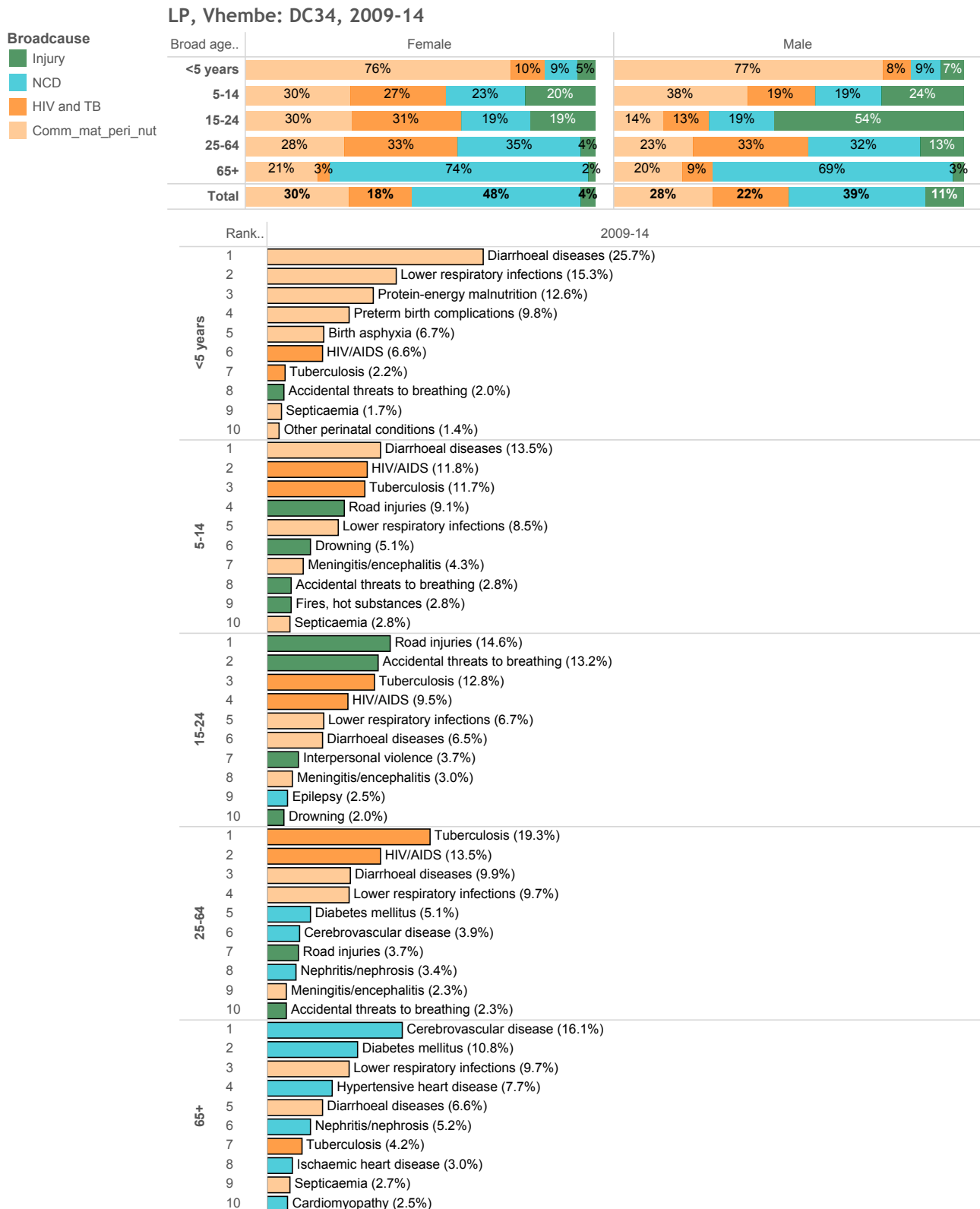
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	910 379	846 413	865 114
PHC headcount 5 years and older	3 825 561	3 811 700	3 917 673
Patient day equivalent	673 779	639 642	678 574
Deaths – total	4 765	4 723	4 659
Still births	565	529	516
Early neonatal deaths	260	237	284
Late neonatal deaths	34	29	36
Child under 5 years with diarrhoea death	47	50	37
Child under 5 years with pneumonia death	73	65	51
Child under 5 years with severe acute malnutrition death	68	86	79

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Vhembe (DC34)



Indicator performance: Vhembe (DC34)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			8.9	20	5.7	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			25.0	18	15.1	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.8	4.3	4.4	5	4.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 385.8	2 588.0	2 723.8	36	2 790.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	73.7	69.0	77.1	8	70.4	65.3	
	Inpatient crude death rate [Percentage]	5.5	5.5	5.1	19	5.4	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	70.6	63.7	66.1	36	73.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	18.8	18.7	21.2		22.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.4	7.9	7.8	27	7.1	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.0	7.4	9.4	23	12.6	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	111.2	93.4	66.2	9	140.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	78.7	77.0	69.9	19	66.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	17.3	16.2	16.8	9	20.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	47.4	53.7	63.5	26	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	82.0	96.7	90.8	36	92.8	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.6	39	1.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.6	3.1	2.2	29	3.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	3.2	3.2	2.3	25	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.5	15.4	13.0	45	11.6	8.9	
	Inpatient death under 5 year rate [Percentage]	6.4	5.3	6.0	32	7.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	44.2	25.9	38.4	17	29.5	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	37.6	45.0	52.2	39	50.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	85.7	94.5	88.3	20	79.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	84.2	87.9	99.9	5	87.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	47.2	38.8	48.6	36	50.1	56.6	
	Couple year protection rate (annualised) [Percentage]	38.4	51.5	48.7	29	50.4	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	40.3	44.5	43.0	8	39.1	34.5	
	Male condom distribution coverage [Condoms per male 15+]	33.9	38.7	51.8	22	51.2	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.5	2.2	2.1		2.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	11.0	10.7	13.6		18.3	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			24.2	18	15.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		326.5	254.1	214.0	1	300.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.2	4.9	4.7	14	5.2	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	77.5	47.9	73.3		37	76.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	69.7	46.7	71.7		42	71.8	77.2	
	TB death rate (ETR.net) [Percentage]	9.1	6.8	7.0		26	11.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.6	4.7	4.6		19	4.9	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		47.7			26	53.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		89.4	92.5	95.0	27	95.4	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		49.8	74.3	83.8	28	79.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	24.1			19.5	1	21.4	28.2	

Section B: Profile Limpopo Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	32.1	33.8	35.2		21	34.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	25.1	24.9	26.1		24	25.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	34.2	31.1	27.5		44	30.4	21.2	
	Percentage of deaths garbage codes [Percentage]	9.3	9.3	9.7		3	11.5	14.6	
	Percentage of YLLs due to injuries [Percentage]	8.7	10.2	11.2		10	10.5	13.6	
	Percentage of deaths ill-defined [Percentage]	33.9	33.8	35.7		51	16.5	13.8	

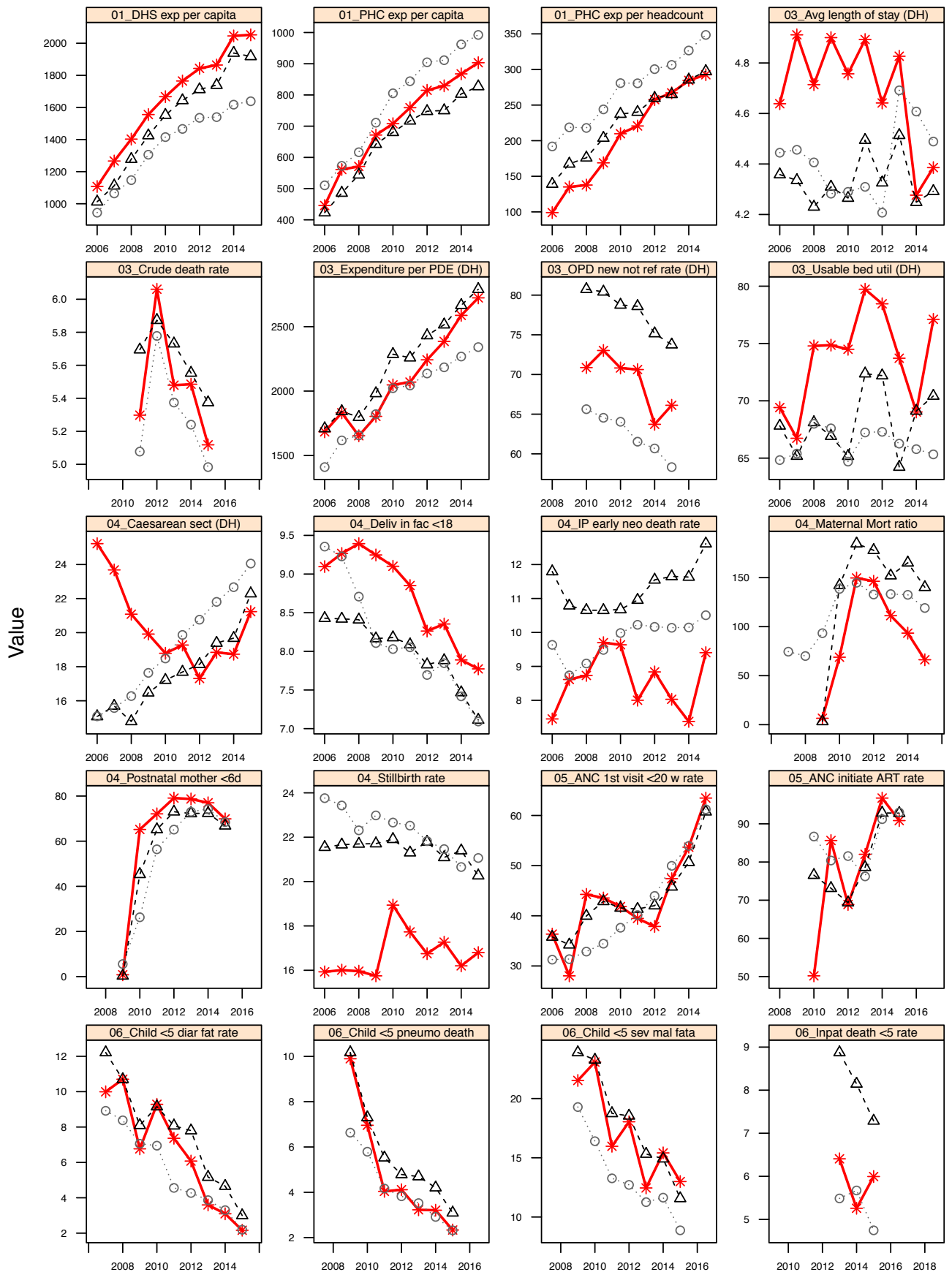
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

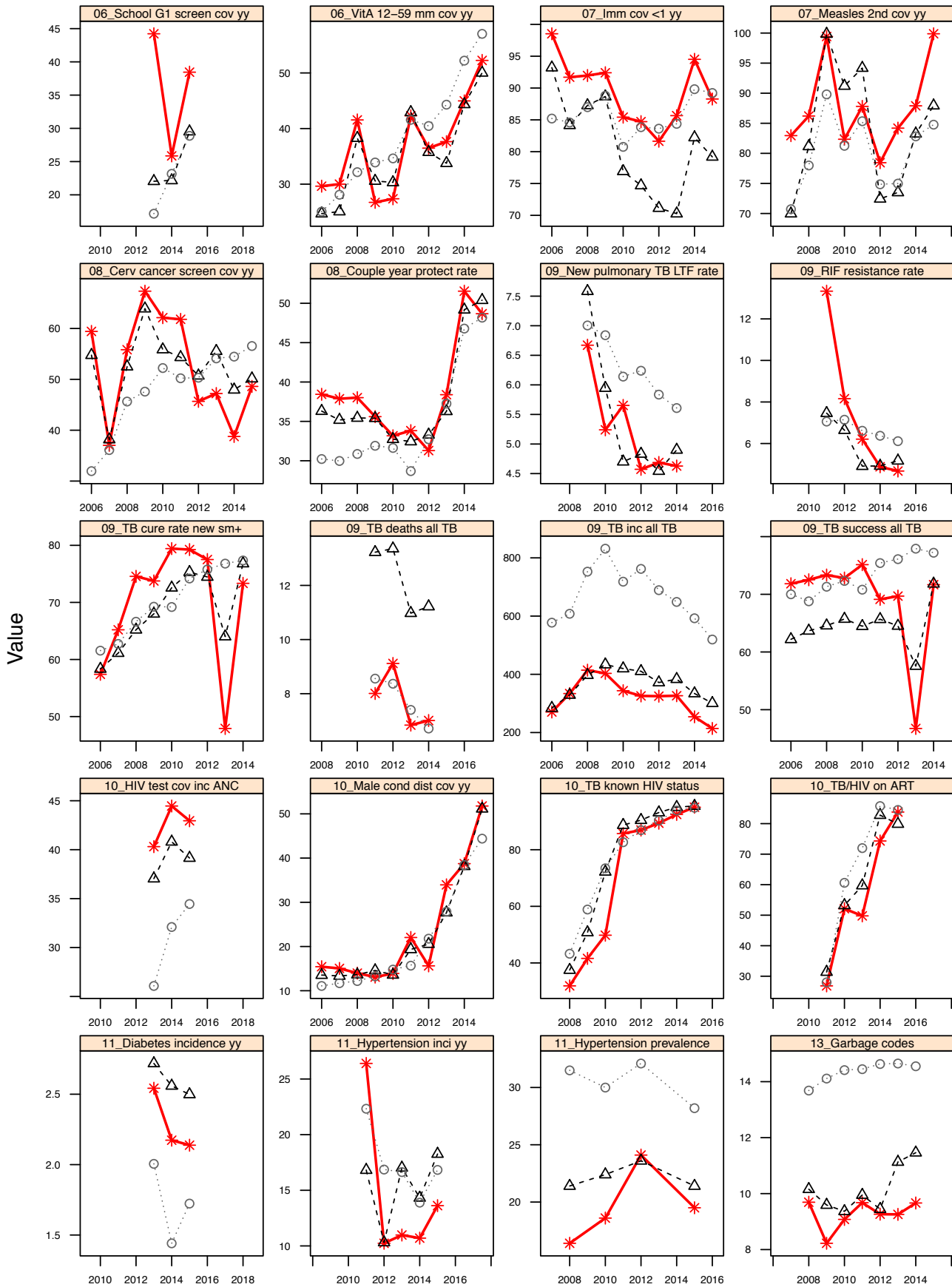
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Vhembe (DC34)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Vhembe (DC34)



District value * Provincial average Δ ZA (national) average ○

Capricorn District Municipality (DC35)

Capricorn District is located in Limpopo Province in northern South Africa and consists of five sub-districts, namely Aganang, Blouberg, Lepelle-Nkumpi, Molemole and Polokwane. The district forms a gateway to Botswana, Zimbabwe and Mozambique. Capricorn has a population of 1 285 378, with a population density of 59.2 people per km² and falls in socio-economic Quintile 2, among the poorer districts. Estimated medical scheme coverage is 6.6%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
98	4	7	0	2	1

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	764 314	678 560	651 720
PHC headcount 5 years and older	3 550 587	3 503 792	3 337 540
Patient day equivalent	843 936	819 679	838 763
Deaths – total	5 471	5 288	5 372
Still births	707	785	742
Early neonatal deaths	497	474	577
Late neonatal deaths	89	61	77
Child under 5 years with diarrhoea death	42	47	26
Child under 5 years with pneumonia death	54	35	26
Child under 5 years with severe acute malnutrition death	58	37	32

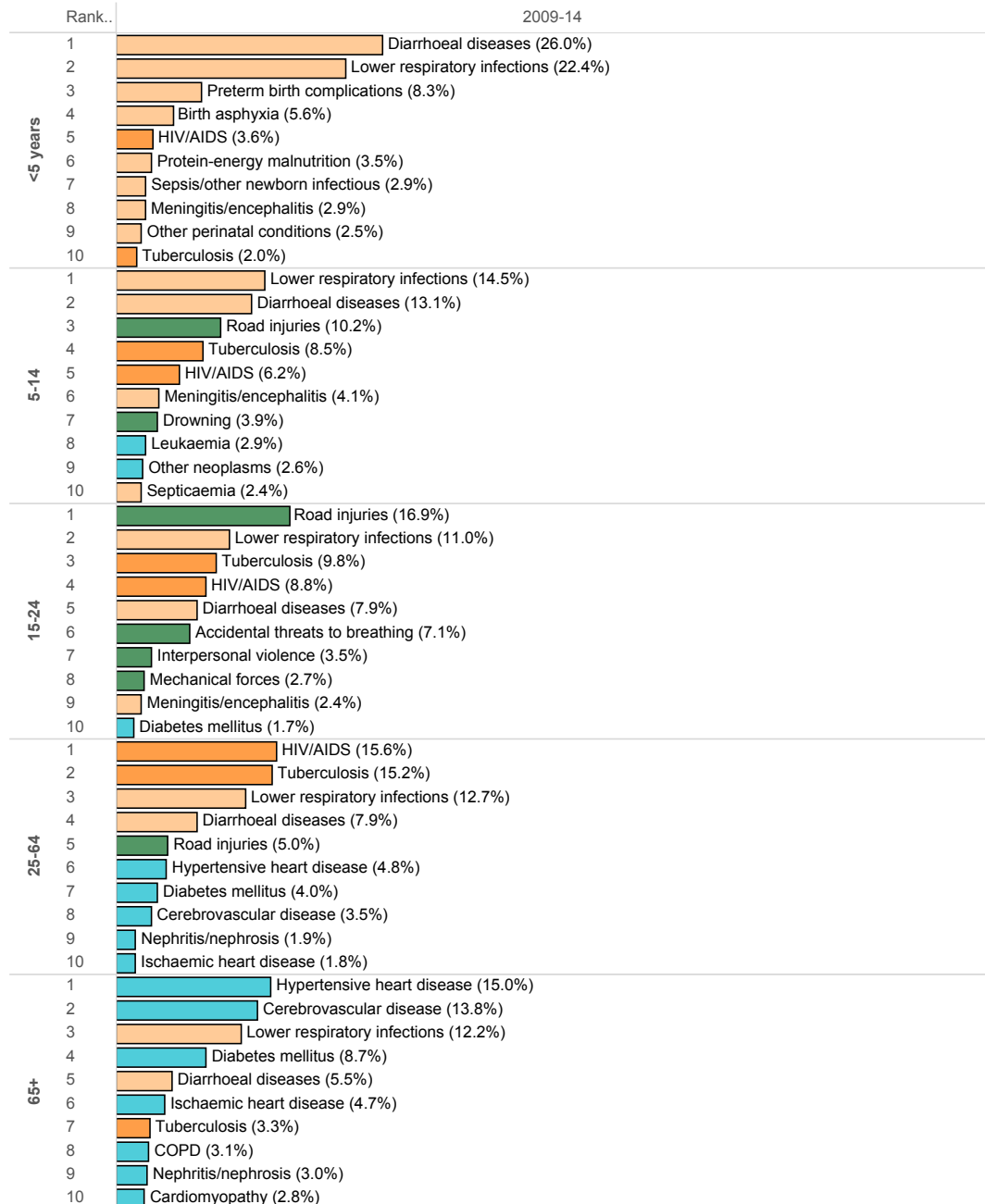
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Capricorn (DC35)

LP, Capricorn: DC35, 2009-14

Broadcause	Female					Male				
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	78%	6%	11%	5%		76%	5%	12%	7%	
5-14	40%	14%	30%	17%		33%	15%	28%	23%	
15-24	38%	27%	20%	15%		15%	9%	20%	55%	
25-64	28%	32%	36%	4%		22%	30%	35%	14%	
65+	20%	3%	74%	2%		19%	7%	71%	3%	
Total	31%	18%	47%	4%		26%	20%	42%	12%	



Indicator performance: Capricorn (DC35)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	5.7	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			5.0	43	15.1	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.8	4.4	4.5	2	4.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 544.5	2 778.6	2 792.4	38	2 790.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	48.5	69.5	73.0	16	70.4	65.3	
	Inpatient crude death rate [Percentage]	6.8	6.3	6.2	40	5.4	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	69.5	59.5	62.2	30	73.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	18.6	21.0	23.1		22.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.4	6.9	6.6	16	7.1	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	17.9	17.0	22.0	52	12.6	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	353.7	312.5	316.9	52	140.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	67.1	72.0	62.0	35	66.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	24.9	27.4	27.5	48	20.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	41.7	46.1	56.5	46	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	77.0	92.3	95.7	20	92.8	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.6	38	1.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.7	5.2	3.4	42	3.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	5.5	4.4	3.7	41	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	17.0	9.4	13.9	48	11.6	8.9	
	Inpatient death under 5 year rate [Percentage]	10.2	8.7	8.8	49	7.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	12.7	32.7	33.6	19	29.5	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	30.1	42.5	48.0	43	50.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	66.0	79.0	74.0	47	79.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	68.8	83.2	77.2	39	87.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	62.1	54.6	55.9	27	50.1	56.6	
	Couple year protection rate (annualised) [Percentage]	39.6	52.5	52.4	26	50.4	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	42.0	47.4	42.6	9	39.1	34.5	
	Male condom distribution coverage [Condoms per male 15+]	37.1	45.3	54.2	16	51.2	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.5	2.6	1.7		2.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.1	12.2	12.7		18.3	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			5.0	43	15.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		380.6	344.0	327.9	7	300.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.4	5.1	5.5	24	5.2	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	72.7	69.5	77.7		25	76.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	52.5	50.2	64.4		52	71.8	77.2	
	TB death rate (ETR.net) [Percentage]	16.2	12.4	13.6		50	11.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.2	4.4	6.0		36	4.9	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		53.1			17	53.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.3	97.7	97.6	5	95.4	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		63.6	86.1	80.8	34	79.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	19.2			19.5	1	21.4	28.2	

Section B: Profile Limpopo Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	33.6	35.3	37.4		27	34.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	25.7	23.8	23.4		13	25.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	30.6	30.0	28.4		46	30.4	21.2	
	Percentage of deaths garbage codes [Percentage]	9.7	10.7	10.5		8	11.5	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.1	10.9	10.8		9	10.5	13.6	
	Percentage of deaths ill-defined [Percentage]	15.5	13.9	13.4		37	16.5	13.8	

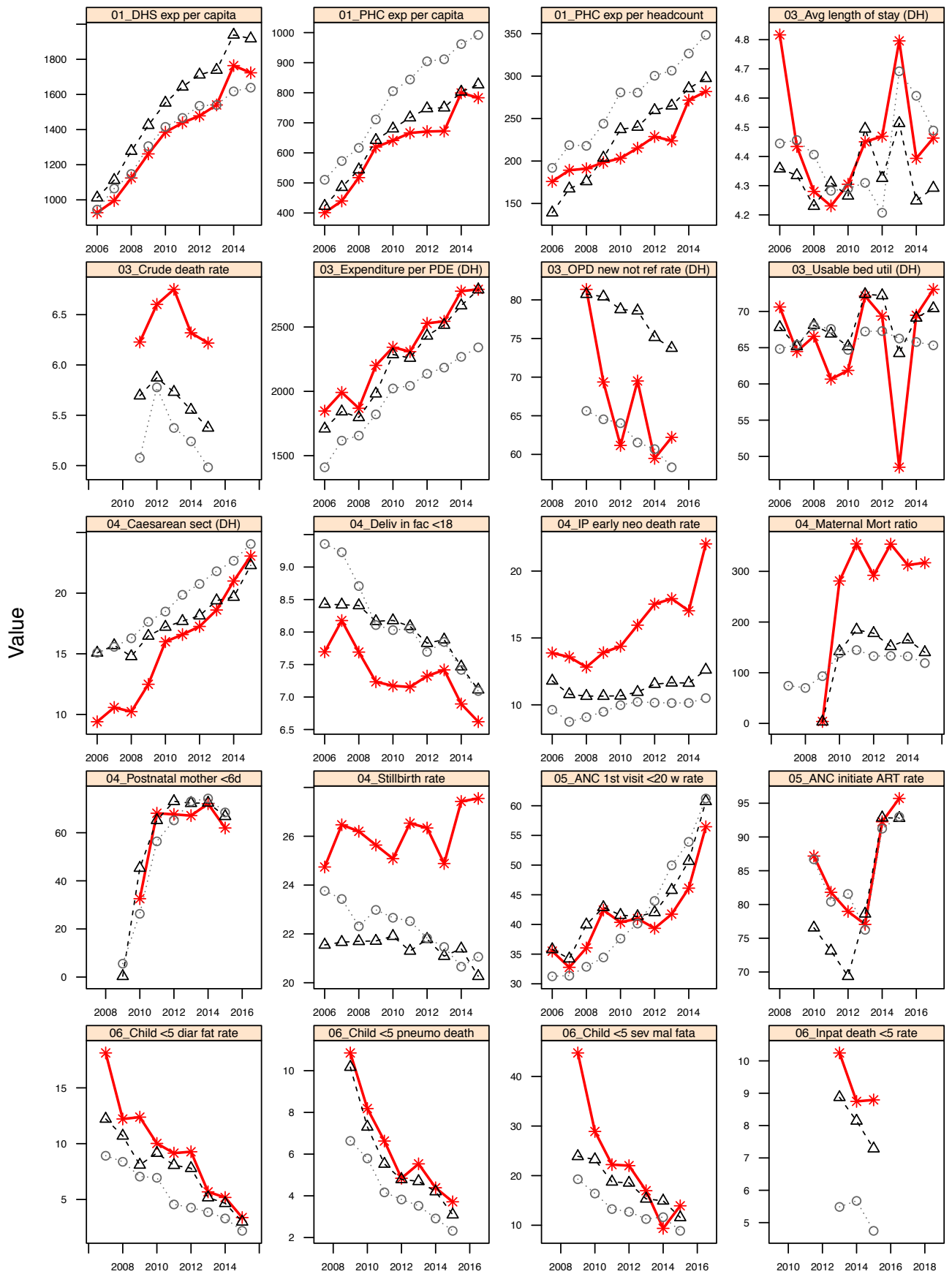
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

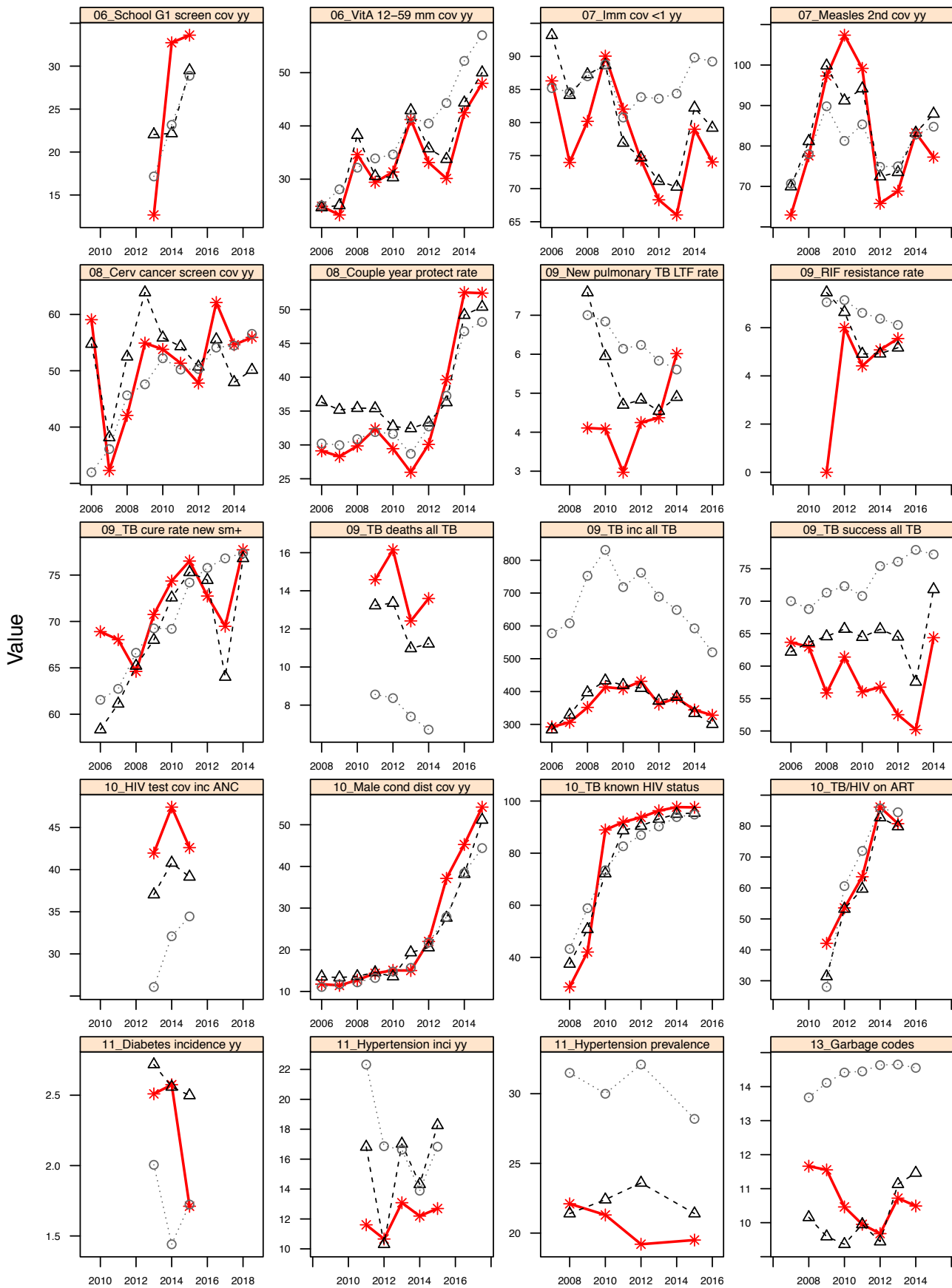
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Capricorn (DC35)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Capricorn (DC35)



District value * Provincial average Δ ZA (national) average ○

Waterberg District Municipality (DC36)

Waterberg District is located in the western part of Limpopo Province. The district shares five border-control points with Botswana and comprises six sub-districts, namely Bela-Bela, Lephalale, Modimolle, Mogalakwena, Mookgophong and Thabazimbi. It has a population of 734 780, with a population density of 16.4 people per km² and falls in socio-economic Quintile 3. Estimated medical scheme coverage is 16.7%

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
61	2	7	1	0	8

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	305 823	308 684	310 030
PHC headcount 5 years and older	1 381 089	1 398 838	1 469 648
Patient day equivalent	407 209	393 887	366 880
Deaths – total	2 625	2 693	2 641
Still births	316	335	267
Early neonatal deaths	162	220	195
Late neonatal deaths	19	15	21
Child under 5 years with diarrhoea death	36	23	15
Child under 5 years with pneumonia death	32	27	27
Child under 5 years with severe acute malnutrition death	57	58	33

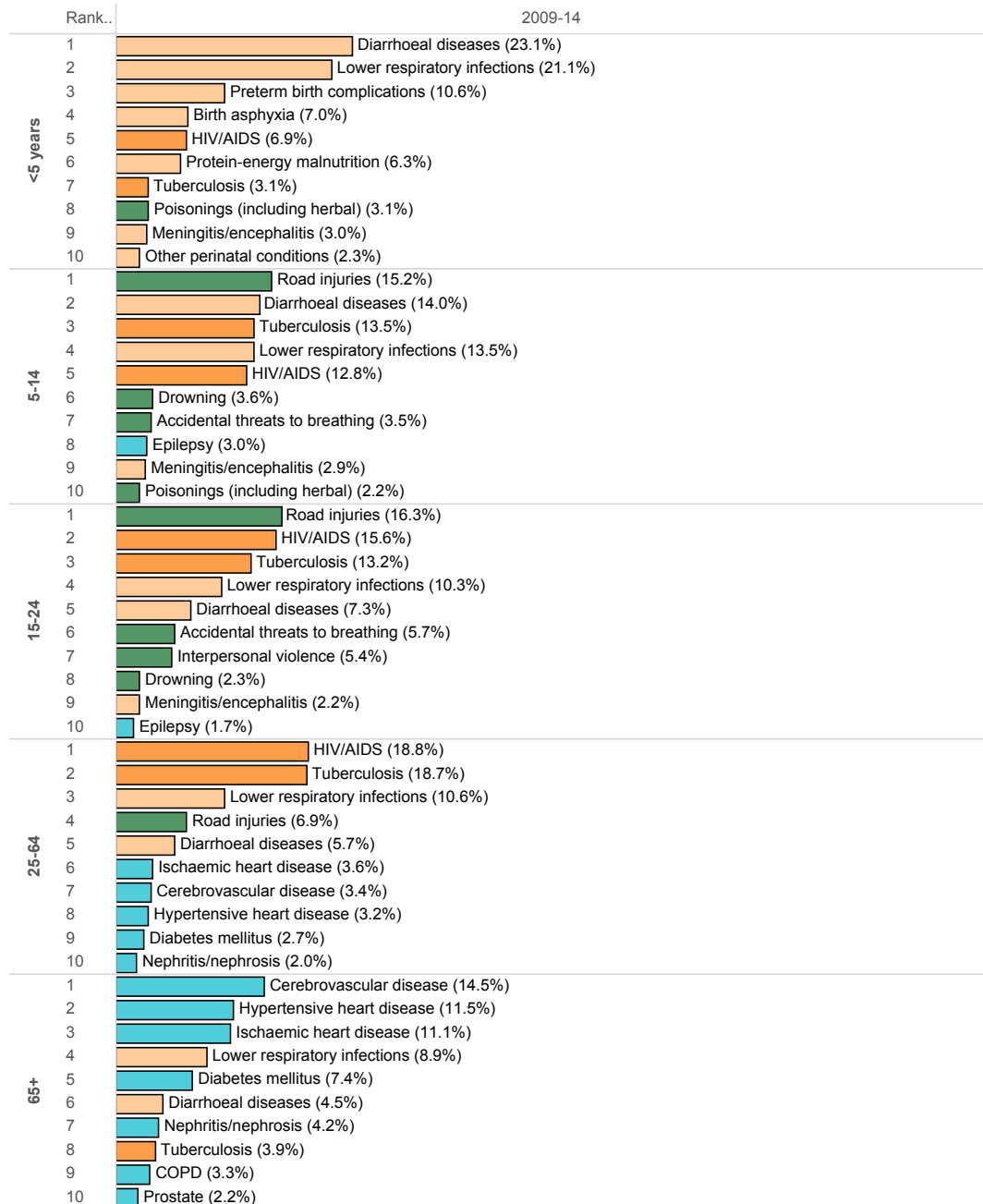
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Waterberg (DC36)

LP, Waterberg: DC36, 2009-14

Broadcause	Broad age..	Female					Male				
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other	Comm_mat_peri_nut	HIV and TB	NCD	Injury	Other
	<5 years	74%	11%	8%	7%		77%	9%	7%	6%	
	5-14	35%	23%	20%	21%		30%	25%	18%	28%	
	15-24	28%	37%	18%	17%		17%	17%	12%	55%	
	25-64	23%	40%	32%	6%		18%	36%	30%	16%	
	65+	15%	4%	79%	2%		15%	7%	76%	3%	
	Total	26%	24%	44%	6%		24%	24%	39%	13%	



Indicator performance: Waterberg (DC36)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			15.9	13	5.7	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			25.4	17	15.1	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.1	4.2	4.1	12	4.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 904.0	3 090.1	3 399.3	51	2 790.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	61.8	63.1	62.1	34	70.4	65.3	
	Inpatient crude death rate [Percentage]	5.3	5.4	5.3	24	5.4	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	92.3	93.9	87.3	51	73.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.2	22.9	26.1		22.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.6	7.4	7.0	19	7.1	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.9	14.7	13.5	44	12.6	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	121.4	133.4	83.4	15	140.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	71.2	67.5	68.1	24	66.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	20.9	21.9	18.2	14	20.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	46.7	49.9	61.0	37	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	74.9	88.5	91.4	33	92.8	93.0	
	Percentage of PCR tests positive at birth [Percentage]			2.2	48	1.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	7.0	3.8	2.7	35	3.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	4.6	3.9	3.3	40	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	15.8	12.3	6.9	17	11.6	8.9	
	Inpatient death under 5 year rate [Percentage]	9.0	8.5	7.1	43	7.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	19.1	21.5	24.0	27	29.5	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	27.1	32.1	37.9	51	50.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	54.0	63.4	66.7	51	79.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	51.1	61.4	66.4	52	87.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	57.1	46.4	44.7	41	50.1	56.6	
	Couple year protection rate (annualised) [Percentage]	37.3	52.7	56.9	17	50.4	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	32.5	32.8	37.7	19	39.1	34.5	
	Male condom distribution coverage [Condoms per male 15+]	23.3	27.0	53.0	19	51.2	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.0	1.7	2.1		2.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.2	10.0	10.9		18.3	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			23.8	19	15.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		548.6	530.6	492.8	19	300.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.1	4.1	4.2	7	5.2	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	68.8	64.9	74.8		33	76.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	64.5	62.6	69.9		45	71.8	77.2	
	TB death rate (ETR.net) [Percentage]	12.4	11.5	11.7		46	11.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.2	5.8	5.0		25	4.9	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		45.0			30	53.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		93.2	95.0	93.7	39	95.4	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		63.7	76.4	70.2	47	79.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	24.6			24.3	13	21.4	28.2	

Section B: Profile Limpopo Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	29.7	32.8	33.6		17	34.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	33.0	27.8	29.0		33	25.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	25.7	27.8	25.3		41	30.4	21.2	
	Percentage of deaths garbage codes [Percentage]	10.7	12.9	13.6		29	11.5	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.6	11.6	12.1		15	10.5	13.6	
	Percentage of deaths ill-defined [Percentage]	25.7	10.3	7.7		10	16.5	13.8	

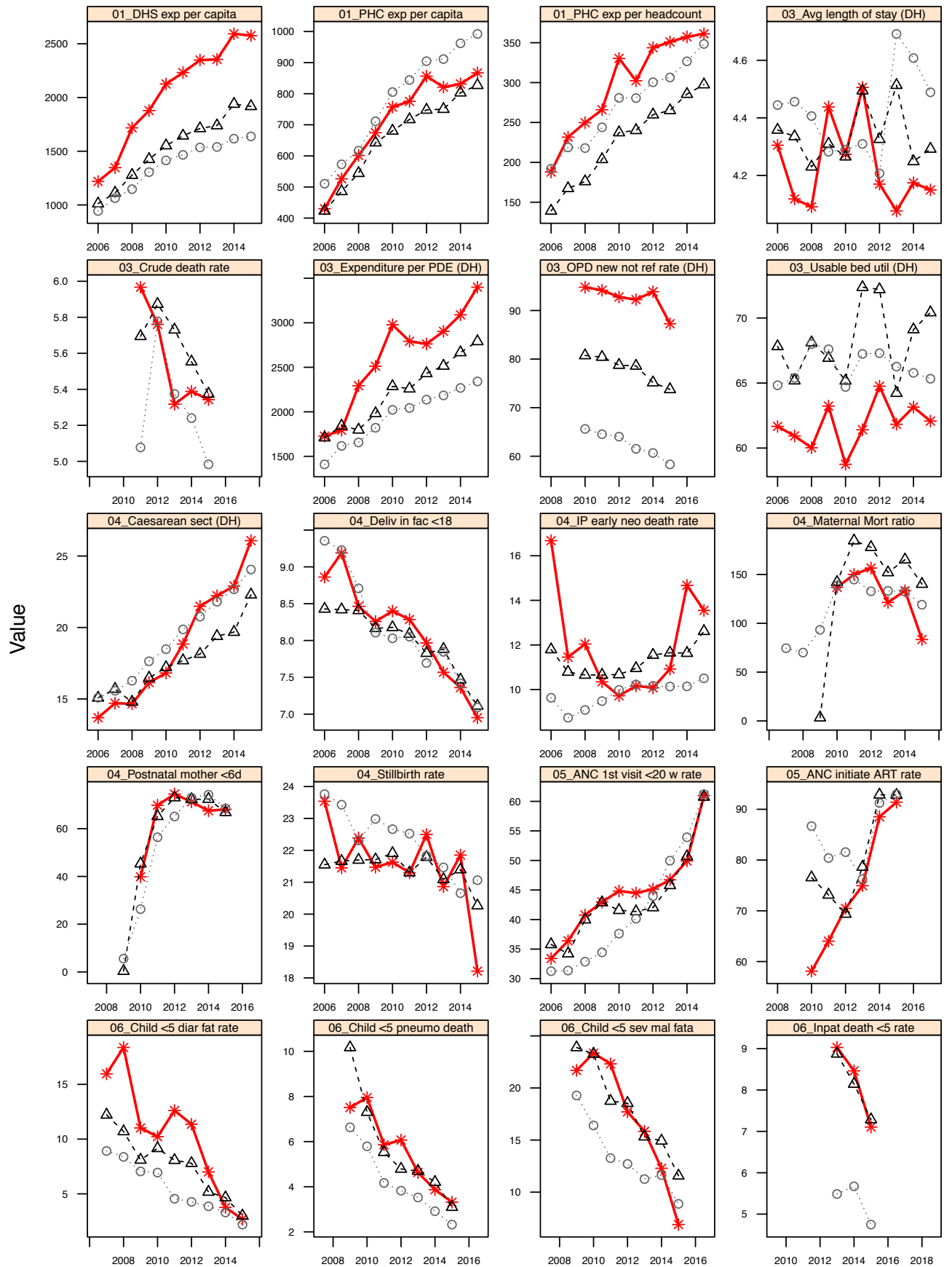
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

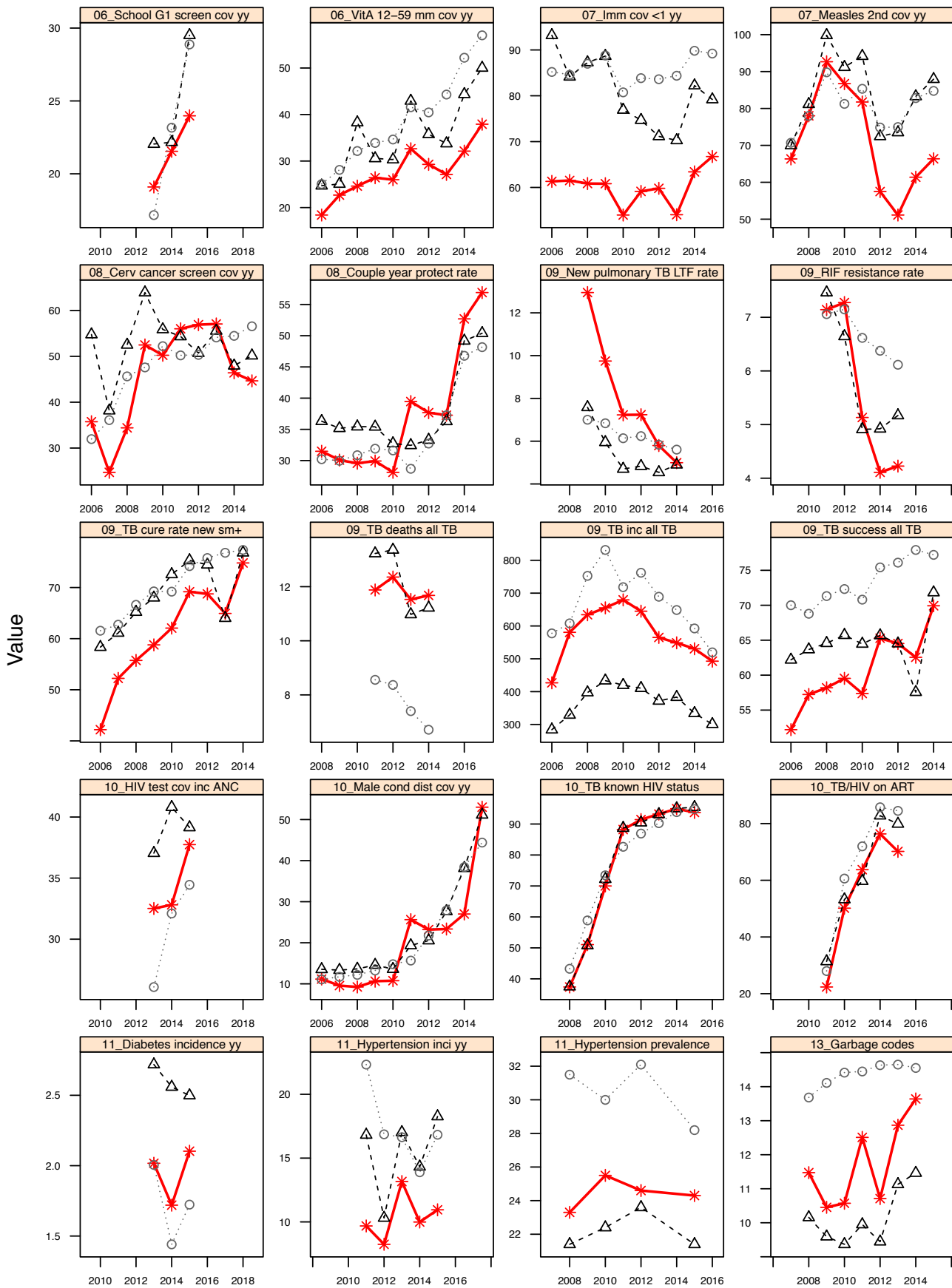
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Waterberg (DC36)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Waterberg (DC36)



