APCA Atlas of Palliative Care in Africa

John Y. Rhee, Emmanuel Luyirika, Eve Namisango, Richard A. Powell, Eduardo Garralda, Juan José Pons, Liliana de Lima, Carlos Centeno

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Mount Sinai





Icahn School Arnhold Institute of Medicine at for Global Health



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On behalf of the project team we would like to express our gratitude to the organisations, institutions, associations, and professionals that have made this project possible through their generous time and talent.

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Here, we would like to acknowledge **Dr. R. Sean Morrison** at the Hertzberg Palliative Care Institute, Icahn School of Medicine at Mount Sinai, for his mentorship and guidance.

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Institutions

ABOUT THE AFRICAN PALLIATIVE CARE ASSOCIATION (APCA)

The African Palliative Care Association (APCA) is a pan-African organisation that was founded in 2003, with its secretariat based in Kampala, Uganda. The organisation currently has a membership of 1,010 individuals and 202 institutions from across Africa.

Since its inception, APCA's mission has been to reduce pain and suffering for people living with life-limiting illnesses (both communicable and non-communicable) across Africa. APCA's work aims to ensure that the patient and the family have access to proven holistic care that includes physical, psychosocial and spiritual care.

This mandate is achieved through four main objectives, namely;

- increasing knowledge and awareness about palliative care among policymakers, multidisciplinary health worker teams, teaching institutions, the media and the general population;
- II. strengthening health systems through the integration of palliative care into existing services, utilising the WHO building blocks of leadership/governance, service delivery, health workforce, health information systems, access to essential medicines, technologies, as well as financing;
- **III.** strengthening the creation of research evidence for palliative care in Africa, and;
- **IV.** ensuring the sustainability of palliative care services across the continent.

APCA works collaboratively with state and non-state actors at the local, regional and international level including: the World Health Organization, the African Union Commission, ministries of health, hospice and palliative care organisations, national palliative care associations, academic institutions, the media and the general public, among others. Since its establishment, APCA has supported palliative care interventions in more than 25 African countries, and reached more than 1 million patients in the last five years.

For more information on APCA's work and on palliative care developments in Africa, please visit www.africanpalliativecare.org.

ABOUT THE ATLANTES RESEARCH PROGRAM, INSTITUTE FOR CULTURE AND SOCIETY, AND THE UNIVERSITY OF NAVARRA (UNAV)

The Atlantes programme aims to disseminate the essential and highly human value of palliative care in the society and in the professionals. ATLANTES' wish is to improve the understanding towards patients with non-curable illnesses both in the medical field and in the society, from a dignity-based perspective, and including accompaniment and respect for the natural course of the disease, and to its emotional and spiritual dimensions.

We are a multi-disciplinary team based in Pamplona, within the Institute for Culture and Society (University of Navarra), in an attempt to combine several knowledge disciplines so as to enrich research with the diverse social sciences approaches. Besides, we count on a wide net of collaborators from different countries that contribute to a more comprehensive and international view.

We mainly work on four strategic lines: The intangible aspects of palliative care, the message of palliative care, education for the professionals and the public, and finally, the international development of palliative care discipline. The monitorisation of palliative care development across Europe is the main sub-project within this last and it is where it fits line these Atlas studies for diverse regions such as Eastern Mediterranean or Africa in the present study.

Further information on the ATLANTES programme at: http://www.unav.edu/web/instituto-cultura-y-sociedad/proyecto-atlantes

ATLANTES' wish is to improve the understanding towards patients with non-curable illnesses