Sekhukhune District Municipality (DC47)

Sekhukhune District is located in Limpopo Province, in northern South Africa. The district lies in the south-eastern part of the province and comprises five sub-districts: Elias Motsoaledi, Ephraim Mogale, Fetakgomo, Makhuduthamaga and Greater Tubatse. It has a population of 1 138 357, with a population density of 84.1 people per km² and falls in socio-economic Quintile 1, among the poorest districts. Estimated medical scheme coverage is 7.1%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
85	3	5	2	0	0

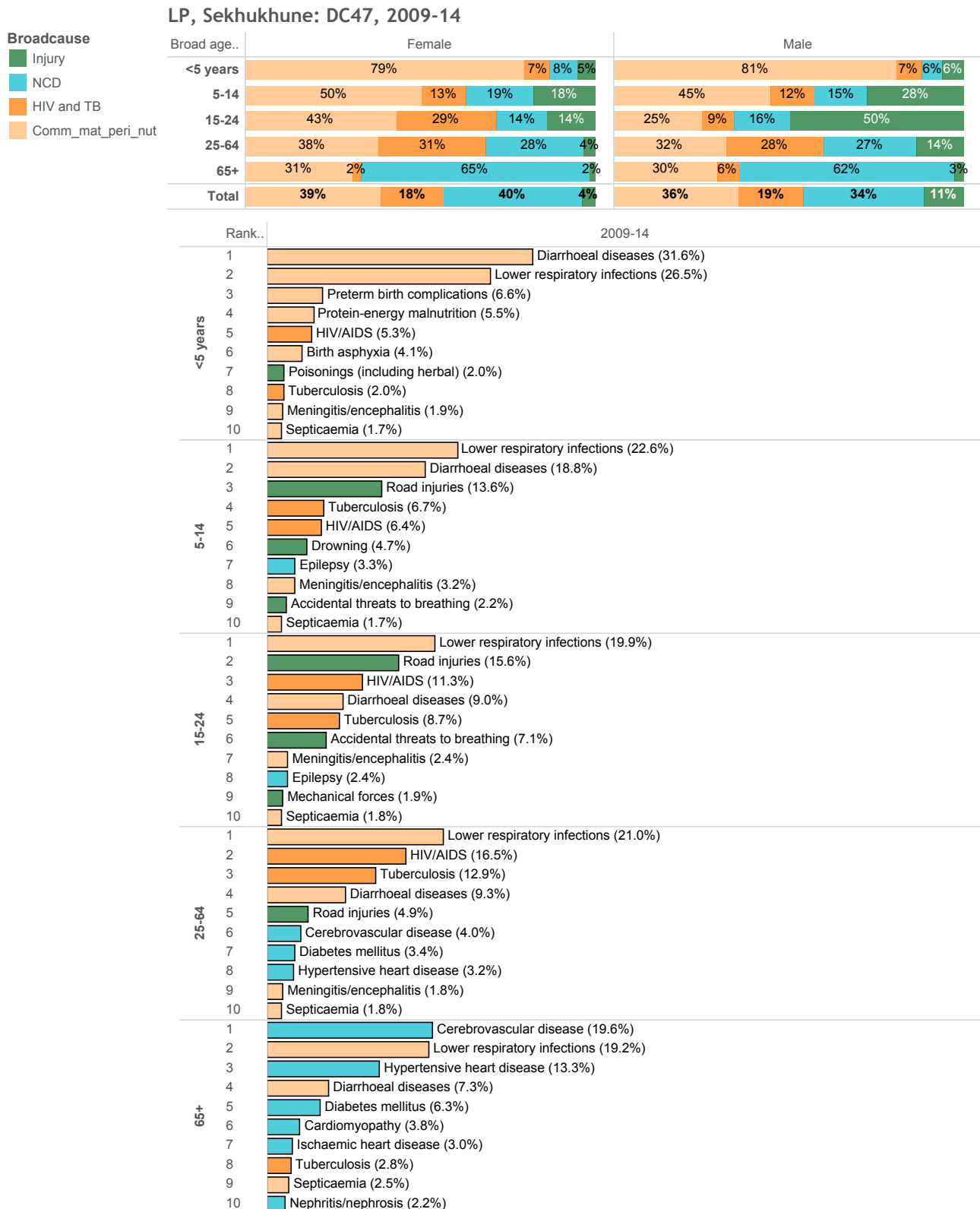
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	655 915	628 278	627 923
PHC headcount 5 years and older	2 317 079	2 349 447	2 485 931
Patient day equivalent	441 719	489 082	505 588
Deaths – total	3 191	3 462	3 211
Still births	607	595	540
Early neonatal deaths	266	280	213
Late neonatal deaths	48	36	33
Child under 5 years with diarrhoea death	55	40	31
Child under 5 years with pneumonia death	50	39	40
Child under 5 years with severe acute malnutrition death	57	40	34

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Sekhukhune (DC47)



Indicator performance: Sekhukhune (DC47)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			6.9	23	5.7	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			6.9	40	15.1	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.2	3.9	3.8	24	4.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 680.0	2 778.2	2 791.9	37	2 790.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	64.9	63.3	61.4	36	70.4	65.3	
	Inpatient crude death rate [Percentage]	4.8	4.9	4.3	8	5.4	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	83.2	81.9	80.5	50	73.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	19.4	17.2	21.2		22.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.7	7.2	6.8	18	7.1	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	10.3	10.7	8.5	15	12.6	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	61.8	149.2	96.3	21	140.2	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	61.9	61.3	61.4	36	66.8	68.5	
	Stillbirth in facility rate [per 1 000 births]	22.9	22.3	21.2	25	20.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	42.9	47.8	59.2	40	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	78.7	93.8	91.3	34	92.8	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.5	36	1.7	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.7	3.8	3.2	41	3.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	5.5	4.5	4.5	44	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	20.6	20.7	13.0	46	11.6	8.9	
	Inpatient death under 5 year rate [Percentage]	7.9	10.6	6.4	36	7.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	14.3	12.7	10.1	45	29.5	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	35.2	48.4	51.1	40	50.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	61.4	75.6	74.4	46	79.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	76.3	83.9	91.5	11	87.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	51.0	41.7	47.2	37	50.1	56.6	
	Couple year protection rate (annualised) [Percentage]	29.4	39.5	42.5	38	50.4	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	30.2	32.9	31.2	33	39.1	34.5	
	Male condom distribution coverage [Condoms per male 15+]	18.8	39.1	42.7	31	51.2	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.4	3.1	3.2		2.5	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	25.0	21.0	35.8		18.3	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			6.9	39	15.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	2012	District value			District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
			2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		367.8	290.7	263.4	2	300.7	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		3.9	4.3	4.9	16	5.2	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	73.2	58.8	75.2		32	76.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	65.2	56.2	74.5		35	71.8	77.2	
	TB death rate (ETR.net) [Percentage]	14.5	11.7	12.8		49	11.2	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.2	3.8	6.0		35	4.9	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		50.7			23	53.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.5	95.3	93.8	38	95.4	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		55.8	79.7	74.0	45	79.9	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	16.7			21.1	3	21.4	28.2	

Section B: Profile Limpopo Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	26.2	29.4	30.1		9	34.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	26.1	25.7	25.3		21	25.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	37.5	34.5	34.4		51	30.4	21.2	
	Percentage of deaths garbage codes [Percentage]	9.0	10.5	10.3		7	11.5	14.6	
	Percentage of YLLs due to injuries [Percentage]	10.2	10.4	10.2		5	10.5	13.6	
	Percentage of deaths ill-defined [Percentage]	6.5	7.2	7.9		14	16.5	13.8	

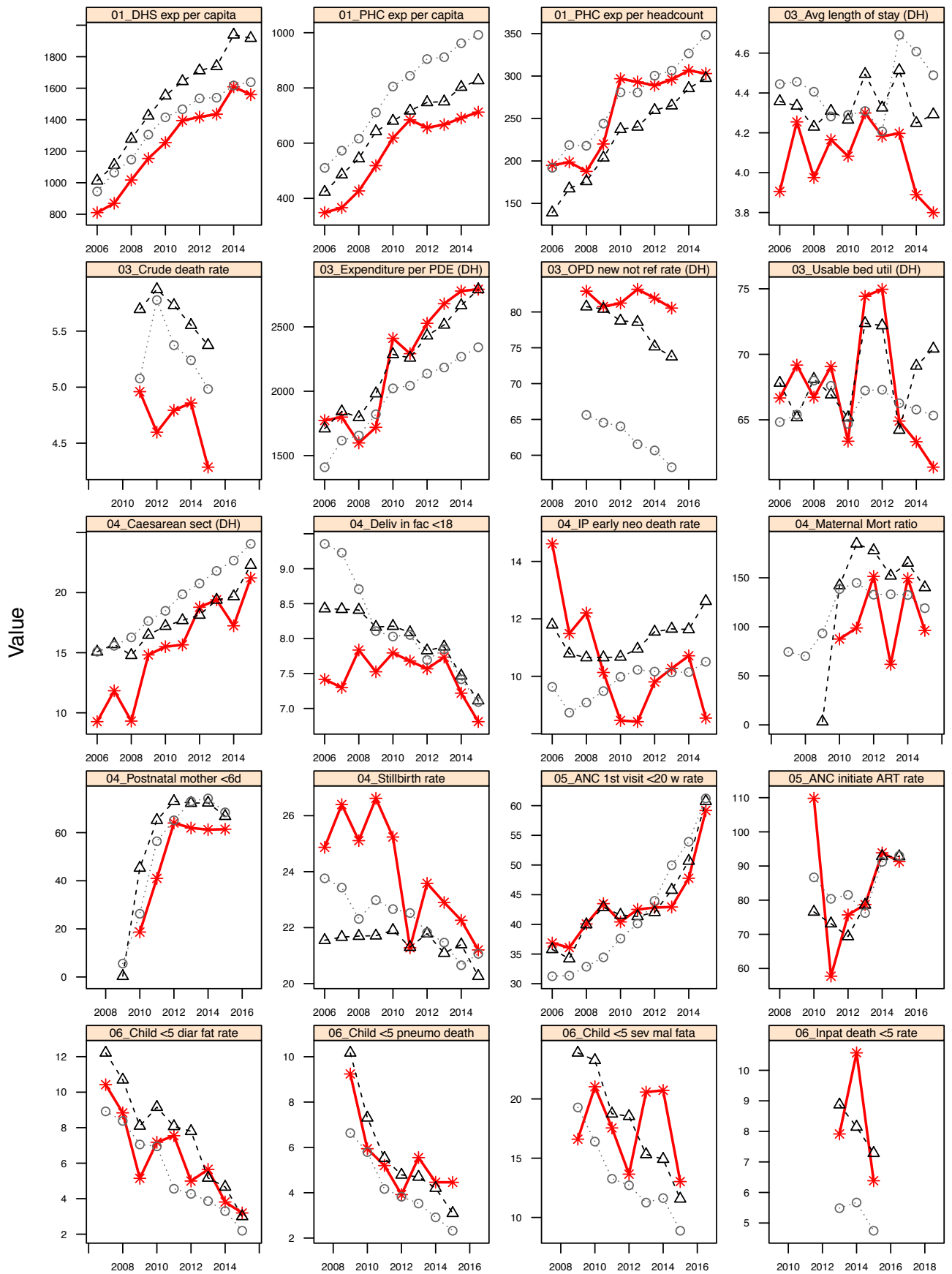
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

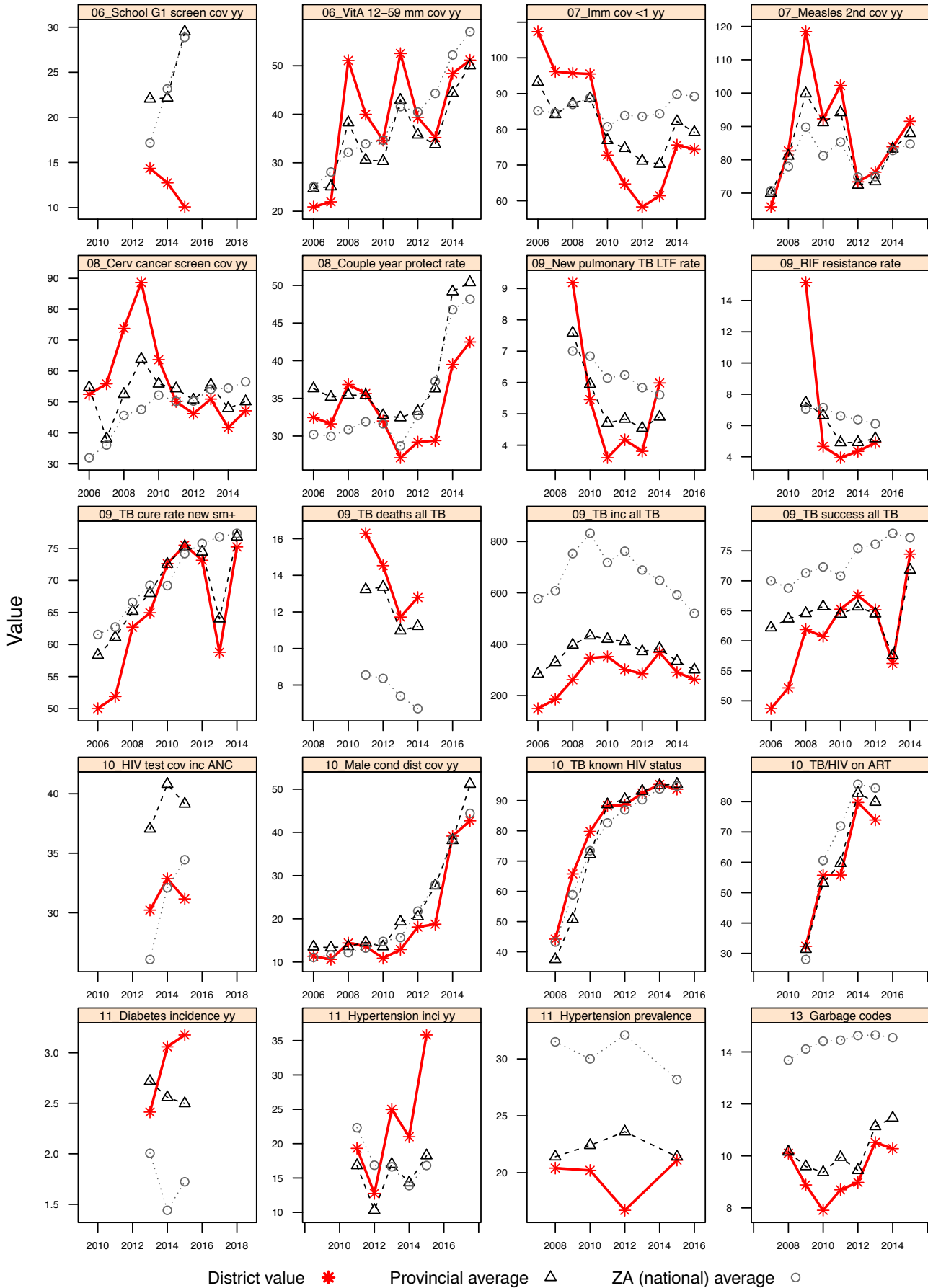
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Sekhukhune (DC47)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Sekhukhune (DC47)



19 Mpumalanga Province

Gert Sibande District Municipality (DC30)

Gert Sibande District is situated in Mpumalanga Province and has seven sub-districts: Albert Luthuli, Dipaleseng, Govan Mbeki, Lekwa, Mkhondo, Msukaligwa and Pixley Ka Seme. The district has a population of 1 076 611, with a population density of 33.8 people per km², and falls into socio-economic Quintile 3. Gert Sibande is one of the 11 National Health Insurance (NHI) pilot districts and has an estimated medical scheme coverage of 16.1%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
61	19	8	1	0	6

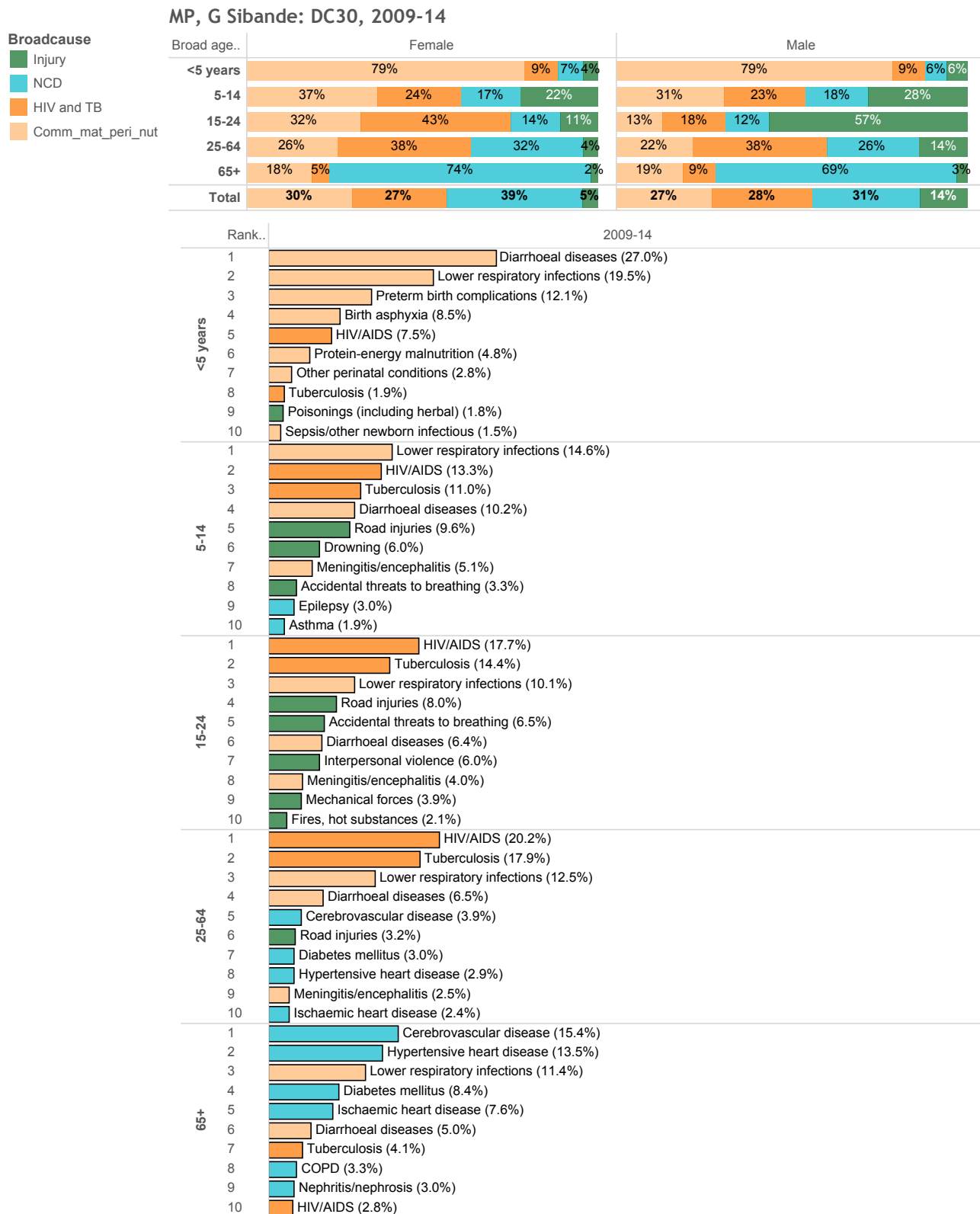
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	398 898	404 379	379 288
PHC headcount 5 years and older	2 082 038	2 174 986	2 124 913
Patient day equivalent	554 031	554 056	567 901
Deaths – total	3 702	3 665	3 637
Still births	420	411	357
Early neonatal deaths	174	163	181
Late neonatal deaths	26	21	20
Child under 5 years with diarrhoea death	60	54	22
Child under 5 years with pneumonia death	63	51	37
Child under 5 years with severe acute malnutrition death	46	82	57

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: G Sibande (DC30)



Indicator performance: G Sibande (DC30)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			14.3	15	6.6	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			24.7	21	16.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.1	4.0	4.2	10	4.5	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 864.6	2 020.7	2 045.5	31	2 180.0	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	65.8	66.7	68.9	21	71.4	65.3	78.6
	Inpatient crude death rate [Percentage]	5.5	5.0	4.7	14	5.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	66.1	64.5	60.8	28	66.0	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	19.8	20.7	22.1		19.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.9	9.8	9.0	35	8.6	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.8	8.9	10.3	31	9.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	197.1	54.6	97.0	22	125.3	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	47.3	52.9	49.7	45	62.6	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	23.1	21.9	20.0	20	21.8	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	42.1	46.7	56.0	48	65.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	75.1	85.9	89.6	40	95.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	14	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.0	4.5	2.1	28	2.7	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	5.6	4.4	3.3	39	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	14.7	21.9	18.2	52	12.5	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	7.0	6.6	6.0	33	7.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	16.5	13.4	20.7	30	13.3	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	30.8	47.4	44.1	47	51.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	67.2	79.0	80.2	36	87.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	66.0	78.1	72.4	46	78.7	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	50.5	64.9	52.0	31	66.7	56.6	60.0
	Condom use protection rate (annualised) [Percentage]	35.6	49.7	39.9	41	38.7	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	24.4	25.3	29.9	36	32.4	34.5	
	Male condom distribution coverage [Condoms per male 15+]	30.2	51.0	36.8	37	33.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	2.3	3.2		1.7	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	16.4	12.7	20.2		17.4	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			24.7	17	16.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			7.8	3	2.4	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		510.5	465.9	460.4	14	401.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		9.5	8.4	8.2	45	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	78.5	74.7	76.6		28	79.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	69.7	74.6	79.7		18	84.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	8.5	7.7	9.1		37	6.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.5	5.4	4.8		22	3.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		37.1			42	45.2	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		86.8	88.4	89.9	50	93.6	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		52.3	87.4	83.4	29	90.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	19.3			23.8	10	22.6	28.2	

Section B: Profile Mpumalanga Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	27.0	27.1	27.9		3	31.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	31.7	32.3	33.9		44	32.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	29.5	27.8	25.4		42	24.1	21.2	
	Percentage of deaths garbage codes [Percentage]	15.0	14.4	14.4		36	15.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.9	12.9	12.8		26	12.9	13.6	
	Percentage of deaths ill-defined [Percentage]	10.4	10.2	11.6		29	10.7	13.8	

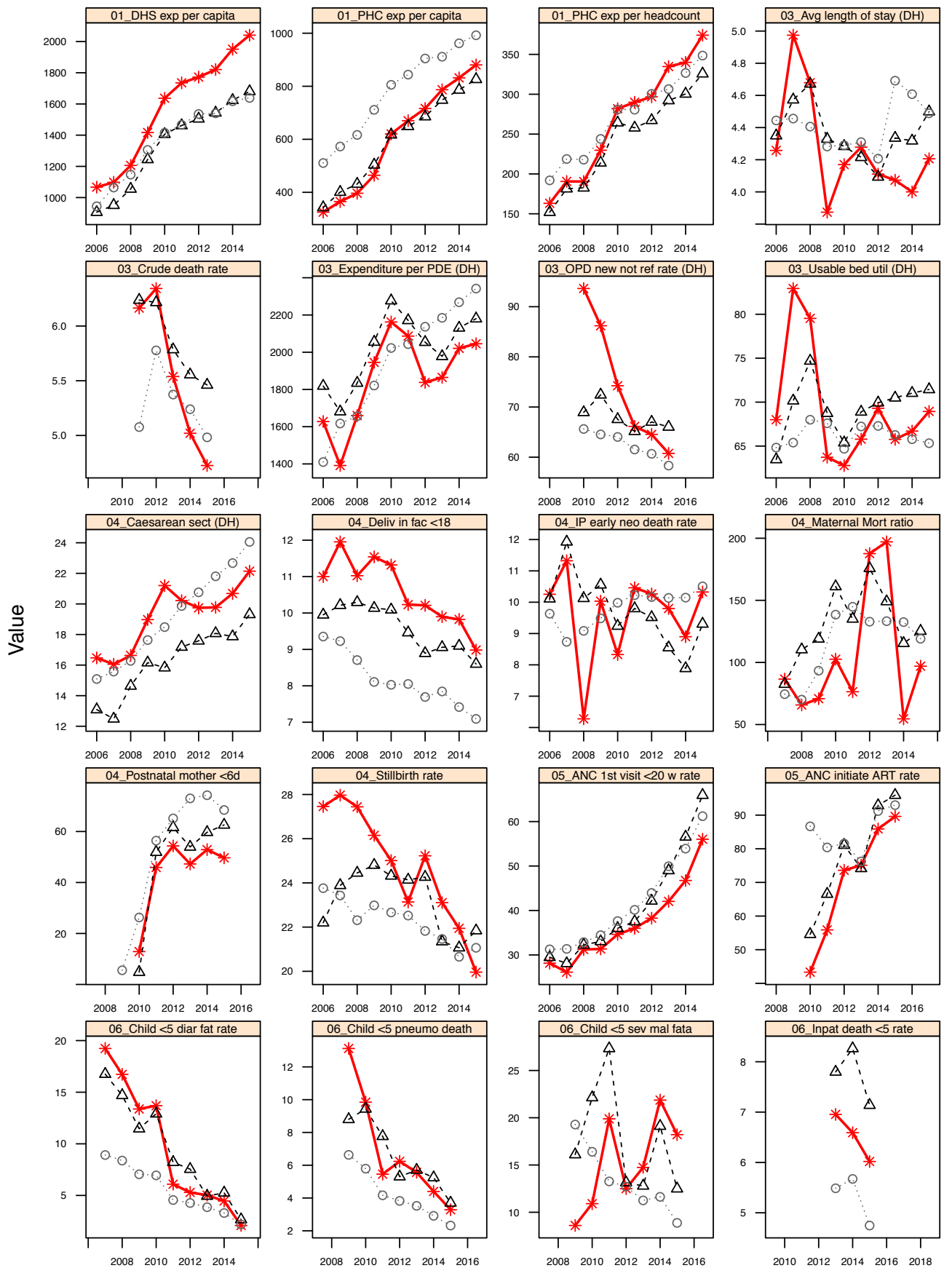
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

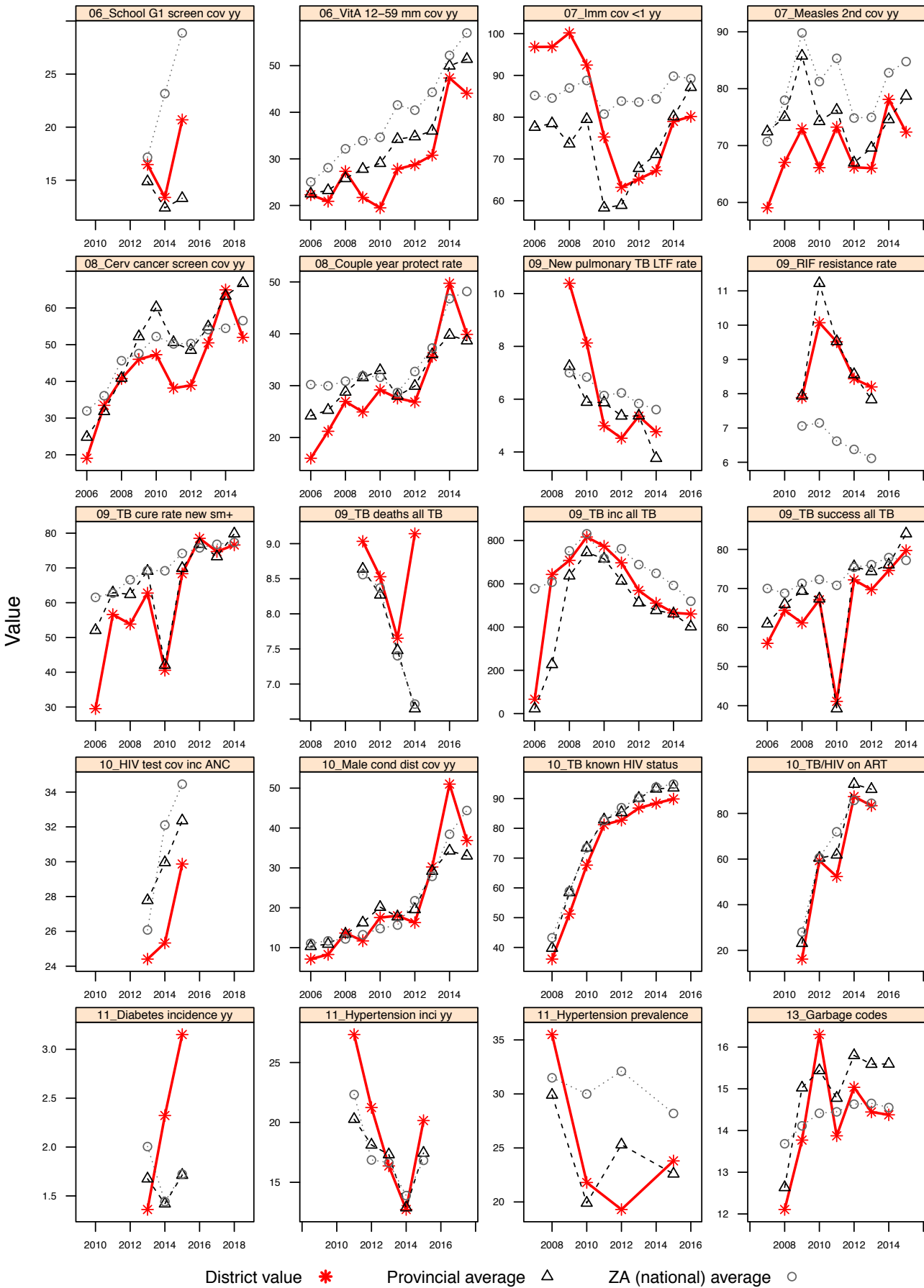
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: G Sibande (DC30)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: G Sibande (DC30)



Nkangala District Municipality (DC31)

Nkangala District is situated in Mpumalanga Province and has six sub-districts: Dr JS Moroka, Emakhazeni, Emalahleni, Steve Tshwete, Thembisile Hani and Victor Khanye. The district has a population of 1 407 464, with a population density of 84.0 people per km² and falls into socio-economic Quintile 4. Estimated medical scheme coverage is 13.2%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
77	21	7	0	1	6

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	527 817	518 383	487 554
PHC headcount 5 years and older	2 489 368	2 584 284	2 521 859
Patient day equivalent	445 290	452 590	444 114
Deaths – total	3 219	3 211	3 238
Still births	512	531	507
Early neonatal deaths	149	161	164
Late neonatal deaths	19	39	33
Child under 5 years with diarrhoea death	40	40	17
Child under 5 years with pneumonia death	37	53	31
Child under 5 years with severe acute malnutrition death	36	40	22

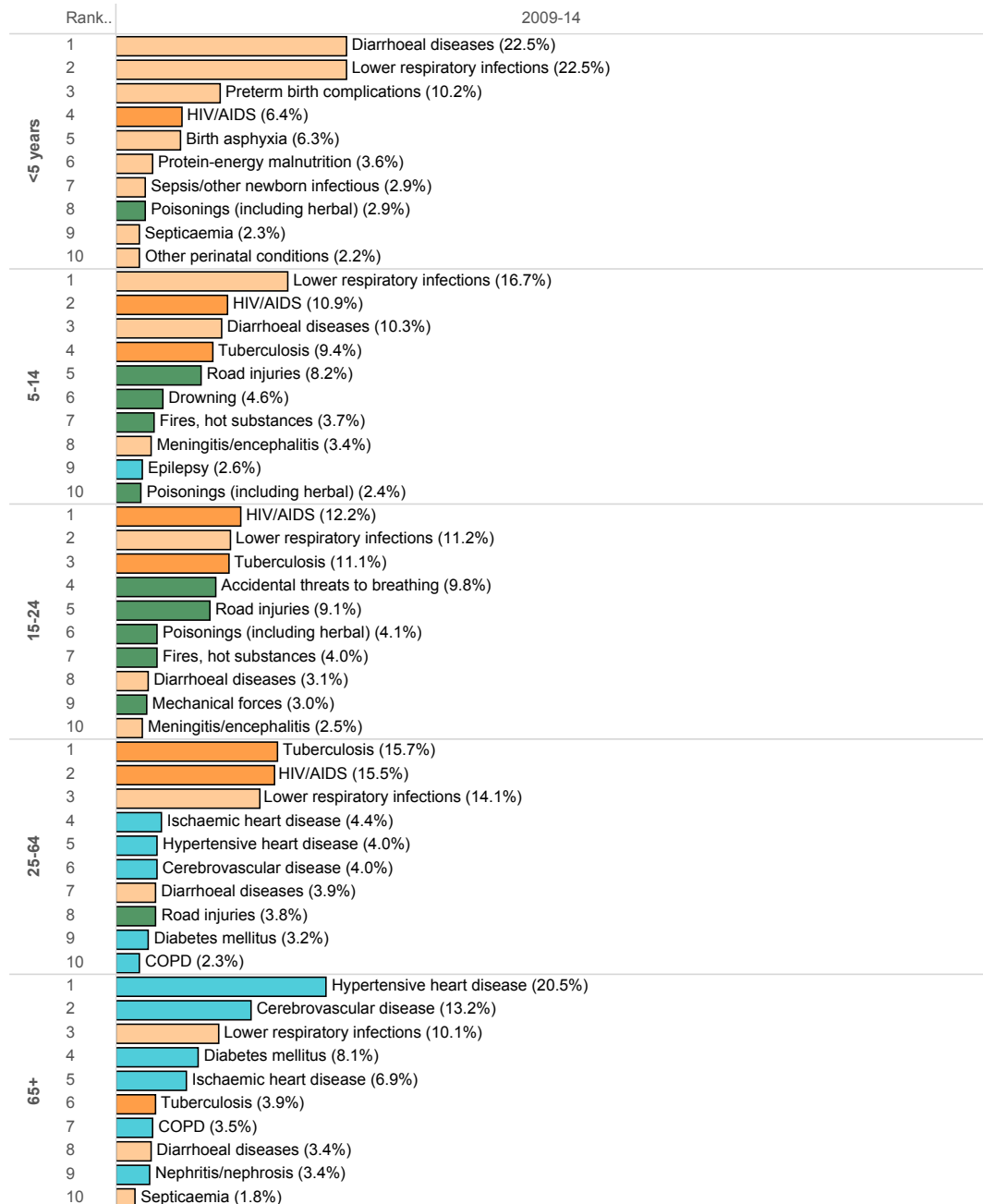
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Nkangala (DC31)

MP, Nkangala: DC31, 2009-14

Broadcause	Female					Male				
	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage	Rank	Percentage
Injury										
NCD										
HIV and TB										
Comm_mat_peri_nut										
Broad age..	Female					Male				
<5 years	75%	8%	10%	7%	73%	8%	10%	8%		
5-14	36%	20%	22%	22%	32%	19%	21%	28%		
15-24	28%	34%	19%	18%	13%	11%	16%	60%		
25-64	25%	33%	37%	5%	20%	29%	33%	18%		
65+	16%	4%	78%	2%	16%	7%	74%	4%		
Total	26%	22%	46%	5%	23%	22%	39%	16%		



Indicator performance: Nkangala (DC31)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			4.5	27	6.6	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			20.2	25	16.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.8	4.8	4.7	9	4.5	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 178.6	2 341.7	2 458.9	15	2 180.0	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	72.6	72.8	73.5	15	71.4	65.3	78.6
	Inpatient crude death rate [Percentage]	6.5	6.6	6.7	47	5.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	57.0	62.6	66.9	38	66.0	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	18.2	18.9	19.2		19.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.8	7.1	7.0	20	8.6	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	7.3	7.8	8.6	16	9.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	156.1	198.1	157.5	43	125.3	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	58.2	69.5	74.1	13	62.6	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	24.3	25.0	25.9	44	21.8	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	48.6	54.5	63.9	22	65.9	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	86.5	95.6	98.0	10	95.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.0	20	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.1	4.9	2.0	26	2.7	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.0	5.1	2.7	31	3.7	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	13.4	15.1	9.5	34	12.5	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	10.3	11.5	7.0	40	7.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	17.2	10.0	12.4	42	13.3	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	41.4	46.3	52.7	37	51.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	70.6	77.4	87.0	23	87.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	71.6	72.4	78.5	35	78.7	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	42.6	44.0	52.8	29	66.7	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	30.9	31.6	34.3	49	38.7	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	23.3	26.4	27.0	44	32.4	34.5	
	Male condom distribution coverage [Condoms per male 15+]	20.0	23.0	27.8	44	33.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	1.6	1.4		1.7	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	14.0	14.6	15.7		17.4	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			18.0	26	16.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			1.1	22	2.4	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		336.7	358.6	297.9	5	401.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.7	6.4	5.7	27	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	73.2	75.2	80.6		18	79.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	75.1	80.3	83.5		7	84.0	77.2	83.0
	TB death rate (ETR.net) [Percentage]	8.4	8.1	6.9		25	6.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.5	6.3	5.4		32	3.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		50.8			22	45.2	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.5	97.9	96.8	7	93.6	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		87.7	93.2	89.6	22	90.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	30.2			21.7	4	22.6	28.2	

Section B: Profile Mpumalanga Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	32.9	32.7	35.3		22	31.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	27.0	26.2	25.0		17	32.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	25.9	25.5	24.8		39	24.1	21.2	
	Percentage of deaths garbage codes [Percentage]	19.4	20.1	20.2		51	15.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	14.3	15.6	14.9		39	12.9	13.6	
	Percentage of deaths ill-defined [Percentage]	10.2	8.9	10.8		27	10.7	13.8	

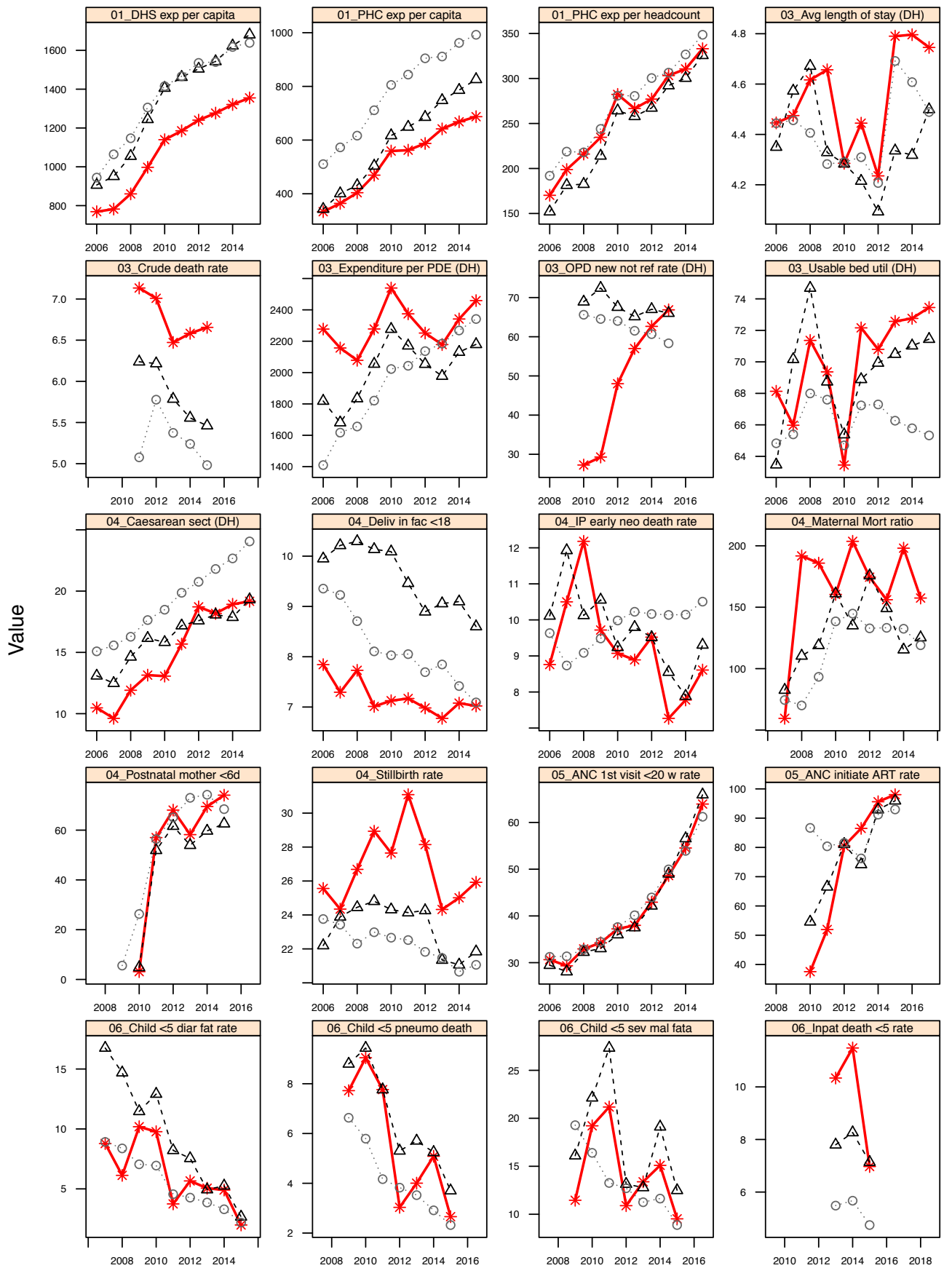
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

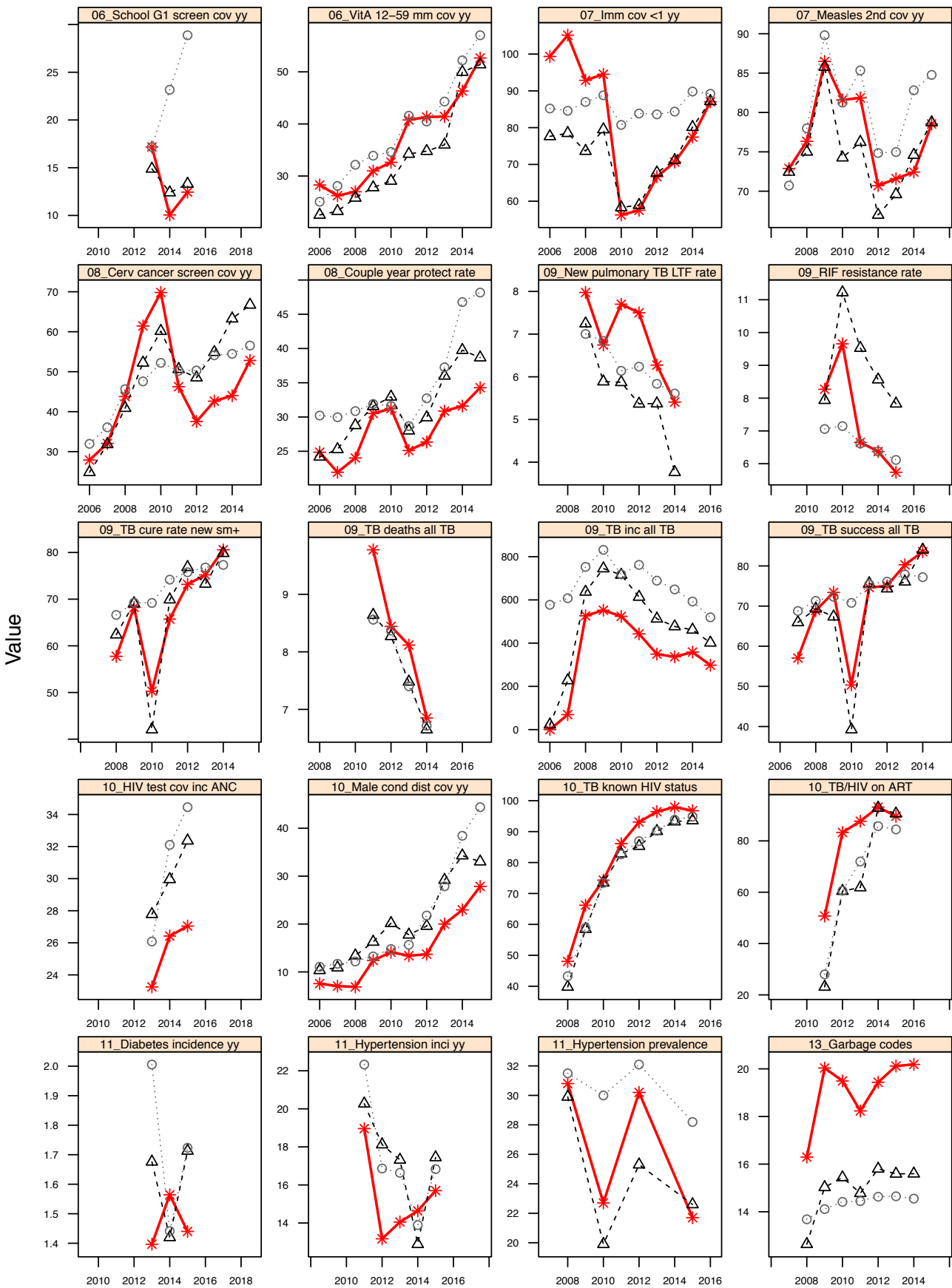
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Nkangala (DC31)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Nkangala (DC31)



District value * Provincial average Δ ZA (national) average ○

Ehlanzeni District Municipality (DC32)

Ehlanzeni District Municipality is situated in Mpumalanga Province and has five sub-districts: Bushbuckridge, Mbombela, Nkomazi, Thaba Chweu and Umjindi. It shares borders with Swaziland and Mozambique. The district has a population of 1 751 531, with a population density of 62.8 people per km². It falls into socio-economic Quintile 4, among the second-wealthiest districts and has an estimated medical scheme coverage of 11.8%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
111	16	8	2	1	5

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	924 278	948 002	903 527
PHC headcount 5 years and older	4 566 428	4 699 283	4 662 330
Patient day equivalent	932 047	956 703	967 279
Deaths – total	7 082	7 009	6 716
Still births	737	736	758
Early neonatal deaths	331	291	331
Late neonatal deaths	64	50	64
Child under 5 years with diarrhoea death	63	95	51
Child under 5 years with pneumonia death	101	94	82
Child under 5 years with severe acute malnutrition death	62	111	67

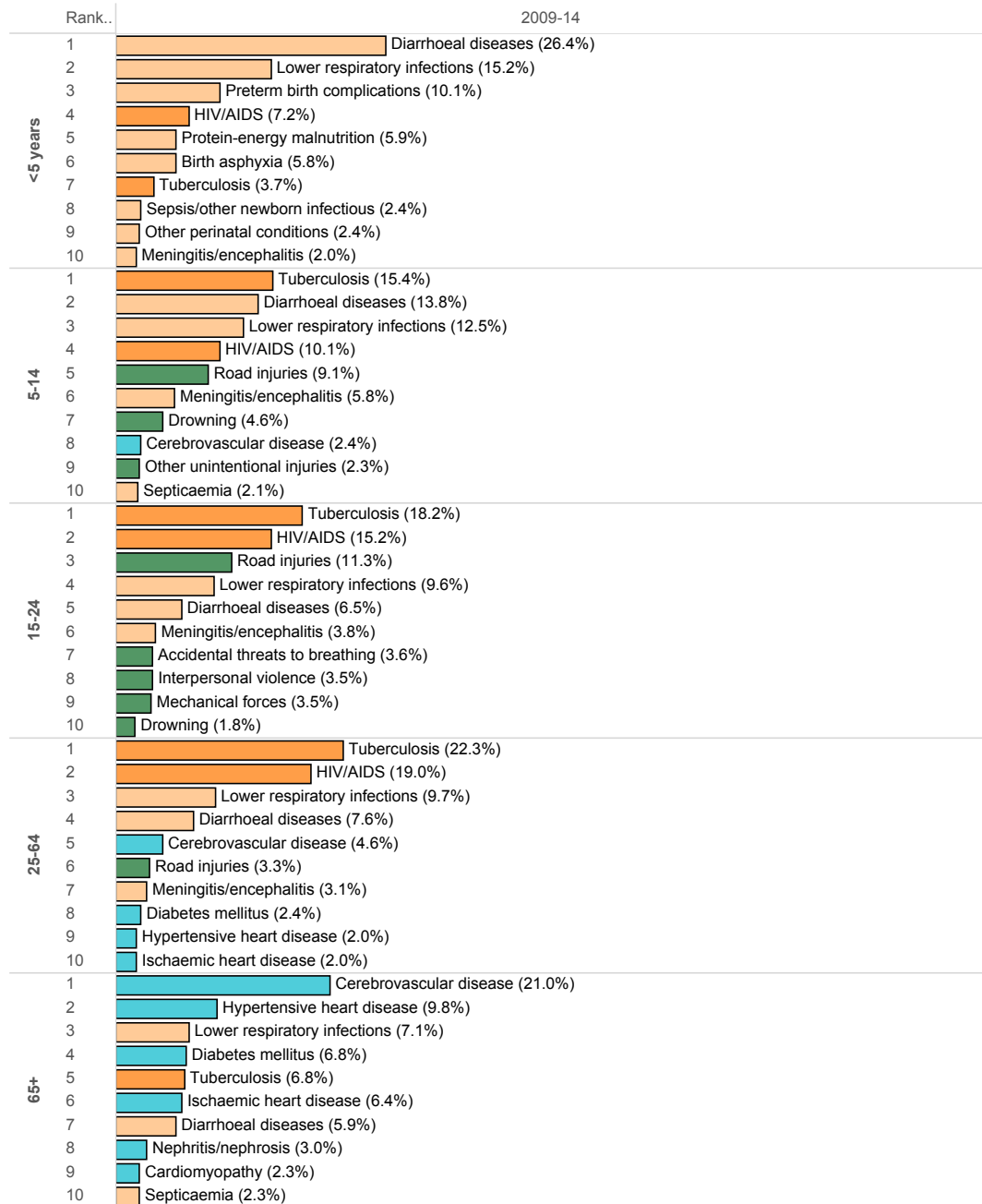
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Ehlanzeni (DC32)

MP, Ehlanzeni: DC32, 2009-14

Broadcause	Broad age..	Female				Male			
		1	2	3	4	1	2	3	4
Injury	<5 years								
NCD	<5 years								
HIV and TB	<5 years								
Comm_mat_peri_nut	<5 years								
	5-14	38%	27%	18%	17%	37%	23%	16%	23%
	15-24	30%	42%	16%	11%	17%	21%	15%	47%
	25-64	26%	41%	29%	4%	22%	41%	25%	12%
	65+	16%	6%	75%	2%	17%	12%	67%	3%
	Total	27%	29%	40%	4%	25%	31%	32%	12%



Indicator performance: Ehlanzeni (DC32)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			3.3	28	6.6	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			7.4	38	16.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.3	4.4	4.6	7	4.5	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 966.7	2 114.6	2 153.0	22	2 180.0	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	73.5	73.8	72.6	17	71.4	65.3	
	Inpatient crude death rate [Percentage]	5.6	5.5	5.4	25	5.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	67.9	70.5	68.4	41	66.0	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	17.1	15.8	17.6		19.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.9	9.8	9.3	39	8.6	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.7	7.5	9.2	21	9.3	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	123.0	100.1	122.0	34	125.3	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	54.8	57.6	62.8	34	62.6	68.5	
	Stillbirth in facility rate [per 1 000 births]	18.9	18.5	20.6	24	21.8	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	52.8	63.1	71.7	8	65.9	61.2	
	Antenatal client initiated on ART rate [Percentage]	67.9	95.4	98.3	9	95.9	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.2	26	1.1	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.8	6.1	3.5	43	2.7	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	6.9	6.0	4.7	49	3.7	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	11.4	19.2	10.7	37	12.5	8.9	
	Inpatient death under 5 year rate [Percentage]	6.9	7.7	7.9	46	7.1	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	12.5	13.3	9.6	46	13.3	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	35.4	53.3	54.1	32	51.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	73.7	82.6	90.8	14	87.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	70.2	74.2	82.0	31	78.7	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	68.9	80.0	89.2	3	66.7	56.6	
	Couple year protection rate (annualised) [Percentage]	40.6	40.5	41.7	39	38.7	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	34.0	36.2	38.8	18	32.4	34.5	
	Male condom distribution coverage [Condoms per male 15+]	37.2	32.9	35.3	38	33.0	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.1	0.7	1.0		1.7	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	21.2	11.3	17.2		17.4	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			9.0	36	16.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	2.4	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		567.7	540.9	448.8	13	401.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		11.4	10.0	8.8	49	7.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	78.1	71.1	80.7		16	79.8	77.4	
	TB treatment success rate (ETR.net) [Percentage]	76.4	75.0	86.1		2	84.0	77.2	
	TB death rate (ETR.net) [Percentage]	8.1	7.1	5.5		13	6.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.5	4.7	2.8		4	3.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		47.9			25	45.2	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		89.0	93.3	94.3	34	93.6	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		55.6	95.5	95.7	9	90.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	26.1			22.6	7	22.6	28.2	

Section B: Profile Mpumalanga Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	28.5	29.0	30.0		7	31.0	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	33.7	34.6	36.0		46	32.1	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	28.6	25.9	22.6		31	24.1	21.2	
	Percentage of deaths garbage codes [Percentage]	13.9	13.2	13.0		22	15.6	14.6	
	Percentage of YLLs due to injuries [Percentage]	9.2	10.6	11.4		11	12.9	13.6	
	Percentage of deaths ill-defined [Percentage]	7.7	9.6	10.0		23	10.7	13.8	

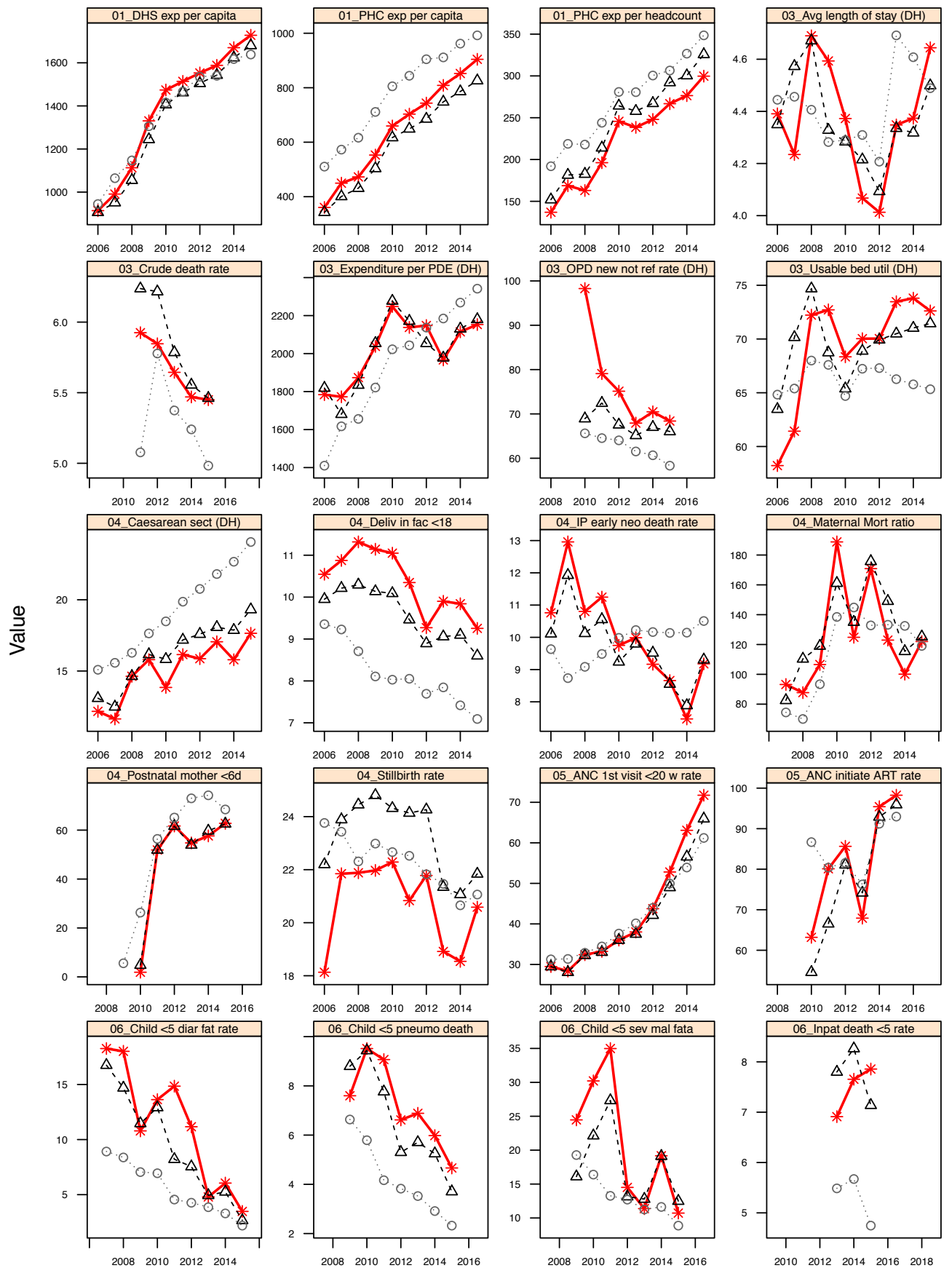
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

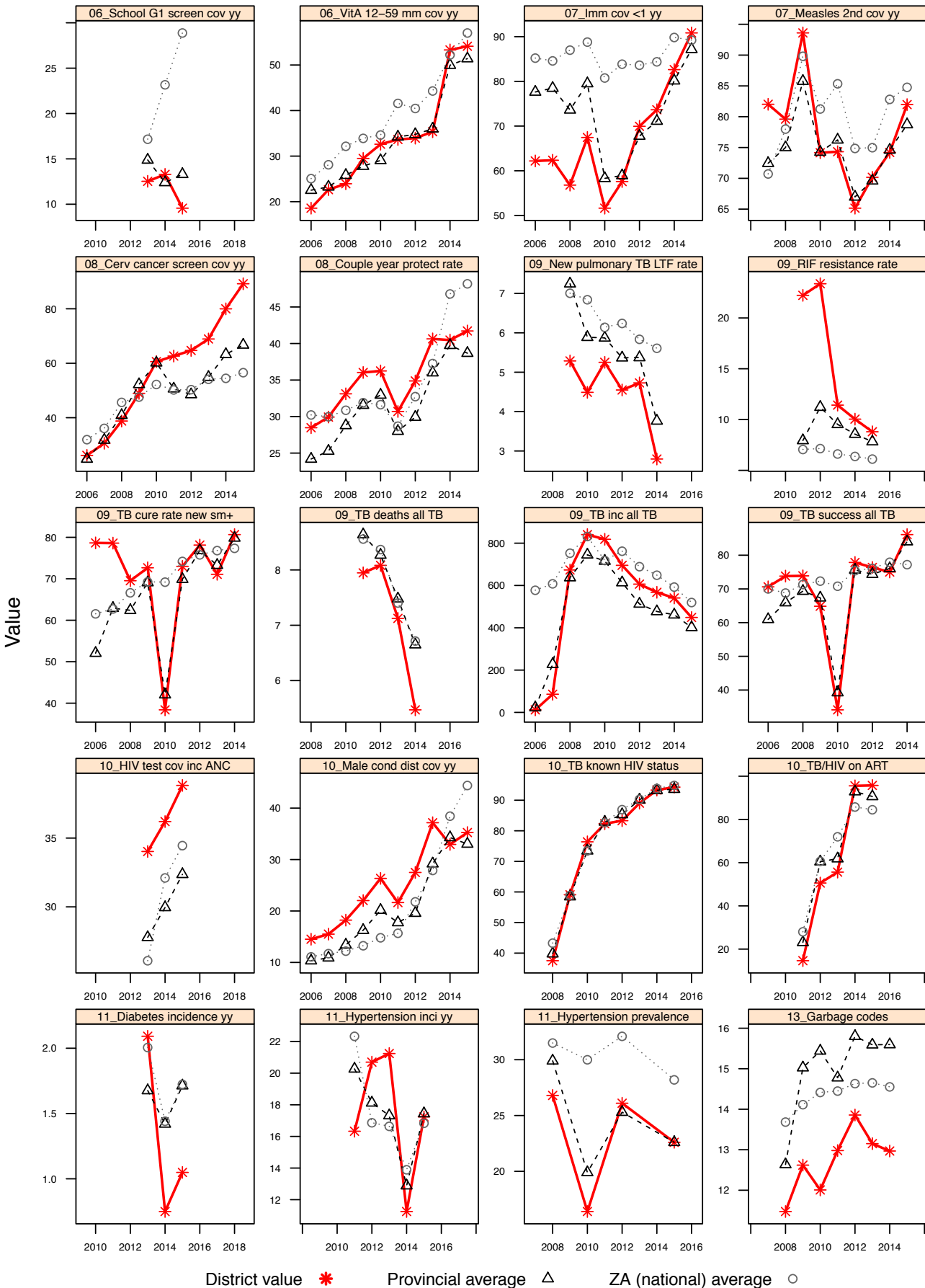
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Ehlanzeni (DC32)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Ehlanzeni (DC32)



20 Northern Cape Province

John Taolo Gaetsewe District Municipality (DC45)

John Taolo Gaetsewe District, formerly known as Kgalagadi, is situated in the Northern Cape Province and comprises three sub-districts, namely Gamagara, Ga-Segonyana and Joe Morolong (Moshaweng). The population size is estimated at 238 148, with a population density of 8.7 people per km². The district falls in socio-economic Quintile 2, among the poorer districts and has an estimated medical scheme coverage of 12.2%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
38	5	2	0	0	0

Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	133 578	129 534	131 057
PHC headcount 5 years and older	596 835	586 051	568 956
Patient day equivalent	65 265	65 364	64 575
Deaths – total	672	639	586
Still births	152	131	107
Early neonatal deaths	53	100	75
Late neonatal deaths	3	7	2
Child under 5 years with diarrhoea death	23	11	15
Child under 5 years with pneumonia death	15	9	6
Child under 5 years with severe acute malnutrition death	19	12	9

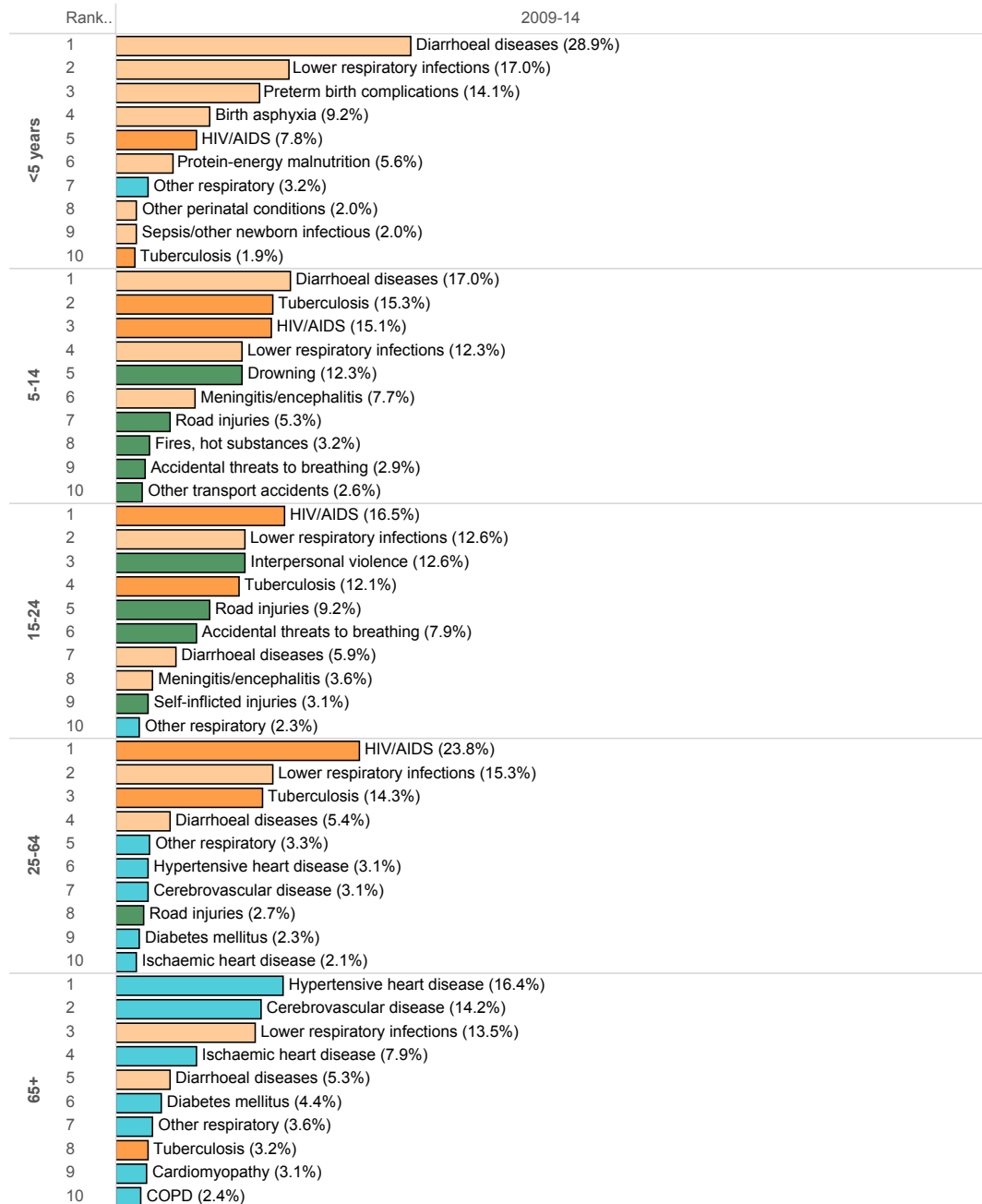
Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: JT Gaetsewe (DC45)

NC, JT Gaetsewe: DC45, 2009-14

Broadcause	Broad age..	Female				Male			
		Comm_mat_peri_nut	HIV and TB	NCD	Injury	Comm_mat_peri_nut	HIV and TB	NCD	Injury
	<5 years	77%	12%	8%	4%	82%	8%	8%	3%
	5-14	31%	28%	20%	20%	36%	19%	18%	27%
	15-24	33%	37%	15%	14%	15%	17%	11%	58%
	25-64	25%	39%	32%	4%	23%	37%	28%	12%
	65+	19%	3%	76%	2%	22%	6%	69%	2%
	Total	31%	25%	40%	4%	31%	25%	34%	11%



Indicator performance: JT Gaetsewe (DC45)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			7.1	39	18.9	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.2	4.3	3.9	21	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 004.0	2 252.6	1 993.3	34	2 208.8	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	54.3	58.7	57.2	40	61.4	65.3	
	Inpatient crude death rate [Percentage]	6.1	5.5	4.7	13	5.1	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	44.8	45.0	32.7	10	69.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	13.4	14.2	17.3		16.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	12.2	11.0	10.9	49	9.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.9	19.3	15.6	48	14.3	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	93.2	135.0	62.4	8	112.5	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	59.6	67.6	67.5	27	53.0	68.5	
	Stillbirth in facility rate [per 1 000 births]	27.6	24.6	21.8	27	24.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	44.1	50.9	57.3	44	62.4	61.2	
	Antenatal client initiated on ART rate [Percentage]	86.0	87.7	95.2	22	92.2	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.8	45	1.3	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	9.6	6.2	4.7	48	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	8.0	5.5	4.5	46	1.3	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	15.8	12.5	8.9	32	8.3	8.9	
	Inpatient death under 5 year rate [Percentage]	12.0	13.8	8.7	48	4.4	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	7.7	4.3	7.8	50	12.9	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	34.1	43.4	50.9	41	47.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	86.2	93.1	96.7	10	83.3	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	78.4	80.3	89.7	14	76.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	36.0	31.3	32.2	49	34.8	56.6	
	Couple year protection rate (annualised) [Percentage]	27.6	55.5	39.2	43	38.3	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	23.6	36.0	35.3	24	30.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	7.0	46.7	23.5	47	20.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	9.1	6.4	1.5		1.4	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	26.2	24.9	17.5		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			4.8	44	18.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.6	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		690.7	680.1	589.5	27	644.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		3.8	4.2	4.2	6	5.3	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	54.6	49.9	58.4		52	69.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.2	62.2	70.3		44	71.2	77.2	
	TB death rate (ETR.net) [Percentage]	9.7	8.2	6.6		21	7.8	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	9.4	8.6	10.0		49	7.3	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		45.5			29	39.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		49.5	80.8	88.7	51	93.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		65.0	93.0	82.1	30	86.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	35.5			40.3	45	40.1	28.2	

Section B: Profile Northern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	26.7	24.6	23.0		1	38.3	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	30.8	38.5	36.4		48	28.4	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	31.0	26.5	30.0		48	19.2	21.2	
	Percentage of deaths garbage codes [Percentage]	9.4	7.2	6.9		1	9.9	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.5	10.4	10.6		7	14.0	13.6	
	Percentage of deaths ill-defined [Percentage]	33.2	28.3	12.9		35	10.1	13.8	

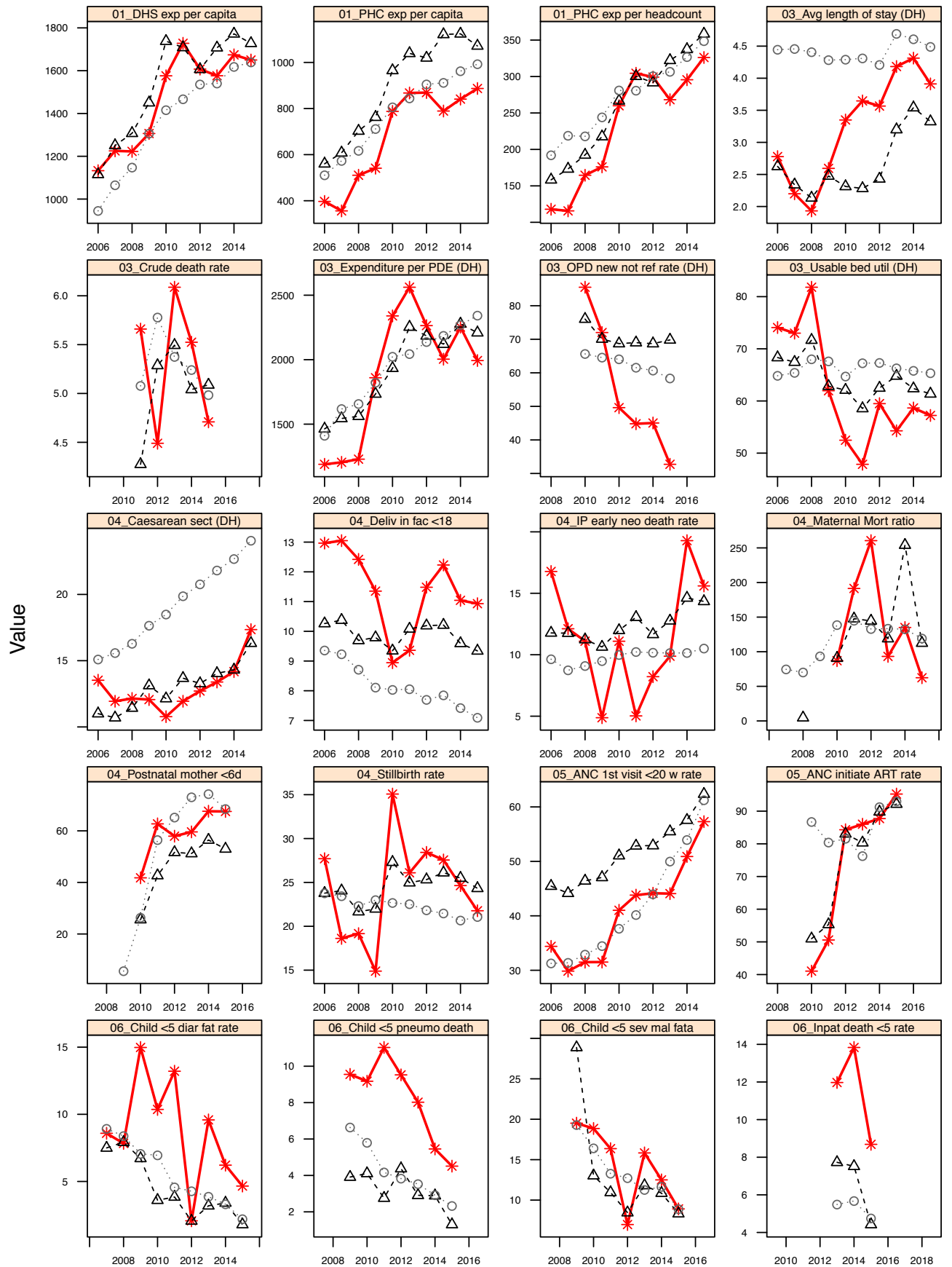
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

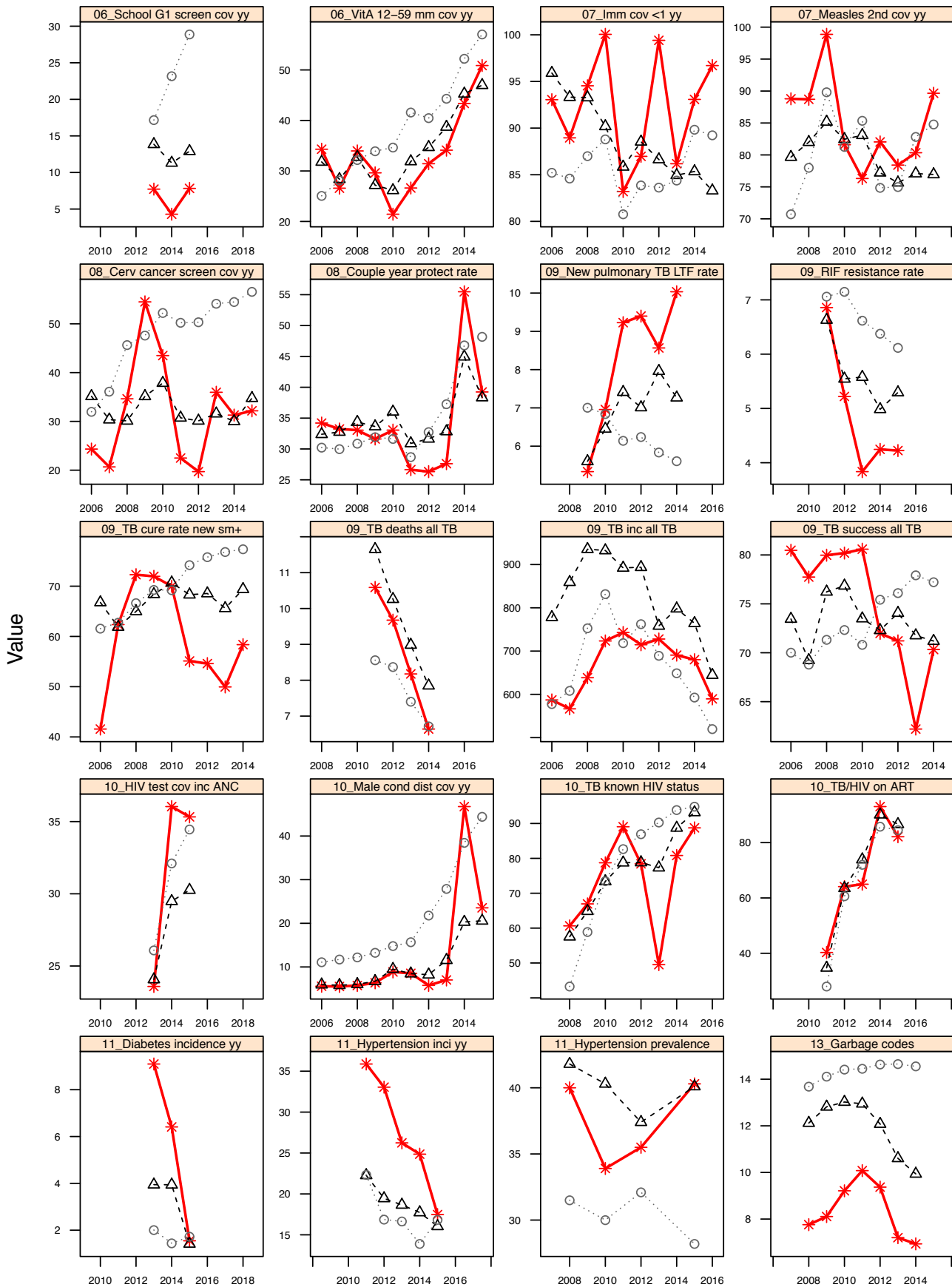
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: JT Gaetsewe (DC45)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: JT Gaetsewe (DC45)



District value * Provincial average Δ ZA (national) average ○

Namakwa District Municipality (DC6)

Namakwa District in the Northern Cape Province comprises six sub-districts: Nama Khoi, Hantam, Khâi-Ma, Kamiesberg, Karoo Hoogland and Richtersveld. It borders the Republic of Namibia in the north, and has an estimated population of 118 907, with a population density of 0.9 people per km². The district falls into socio-economic Quintile 4, among the wealthier districts and has an estimated medical scheme coverage of 21.5%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
25	10	2	0	0	1

Headcount and deaths, 2013/14 – 2015/16

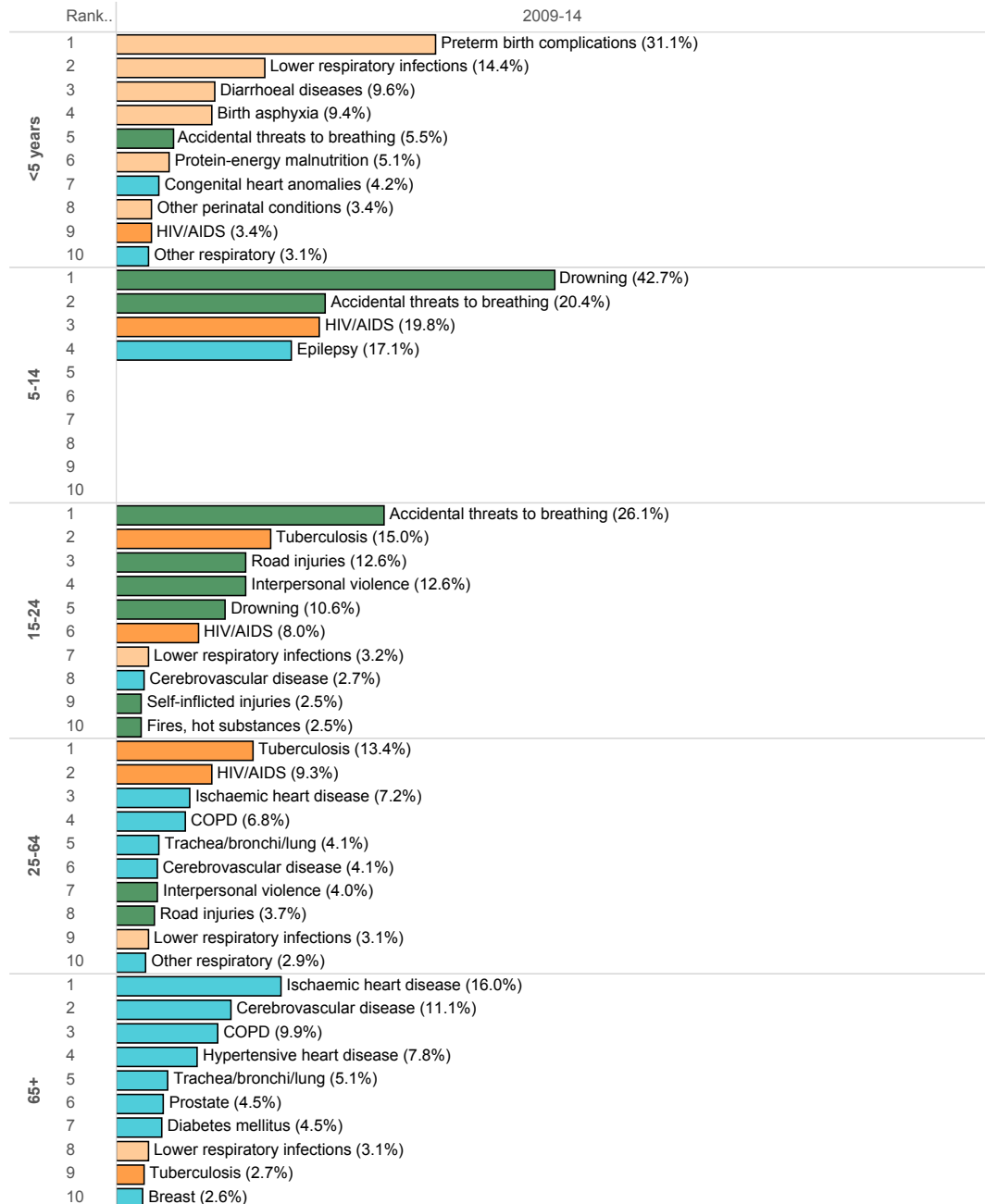
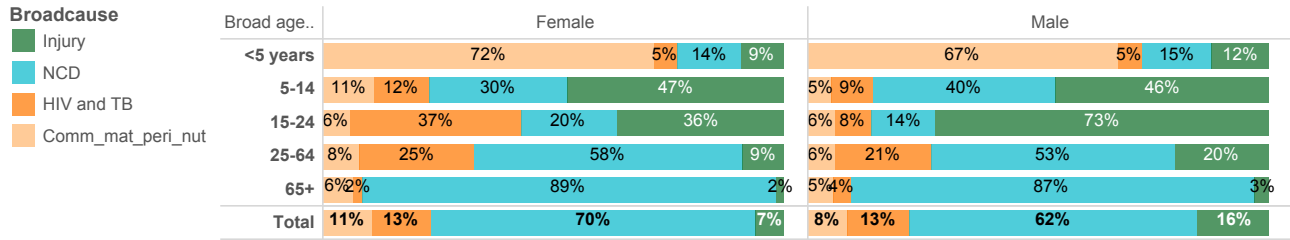
Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	51 893	47 903	47 270
PHC headcount 5 years and older	426 252	401 464	374 334
Patient day equivalent	40 136	45 617	44 137
Deaths – total	350	356	331
Still births	34	54	39
Early neonatal deaths	20	15	15
Late neonatal deaths	3	3	4
Child under 5 years with diarrhoea death		1	
Child under 5 years with pneumonia death	1	2	
Child under 5 years with severe acute malnutrition death	1	3	1

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Namakwa (DC6)

NC, Namakwa: DC6, 2009-14



Indicator performance: Namakwa (DC6)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			5.7	26	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			11.4	34	18.9	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.1	3.4	2.9	43	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 294.5	2 164.8	2 275.6	7	2 208.8	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	137.4	97.6	89.5	2	61.4	65.3	
	Inpatient crude death rate [Percentage]	3.2	3.3	2.8	2	5.1	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	58.6	60.3	61.3	29	69.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	24.9	21.7	23.8		16.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.9	8.0	9.1	36	9.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	12.2	9.8	9.6	25	14.3	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	61.2	65.5	0.0	2	112.5	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	59.3	62.8	45.2	49	53.0	68.5	
	Stillbirth in facility rate [per 1 000 births]	20.4	34.2	24.5	37	24.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	68.5	69.1	73.9	4	62.4	61.2	
	Antenatal client initiated on ART rate [Percentage]	80.0	94.4	96.6	15	92.2	93.0	
	Percentage of PCR tests positive at birth [Percentage]			3.4	51	1.3	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.0	1.1	0.0	1	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	0.8	1.9	0.0	1	1.3	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	11.1	14.3	4.8	12	8.3	8.9	
	Inpatient death under 5 year rate [Percentage]	2.9	2.8	2.2	9	4.4	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	0.0	0.0	0.0	52	12.9	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	42.3	53.0	45.4	45	47.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	64.9	68.3	61.1	52	83.3	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	55.6	62.4	70.6	48	76.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	27.4	24.2	23.1	52	34.8	56.6	
	Couple year protection rate (annualised) [Percentage]	37.8	46.4	43.2	36	38.3	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	24.6	24.4	26.1	47	30.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	6.6	10.3	19.7	50	20.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.6	3.2	2.2		1.4	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	15.8	13.3	13.4		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			11.4	33	18.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.6	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		593.5	572.2	535.7	23	644.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.0	4.1	6.3	35	5.3	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	80.7	78.5	82.1		12	69.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	76.5	79.7	81.1		13	71.2	77.2	
	TB death rate (ETR.net) [Percentage]	8.2	6.3	4.9		10	7.8	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	5.8	4.2	5.8		34	7.3	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		38.1			39	39.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.7	96.5	94.8	29	93.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		70.1	83.9	74.8	43	86.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	36.5			41.4	46	40.1	28.2	

Section B: Profile Northern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	53.9	51.0	56.4		52	38.3	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	16.5	18.4	14.5		2	28.4	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	12.5	10.6	10.1		3	19.2	21.2	
	Percentage of deaths garbage codes [Percentage]	14.5	13.3	10.2		5	9.9	14.6	
	Percentage of YLLs due to injuries [Percentage]	17.0	20.1	19.1		50	14.0	13.6	
	Percentage of deaths ill-defined [Percentage]	11.7	9.7	7.8		11	10.1	13.8	

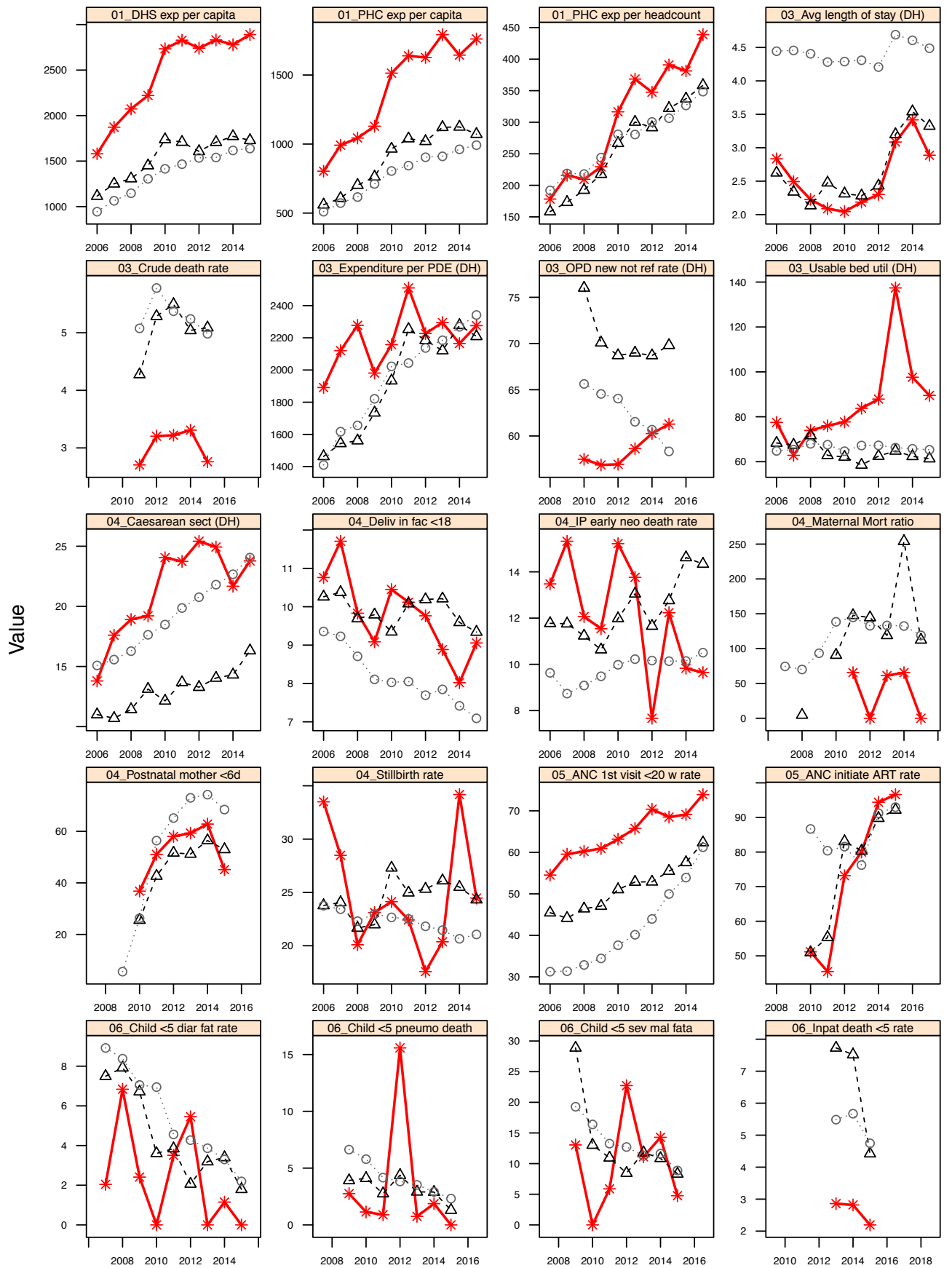
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

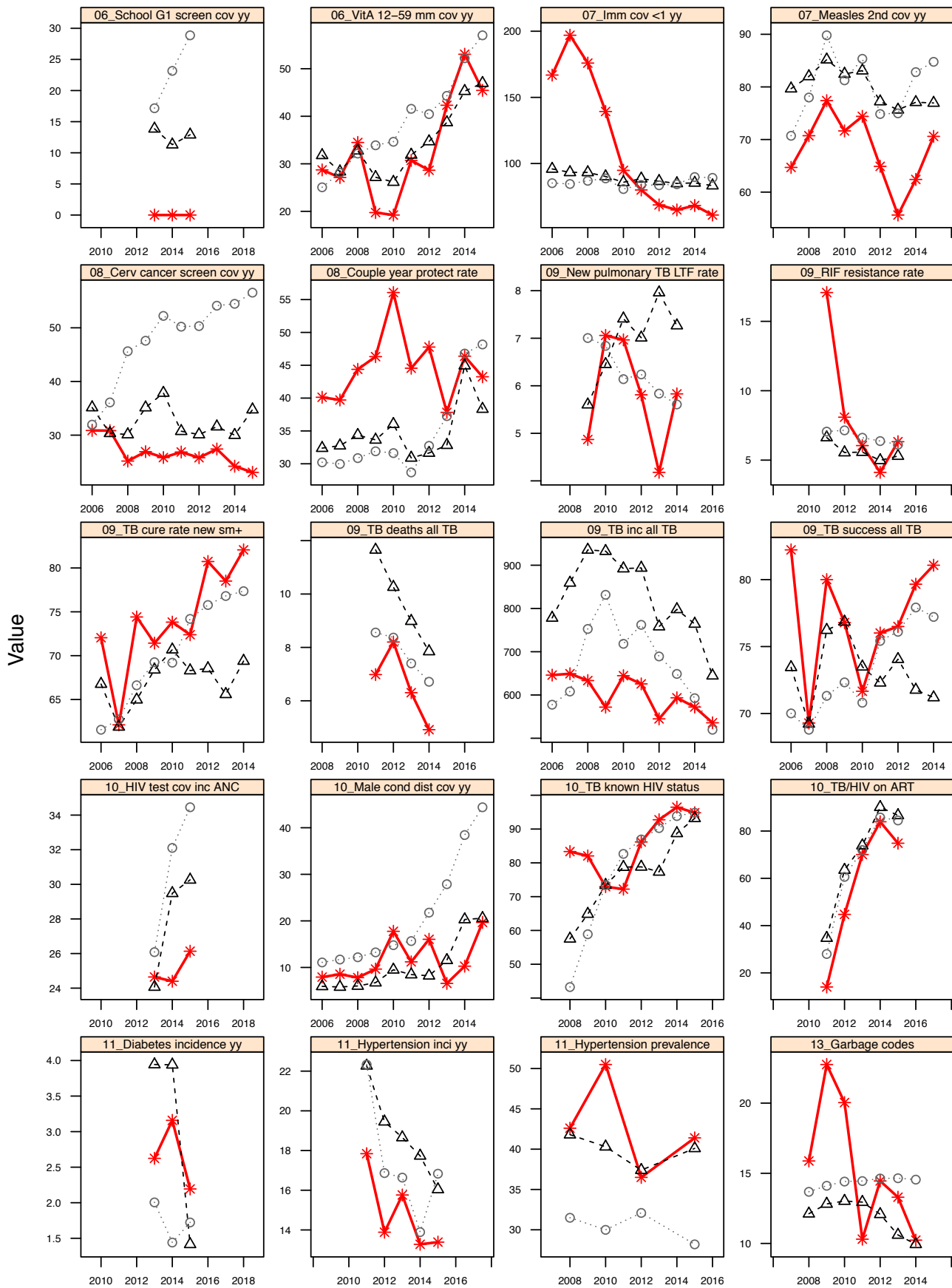
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Namakwa (DC6)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Namakwa (DC6)



District value * Provincial average Δ ZA (national) average ○

Pixley Ka Seme District Municipality (DC7)

Pixley Ka Seme is the second-largest district municipality in the Northern Cape Province and comprises eight sub-districts: Ubuntu, Umsobomvu, Emthanjeni, Kareeberg, Renosterberg, Thembelihle, Siyathemba and Siyancuma. The population is estimated at 192 127, with a population density of 1.9 people per km², and the district falls in socio-economic Quintile 2, among the poorer districts. Estimated medical scheme coverage is 15.8%. Pixley Ka Seme is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
28	8	3	0	0	0

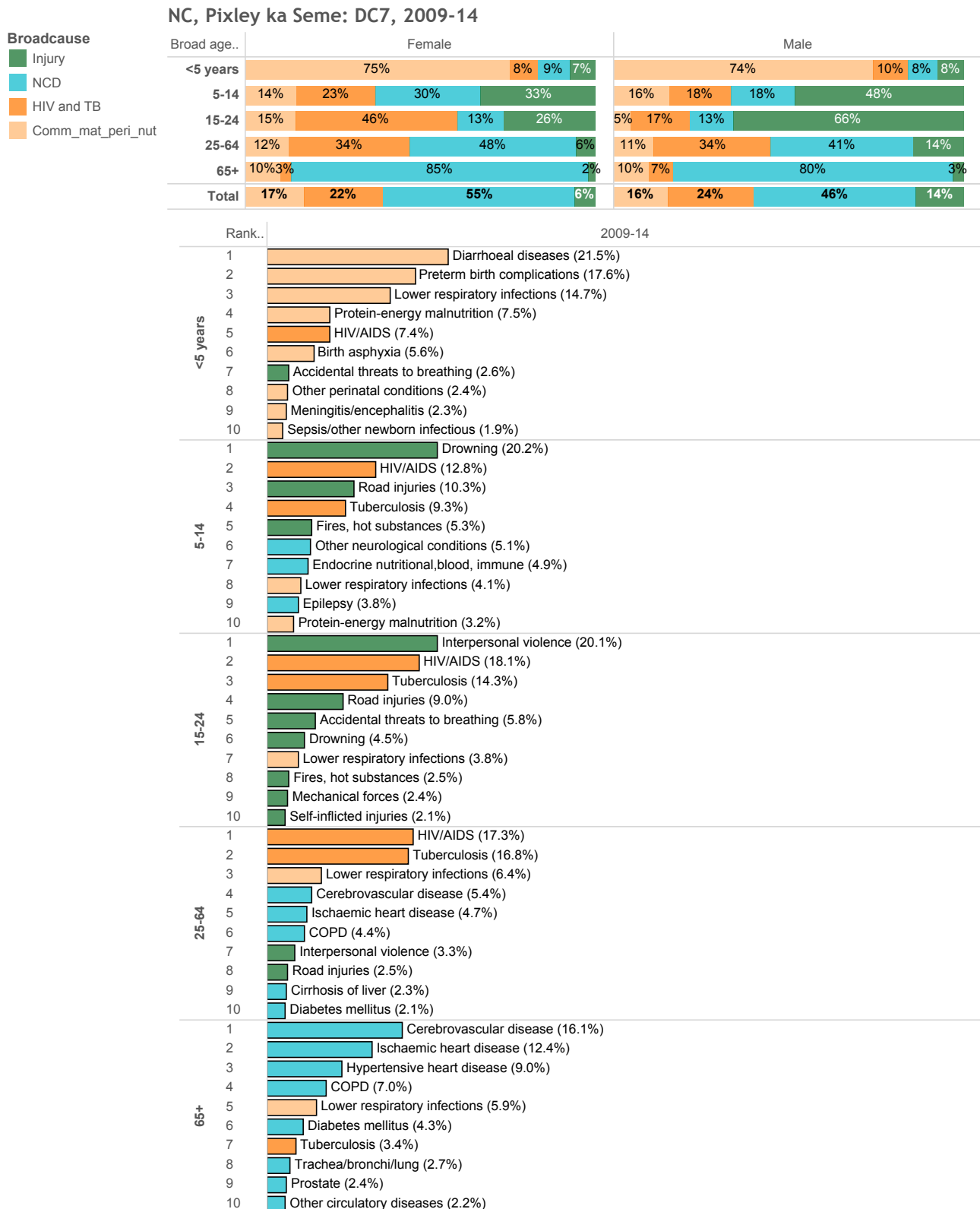
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	87 656	87 339	83 134
PHC headcount 5 years and older	638 108	604 758	571 010
Patient day equivalent	63 641	67 412	70 084
Deaths – total	885	747	902
Still births	66	58	40
Early neonatal deaths	34	40	20
Late neonatal deaths	6	3	4
Child under 5 years with diarrhoea death	5	7	1
Child under 5 years with pneumonia death	3	3	1
Child under 5 years with severe acute malnutrition death	1	6	6

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Pixley Ka Seme (DC7)



Indicator performance: Pixley Ka Seme (DC7)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			2.8	30	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			25.0	18	18.9	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	2.8	3.3	3.4	34	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 119.5	1 970.8	2 241.5	11	2 208.8	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	57.6	64.8	65.6	26	61.4	65.3	78.6
	Inpatient crude death rate [Percentage]	5.1	4.6	5.5	26	5.1	5.0	
Delivery	OPD new client not referred rate (district hospitals) [Percentage]	80.7	73.1	76.3	49	69.8	58.3	
	Delivery by caesarean section rate (district hospitals) [Percentage]	21.0	21.7	22.2		16.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	9.4	9.6	10.7	47	9.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	11.5	12.9	6.9	4	14.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	67.6	64.4	138.5	37	112.5	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	57.8	61.2	60.3	37	53.0	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	21.8	18.3	13.7	3	24.3	21.1	
	PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	61.7	61.3	67.0	15	62.4	61.2
Antenatal client initiated on ART rate [Percentage]		66.2	90.5	88.3	42	92.2	93.0	88.0
Percentage of PCR tests positive at birth [Percentage]				1.8	43	1.3	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	1.5	2.5	0.3	9	1.8	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	1.5	1.6	0.5	9	1.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	1.7	10.0	10.5	35	8.3	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	3.2	2.9	2.4	11	4.4	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	53.0	31.2	26.9	24	12.9	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	33.1	30.9	37.4	52	47.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	77.1	80.0	77.7	41	83.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	69.9	73.4	76.5	40	76.9	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	28.7	26.8	25.4	51	34.8	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	28.7	33.0	36.5	46	38.3	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	22.3	25.8	26.2	46	30.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	13.1	11.4	23.5	48	20.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	4.7	2.6	0.8		1.4	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	16.7	17.7	16.8		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			25.0	15	18.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.6	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		1 018.8	955.6	943.1	51	644.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.6	6.0	5.8	30	5.3	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	73.6	73.2	68.8		47	69.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	67.5	72.7	73.7		38	71.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	9.8	8.0	9.6		40	7.8	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	9.5	7.5	7.3		42	7.3	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		42.7			32	39.0	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		73.2	87.2	91.3	48	93.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		68.8	83.4	81.3	33	86.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	58.7			56.0	52	40.1	28.2	

Section B: Profile Northern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	41.4	40.8	38.3		32	38.3	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	29.4	28.4	27.8		28	28.4	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	16.6	17.1	16.7		14	19.2	21.2	
	Percentage of deaths garbage codes [Percentage]	13.7	12.1	11.7		14	9.9	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.5	13.7	17.2		46	14.0	13.6	
	Percentage of deaths ill-defined [Percentage]	10.3	10.4	9.7		21	10.1	13.8	

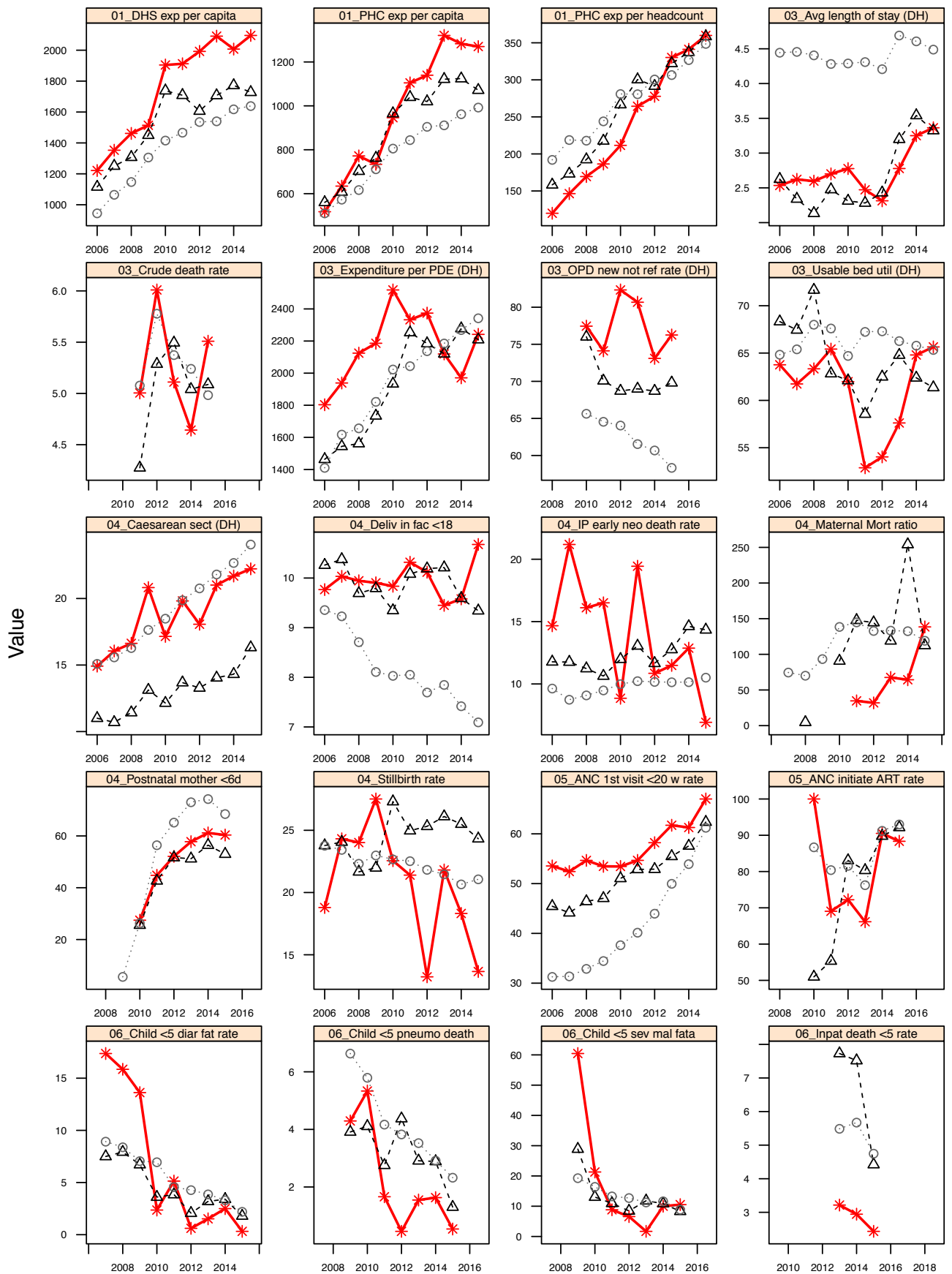
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

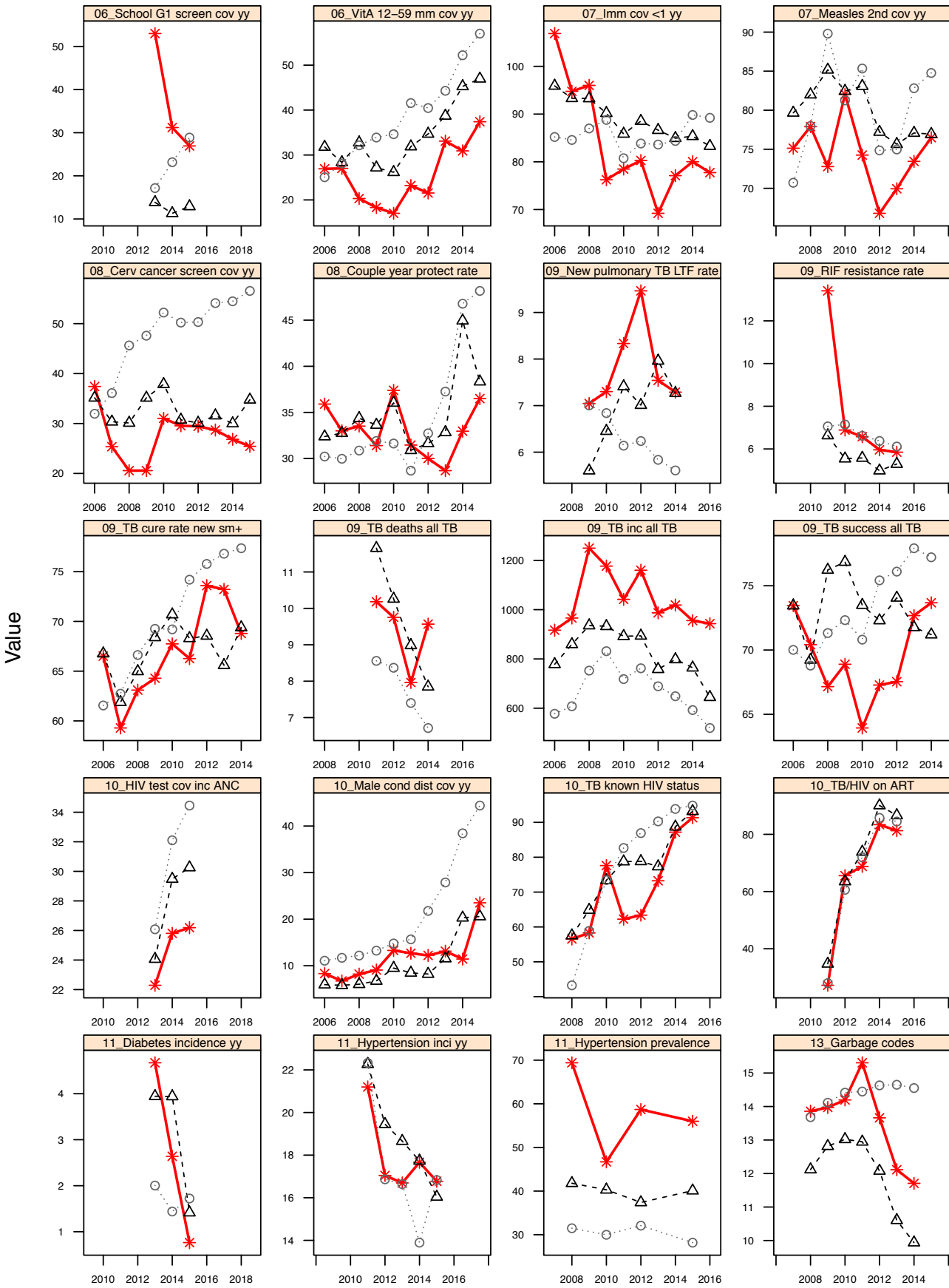
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Pixley Ka Seme (DC7)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Pixley Ka Seme (DC7)



District value * Provincial average Δ ZA (national) average ○

ZF Mgcawu District Municipality (DC8)

ZF Mgcawu District, formerly known as Siyanda District, is situated in the mid-northern section of the Northern Cape Province. It comprises six sub-districts: Mier, Kai!Garib, !Khara Hais, Tsantsabane, !Kheis and Kgatelopele. The estimated population is 250 934, with a population density of 2.4 people per km². The district falls in socio-economic Quintile 3 and has an estimated medical scheme coverage of 16.5%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
15	6	2	1	0	1

Headcount and deaths, 2013/14 – 2015/16

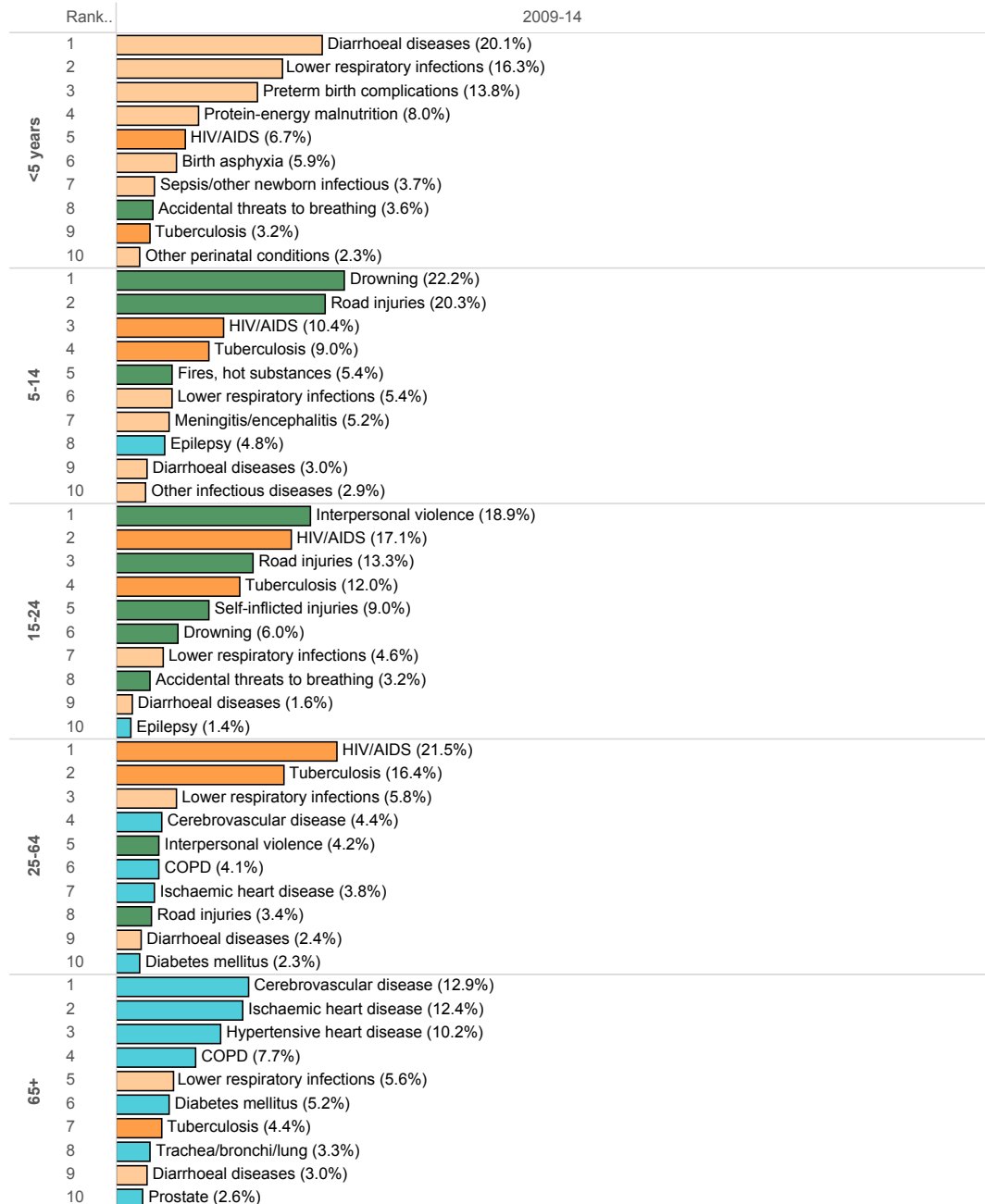
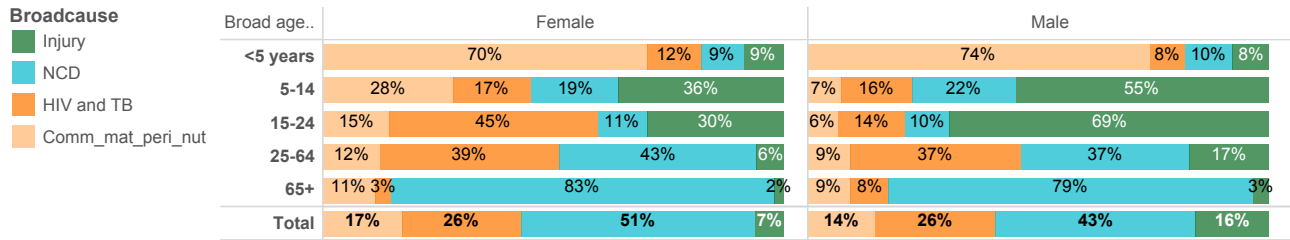
Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	96 329	96 130	85 305
PHC headcount 5 years and older	693 949	677 892	578 175
Patient day equivalent	112 441	118 425	129 493
Deaths – total	1 052	977	1 036
Still births	107	114	119
Early neonatal deaths	82	79	69
Late neonatal deaths	7	10	13
Child under 5 years with diarrhoea death	13	10	4
Child under 5 years with pneumonia death	14	11	
Child under 5 years with severe acute malnutrition death	16	17	12

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by cause and leading causes, 2009–2014: ZF Mgcawu (DC8)

NC, ZF Mgcawu: DC8, 2009-14



Indicator performance: ZF Mgcau (DC8)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			22.7	22	18.9	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	2.7	3.0	2.9	42	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 506.6	2 112.6	1 471.5	48	2 208.8	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	77.6	74.1	72.4	18	61.4	65.3	
	Inpatient crude death rate [Percentage]	5.4	4.6	4.9	17	5.1	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	63.1	59.3	65.4	32	69.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	0.0	0.0	0.0		16.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	11.5	10.7	9.3	40	9.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	21.4	18.9	17.0	50	14.3	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	78.2	788.3	172.6	48	112.5	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	45.6	45.3	42.0	51	53.0	68.5	
	Stillbirth in facility rate [per 1 000 births]	27.1	26.5	28.5	50	24.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	56.7	57.3	61.0	38	62.4	61.2	
	Antenatal client initiated on ART rate [Percentage]	89.1	95.5	90.9	35	92.2	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.7	42	1.3	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	2.1	1.6	0.5	10	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	2.6	2.5	0.0	1	1.3	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	13.1	13.8	8.6	28	8.3	8.9	
	Inpatient death under 5 year rate [Percentage]	5.7	4.4	3.1	12	4.4	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	0.0	0.0	18.2	35	12.9	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	27.7	41.7	41.8	48	47.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	82.9	77.7	82.1	31	83.3	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	70.3	73.9	68.0	51	76.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	23.8	28.0	43.0	44	34.8	56.6	
	Couple year protection rate (annualised) [Percentage]	28.8	36.3	26.9	52	38.3	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	19.1	25.4	25.2	51	30.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	10.3	11.2	12.2	52	20.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.1	5.9	1.3		1.4	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	21.0	16.9	16.5		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			22.7	21	18.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.6	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		931.0	986.1	856.4	47	644.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.4	6.0	7.1	40	5.3	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	69.8	65.9	63.9		51	69.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	76.1	74.2	66.5		51	71.2	77.2	
	TB death rate (ETR.net) [Percentage]	9.2	7.3	6.8		24	7.8	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	6.7	11.1	16.5		52	7.3	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		32.5			47	39.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.7	97.9	96.0	16	93.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		86.7	87.7	85.3	26	86.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	32.3			39.8	42	40.1	28.2	

Section B: Profile Northern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	36.8	36.1	39.7		35	38.3	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	31.4	28.6	27.0		25	28.4	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	14.5	18.3	18.5		22	19.2	21.2	
	Percentage of deaths garbage codes [Percentage]	10.8	9.7	9.7		4	9.9	14.6	
	Percentage of YLLs due to injuries [Percentage]	17.3	17.0	14.8		38	14.0	13.6	
	Percentage of deaths ill-defined [Percentage]	8.6	7.7	8.2		16	10.1	13.8	

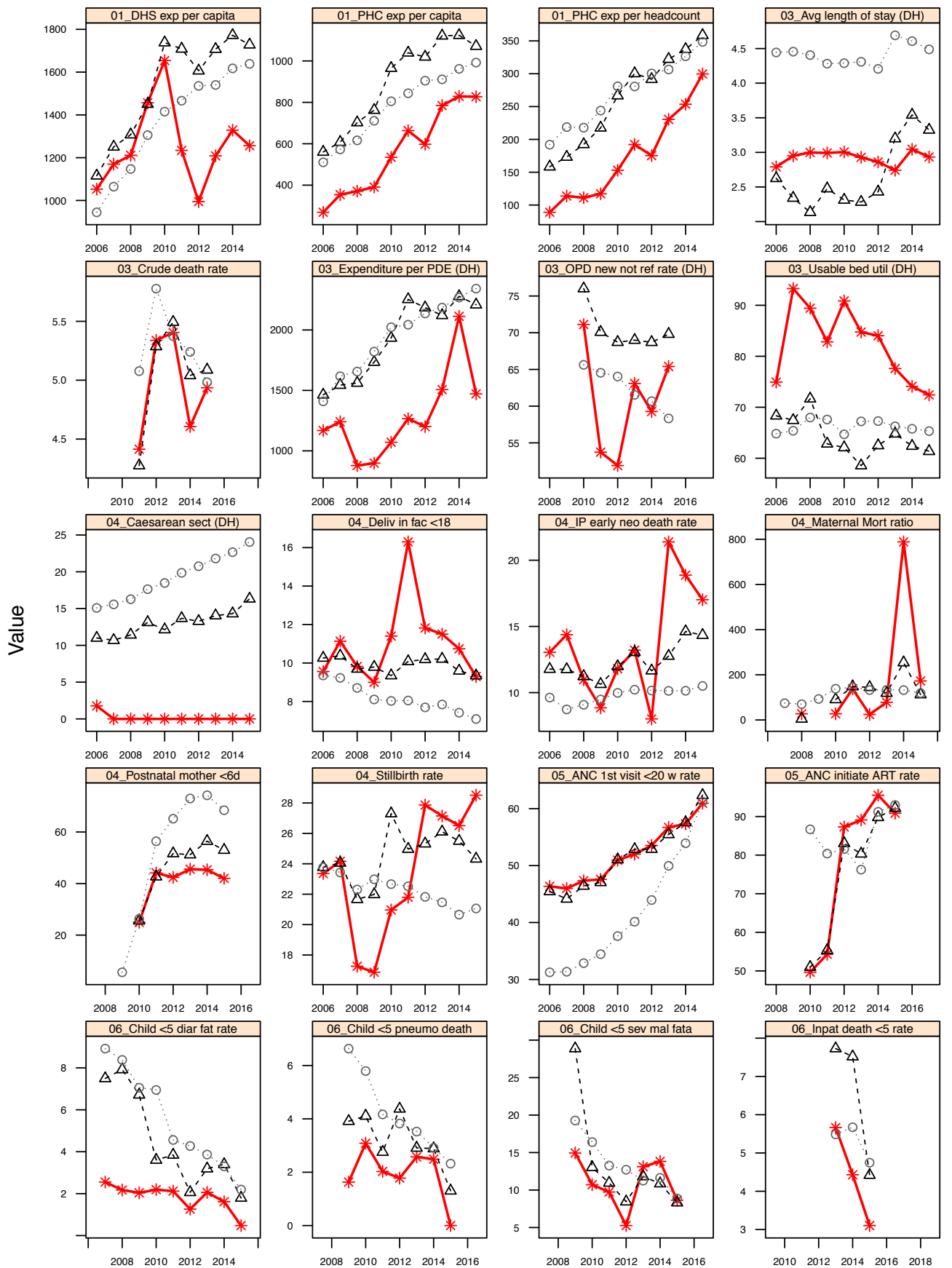
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

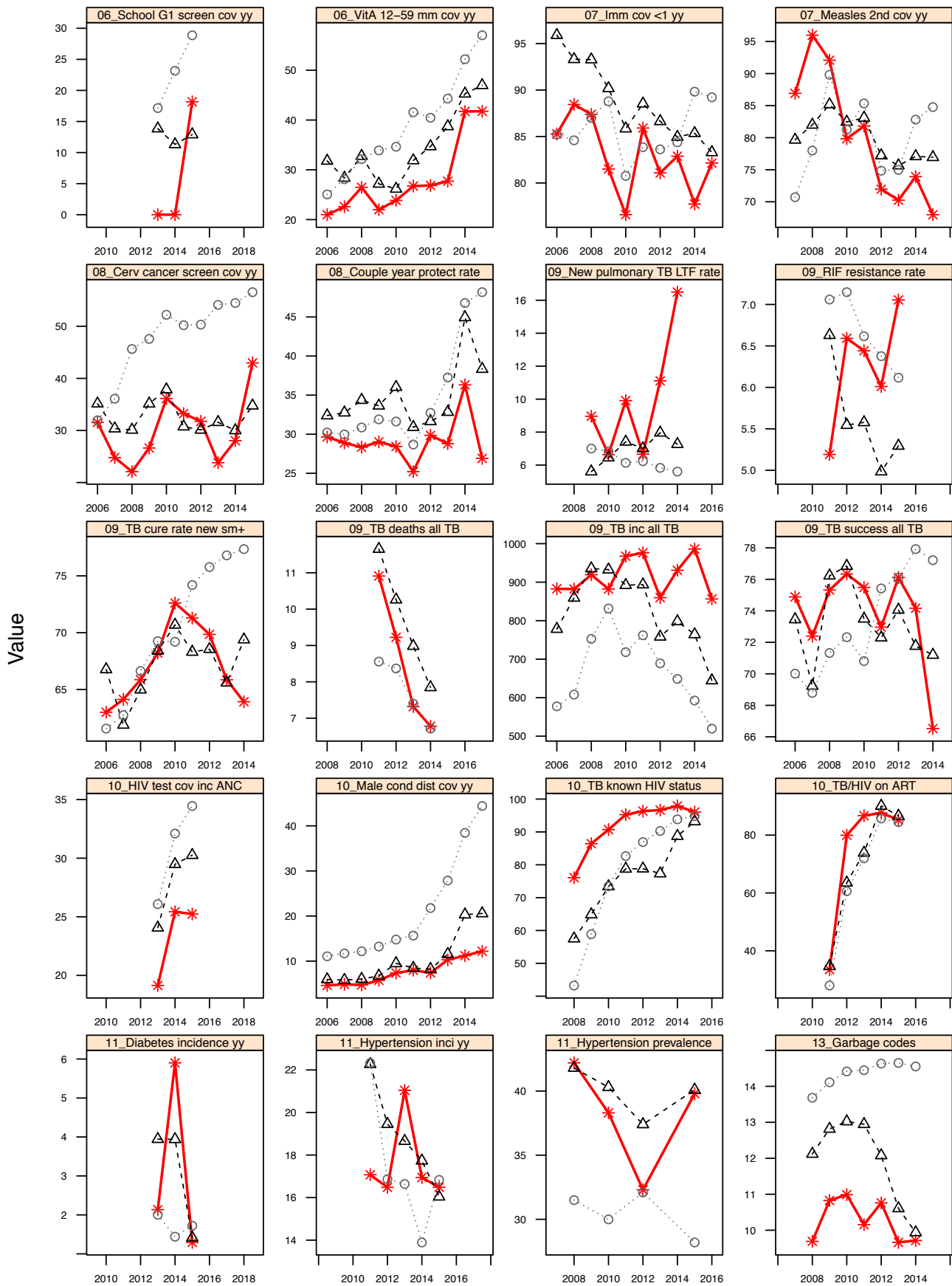
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: ZF Mgcaawu (DC8)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: ZF Mgcau (DC8)



Frances Baard District Municipality (DC 9)

Frances Baard District is located in the far eastern portion of the Northern Cape Province and comprises four sub-districts, namely Dikgatlong, Magareng, Phokwane and Sol Plaatjie. The population size is estimated at 382 162, with a population density of 29.8 people per km². The district falls in socio-economic Quintile 4, among the wealthier districts. Estimated medical scheme coverage is 14.3%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
25	4	2	0	1	3

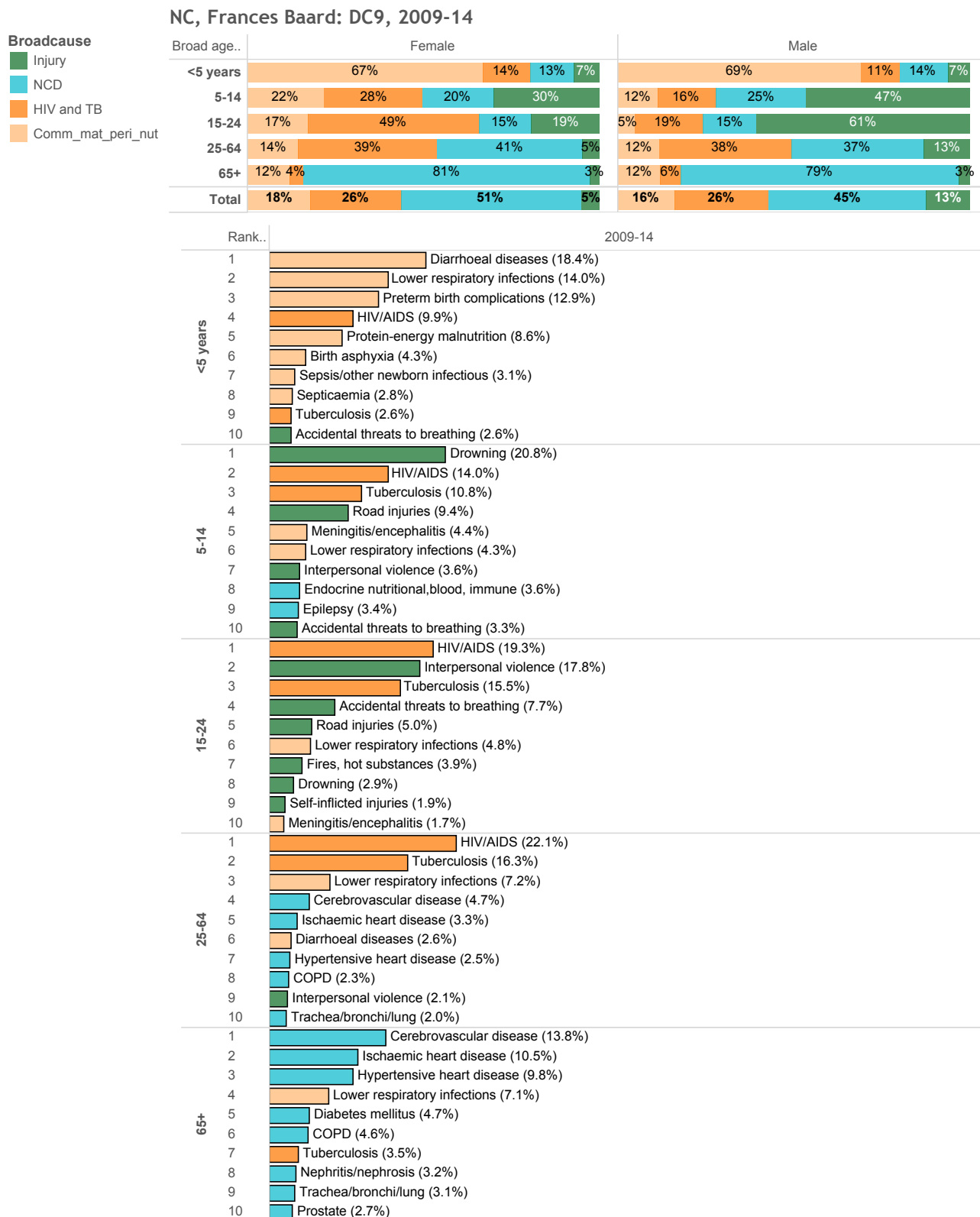
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	165 279	160 022	144 174
PHC headcount 5 years and older	1 040 844	1 035 155	899 145
Patient day equivalent	244 953	295 107	290 663
Deaths – total	2 137	2 031	2 200
Still births	227	230	227
Early neonatal deaths	90	94	127
Late neonatal deaths	33	29	17
Child under 5 years with diarrhoea death	20	26	19
Child under 5 years with pneumonia death	13	16	13
Child under 5 years with severe acute malnutrition death	31	29	21

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Frances Baard (DC9)



Indicator performance: Frances Baard (DC9)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	1.8	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			34.5	11	18.9	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	2.4	2.9	3.0	41	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 938.7	3 179.5	3 299.3	50	2 208.8	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	51.9	36.3	38.4	52	61.4	65.3	
	Inpatient crude death rate [Percentage]	6.3	5.9	5.9	34	5.1	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	93.2	88.4	89.2	52	69.8	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	8.7	8.9	10.4		16.3	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.8	8.4	8.0	29	9.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	11.2	11.2	15.8	49	14.3	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	186.0	166.1	124.5	35	112.5	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	44.2	52.1	48.7	46	53.0	68.5	
	Stillbirth in facility rate [per 1 000 births]	27.4	26.6	27.5	47	24.3	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	58.5	59.1	62.9	30	62.4	61.2	
	Antenatal client initiated on ART rate [Percentage]	76.2	88.5	91.5	32	92.2	93.0	
	Percentage of PCR tests positive at birth [Percentage]			0.9	12	1.3	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	3.2	5.7	3.1	40	1.8	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	2.5	3.1	2.2	23	1.3	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	11.7	9.1	7.7	21	8.3	8.9	
	Inpatient death under 5 year rate [Percentage]	10.8	10.8	5.6	30	4.4	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	6.9	14.3	8.7	48	12.9	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	50.5	54.1	52.8	35	47.0	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	97.1	93.6	84.1	28	83.3	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	86.2	83.2	75.3	42	76.9	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	36.9	34.1	39.5	47	34.8	56.6	
	Couple year protection rate (annualised) [Percentage]	40.1	49.9	45.7	34	38.3	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	28.6	31.6	34.0	26	30.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	15.6	19.7	23.4	49	20.6	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	2.0	2.0	1.5		1.4	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	15.9	16.7	15.8		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			34.5	7	18.3	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			3.4	11	0.6	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		731.0	635.8	423.6	12	644.6	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.0	4.0	3.7	3	5.3	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	72.7	68.1	75.8		31	69.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	78.7	72.7	72.2		41	71.2	77.2	
	TB death rate (ETR.net) [Percentage]	12.5	12.2	9.2		39	7.8	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	3.5	8.1	4.3		15	7.3	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		41.7			34	39.0	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		76.4	83.7	94.6	31	93.2	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		71.3	95.0	99.5	1	86.6	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	34.0			33.2	36	40.1	28.2	

Section B: Profile Northern Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	37.9	37.5	43.8		41	38.3	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	32.6	29.8	27.8		29	28.4	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	17.2	19.7	16.2		12	19.2	21.2	
	Percentage of deaths garbage codes [Percentage]	12.8	11.4	10.6		10	9.9	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.3	13.0	12.2		17	14.0	13.6	
	Percentage of deaths ill-defined [Percentage]	14.1	10.0	10.5		25	10.1	13.8	

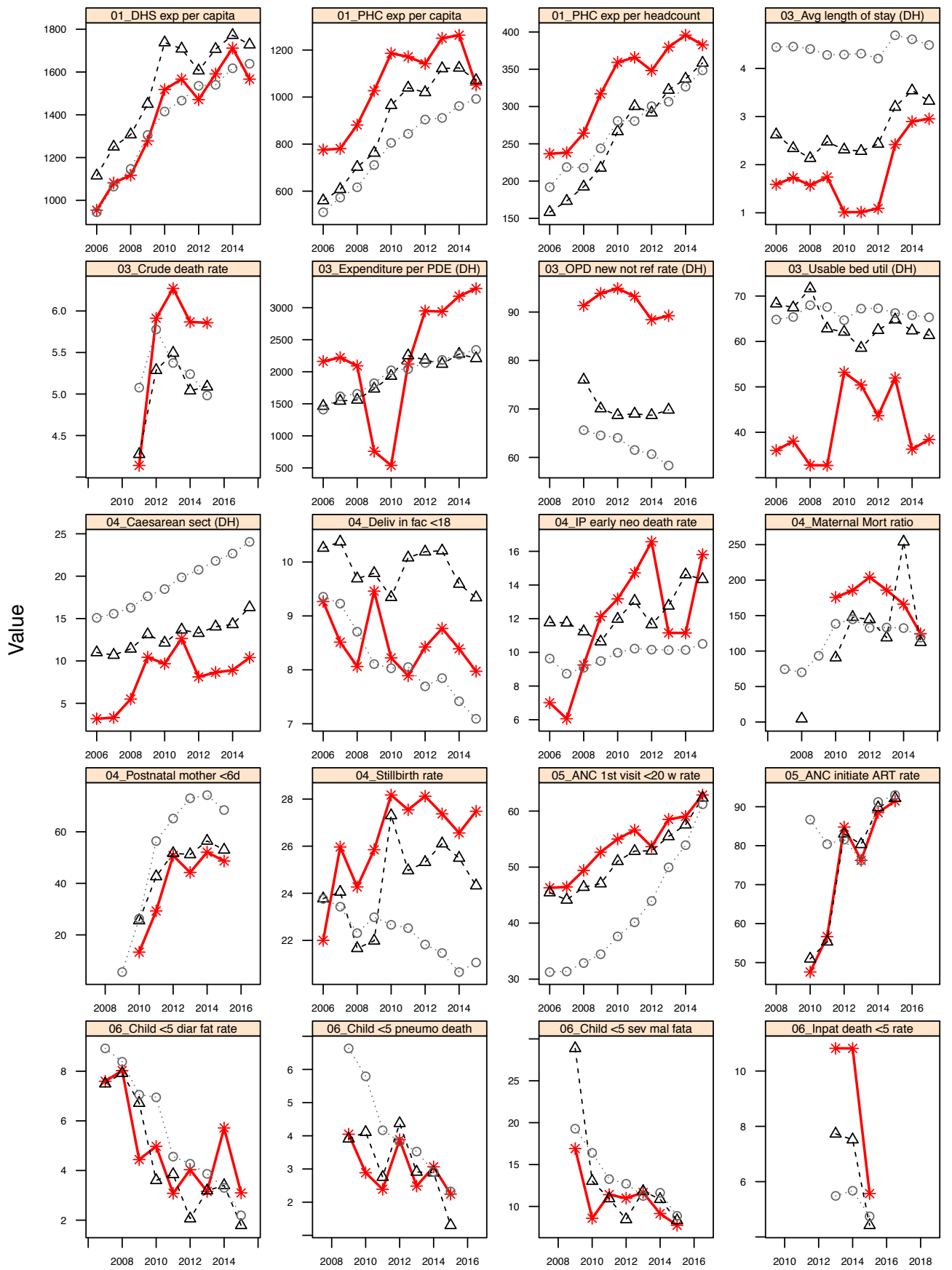
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

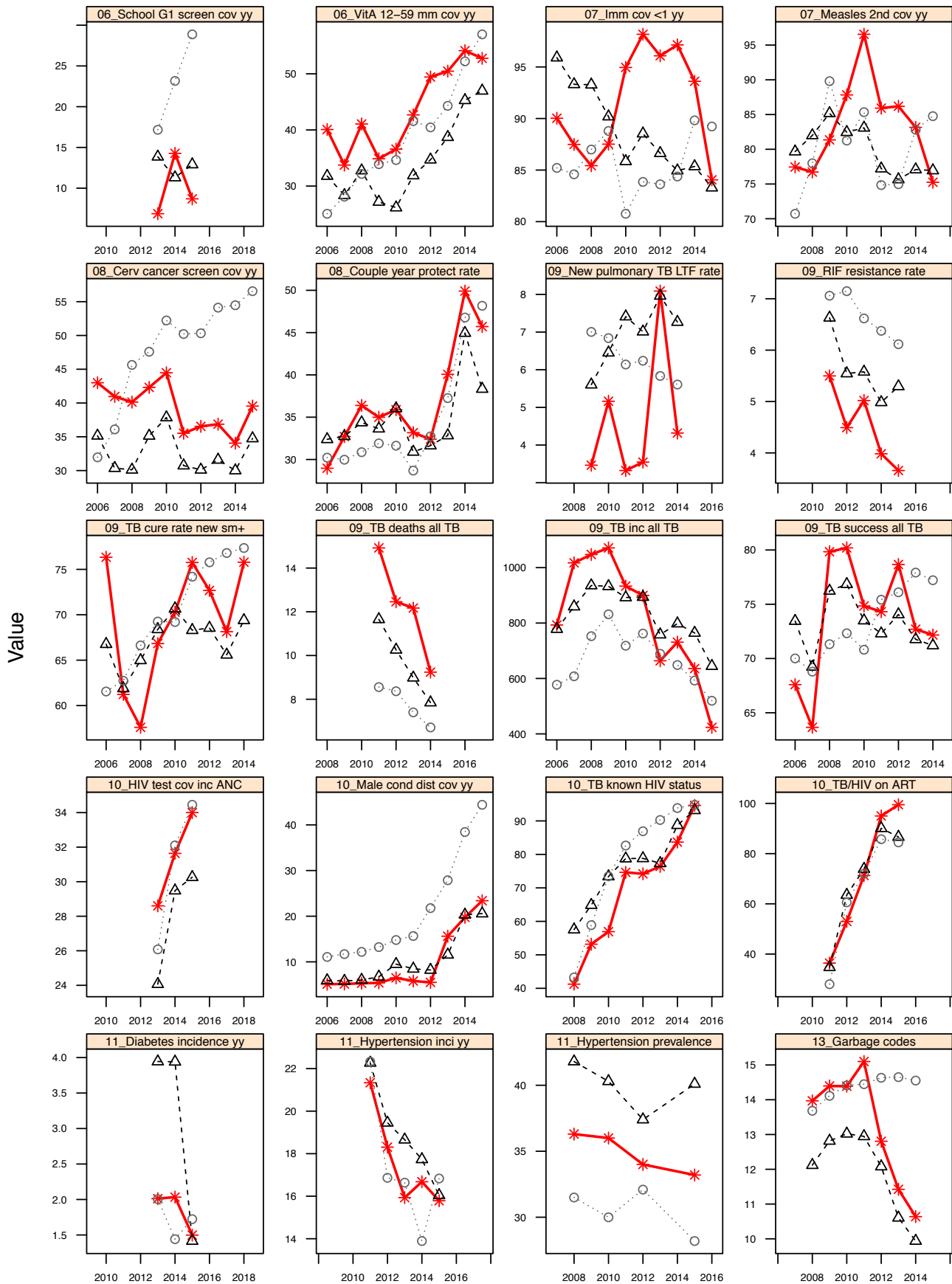
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Frances Baard (DC9)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Frances Baard (DC9)



District value * Provincial average Δ ZA (national) average ○

21 North West Province

Bojanala District Municipality (DC37)

Bojanala is situated in North West Province and comprises five sub-districts, namely Kgetleng Rivier, Madibeng, Moses Kotane, Moretele and Rustenburg. The district has a population of 1 631 572, with a population density of 89.0 people per km² and falls in the mid socio-economic quintile, Quintile 3. Estimated medical scheme coverage is 13.1%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
112	8	3	0	1	4

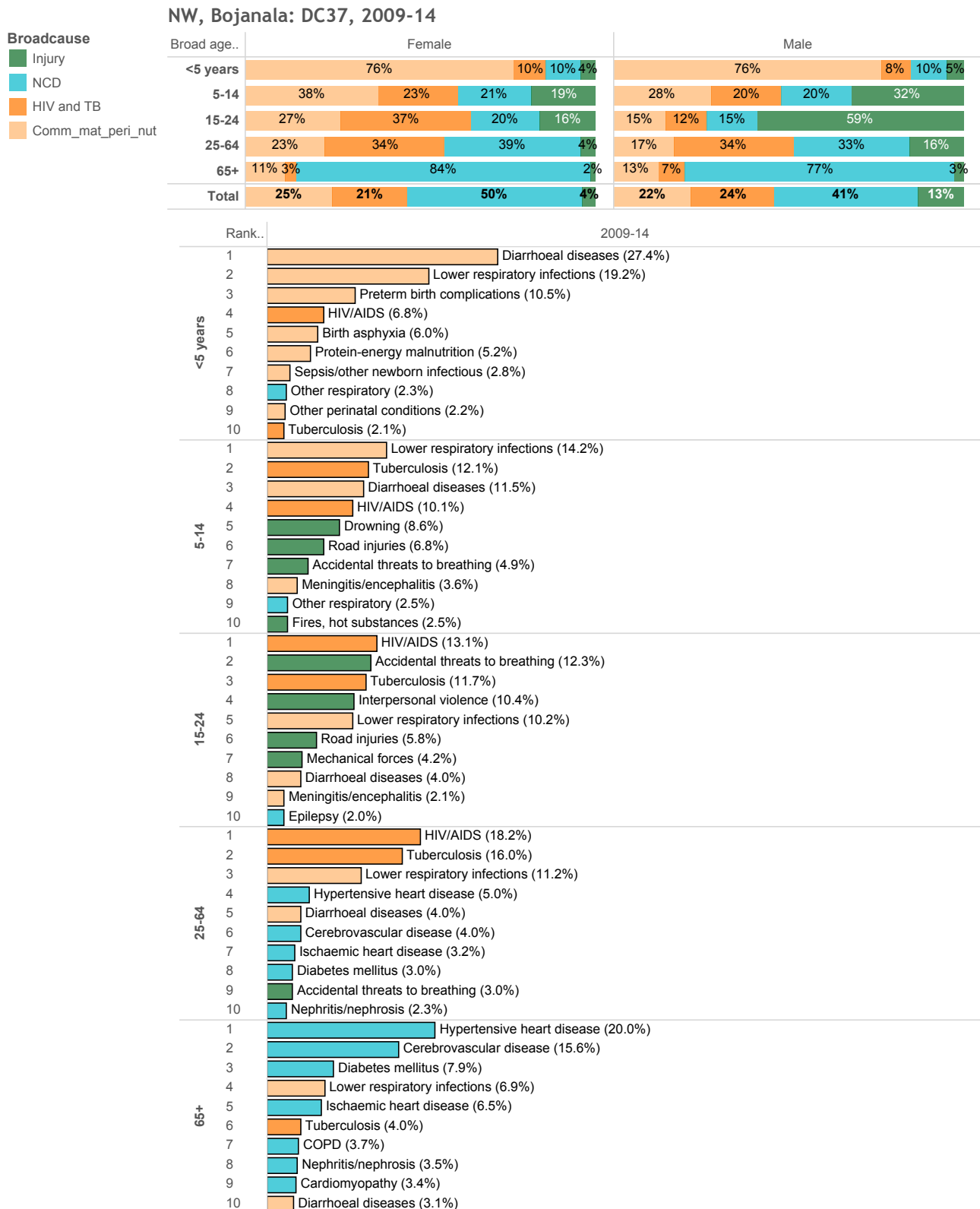
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	552 302	552 266	593 153
PHC headcount 5 years and older	2 995 003	3 168 163	3 283 774
Patient day equivalent	286 530	325 070	304 144
Deaths – total	3 095	3 095	2 862
Still births	470	522	477
Early neonatal deaths	144	200	172
Late neonatal deaths	40	67	37
Child under 5 years with diarrhoea death	40	37	30
Child under 5 years with pneumonia death	48	42	32
Child under 5 years with severe acute malnutrition death	60	57	37

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Bojanala (DC37)



Indicator performance: Bojanala (DC37)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	2.2	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			22.7	23	17.5	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.3	5.2	5.1	20	4.6	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 490.8	2 667.6	2 625.0	30	2 604.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	78.4	76.4	77.2	7	64.0	65.3	78.6
	Inpatient crude death rate [Percentage]	6.4	7.9	7.5	52	6.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	41.8	30.3	21.3	5	44.5	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	23.6	27.6	28.1		27.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.1	6.0	5.0	5	6.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	6.8	9.5	8.6	17	9.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	160.5	156.5	171.0	47	148.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	85.6	87.6	79.3	5	69.4	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	21.7	24.2	23.4	34	22.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	48.7	52.5	56.3	47	60.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	79.7	86.1	88.0	43	86.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.4	32	1.2	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	5.9	6.3	5.8	50	4.0	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	6.2	4.8	4.8	50	3.1	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	15.6	18.3	15.5	50	12.3	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	7.4	9.6	10.0	50	6.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	12.9	38.7	42.6	11	53.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	28.8	43.7	45.4	46	52.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	68.9	78.1	76.6	44	83.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	56.0	70.9	69.7	49	76.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	55.9	64.1	63.7	21	66.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	32.2	35.5	28.8	51	35.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	28.1	32.1	27.4	43	29.7	34.5	
	Male condom distribution coverage [Condoms per male 15+]	20.0	19.5	13.7	51	23.8	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.5	1.1	2.3		1.6	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	19.0	13.9	13.8		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			11.8	32	11.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			2.5	15	1.3	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		563.3	495.8	419.0	11	528.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.9	5.6	5.4	21	4.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	68.4	72.1	81.2		13	76.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	67.4	65.5	68.3		47	70.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	11.3	9.1	8.9		35	10.1	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	6.6	6.6	4.4		16	5.7	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		63.8			4	60.2	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		90.8	95.1	95.1	26	93.7	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		69.8	76.5	77.6	41	82.3	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	30.8			25.9	18	30.8	28.2	

Section B: Profile North West Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	34.7	36.0	37.5		31	35.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	27.0	25.6	25.0		18	28.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	26.3	26.3	24.9		40	26.1	21.2	
	Percentage of deaths garbage codes [Percentage]	15.5	14.0	13.3		27	14.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.0	12.0	12.7		23	10.2	13.6	
	Percentage of deaths ill-defined [Percentage]	17.2	14.9	16.8		42	15.7	13.8	

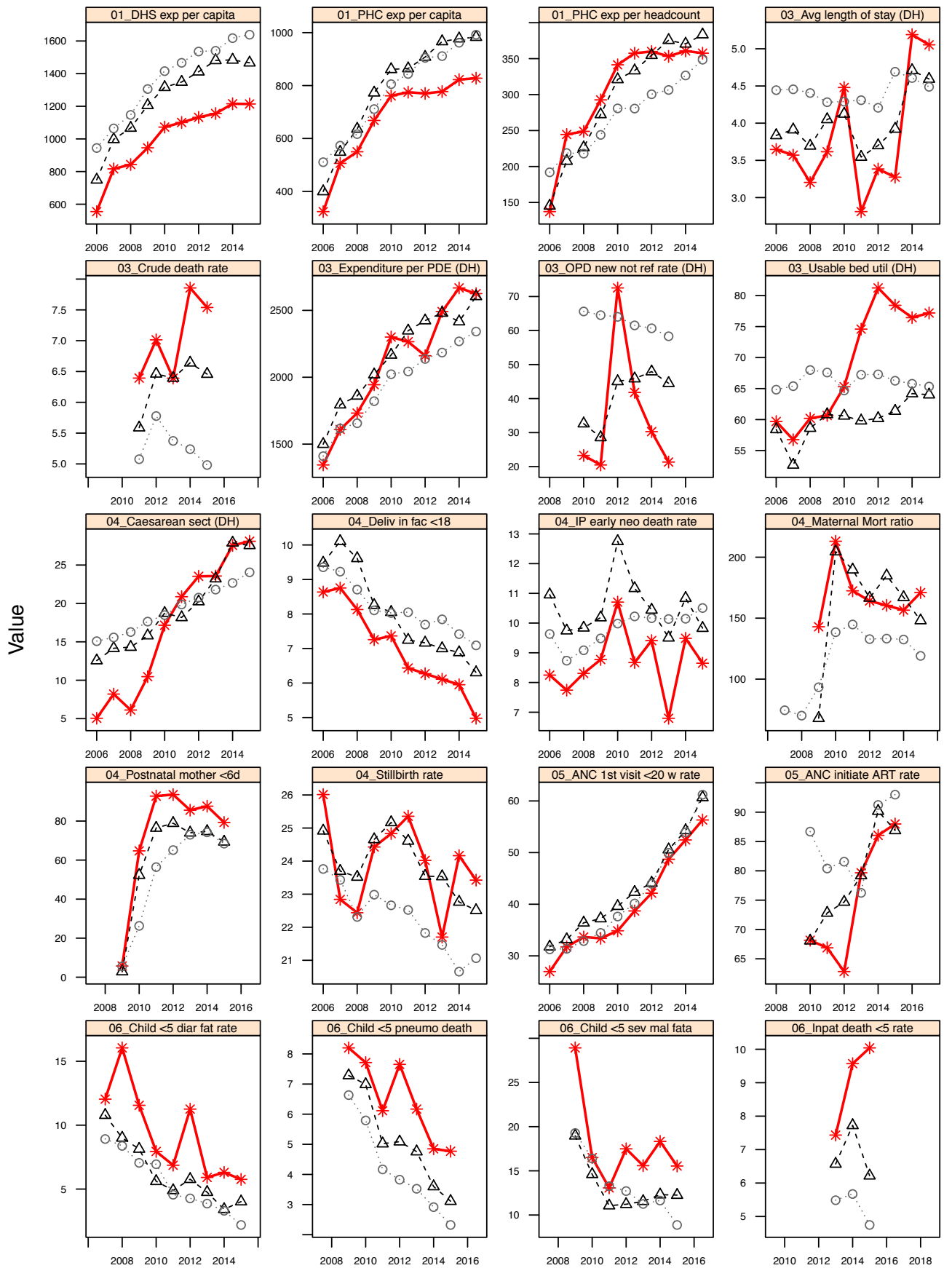
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

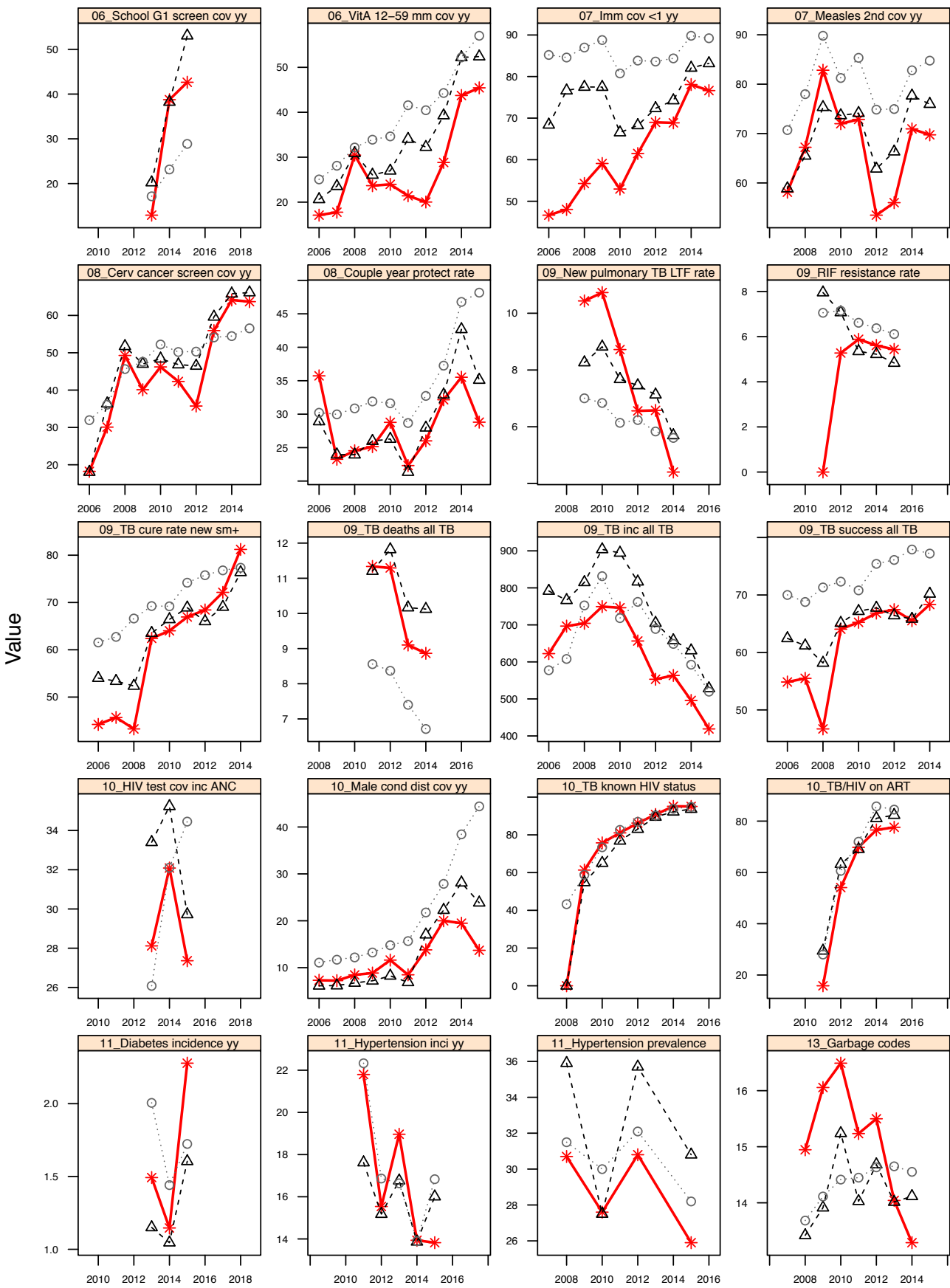
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Bojanala (DC37)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Bojanala (DC37)



District value * Provincial average Δ ZA (national) average ○

NM Molema District Municipality (DC38)

NM Molema District is situated in North West Province and comprises five sub-districts, namely Ditsobotla, Mahikeng, R Moiloa, Ratlou and Tswaing. It borders Botswana to the north. The district has a population of 869 110, with a population density of 30.8 people per km² and falls into socio-economic Quintile 2. Estimated medical scheme coverage is 8.1%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
79	16	5	1	0	1

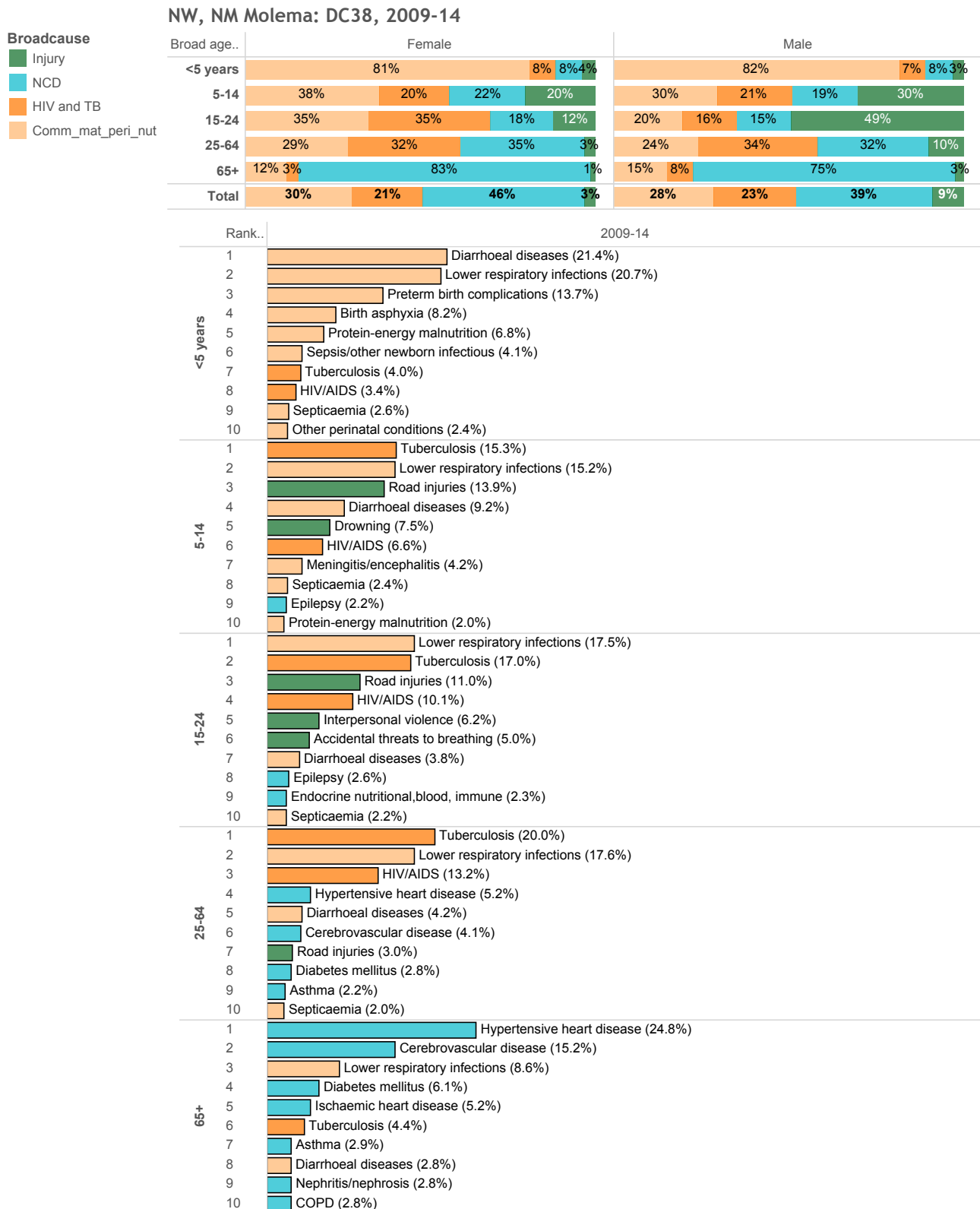
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	419 575	429 330	384 930
PHC headcount 5 years and older	2 283 796	2 391 922	2 193 118
Patient day equivalent	380 893	394 582	367 629
Deaths – total	3 206	3 428	3 139
Still births	342	293	332
Early neonatal deaths	139	167	157
Late neonatal deaths	16	39	43
Child under 5 years with diarrhoea death	65	43	34
Child under 5 years with pneumonia death	50	45	26
Child under 5 years with severe acute malnutrition death	124	81	65

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: NM Molema (DC38)



Indicator performance: NM Molema (DC38)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	2.2	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			1.1	46	17.5	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.0	4.3	4.3	8	4.6	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 709.3	2 396.4	2 972.6	43	2 604.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	49.2	55.5	53.5	47	64.0	65.3	
	Inpatient crude death rate [Percentage]	6.6	6.6	6.2	39	6.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	58.0	59.5	56.0	23	44.5	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	24.5	34.9	32.8		27.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.2	7.6	7.2	23	6.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.0	10.7	10.8	34	9.8	10.5	
	Maternal mortality in facility ratio [per 100 000 live births]	206.9	153.8	151.2	40	148.1	119.1	
	Mother postnatal visit within 6 days rate [Percentage]	61.4	70.0	65.0	31	69.4	68.5	
	Stillbirth in facility rate [per 1 000 births]	21.6	18.4	22.3	31	22.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	53.6	54.7	61.2	36	60.7	61.2	
	Antenatal client initiated on ART rate [Percentage]	75.1	97.0	74.8	49	86.9	93.0	
	Percentage of PCR tests positive at birth [Percentage]			1.3	30	1.2	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.5	3.6	3.6	44	4.0	2.2	
	Child under 5 years pneumonia case fatality rate [Percentage]	4.5	3.8	2.8	33	3.1	2.3	
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	10.4	9.9	11.3	40	12.3	8.9	
	Inpatient death under 5 year rate [Percentage]	5.7	8.6	4.6	22	6.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	15.8	32.6	44.7	10	53.0	28.9	
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	55.5	66.4	59.0	20	52.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	72.2	82.8	88.7	18	83.2	89.2	
	Measles 2nd dose coverage (annualised) [Percentage]	79.4	88.3	82.7	26	76.0	84.8	
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	53.4	66.9	65.3	20	66.1	56.6	
	Couple year protection rate (annualised) [Percentage]	35.0	51.0	36.4	47	35.1	48.2	
HIV	HIV testing coverage (including ANC) [Percentage]	40.8	41.6	32.8	30	29.7	34.5	
	Male condom distribution coverage [Condoms per male 15+]	28.4	38.2	30.3	41	23.8	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.0	1.3	1.3		1.6	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	17.9	14.5	20.2		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	11.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	1.3	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		591.5	593.6	525.8	21	528.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.4	4.7	4.7	12	4.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	63.6	68.4	75.8		30	76.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	66.7	70.1	79.8		16	70.2	77.2	
	TB death rate (ETR.net) [Percentage]	8.5	8.2	8.3		30	10.1	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.9	7.5	6.5		38	5.7	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		64.4			3	60.2	47.2	
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.2	94.7	95.1	25	93.7	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		71.2	92.1	90.4	21	82.3	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	37.2			32.3	34	30.8	28.2	

Section B: Profile North West Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	31.9	34.2	35.9		24	35.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	27.1	24.9	25.3		20	28.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	32.4	32.4	30.4		49	26.1	21.2	
	Percentage of deaths garbage codes [Percentage]	13.3	13.4	13.9		31	14.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	8.6	8.5	8.4		2	10.2	13.6	
	Percentage of deaths ill-defined [Percentage]	14.7	18.0	20.3		48	15.7	13.8	

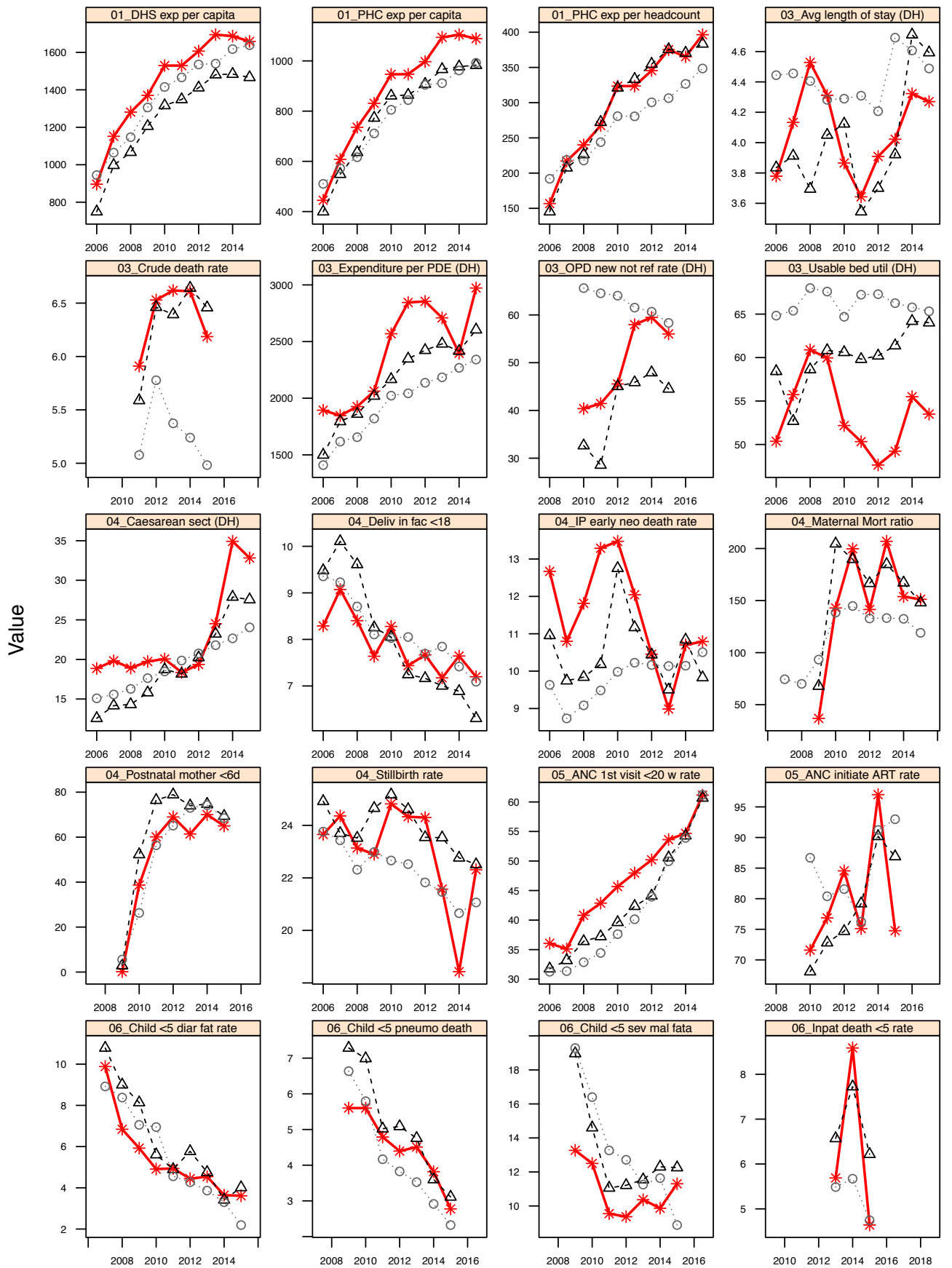
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

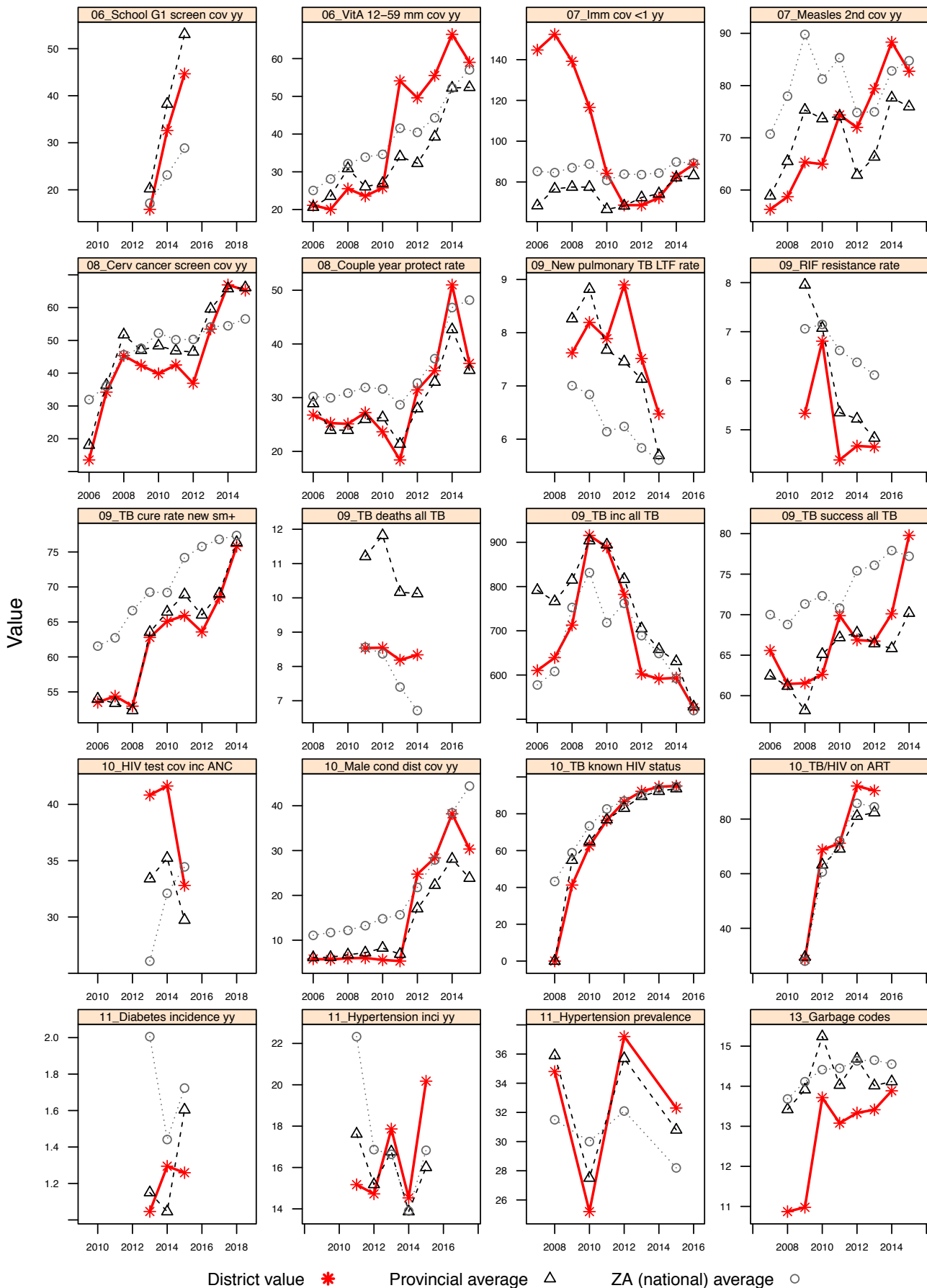
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: NM Molema (DC38)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: NM Molema (DC38)



RS Mompoti District Municipality (DC39)

RS Mompoti District is situated in North West Province and comprises five sub-districts, namely Greater Taung, Kagisano-Molopo, Lekwa-Teemane, Mamusa and Naledi. It borders Botswana to the north. The district has a population of 476 925, with a population density of 10.9 people per km² and falls into socio-economic Quintile 1, the poorest in the province. Estimated medical scheme coverage is 6.2%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
51	12	4	1	0	1

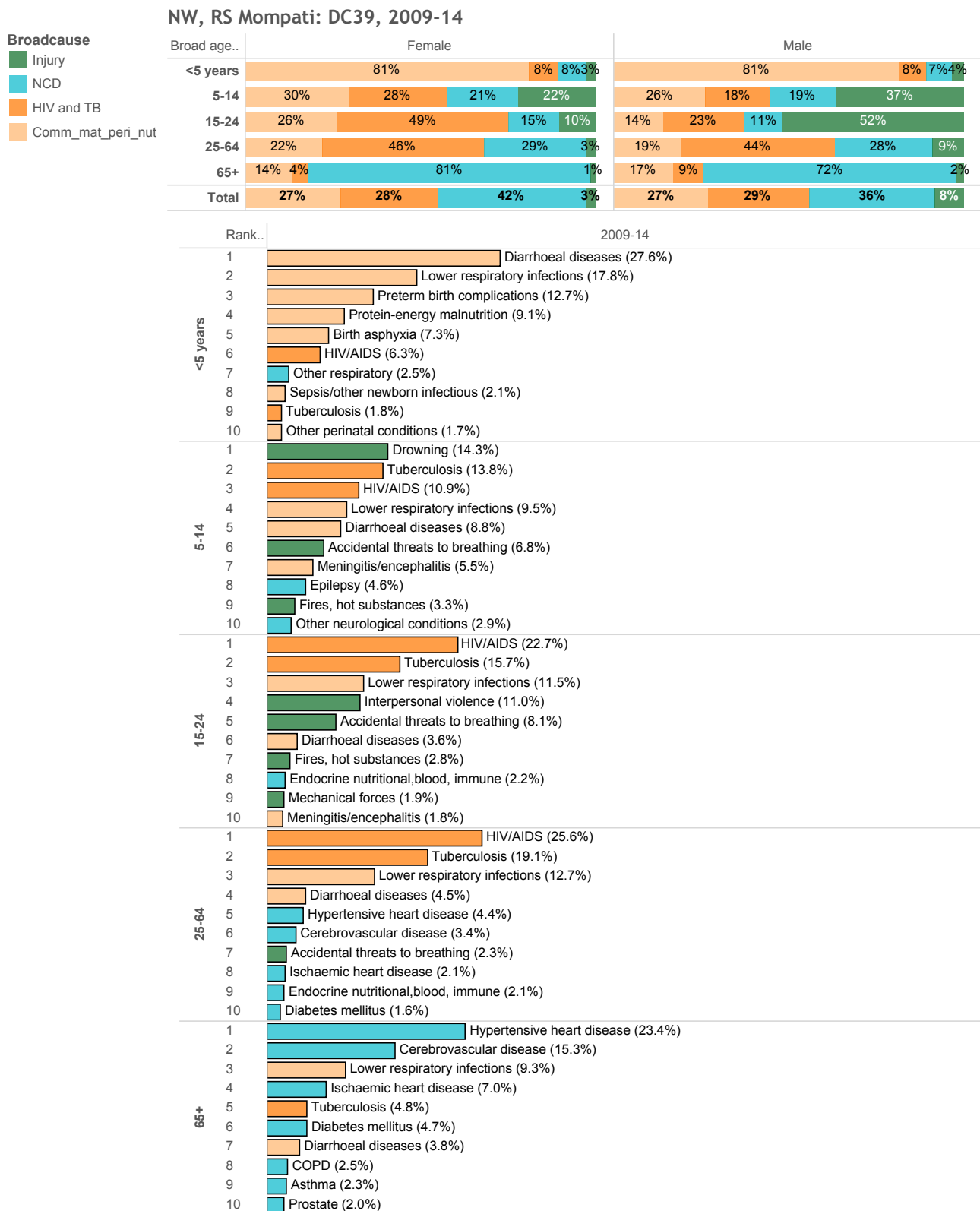
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	291 191	271 066	259 585
PHC headcount 5 years and older	1 390 035	1 373 824	1 333 882
Patient day equivalent	181 055	194 656	186 179
Deaths – total	1 783	1 871	1 605
Still births	249	244	243
Early neonatal deaths	73	120	110
Late neonatal deaths	14	20	12
Child under 5 years with diarrhoea death	20	19	29
Child under 5 years with pneumonia death	10	8	11
Child under 5 years with severe acute malnutrition death	29	55	50

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: RS Mompoti (DC39)



Indicator performance: RS Mompoti (DC39)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			11.1	17	2.2	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			27.0	16	17.5	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	5.0	5.3	4.9	13	4.6	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 198.7	2 032.8	2 074.7	27	2 604.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	60.3	63.3	62.7	32	64.0	65.3	78.6
	Inpatient crude death rate [Percentage]	6.2	6.4	5.9	37	6.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	36.7	42.6	51.3	21	44.5	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	21.7	22.1	23.6		27.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	10.0	8.7	9.2	38	6.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	8.1	12.9	11.9	39	9.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	110.7	129.1	76.0	11	148.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	80.6	77.1	69.4	21	69.4	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	26.8	25.6	25.7	41	22.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	52.7	56.9	62.6	32	60.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	74.2	92.2	95.9	19	86.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.1	24	1.2	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.8	2.3	8.1	52	4.0	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	4.5	2.8	2.9	34	3.1	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	10.3	13.9	12.7	43	12.3	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	4.0	6.7	6.5	38	6.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	22.6	36.5	40.1	14	53.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	49.5	57.3	59.8	17	52.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	87.7	87.5	87.1	22	83.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	78.1	80.5	82.7	27	76.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	72.9	68.0	68.7	17	66.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	37.2	34.2	38.6	44	35.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	37.4	37.1	33.1	28	29.7	34.5	
	Male condom distribution coverage [Condoms per male 15+]	26.2	24.5	27.3	46	23.8	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.6	0.3	0.6		1.6	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	12.8	12.3	15.9		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			20.6	23	11.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			1.6	20	1.3	1.5	

Category	Indicator	2012	District value			District ranking	Provincial average	National average	National target
			2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		662.9	797.2	661.3	32	528.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.2	4.8	4.5	8	4.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	78.6	74.9	71.8		42	76.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	71.5	71.4	67.2		49	70.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	9.6	8.5	8.7		32	10.1	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	4.5	5.7	5.4		31	5.7	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		58.4			12	60.2	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		90.6	91.1	93.4	42	93.7	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		57.0	75.9	79.0	39	82.3	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	40.9			28.8	24	30.8	28.2	

Section B: Profile North West Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	29.3	28.5	28.7		4	35.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	35.3	33.4	33.0		41	28.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	28.1	29.8	30.6		50	26.1	21.2	
	Percentage of deaths garbage codes [Percentage]	13.7	13.8	12.7		19	14.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	7.3	8.3	7.7		1	10.2	13.6	
	Percentage of deaths ill-defined [Percentage]	14.4	11.9	11.9		32	15.7	13.8	

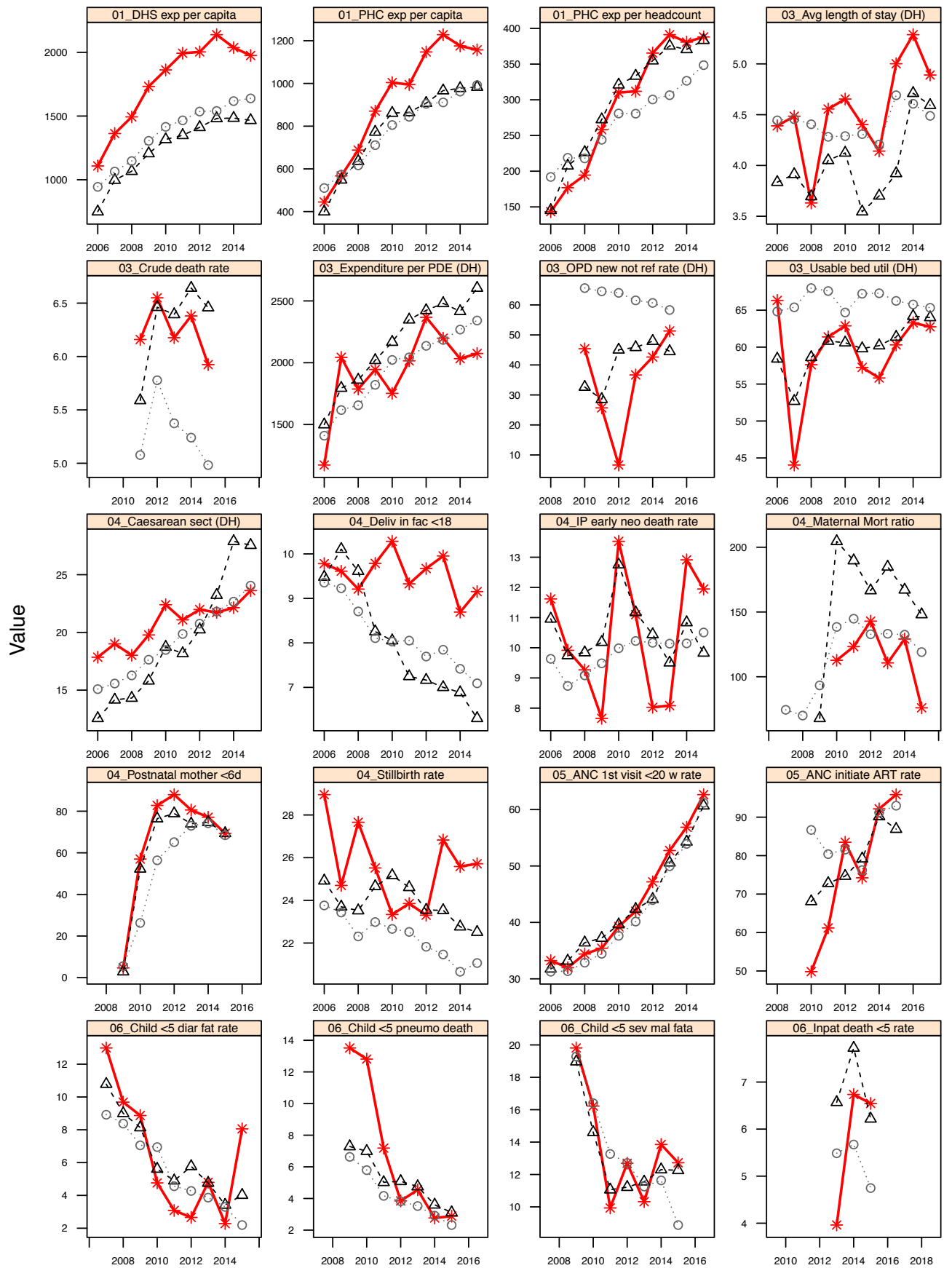
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

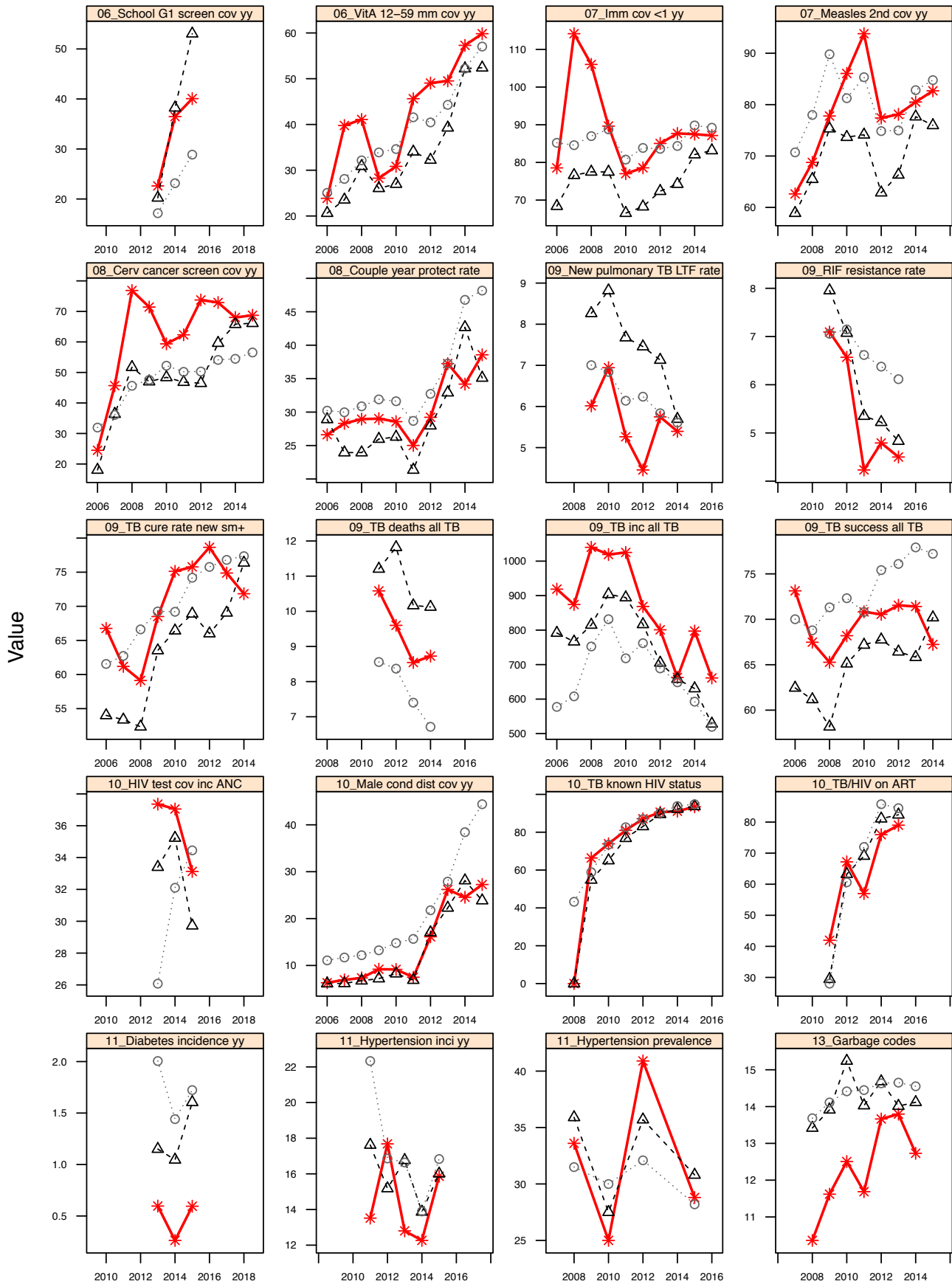
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: RS Mompoti (DC39)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: RS Mompoti (DC39)



District value * Provincial average Δ ZA (national) average ○

Dr K Kaunda District Municipality (DC40)

Dr K Kaunda District is situated in North West Province and comprises four sub-districts, namely Maquassi Hills, Matlosana, Tlokwe and Ventersdorp. The district has a population of 725 364, with a population density of 49.5 people per km² and falls into socio-economic Quintile 4, and has an estimated medical scheme coverage of 23.7%. Dr K Kaunda is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
32	10	1	1	1	6

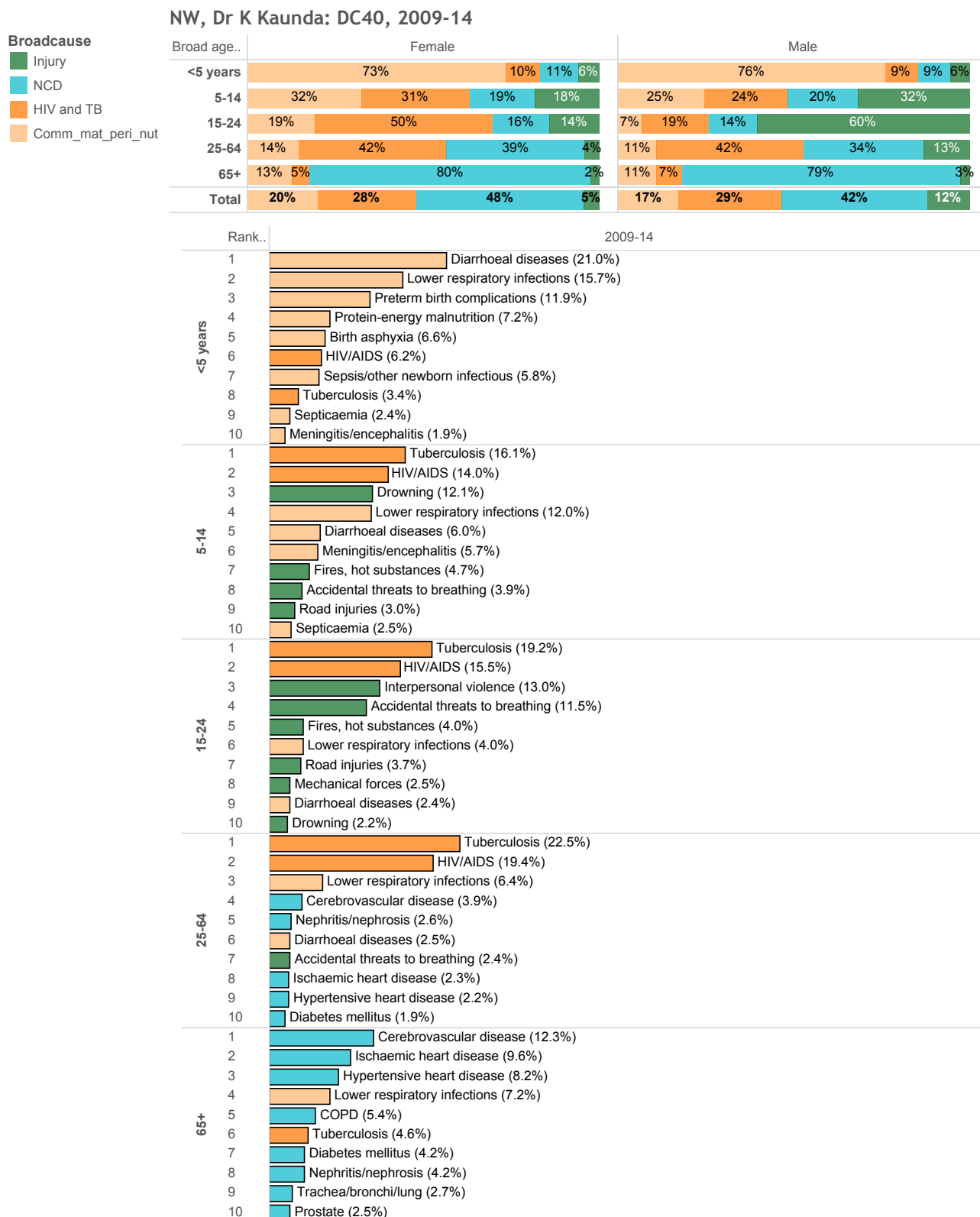
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	244 374	245 141	247 262
PHC headcount 5 years and older	1 378 548	1 431 544	1 439 950
Patient day equivalent	819 399	638 788	783 844
Deaths – total	3 723	2 121	3 756
Still births	322	293	239
Early neonatal deaths	189	142	112
Late neonatal deaths	51	53	23
Child under 5 years with diarrhoea death	26	6	4
Child under 5 years with pneumonia death	18	8	10
Child under 5 years with severe acute malnutrition death	38	32	31

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Dr K Kaunda (DC40)



Indicator performance: Dr K Kaunda (DC40)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	2.2	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			25.0	18	17.5	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.4	3.4	3.5	33	4.6	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 642.2	2 851.3	3 452.0	52	2 604.4	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	70.6	67.4	77.0	9	64.0	65.3	78.6
	Inpatient crude death rate [Percentage]	6.3	6.0	6.2	41	6.5	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	10.8	22.0	10.2	3	44.5	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	21.4	19.8	14.0		27.6	24.1	
	Delivery in facility under 18 years rate [Percentage]	6.1	6.1	5.3	7	6.3	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	16.2	11.8	9.0	19	9.8	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	257.4	232.2	161.1	45	148.1	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	64.4	56.1	58.3	39	69.4	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	26.9	23.7	18.9	15	22.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	49.3	55.8	69.5	9	60.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	85.7	93.2	95.0	23	86.9	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.1	22	1.2	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	4.0	1.3	0.7	12	4.0	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	3.3	1.5	1.8	18	3.1	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	12.2	10.7	10.8	38	12.3	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	8.8	6.2	5.0	25	6.2	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	37.5	46.7	94.3	1	53.0	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	41.0	54.5	57.4	25	52.4	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	79.8	86.8	89.8	15	83.2	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	66.3	79.0	78.6	34	76.0	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	66.2	66.6	70.4	15	66.1	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	29.1	51.8	43.9	35	35.1	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	32.9	32.8	28.8	40	29.7	34.5	
	Male condom distribution coverage [Condoms per male 15+]	17.6	37.8	37.5	36	23.8	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.9	1.0	1.2		1.6	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.2	13.9	16.2		16.0	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			25.0	15	11.8	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	1.3	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		944.8	865.9	690.0	36	528.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		6.0	5.6	4.6	11	4.8	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	59.4	61.6	71.7		43	76.4	77.4	
	TB treatment success rate (ETR.net) [Percentage]	62.2	60.1	67.2		50	70.2	77.2	83.0
	TB death rate (ETR.net) [Percentage]	15.9	14.1	14.1		51	10.1	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	8.7	8.3	7.1		41	5.7	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		58.2			13	60.2	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		85.2	87.2	90.6	49	93.7	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		71.3	82.3	84.6	27	82.3	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	41.0			41.9	48	30.8	28.2	

Section B: Profile North West Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	36.5	36.1	36.9		25	35.5	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	34.1	32.0	32.7		40	28.2	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	18.4	20.4	19.8		25	26.1	21.2	
	Percentage of deaths garbage codes [Percentage]	15.6	14.8	16.5		43	14.1	14.6	
	Percentage of YLLs due to injuries [Percentage]	11.0	11.4	10.6		8	10.2	13.6	
	Percentage of deaths ill-defined [Percentage]	9.2	11.1	11.4		28	15.7	13.8	

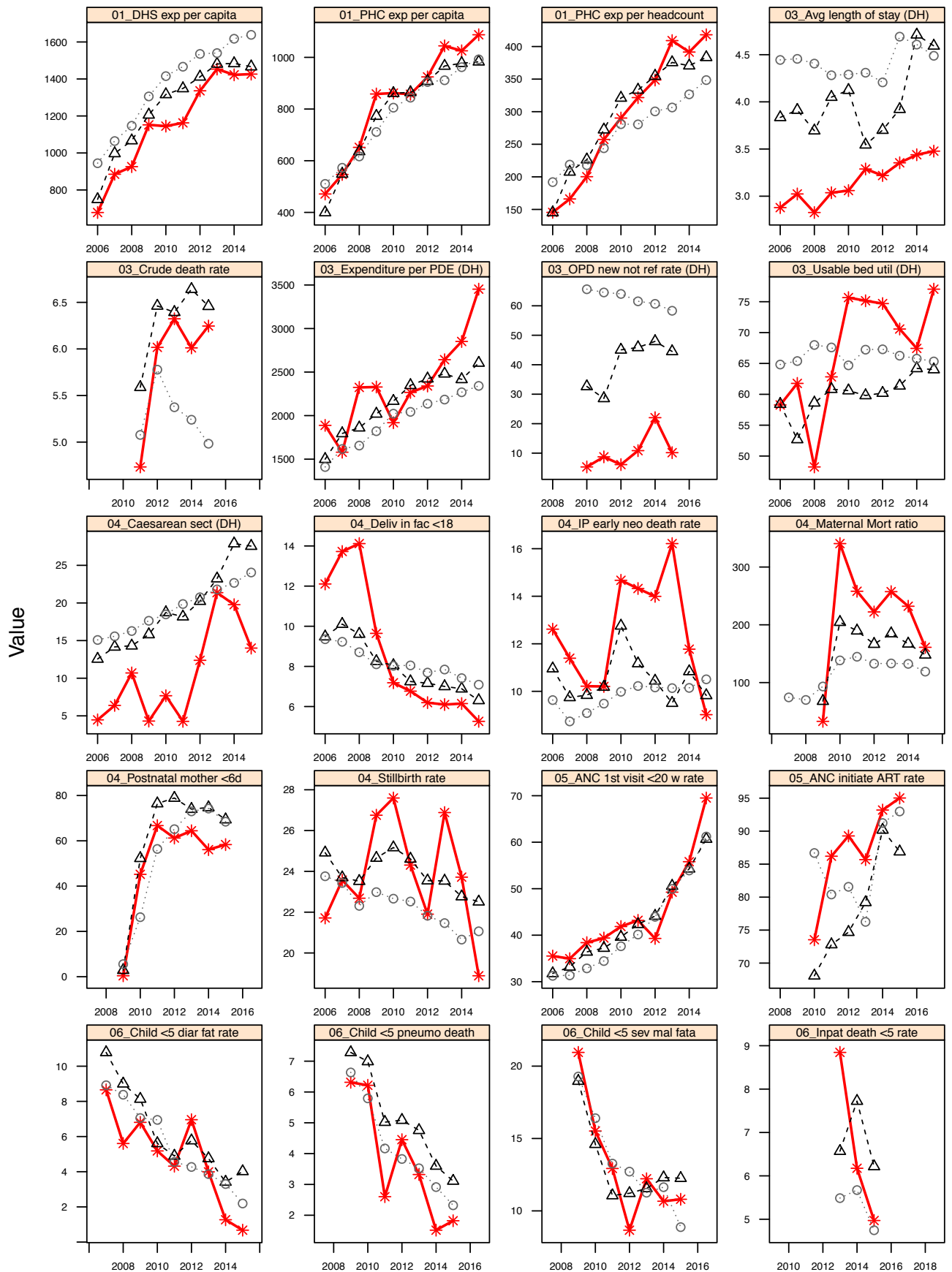
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

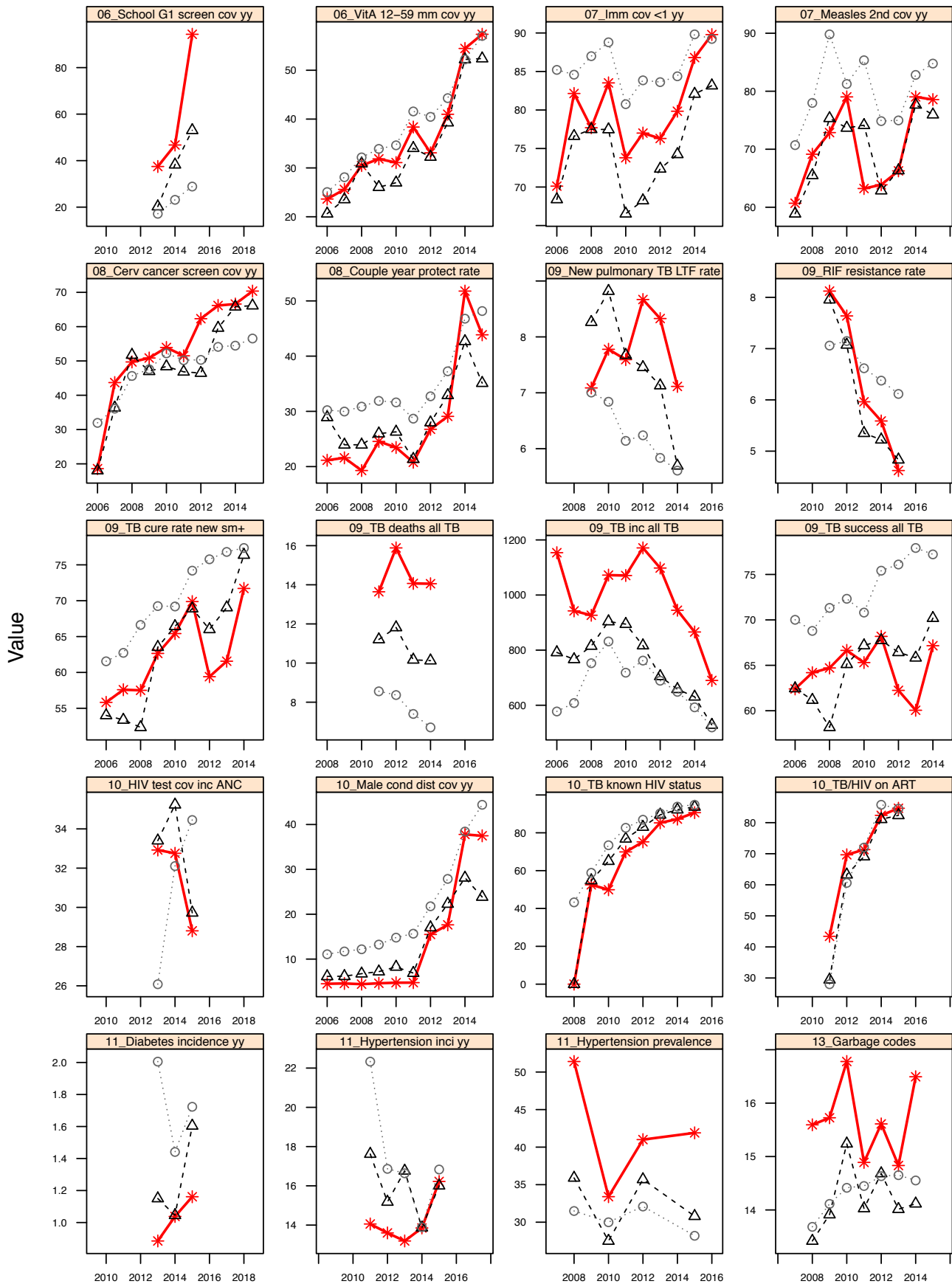
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Dr K Kaunda (DC40)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Dr K Kaunda (DC40)



District value * Provincial average Δ ZA (national) average ○

22 Western Cape Province

Cape Town Metropolitan Municipality (CPT)

Cape Town Metro has a population of 3 998 422, with a population density of 1 638.8 people per km², and is situated in the southern peninsula of the Western Cape Province. The Metro incorporates eight sub-districts, namely Eastern, Western, Northern, Southern, Khayelitsha, Klipfontein, Tygerberg and Mitchells Plain, and falls into socio-economic Quintile 5, placing it among the wealthiest districts. Estimated medical scheme coverage is 28.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
83	9	9	2	3	25

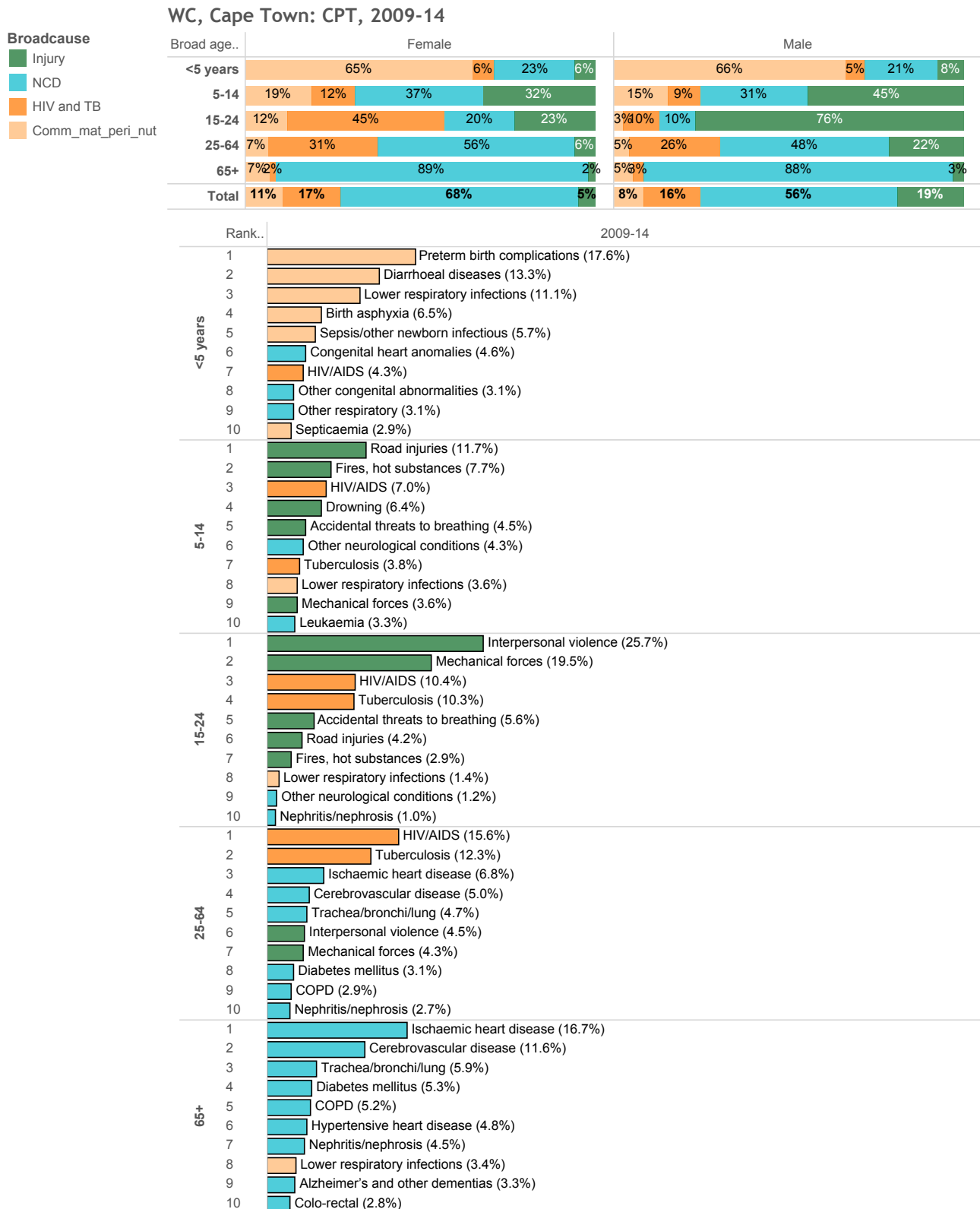
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	1 297 746	1 304 919	1 289 336
PHC headcount 5 years and older	9 470 328	9 492 289	9 424 069
Patient day equivalent	3 173 502	3 220 191	3 264 518
Deaths – total	10 601	10 700	11 007
Still births	1 189	1 207	1 138
Early neonatal deaths	288	320	433
Late neonatal deaths	65	85	110
Child under 5 years with diarrhoea death	4	5	9
Child under 5 years with pneumonia death	23	18	21
Child under 5 years with severe acute malnutrition death	5	7	6

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Cape Town (CPT)



Indicator performance: Cape Town (CPT)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	4.3	4.3	3.7	27	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	2 182.3	2 174.4	2 221.5	17	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	97.6	99.4	93.9	1	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	3.0	3.1	2.8	3	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	26.3	26.3	19.2	4	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	32.5	35.5	35.0		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	5.5	5.2	4.8	3	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	4.7	5.0	7.0	5	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	74.2	56.4	75.7	10	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	108.3	130.1	76.3	9	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	18.4	18.6	18.0	13	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	54.6	61.5	63.8	24	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	65.3	84.1	79.3	47	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			2.3	49	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.1	0.1	0.2	7	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.8	0.4	0.3	6	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	2.5	1.5	1.0	4	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	1.5	1.7	1.3	4	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	0.0	24.0	48.3	8	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	34.4	43.0	41.7	50	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	89.0	97.3	93.7	11	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	70.6	77.4	88.7	16	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	54.5	54.8	51.9	32	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	66.9	61.6	56.9	18	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	8.7	31.9	34.4	25	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	64.4	56.8	46.8	27	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.4	1.1	1.1		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	8.2	6.0	6.0		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		678.9	637.5	595.6	28	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		5.6	6.0	5.8	28	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.1	82.2	81.2		14	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	83.1	84.5	83.8		6	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	4.1	3.6	3.3		3	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.8	8.4	8.6		46	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		41.3			35	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		98.4	98.7	98.5	2	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		84.5	88.4	79.6	37	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	37.3			31.4	31	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	50.9	50.3	49.6		47	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	20.6	19.2	18.5		3	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	11.2	11.1	11.2		5	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	11.8	12.3	12.0		16	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	17.4	19.4	20.7		52	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	7.8	7.4	7.2		6	6.9	13.8	

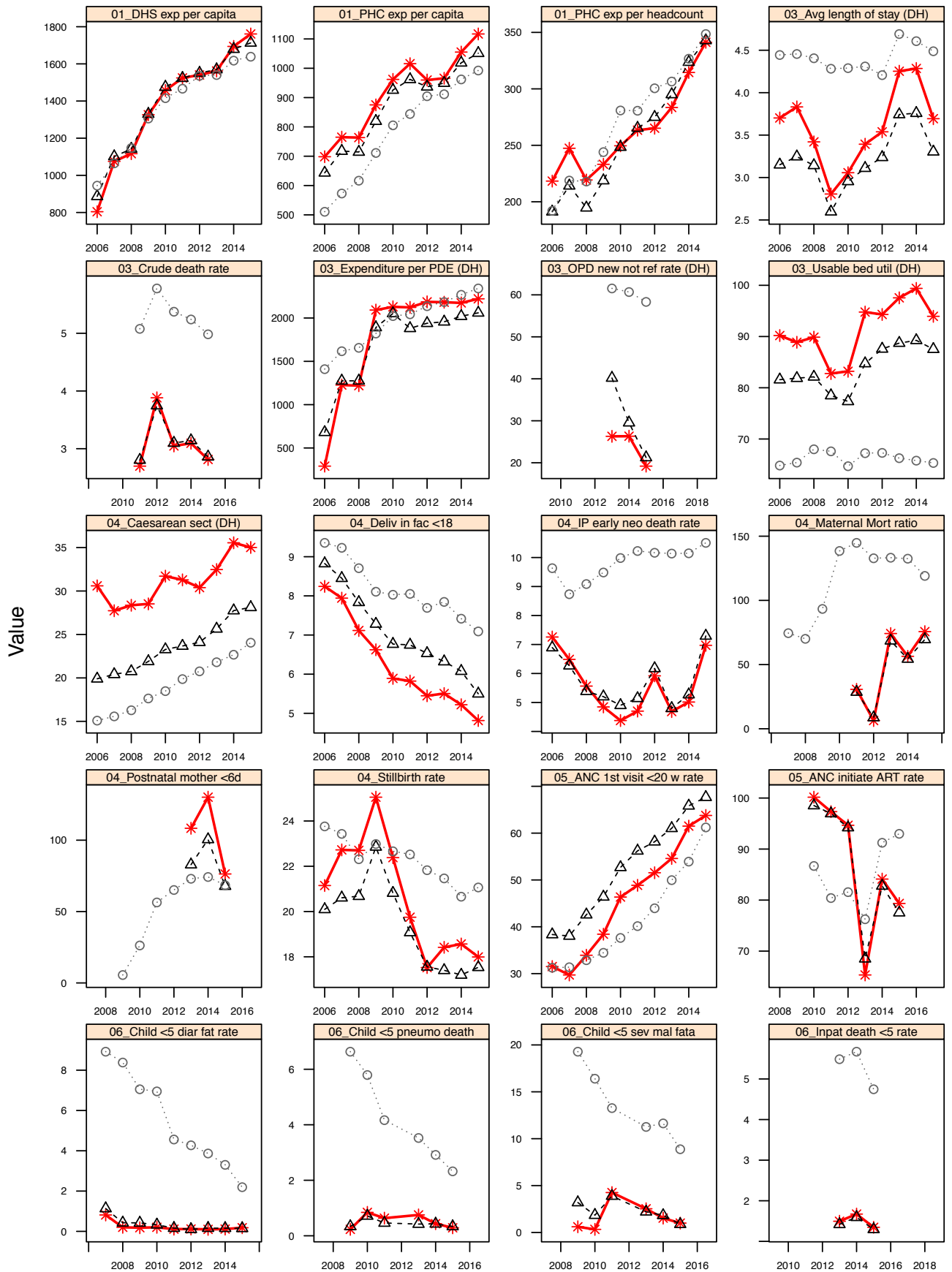
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

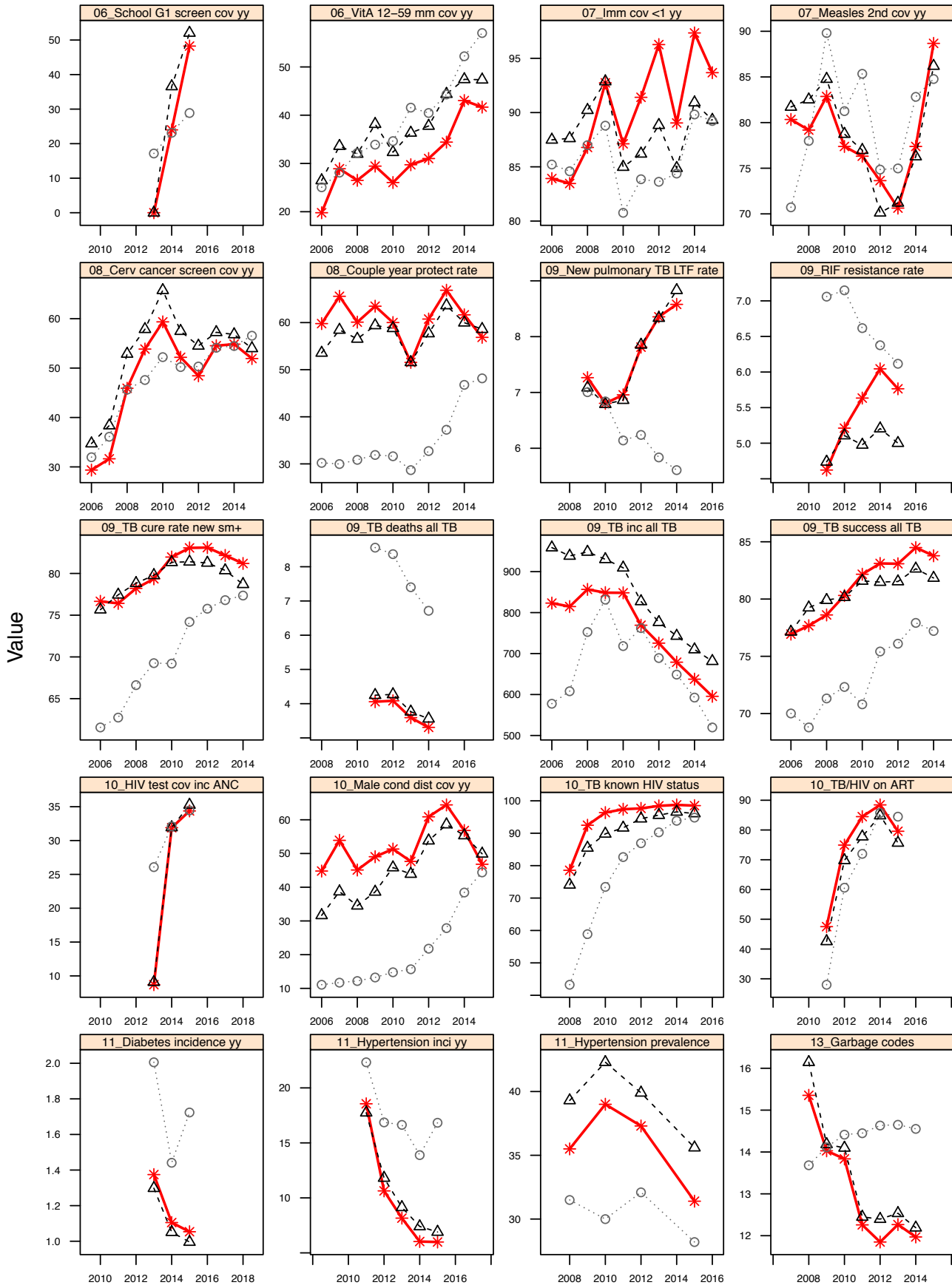
Value highlighted in yellow – performance is ranked among the 10 best in the country

Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Cape Town (CPT)



Annual indicators for district: Cape Town (CPT)



District value * Provincial average Δ ZA (national) average ○

West Coast District Municipality (DC1)

The West Coast District in the Western Cape Province comprises five sub-districts, namely Swartland, Bergrivier, Matzikama, Cederberg and Saldanha Bay. The district has a population of 437 652, with a population density of 14.1 people per km², and falls into socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 29.0%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
26	0	7	0	0	3

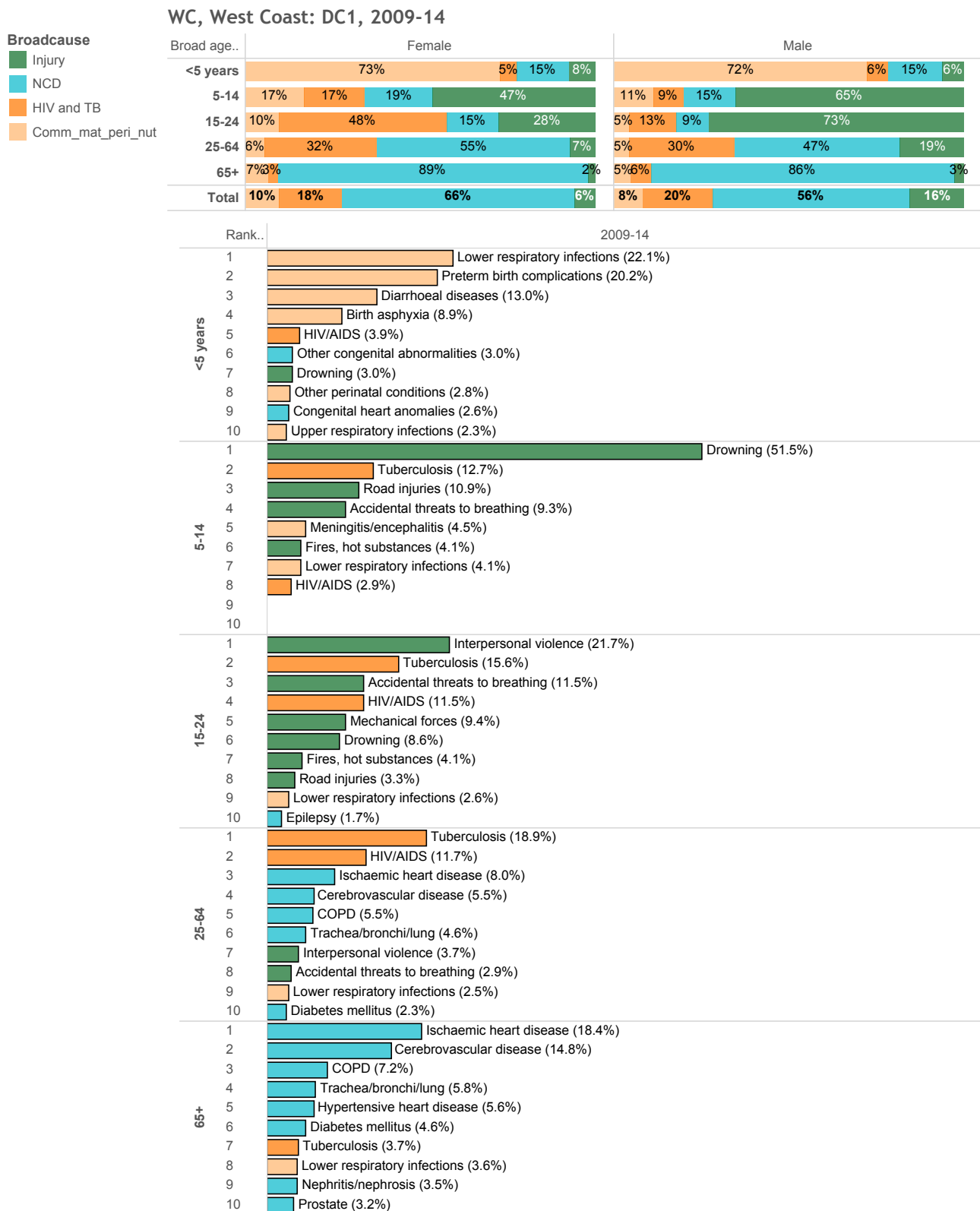
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	144 764	142 164	139 683
PHC headcount 5 years and older	823 613	814 567	797 494
Patient day equivalent	195 382	206 921	204 928
Deaths – total	1 141	1 158	1 181
Still births	62	87	71
Early neonatal deaths	20	23	40
Late neonatal deaths	0	0	5
Child under 5 years with diarrhoea death	1	1	0
Child under 5 years with pneumonia death	1	1	1
Child under 5 years with severe acute malnutrition death	0	0	1

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: West Coast (DC1)



Indicator performance: West Coast (DC1)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.1	3.0	2.7	48	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 584.9	1 701.6	1 800.3	41	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	83.2	81.4	79.4	5	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	3.1	3.0	2.9	5	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	59.5	31.6	22.4	7	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	17.6	19.1	21.1		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.4	9.1	8.0	28	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	3.9	4.3	7.6	10	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	38.9	75.6	76.4	12	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	31.1	36.8	44.7	50	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	11.9	16.2	13.4	2	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	72.1	73.3	72.3	7	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	69.8	78.7	88.4	41	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			3.4	51	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.1	0.1	0.0	1	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.2	0.2	0.2	5	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	0.0	0.0	1.2	5	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	0.7	1.0	0.9	1	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	-	21.0	29.8	23	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	50.9	49.7	50.1	42	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	68.4	75.1	82.5	30	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	66.5	70.1	77.6	38	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	45.5	40.8	42.7	45	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	48.9	47.2	52.9	24	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	9.8	33.4	37.2	20	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	44.1	45.9	51.1	23	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.6	1.1	0.8		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	10.3	9.9	7.3		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		861.9	825.7	837.0	46	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.2	5.4	4.6	10	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	74.7	75.0	77.3		27	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	76.8	79.2	80.3		15	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	5.0	4.4	4.1		6	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	10.1	10.3	8.0		43	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		51.7			19	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		94.5	96.2	94.2	36	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		52.2	75.2	56.1	52	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	47.4			46.1	50	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	48.2	50.1	50.4		48	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	26.7	22.7	24.9		16	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	9.6	11.0	7.8		1	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	13.5	13.8	12.9		21	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	15.5	16.3	16.8		45	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	6.8	7.7	8.9		19	6.9	13.8	

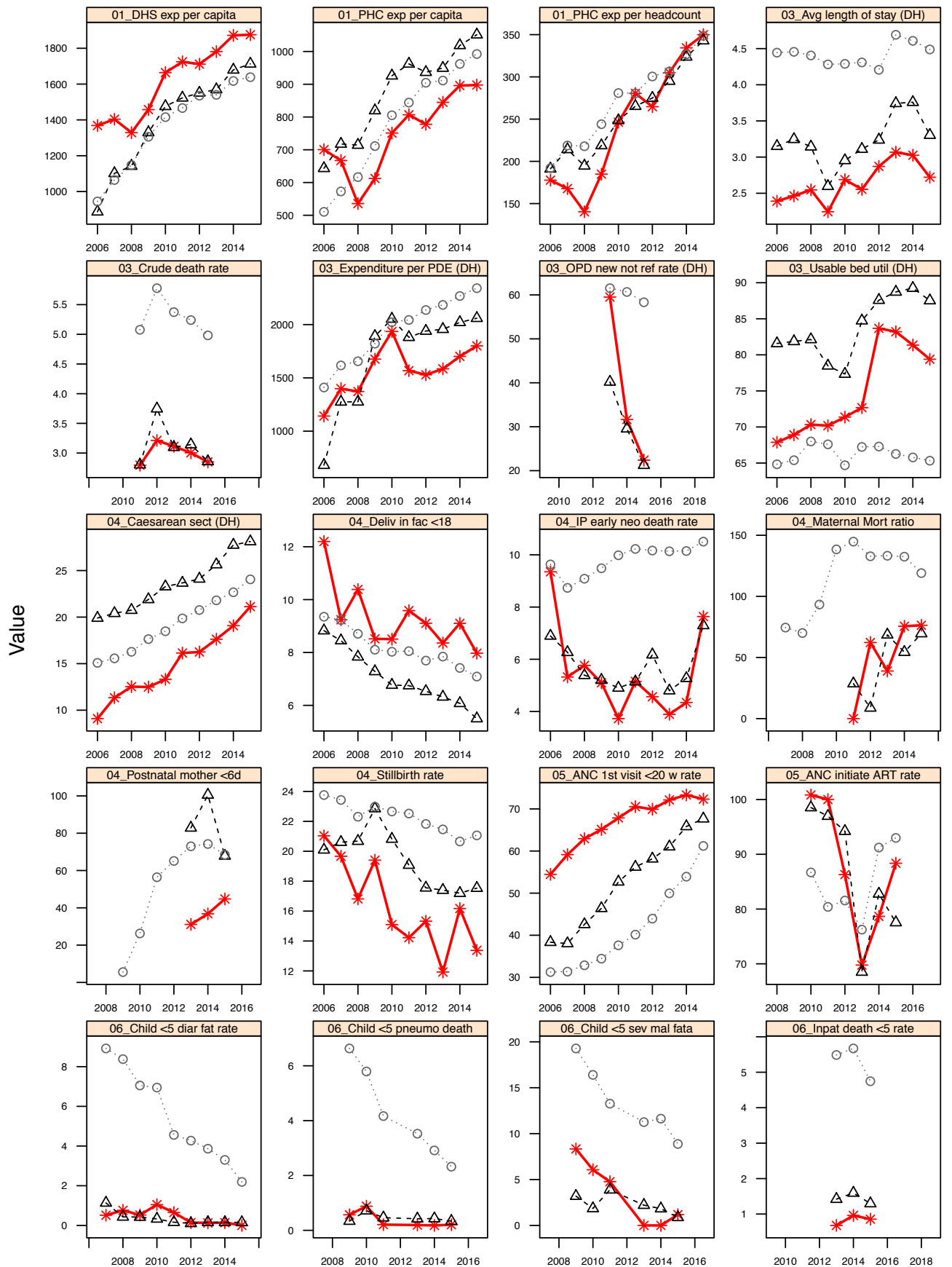
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

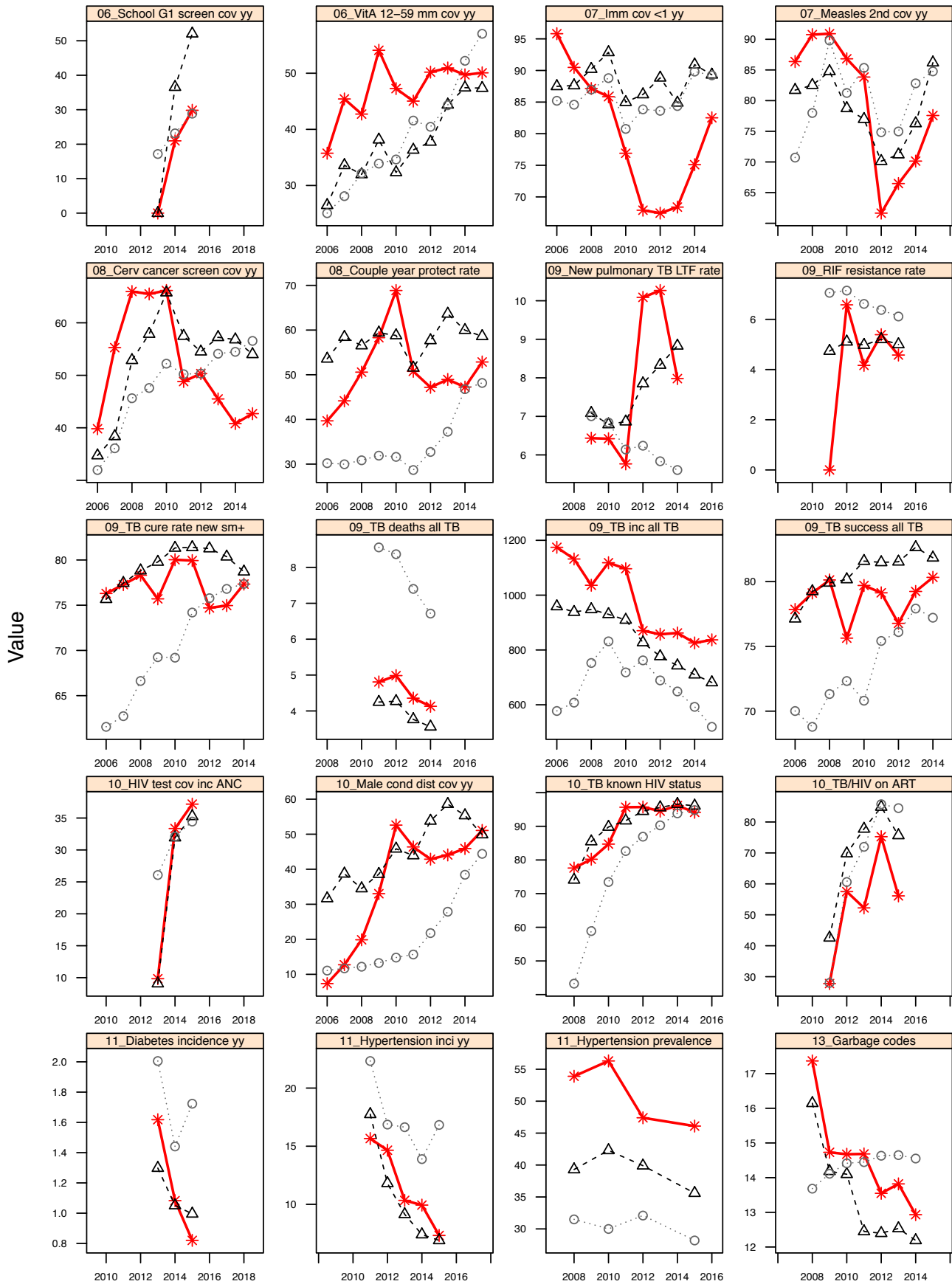
Value highlighted in yellow – performance is ranked among the 10 best in the country

Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: West Coast (DC1)



Annual indicators for district: West Coast (DC1)



District value * Provincial average Δ ZA (national) average ○

Cape Winelands District Municipality (DC2)

The Cape Winelands District in the Western Cape Province has a population of 845 237 people, with a population density of 39.4 people per km². The district consists of five sub-districts, namely Witzenberg, Drakenstein, Stellenbosch, Breede Valley and Langeberg, and falls into socio-economic Quintile 5, placing it among the wealthiest districts. Estimated medical scheme coverage is 25.2%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
42	0	4	2	0	5

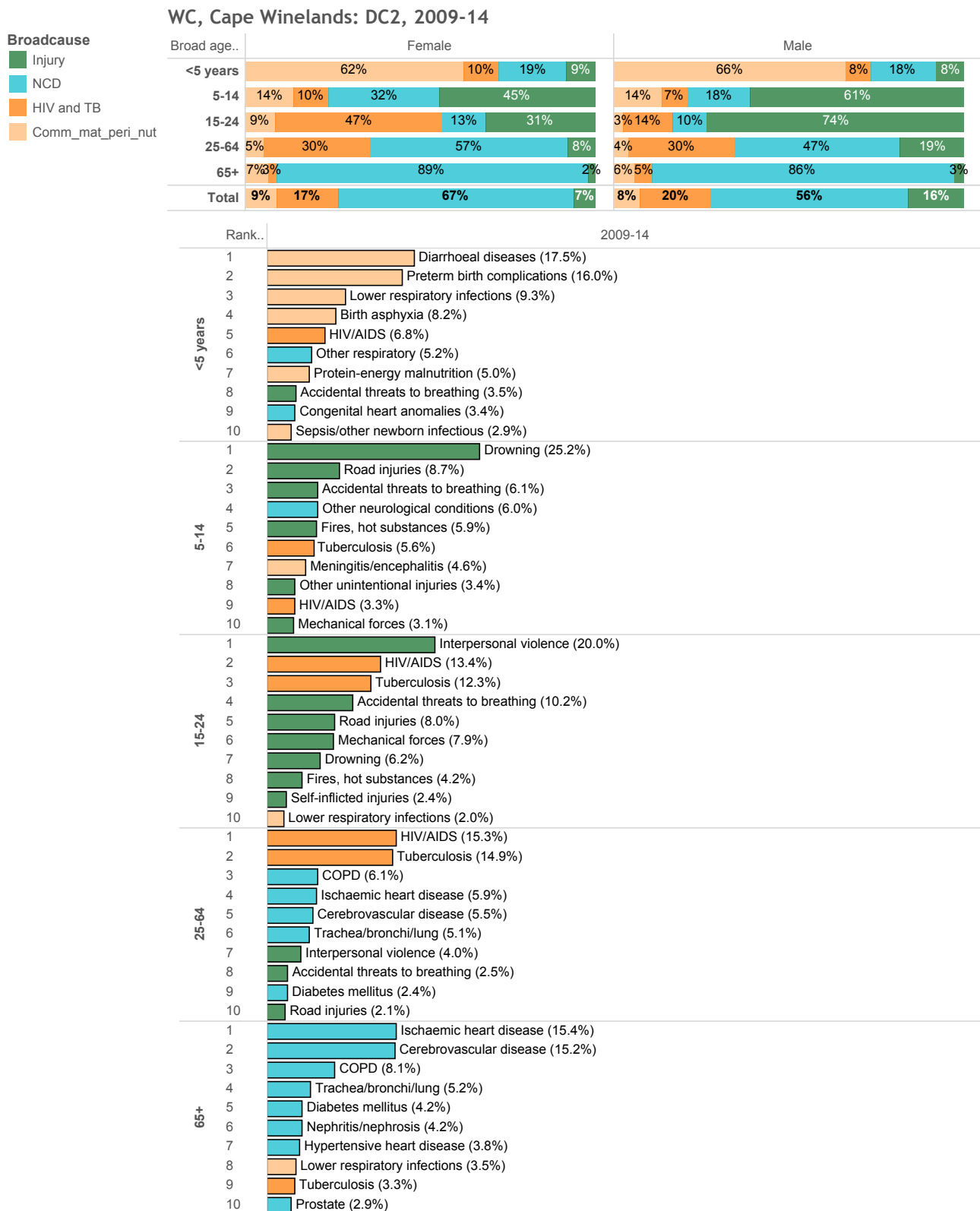
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	328 860	309 970	309 649
PHC headcount 5 years and older	1 696 266	1 639 625	1 611 754
Patient day equivalent	416 223	420 467	440 214
Deaths – total	1 963	2 088	2 246
Still births	215	198	226
Early neonatal deaths	46	63	112
Late neonatal deaths	9	7	19
Child under 5 years with diarrhoea death	5	2	2
Child under 5 years with pneumonia death	2	11	7
Child under 5 years with severe acute malnutrition death	3	10	3

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Cape Winelands (DC2)



Indicator performance: Cape Winelands (DC2)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.2	3.0	2.6	50	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 646.0	1 745.8	1 578.3	47	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	76.1	74.2	77.9	6	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	3.1	3.3	2.8	4	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	38.5	30.4	25.4	8	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	19.8	19.1	21.0		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.7	7.3	6.1	10	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	3.3	4.4	8.0	12	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	35.5	20.8	56.9	6	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	34.5	47.6	54.3	43	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	15.1	13.5	15.8	7	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	72.2	72.7	73.6	5	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	85.9	80.1	69.8	50	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			3.2	50	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.3	0.1	0.1	6	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.2	0.9	0.5	7	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	2.2	8.4	2.9	7	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	1.3	1.7	1.4	5	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	0.0	48.7	56.2	5	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	65.9	49.5	54.1	33	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	81.1	80.0	79.0	39	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	71.9	71.5	78.4	36	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	60.2	57.1	53.2	28	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	58.5	59.5	64.3	5	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	8.4	26.6	33.1	29	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	50.8	57.6	60.4	11	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.0	0.9	0.9		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	10.3	10.0	8.4		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		906.3	890.7	880.3	49	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.2	4.3	4.1	5	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	77.3	75.9	71.9		40	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	77.5	78.3	76.2		30	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	4.3	3.6	3.6		4	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.5	8.7	9.7		48	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		51.4			20	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		90.6	91.0	91.7	46	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		70.2	86.3	73.0	46	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	42.5			41.7	47	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	50.4	51.7	51.6		49	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	23.8	23.4	23.3		12	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	10.0	8.8	8.5		2	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	15.0	14.6	14.6		38	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	15.8	16.0	16.6		44	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	9.6	8.1	7.3		8	6.9	13.8	

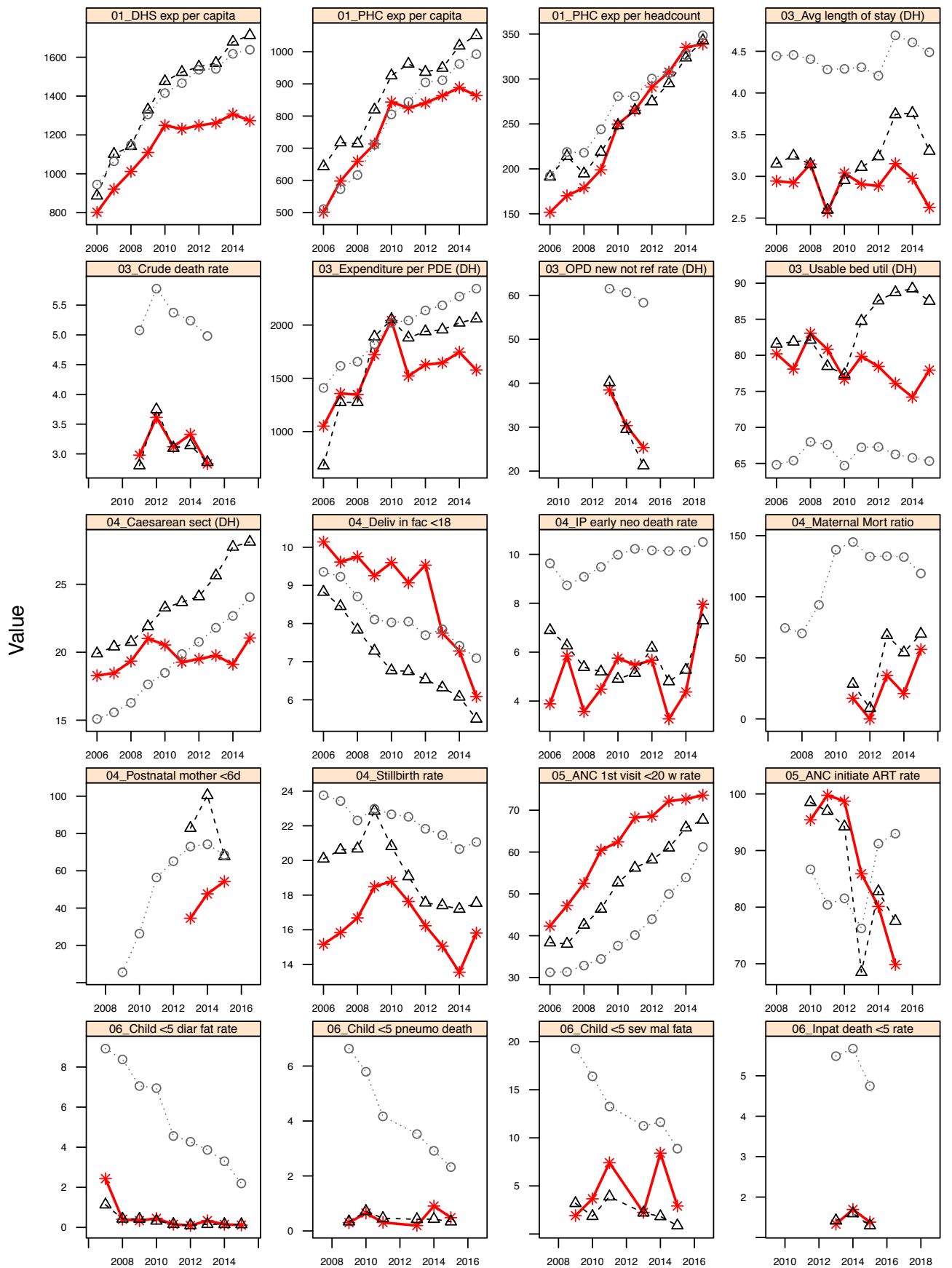
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

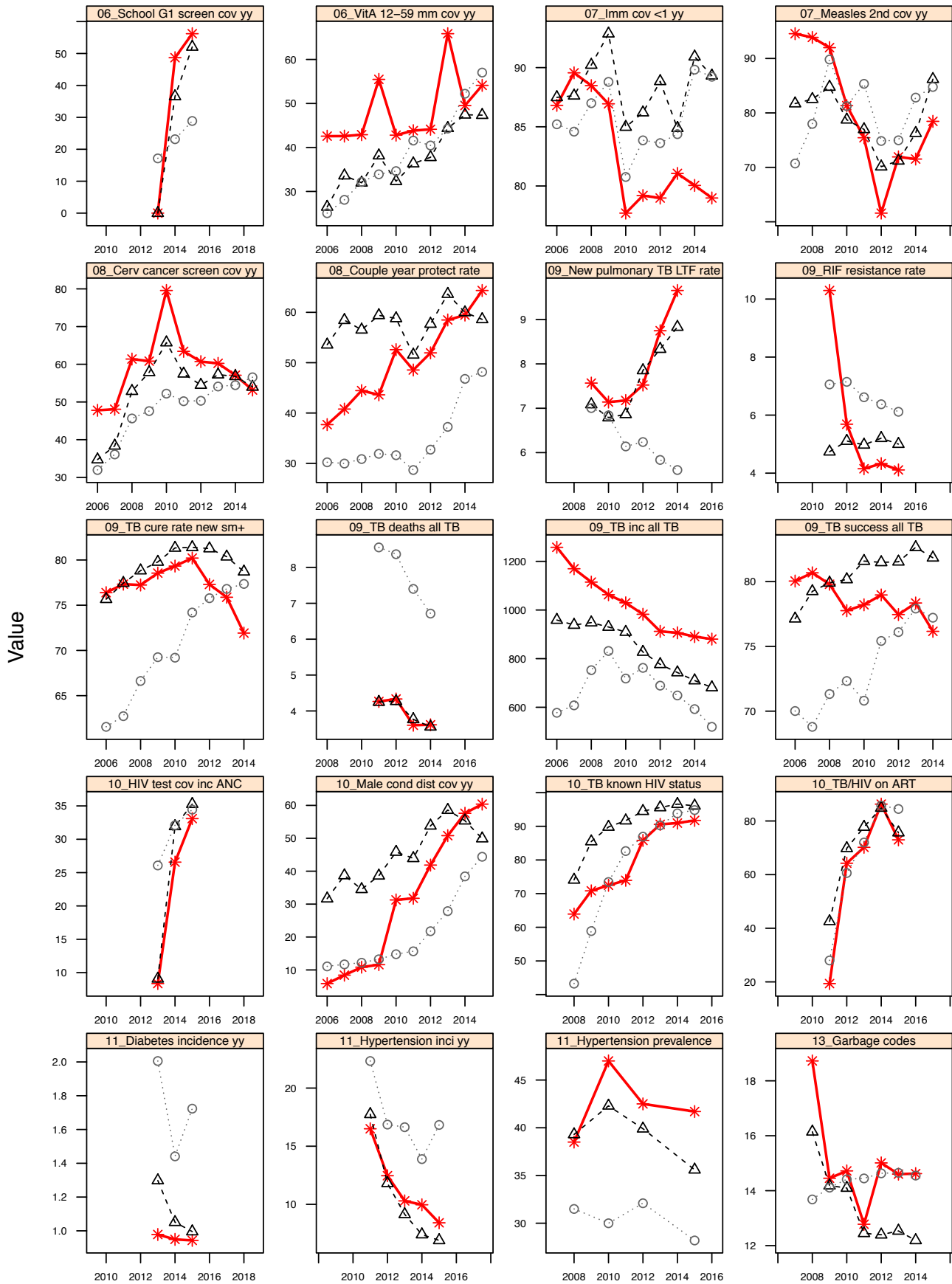
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Cape Winelands (DC2)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Cape Winelands (DC2)



Overberg District Municipality (DC3)

Overberg District is situated in the Western Cape Province and has four sub-districts, namely Overstrand, Theewaterskloof, Swellendam and Cape Agulhas. The district has a population of 285 810, with a population density of 23.3 people per km² and falls into socio-economic Quintile 5, among the wealthiest districts. Estimated medical scheme coverage is 20.3%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
17	0	4	0	0	1

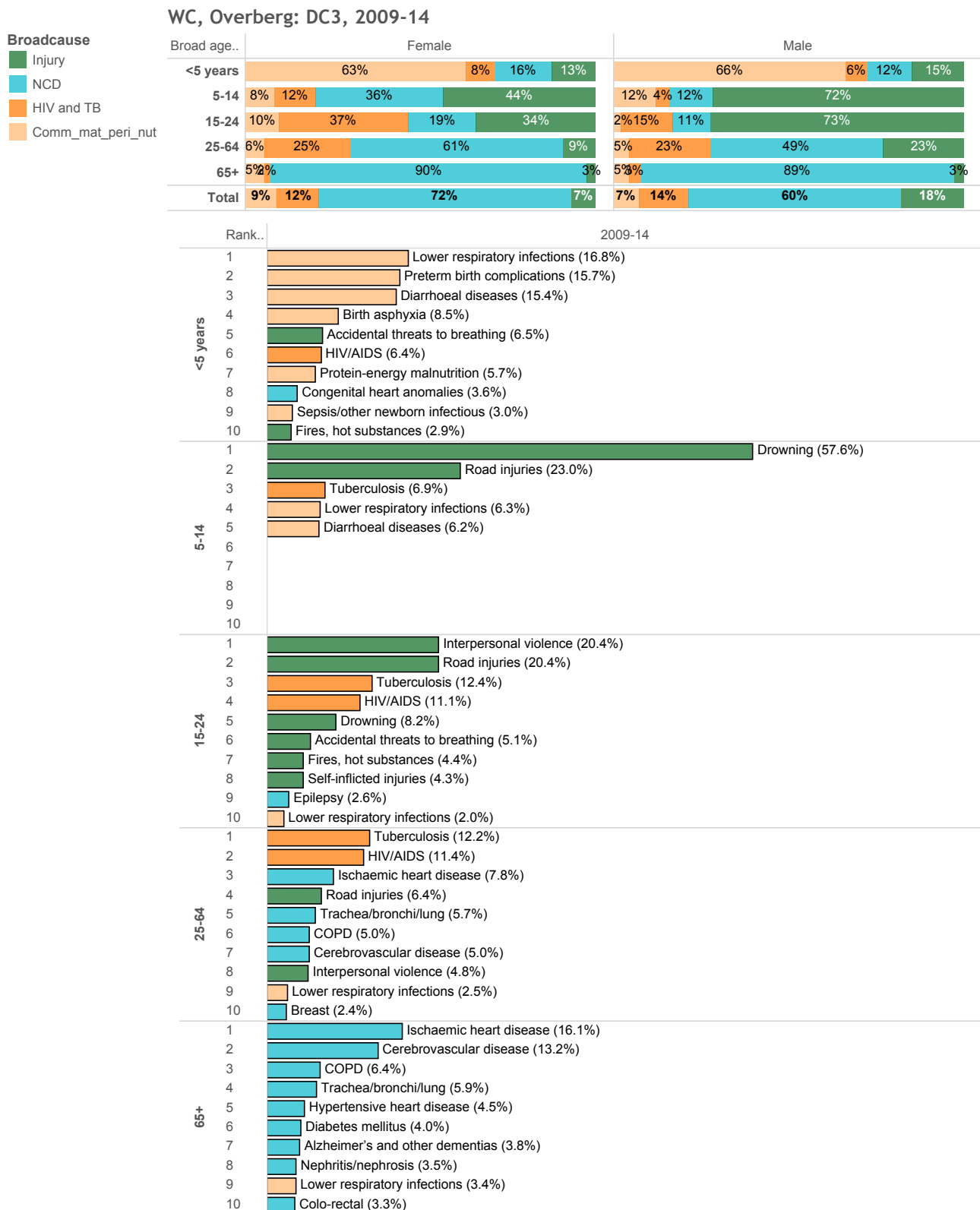
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	110 188	107 380	111 565
PHC headcount 5 years and older	670 274	677 883	698 460
Patient day equivalent	90 084	89 749	87 500
Deaths – total	446	438	468
Still births	38	33	42
Early neonatal deaths	30	25	34
Late neonatal deaths	1	1	2
Child under 5 years with diarrhoea death	0	1	1
Child under 5 years with pneumonia death	110 188	107 380	111 565
Child under 5 years with severe acute malnutrition death	670 274	677 883	698 460

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Overberg (DC3)



Indicator performance: Overberg (DC3)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.2	3.1	2.8	44	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 799.5	1 970.9	2 284.2	6	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	75.3	73.3	75.7	10	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	2.5	2.4	2.3	1	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	42.3	52.8	34.1	12	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	20.4	22.5	24.0		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	8.2	8.0	7.4	25	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	9.6	7.4	10.3	30	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	63.9	0.0	0.0	1	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	46.1	53.2	67.4	29	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	12.0	9.7	12.6	1	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	75.1	75.3	78.7	1	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	61.8	90.2	84.4	46	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			2.2	47	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.0	0.0	0.0	1	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.0	0.2	0.2	4	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	0.0	0.0	0.0	1	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	1.3	1.5	1.6	7	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	-	95.4	82.7	2	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	60.9	55.0	54.9	28	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	80.3	79.9	86.7	24	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	71.9	73.5	77.9	37	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	53.3	63.6	56.4	26	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	60.6	60.7	62.0	8	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	10.0	35.8	41.4	11	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	46.1	52.9	51.0	24	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.3	0.9	0.9		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	13.7	9.5	8.5		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		771.0	761.1	751.5	40	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		3.9	3.3	3.7	4	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	79.4	88.8	88.9		2	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	81.3	89.3	91.3		1	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	4.0	2.8	2.4		1	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	6.4	3.2	3.5		10	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		46.4			28	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		86.8	96.0	93.1	43	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		66.5	82.3	59.5	50	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	45.6			40.2	44	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	51.4	54.0	55.6		51	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	18.0	17.6	14.3		1	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	10.8	9.7	11.5		7	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	12.8	10.7	10.5		9	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	19.8	18.7	18.7		48	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	6.8	7.3	8.8		18	6.9	13.8	

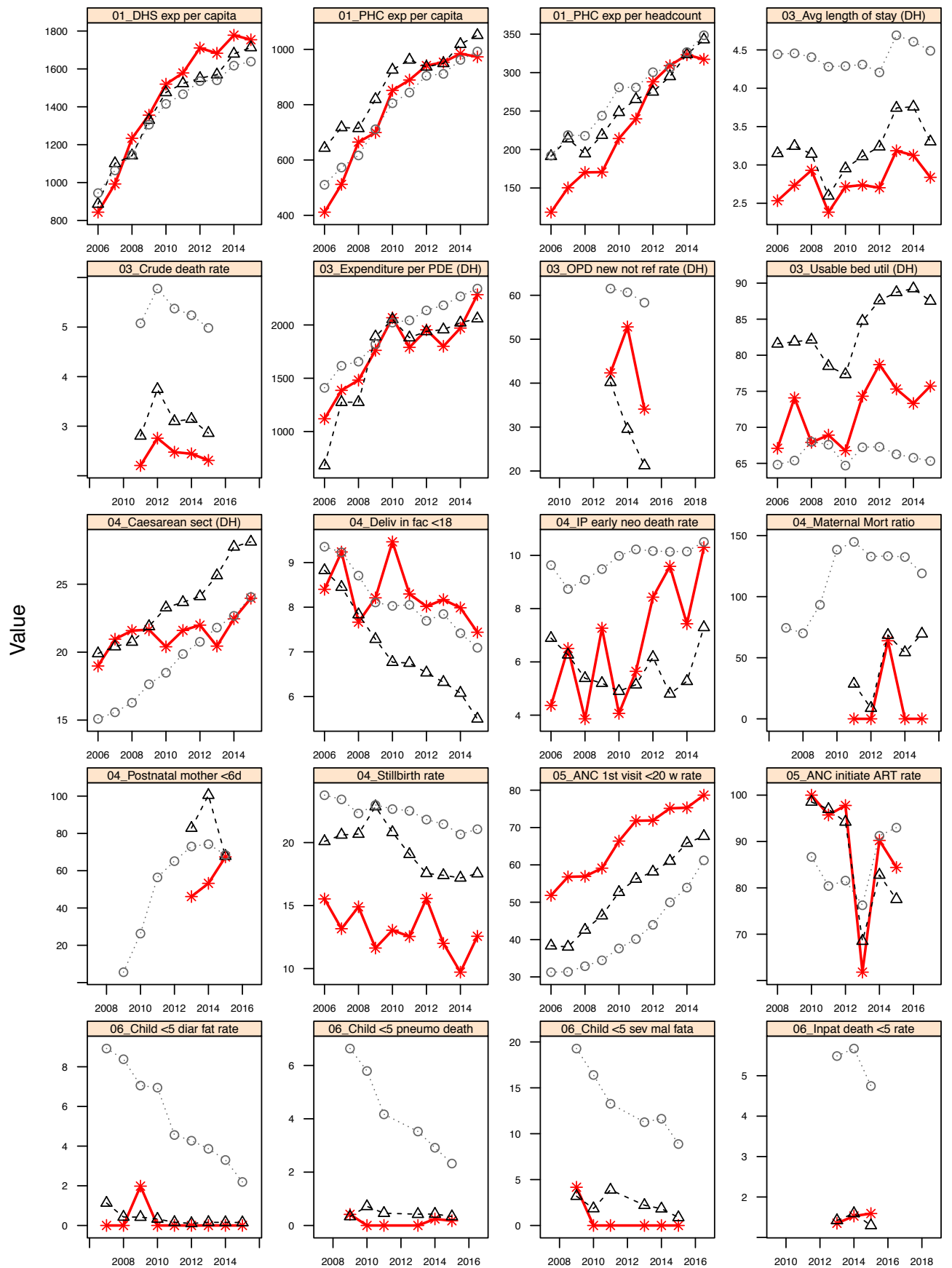
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

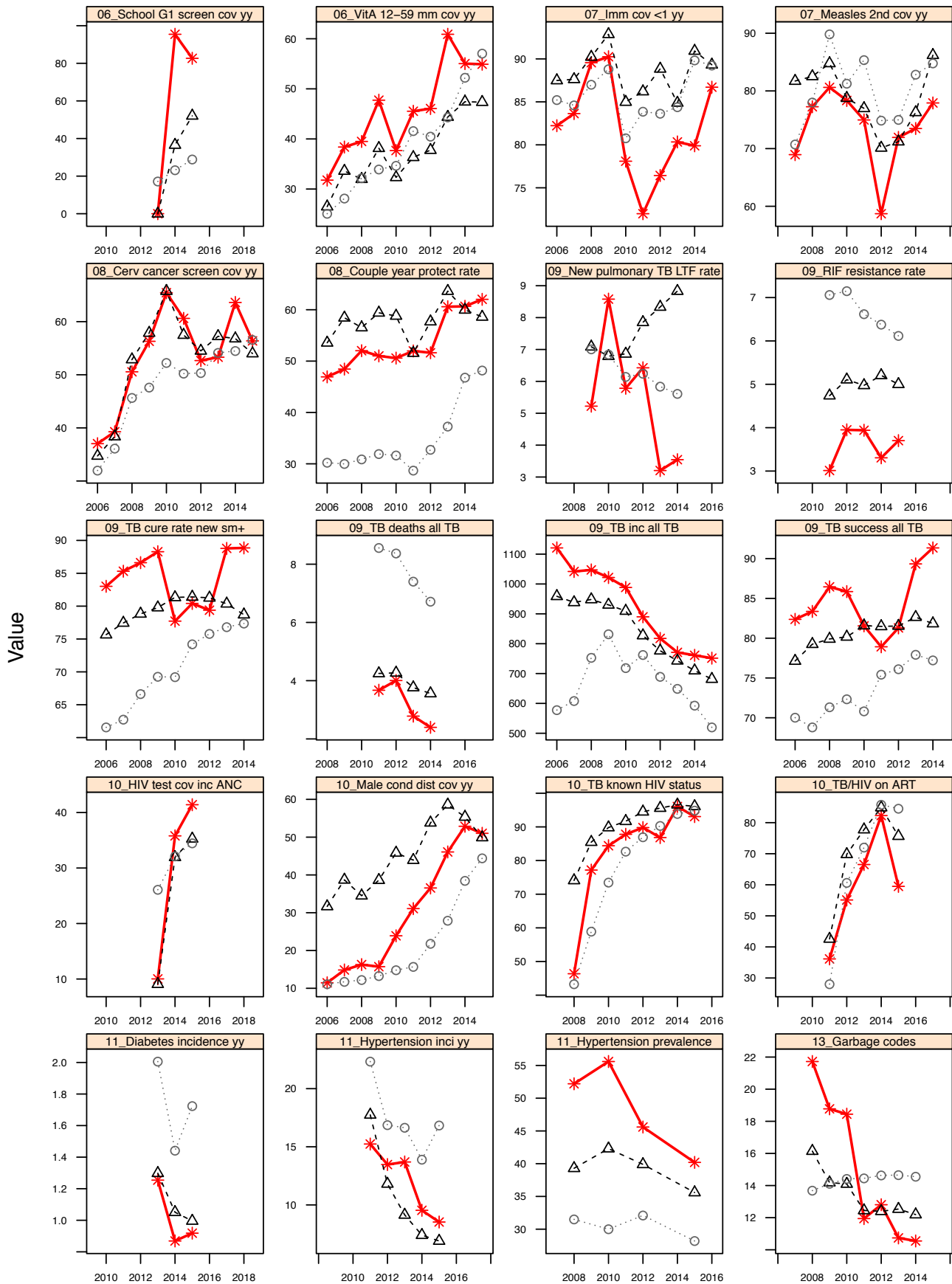
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Overberg (DC3)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Overberg (DC3)



District value * Provincial average Δ ZA (national) average ○

Eden District Municipality (DC4)

Eden District in the Western Cape Province has a population of 605 380 people, with a population density of 25.9 people per km². The district incorporates seven sub-districts, namely George, Mossel Bay, Knysna, Bitou (Plettenberg Bay), Oudtshoorn, Hessequa and Kannaland, and falls into socio-economic Quintile 4, among the second-wealthiest districts. Estimated medical scheme coverage is 17.2%. Eden is one of the 11 National Health Insurance (NHI) pilot districts.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
34	0	6	1	0	7

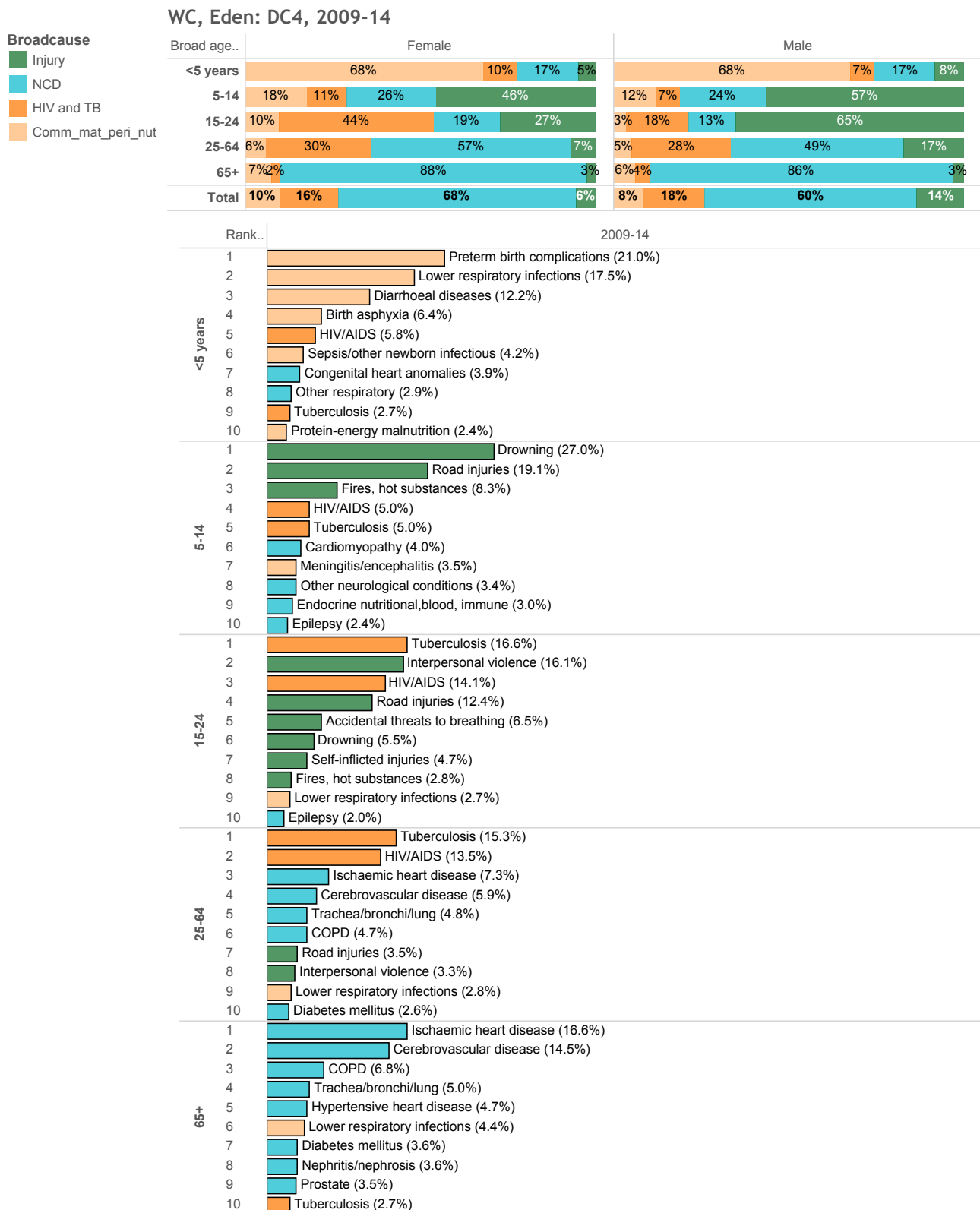
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	225 025	228 043	227 434
PHC headcount 5 years and older	1 452 401	1 442 283	1 427 978
Patient day equivalent	333 684	330 399	340 030
Deaths – total	1 887	1 828	2 071
Still births	179	159	192
Early neonatal deaths	62	67	64
Late neonatal deaths	5	2	4
Child under 5 years with diarrhoea death	2	2	
Child under 5 years with pneumonia death	1	1	6
Child under 5 years with severe acute malnutrition death	6	1	1

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 10 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Eden (DC4)



Indicator performance: Eden (DC4)

Category	Indicator	District value			District ranking	Provincial average	National average	National target
		2013/14	2014/15	2015/16	2015/16	2015/16	2015/16	2015/16
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.5	3.6	3.2	39	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 702.7	1 857.3	1 826.9	40	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	83.4	83.1	86.0	3	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	3.7	3.6	3.3	7	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	35.9	29.1	22.0	6	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.6	22.1	22.8		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.9	7.4	6.8	17	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	6.5	7.0	7.0	6	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	105.4	62.9	76.5	13	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	29.0	40.4	47.8	48	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	18.5	16.4	20.5	23	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	75.3	76.1	76.9	2	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	83.1	74.7	65.6	51	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.5	37	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.2	0.2	0.0	1	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.1	0.1	0.8	10	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	4.7	0.4	0.3	3	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	1.6	1.4	1.1	2	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	-	70.7	77.4	3	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	67.0	69.2	69.4	8	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	82.7	85.8	84.9	26	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	76.6	82.0	91.0	13	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	79.5	78.4	76.0	8	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	64.4	59.1	63.3	6	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	11.3	35.9	36.8	22	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	49.4	49.7	51.9	20	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	1.1	0.8	0.8		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	10.3	9.0	8.7		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		832.0	813.2	808.6	43	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		4.0	3.2	3.6	2	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.5	79.8	72.7		39	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	82.5	79.1	77.8		24	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	4.6	4.9	4.6		8	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	7.7	8.6	11.9		50	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		44.3			31	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		92.2	94.4	93.7	40	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		61.0	67.2	74.6	44	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	42.2			37.8	40	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	51.6	53.7	54.9		50	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	24.5	21.8	20.3		5	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	11.2	11.7	11.6		8	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	11.3	11.2	10.7		11	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	12.7	12.9	13.2		28	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	5.6	4.5	3.6		1	6.9	13.8	

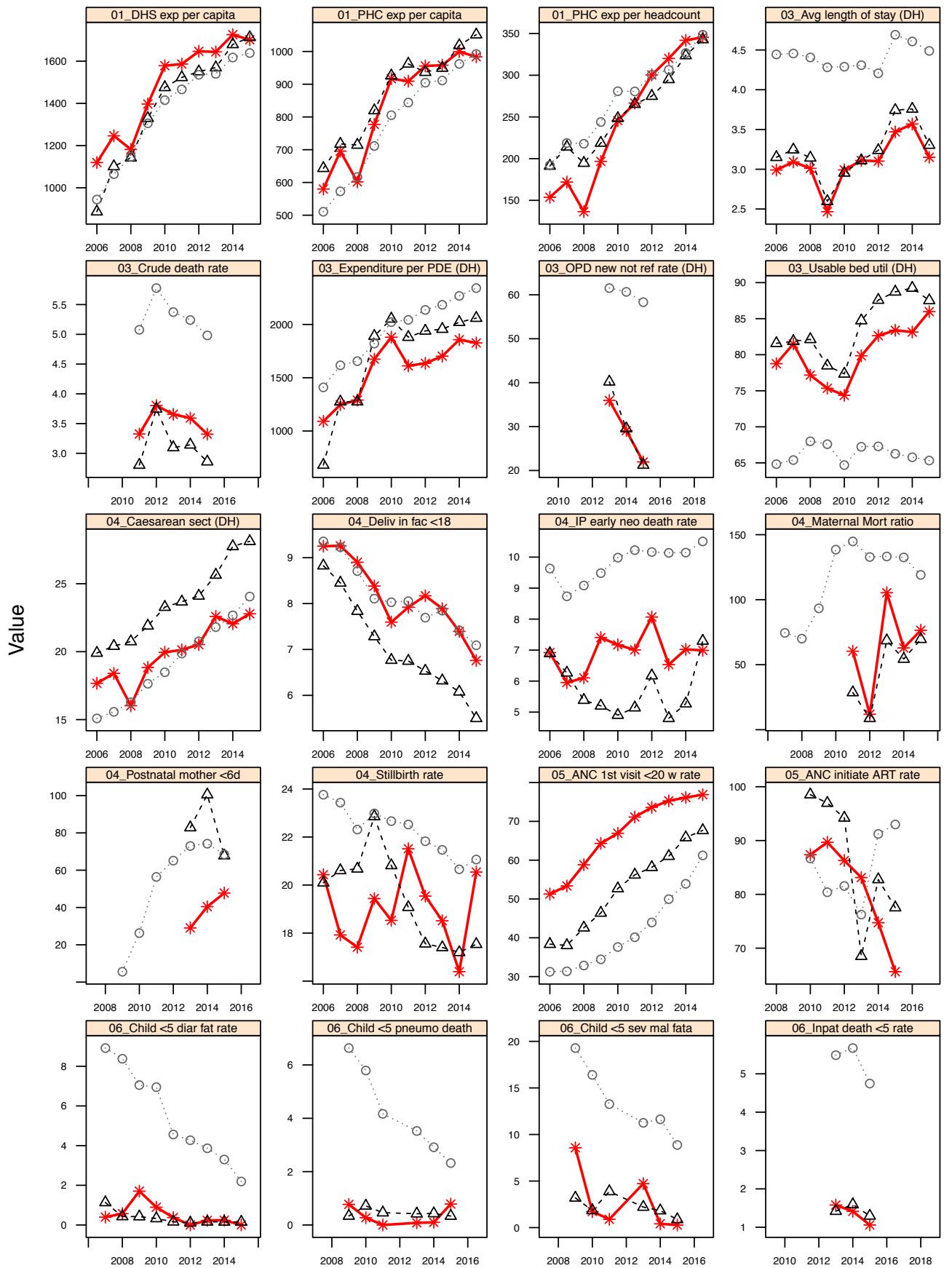
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

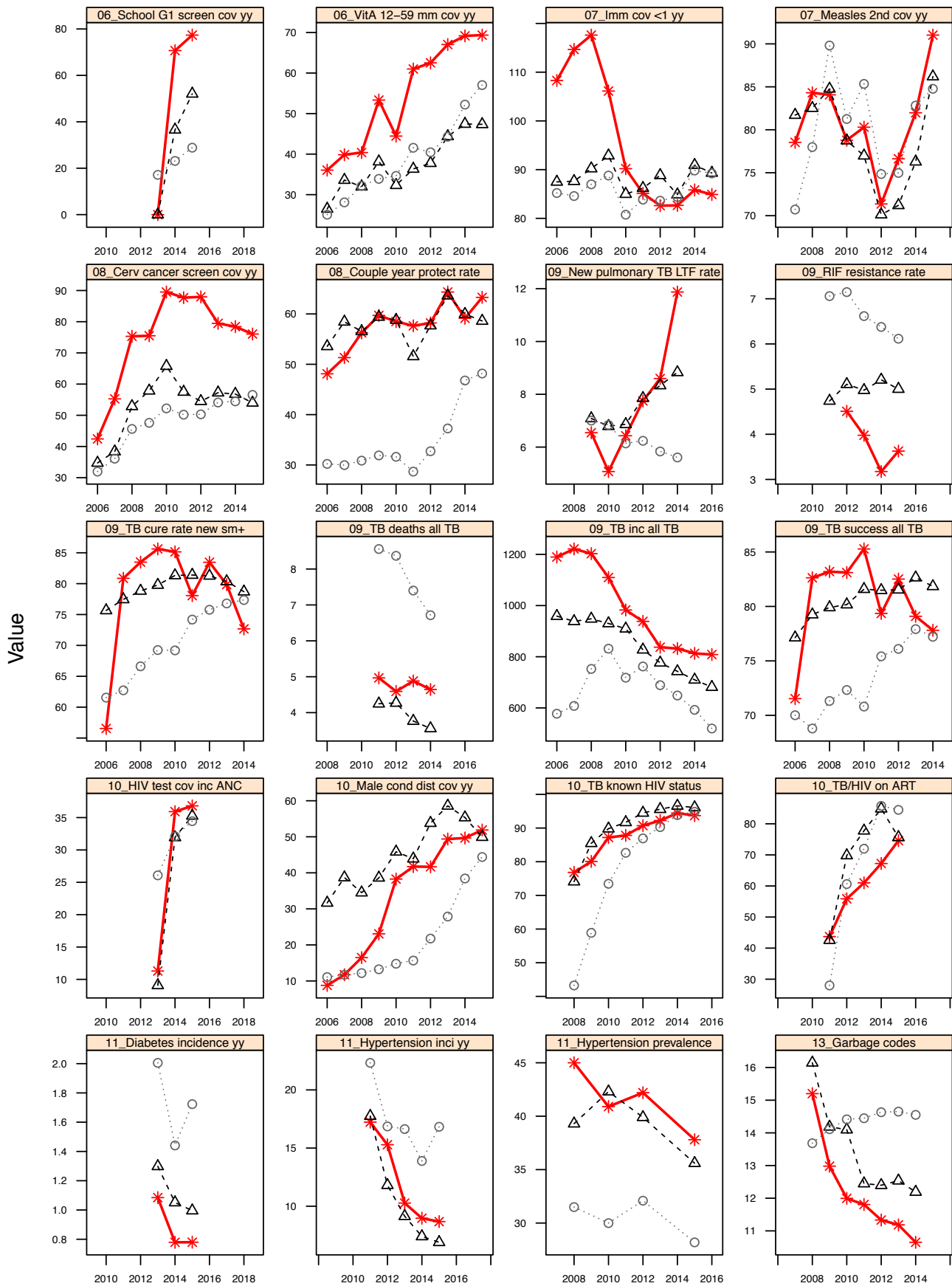
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Eden (DC4)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Eden (DC4)



Central Karoo District Municipality (DC5)

The Central Karoo District in the Western Cape Province comprises three sub-districts, namely Laingsburg, Prince Albert and Beaufort West. The district has a population of 73 336 (the smallest in the country by a large margin), with a very low population density of 1.9 people per km². It falls into socio-economic Quintile 4 and is therefore among the second-wealthiest districts and has an estimated medical scheme coverage of 12.7%.

Number of facilities by level, 2015/16

Clinic	CHC	District Hospital	Regional Hospital	Central/Tertiary Hospitals	Other Hospitals
8	0	4	0	0	1

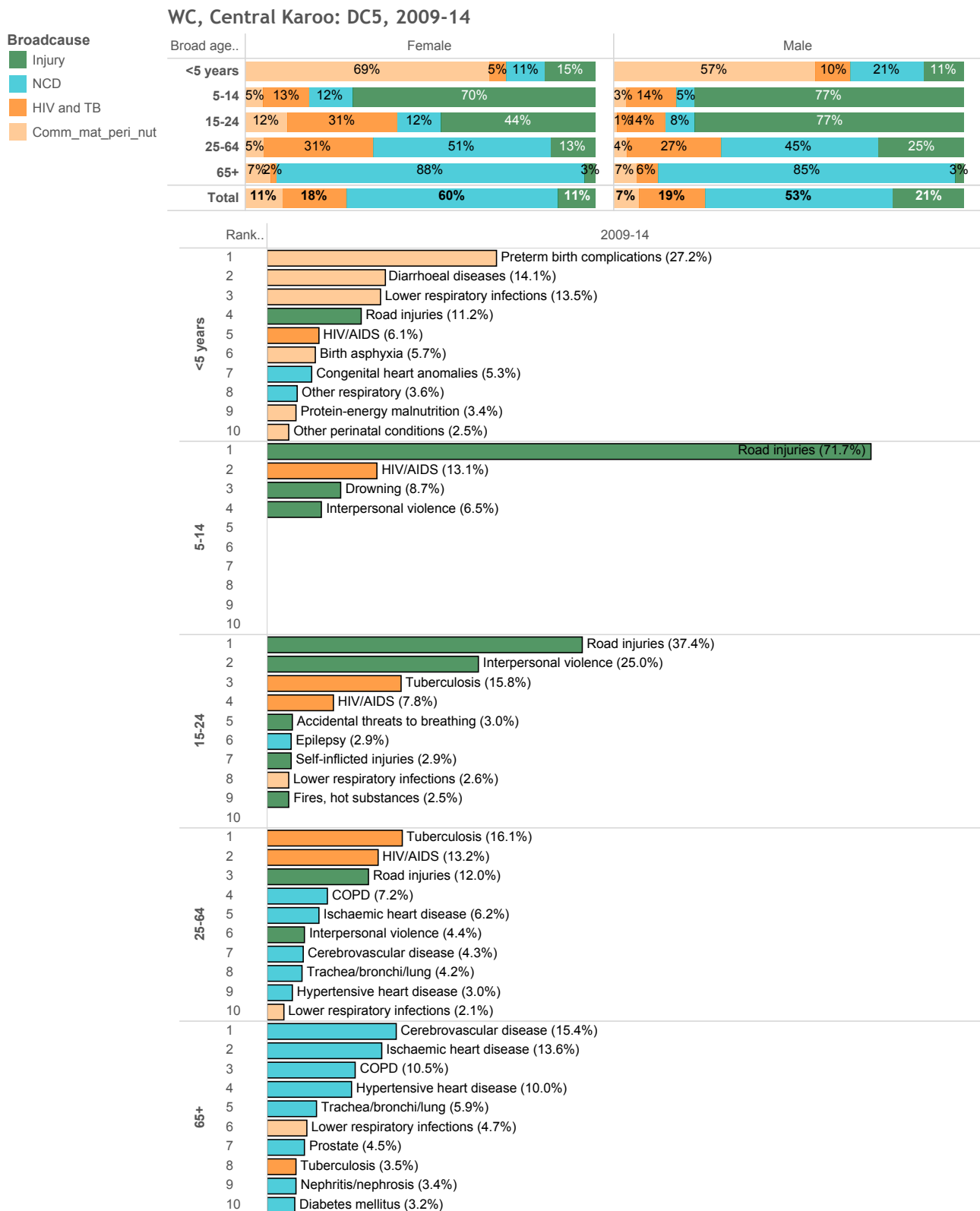
Headcount and deaths, 2013/14 – 2015/16

Data element	2013/14	2014/15	2015/16
PHC headcount under 5 years	32 459	32 602	30 629
PHC headcount 5 years and older	195 138	189 889	190 933
Patient day equivalent	74 515	72 922	71 454
Deaths – total	257	275	312
Still births	22	22	24
Early neonatal deaths	7	16	9
Late neonatal deaths	2	0	2
Child under 5 years with diarrhoea death	0	2	2
Child under 5 years with pneumonia death	32 459	32 602	30 629
Child under 5 years with severe acute malnutrition death	195 138	189 889	190 933

Burden of disease profile

For the percentage of deaths by broad cause, deaths are classified into four groups, namely: (i) injuries; (ii) non-communicable diseases; (iii) HIV and TB; and (iv) communicable diseases together with maternal, perinatal and nutritional conditions. Data are given by gender and age group for the period 2009–2014. The second part of the graph shows the 1 leading single causes of death within each age group (both genders) for 2009–2014 combined.

Percentage of deaths by broad cause and leading causes, 2009–2014: Central Karoo (DC5)



Indicator performance: Central Karoo (DC5)

Category	Indicator	District value			District ranking 2015/16	Provincial average 2015/16	National average 2015/16	National target 2015/16
		2013/14	2014/15	2015/16				
Management PHC	Percentage ideal clinics [Percentage]			0.0	35	0.0	9.2	
	Percentage of fixed PHC facilities with patients that have access to a medical practitioner [Percentage]			0.0	47	0.0	18.1	
Management Inpatients	Average length of stay (district hospitals) [Days]	3.6	3.5	3.3	35	3.3	4.5	
	Expenditure per patient day equivalent (district hospitals) [Rand (real 2015/16 prices)]	1 774.6	1 926.9	2 008.8	33	2 059.6	2 342.2	
	Inpatient bed utilisation rate (district hospitals) [Percentage]	72.6	70.6	73.6	14	87.5	65.3	78.6
	Inpatient crude death rate [Percentage]	2.9	3.1	3.1	6	2.9	5.0	
	OPD new client not referred rate (district hospitals) [Percentage]	65.6	4.6	3.0	1	21.2	58.3	
Delivery	Delivery by caesarean section rate (district hospitals) [Percentage]	22.4	22.0	17.5		28.1	24.1	
	Delivery in facility under 18 years rate [Percentage]	7.6	9.2	9.8	43	5.5	7.1	
	Inpatient early neonatal death rate [per 1 000 live births]	6.5	14.8	9.2	20	7.3	10.5	10.0
	Maternal mortality in facility ratio [per 100 000 live births]	0.0	371.1	0.0	3	69.6	119.1	120.0
	Mother postnatal visit within 6 days rate [Percentage]	22.8	19.5	26.0	52	67.8	68.5	85.0
	Stillbirth in facility rate [per 1 000 births]	19.9	20.0	23.9	35	17.5	21.1	
PMTCT	Antenatal 1st visit before 20 weeks rate [Percentage]	67.4	69.1	73.3	6	67.7	61.2	60.0
	Antenatal client initiated on ART rate [Percentage]	79.7	64.2	46.3	52	77.5	93.0	88.0
	Percentage of PCR tests positive at birth [Percentage]			1.8	44	2.4	1.1	
Child Health	Child under 5 years diarrhoea case fatality rate [Percentage]	0.0	1.2	1.1	14	0.1	2.2	3.2
	Child under 5 years pneumonia case fatality rate [Percentage]	0.0	0.0	0.0	1	0.3	2.3	3.0
	Child under 5 years severe acute malnutrition case fatality rate [Percentage]	0.0	0.0	0.0	1	0.9	8.9	10.0
	Inpatient death under 5 year rate [Percentage]	1.2	1.7	1.2	3	1.3	4.7	
	School Grade 1 screening coverage (annualised) [Percentage]	0.0	113.8	7.6	51	52.1	28.9	25.0
	Vitamin A dose 12-59 months coverage (annualised) [Percentage]	66.0	50.0	54.9	29	47.3	57.0	
Immunisation	Immunisation coverage under 1 year [Percentage]	63.3	78.7	76.9	43	89.3	89.2	90.0
	Measles 2nd dose coverage (annualised) [Percentage]	74.8	76.7	92.5	10	86.2	84.8	83.0
Reproductive health	Cervical cancer screening coverage (annualised) [Percentage of women 30+ /10]	71.0	48.3	48.7	35	54.0	56.6	60.0
	Couple year protection rate (annualised) [Percentage]	46.1	59.7	67.7	3	58.6	48.2	60.0
HIV	HIV testing coverage (including ANC) [Percentage]	11.8	42.5	62.2	2	35.3	34.5	
	Male condom distribution coverage [Condoms per male 15+]	34.7	60.6	73.7	5	49.9	44.4	
Non-communicable diseases	Diabetes incidence (annualised) [per 1 000 population]	0.8	2.0	1.6		1.0	1.7	
	Hypertension incidence (annualised) [per 1 000 population 40+]	14.8	17.7	16.4		6.9	16.8	
Human Resources	Percentage of fixed PHC facilities with performance management agreement for all staff [Percentage]			0.0	46	0.0	16.3	
	Percentage of fixed PHC facilities with staffing in line with WISN [Percentage]			0.0	23	0.0	1.5	

Category	Indicator	District value				District ranking 2015*	Provincial average 2015*	National average 2015*	National target 2015*
		2012	2013 & 2013/14	2014 & 2014/15	2015				
TB case finding	Incidence (diagnosed cases) of TB (ETR.net) [Cases per 100 000 population]		817.1	844.1	814.1	45	681.4	519.8	
	TB Rifampicin resistance confirmed client rate [Percentage]		3.9	3.6	2.6	1	5.0	6.1	
TB treatment outcomes	TB cure rate (new sm+) [Percentage]	83.1	74.5	74.4		35	78.7	77.4	
	TB treatment success rate (ETR.net) [Percentage]	79.9	79.2	79.0		21	81.8	77.2	83.0
	TB death rate (ETR.net) [Percentage]	6.3	4.3	5.2		12	3.6	6.7	
	New smear positive pulmonary TB loss to follow up rate [Percentage]	5.8	10.2	13.6		51	8.8	5.6	
	TB MDR treatment success rate (EDRWeb) [Percentage]		47.6			27	43.5	47.2	55.0
HIV	Percentage of TB cases with known HIV status (ETR.net) [Percentage]		96.6	97.4	96.5	12	96.1	94.8	
	TB/HIV co-infected client on ART rate (ETR.Net) [Percentage]		53.0	66.7	59.1	51	75.7	84.5	
NCDs	Hypertension prevalence rate (crude) [Percentage]	57.6			48.6	51	35.6	28.2	

Section B: Profile Western Cape Province

Category	Indicator	District value				District ranking	Provincial average	National average	National target
		2012	2013 & 2013/14	2014 & 2014/15	2015	2015*	2015*	2015*	2015*
Burden of disease	Percentage of YLLs due to non-communicable diseases [Percentage]	48.4	48.8	48.2		46	50.7	38.2	
	Percentage of YLLs due to HIV and TB [Percentage]	24.9	22.3	22.0		9	19.6	27.0	
	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes [Percentage]	9.7	9.6	11.0		4	10.7	21.2	
	Percentage of deaths garbage codes [Percentage]	10.9	13.9	11.1		13	12.2	14.6	
	Percentage of YLLs due to injuries [Percentage]	17.0	19.4	18.8		49	19.0	13.6	
	Percentage of deaths ill-defined [Percentage]	6.0	4.9	5.4		3	6.9	13.8	

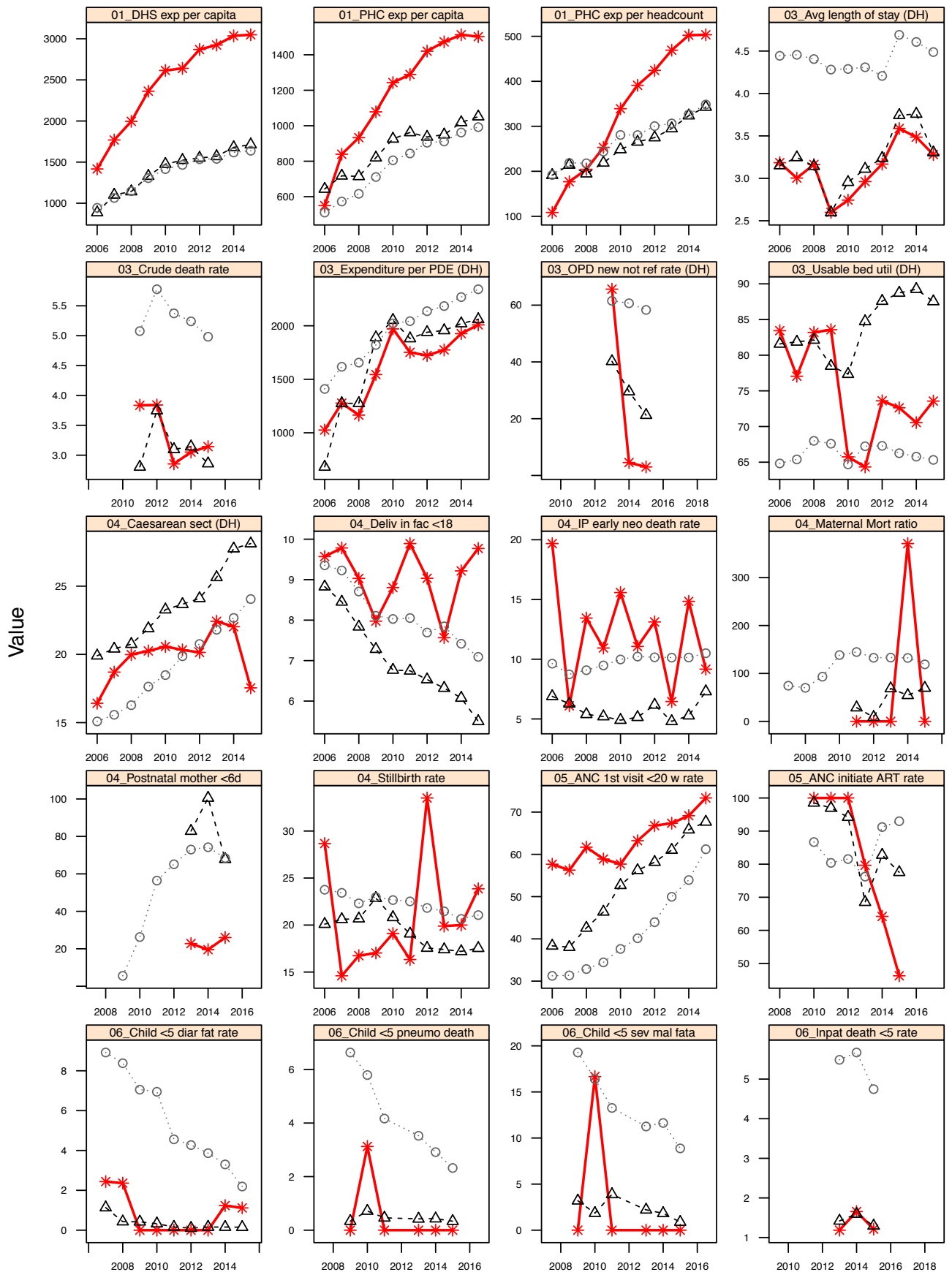
* – value for most recent year which ranges from 2013 to 2015

Value in red – improvement strategies are urgently needed

Value highlighted in yellow – performance is ranked among the 10 best in the country

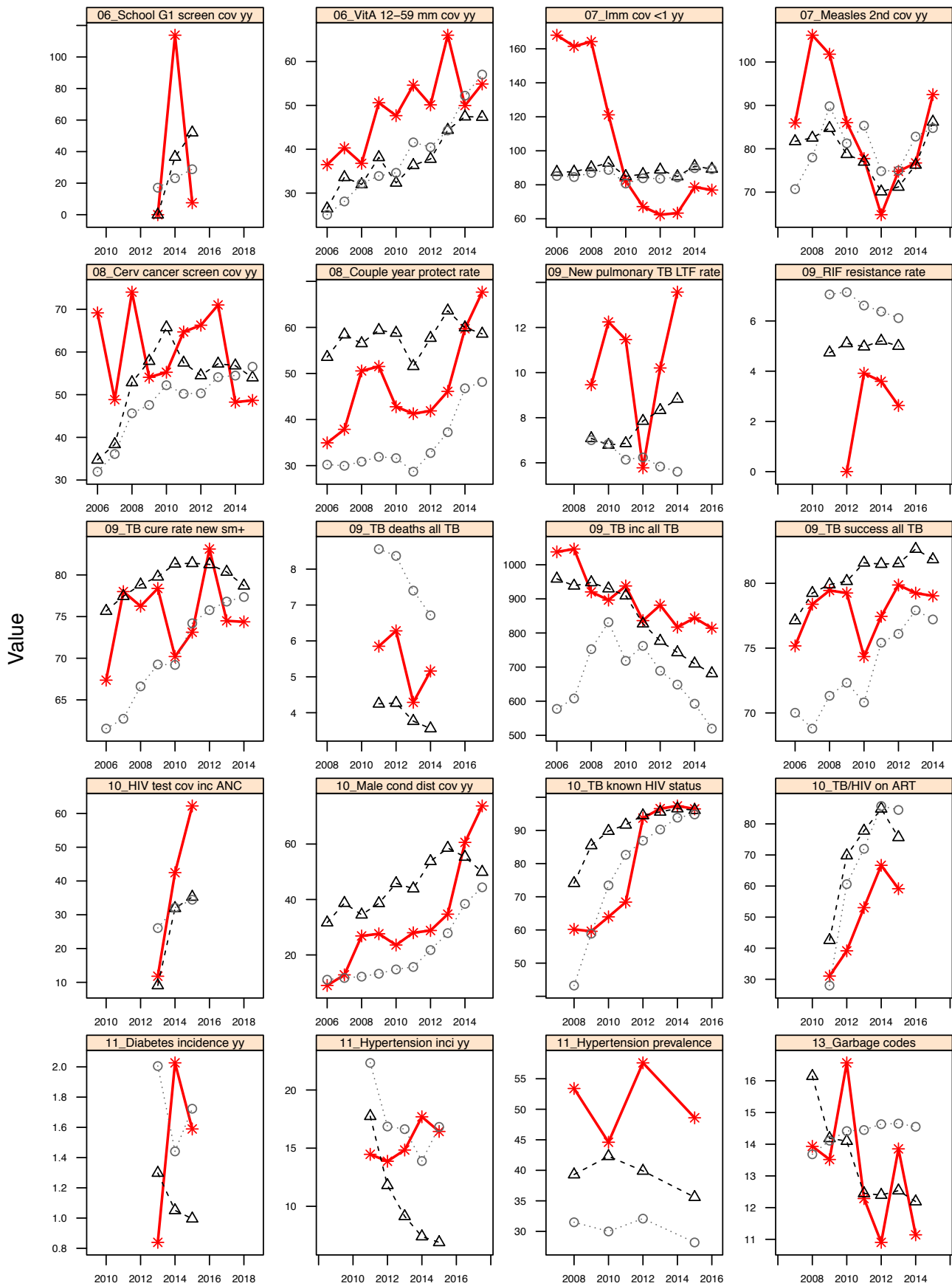
Value highlighted in red – performance is ranked among the 10 worst in the country

Annual indicators for district: Central Karoo (DC5)



District value * Provincial average Δ ZA (national) average ○

Annual indicators for district: Central Karoo (DC5)



District value * Provincial average Δ ZA (national) average ○

Definitions and sources (abbreviations given in footnote)

Group	Indicator	Description	Numerator	Denominator	Source
Deprivation	South African Index of Multiple Deprivation Rank (1 = most deprived)	Ranking for composite index of deprivation. Indicators cover the following domains: income and material deprivation, employment deprivation, education deprivation, and living environment deprivation			Southern African Social Policy Research Institute (SASPRI), based on data from StatsSA Census 2011
Finance	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	Total amount spent on PHC (DHS) per person without medical scheme coverage	Provincial expenditure on DHS (excluding 2.8 Coroner) plus net LG expenditure on PHC	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, NW financial data, Treasury data on LG expenditure, DHS population data and StatsSA GHS medical scheme coverage
	Provincial and local government primary health care (PHC) expenditure per capita (uninsured population)	Total amount spent on non-hospital PHC health services per person without medical scheme coverage	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, NW financial data, Treasury data on LG expenditure, DHS population and StatsSA GHS medical scheme coverage
	Provincial and local government PHC expenditure per PHC headcount	Total amount spent on non-hospital PHC health services per headcount	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Total PHC headcount	BAS, DHIS PHC headcount
Management PHC	Percentage ideal clinics	Percentage of fixed PHC facilities assessed on the ideal clinic dashboard that achieved Ideal Clinic status (silver, gold, platinum or diamond status)	Number of fixed PHC facilities achieving silver, gold, platinum or diamond status on the ideal clinic dashboard	Fixed clinics plus fixed CHCs/CDCs	DHIS NDoH5, Ideal Clinic review tools
	Percentage of assessed PHC facilities with patients that have access to a medical practitioner	Percentage of PHC facilities, out of all facilities that have conducted a status determination, with patients that have access to a medical practitioner	Number of fixed PHC facilities with patients who have access to a medical practitioner	Number of PHC facilities that conducted a status determination on version 15 as indicated in column G of the Ideal Clinic Assessment Tool	DHIS NDoH5, Ideal Clinic review tools
Management Inpatients	Average length of stay (district hospitals)	Average number of patient days that an admitted patient spends in hospital before separation	Inpatient days + 1/2 day patients	Separations = Discharges (including day patients) + Deaths + Transfers out	DHIS NDoH5 (data for district hospitals only)
	Inpatient bed utilisation rate (district hospitals)	Number of patient days during the reporting period, expressed as a percentage of the sum of the daily number of useable beds. (Comment: The calculation here is an approximation. It assumes: (1) a day patient occupies a bed for half a day, (2) there are always 30 days in a month)	Total patient days = (Inpatient days + 1/2 day patients) x 100	Total usable bed days = (Inpatient beds - total) x 30.42	DHIS NDoH5 (data for district hospitals only)
	Expenditure per Patient Day Equivalent (district hospitals)	Average cost per patient per day seen in a hospital (expressed as Rand per PDE)	Total expenditure on health per hospital	PDE total	BAS, NW financial data, DHIS (PDE) (data for district hospitals only)
Management Inpatients (cont)	OPD new client not referred rate (district hospitals)	Proportion of new OPD clients without a referral letter	OPD headcount not referred new	OPD new clients total	DHIS NDoH5 (data for district hospitals only)
	Inpatient crude death rate	Proportion of admitted clients/separations who died during hospital stay	Inpatient deaths - total	Separations = Discharges (including day patients) + Deaths + Transfers out	DHIS NDoH5

Group	Indicator	Description	Numerator	Denominator	Source
Delivery	Delivery in facility under 18 years rate	Deliveries to women under the age of 18 years as proportion of total deliveries in health facilities	Delivery in facility under 18 years	Delivery in facility total	DHIS NDoH5
	Delivery by Caesarean section rate (district hospitals)	Delivery by Caesarean section as proportion of total deliveries in health facilities	Delivery by Caesarean section	Delivery in facility total	DHIS NDoH5 (data for district hospitals only)
	Stillbirth rate in facility	Number of stillbirths, per 1 000 total births	Number of stillbirths	Total number of births	DHIS NDoH5
	Inpatient early neonatal death rate	Number of inpatient deaths within the first 7 days of life per 1 000 live births	Early neonatal deaths	Live births in facility	DHIS NDoH5
	Maternal mortality ratio institutional	Women who die as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births, and where the death occurs in a health facility	Maternal deaths in facility registered with NCCEMD	Live births denominator from DHIS	NCCEMD
	Maternal mortality in facility ratio	Women who died in hospital as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births in facility	Maternal deaths in facility	Live births in facility	DHIS NDoH5
	Mother postnatal visit within 6 days rate	Proportion of Mothers who received postnatal care within 6 days after delivery as proportion of deliveries in health facilities	Mother postnatal visit within 6 days after delivery	Delivery in facility total	DHIS NDoH5
	Antenatal 1st visits before 20 weeks rate	Women who have a booking visit (1st visit) before they are 20 weeks into their pregnancy as proportion of all antenatal 1st visits	Antenatal 1st visits before 20 weeks	Antenatal 1st visits	DHIS NDoH5
	Antenatal client initiated on ART rate	Antenatal clients on ART as a proportion of the total number of antenatal clients who are HIV-positive and not previously on ART	Antenatal clients initiated on ART	Antenatal clients eligible for ART	DHIS NDoH5
	Birth PCR testing coverage	Proportion of HIV-exposed neonates who received an HIV PCR test within the first six days of life	PCR tests performed in neonates within 6 days of age	Live births to HIV-positive women	DHIS NDoH5, NHLS
Immunisation	Percentage PCR tests positive within the first six days	Infants tested PCR positive for the first time within 6 days of birth as proportion of infants PCR tested within 6 days of birth	PCR tests positive for infants within 6 days of birth	Number of PCR tests done in infants within 6 days of birth	NHLS
	Immunisation coverage under 1 year	Percentage of all children in the target area under 1 year who complete their primary course of immunisation. A primary course includes BCG, OPV1, DTaP-IPV/Hib 1,2 and 3, HepB 1,2 and 3 (or DTaP-IPV-Hib-HBV 1, 2 and 3), PCV 1,2 and 3, RV 1 and 2 and measles 1	Children fully immunised under 1 year	Target population under 1 year	DHIS NDoH5
	Measles 2nd dose coverage	Proportion of children 1 year (12-23 months) who received measles 2nd dose, normally at 18 months	Measles 2nd dose	Population 1 year	DHIS NDoH5

Group	Indicator	Description	Numerator	Denominator	Source	
Child Health	Vitamin A coverage 12 to 59 months	Proportion of children 12-59 months who received vitamin A 200 000 units, preferably every six months. The denominator is therefore the target population 1-4 years multiplied by 2	Vitamin A dose to children 12-59 months	Population 12-59 months multiplied by 2	DHIS NDoH5	
	School Grade 1 screening coverage	Proportion of Grade 1 learners screened by a nurse in line with the ISHP service package	School Grade 1 learners screened	School Grade 1 learners total	DHIS NDoH5	
	Child under 5 years diarrhoea case fatality rate	Proportion of children under 5 years admitted with diarrhoea who died	Child under 5 years with diarrhoea death	Child under 5 years with diarrhoea admitted	DHIS NDoH5	
	Child under 5 years pneumonia case fatality rate	Proportion of children under 5 years admitted with pneumonia who died	Child under 5 years pneumonia death	Child under 5 years pneumonia admitted	DHIS NDoH5	
	Child under 5 years severe acute malnutrition case fatality rate	Proportion of children under 5 years admitted with severe acute malnutrition who died	Child under 5 years severe acute malnutrition death	Child under 5 years severe acute malnutrition admitted	DHIS NDoH5	
	Inpatient death under 5 years rate	Children under 5 years who died during their stay in the facility as a proportion of inpatient separations under 5 years	Inpatient death under 5 years	Separations under 5 years = Discharges (including day patients) + Deaths + Transfers out	DHIS NDoH5	
Reproductive Health	Couple year protection rate	Women protected against pregnancy using modern contraceptive methods, including sterilisations, as proportion of female population 15-44 years. Contraceptive years are the total of (Oral pill cycles / 13) + (Medroxyprogesterone injection / 4) + (Norethisterone enanthate injection / 6) + (IUCD x 4) + (Male condoms distributed / 200) + (Male sterilisation x 20) + (Female sterilisation x 10)	Contraceptive years dispensed (including sterilisations)	Female target population 15-44 years	DHIS NDoH5	
	Cervical cancer screening coverage	Cervical smears in women 30 years and older as a proportion of 10% of the female population 30 years and older	Cervical cancer screening in women 30 years and older	10% of female target population 30 years and older	DHIS NDoH5	
TB	TB incidence (all types)	TB cases diagnosed (all TB) per 100 000 people in the catchment population	Number of diagnosed TB patients (all TB) starting treatment in the period	Total population	NDoH TB Directorate	
	TB successful treatment rate (all TB)	Proportion TB clients (ALL types of TB) cured plus those who completed treatment	TB client cured OR completed treatment	TB (new pulmonary) client initiated on treatment	NDoH TB Directorate	
	TB death rate (all TB)	TB clients who died during treatment as a proportion of TB clients started on treatment	Number of patients who died	All TB patients in cohort	NDoH TB Directorate	
	TB cure rate (new pulmonary smear-positive)	Proportion of new smear-positive PTB patients who completed treatment and were proven to be cured (which means that they had two negative smears on separate occasions at least 30 days apart)	Number of initially smear-positive PTB patients who converted to negative smears at two or three months after starting treatment	Total number of new PTB smear-positive cases started on treatment during the specified time.	NDoH TB Directorate	
	TB loss to follow up rate (new pulmonary smear-positive)	Proportion of new smear-positive PTB patients who default on treatment	Number of initially smear-positive PTB patients who default on treatment	Total number of new PTB smear-positive cases started on treatment during the specified time	NDoH TB Directorate	
	TB rifampicin resistance confirmed client rate	Percentage of positive TB tests that are rifampicin resistant	Number of TB tests rifampicin resistant	Number of TB tests with Mycobacterium TB detected	NHLS (based only on tests done using GeneXpert technology)	
	TB MDR treatment success rate	TB MDR client successfully completing treatment as a proportion of TB MDR confirmed clients started on treatment	Number of patients who completed treatment or were cured	All TB patients in cohort	NDoH TB Directorate	

Group	Indicator	Description	Numerator	Denominator	Source
HIV and AIDS	Male condom distribution coverage	Number of male condoms distributed to clients via the facility or via factories, offices, restaurants, NGOs or other outlets, per male 15 years and older	Male condoms distributed	Male population 15 years and older	DHIS NDoH5
	HIV testing coverage (including ANC)	Clients HIV tested as proportion of population 15-49 years	HIV test client 15-49 years	Population 15-49 years	DHIS NDoH5
	TB/HIV co-infected client on ART rate (ETR.net)	HIV-positive TB cases on ART	HIV-positive TB cases on ART	HIV-positive TB cases	NDoH TB Directorate
	Percentage of TB cases with known HIV status (ETR.net)	Percentage of TB cases with known HIV status	TB cases with known HIV status	TB cases	NDoH TB Directorate
NCDs	Hypertension prevalence rate (crude)	Percentage of people with hypertension (raised BP or on treatment) of the adult population (15 years and older)	Number of people with hypertension (raised BP or on treatment)	Adult population (15 years and older)	National Income Dynamic Study
	Hypertension incidence	Newly diagnosed hypertension clients initiated on treatment per 1 000 population 40 years and older	Hypertension client treatment new	Population 40 years and older	DHIS NDoH5
	Diabetes mellitus incidence	Newly diagnosed diabetes clients initiated on treatment per 1 000 population	Diabetes client treatment new	Population total	DHIS NDoH5
Burden of Disease	Percentage of YLLs due to communicable, maternal, perinatal, nutritional causes	Percentage of YLLs due to communicable, maternal, perinatal, nutritional causes	Number of YLLs due to communicable, maternal, perinatal, nutritional causes	Total number of YLLs	StatsSA
	Percentage of deaths garbage codes	Percentage of deaths garbage codes	Number of garbage code deaths	Total number of YLLs	StatsSA
	Percentage of YLLs due to HIV and TB	Percentage of YLLs due to HIV and TB	Number of YLLs due to HIV and TB	Total number of YLLs	StatsSA
	Percentage of deaths ill-defined	Percentage of deaths ill-defined	Number of ill-defined deaths	Total number of deaths	StatsSA
	Percentage of YLLs due to injuries	Percentage of YLLs due to injuries	Number of YLLs due to injuries	Total number of YLLs	StatsSA
	Percentage of YLLs due to non-communicable diseases	Percentage of YLLs due to NCDs	Number of YLLs due to NCDs	Total number of YLLs	StatsSA
	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Number of deaths due to Communicable diseases / Maternal conditions	Total number of deaths	StatsSA
	Percentage of deaths due to HIV or TB	Percentage of deaths due to HIV or TB	Number of deaths due to HIV or TB	Total number of deaths	StatsSA
	Percentage of deaths due to injuries	Percentage of deaths due to injuries	Number of deaths due to injuries	Total number of deaths	StatsSA
	Percentage of deaths due to non-communicable diseases	Percentage of deaths due to NCDs	Number of deaths due to NCDs	Total number of deaths	StatsSA

ANC = antenatal care; ART = antiretroviral treatment; BAS = National Treasury Basic Accounting System; BCG = bacille Calmette-Guerin; BP = blood pressure; CDC = Community Day Centre; CHC = Community Health Centre; DHIS = District Health Information Software; DHS = District Health Services; DTP-Hib = diphtheria, tetanus, pertussis and Haemophilus influenzae type B vaccine; DTaP-IPV = Diphtheria, Tetanus, Pertussis, Inactivated Polio Vaccine & Haemophilus Influenza B combined; DTaP-IVP-Hib-HBV = Diphtheria, Tetanus, Inactivated Polio Vaccine, Haemophilus Influenza B, Hepatitis Vaccine; GHS = General Household Survey; HepB = Hepatitis B; ISHP = Integrated School Health programme; LG = Local Government; NCCEMD = National Committee for Confidential Enquiries into Maternal Deaths; NCDs = non-communicable diseases; NDoH = National Department of Health; NHLS = National Health Laboratory Service; NW = North West; OPD = outpatient department; OPV = oral polio vaccine; PCR = polymerase chain reaction; PCV = Pneumococcal conjugate vaccine; PDE = patient day equivalent; PHC = primary health care; PR = programme; RV=Rotavirus vaccine; StatsSA = Statistics South Africa; YLLs = years of life lost.



HEALTH SYSTEMS TRUST

For more information:

Web: <http://www.hst.org.za>

Email: webmaster@hst.org.za

Fax: 086 588 0394

Or contact one of our offices:

Durban (Head Office)

34 Essex Terrace, Westville, 3630

Tel: +27 (0)31 266 9090

Johannesburg

1st Floor, Block J, Central Park,
400 16th Road, Midrand, 1682

Tel: +27 (0)11 312 4524

Cape Town

Block B, Aintree Office Park,
Doncaster Road, Kenilworth, 7700

Tel: +27 (0)21 762 0700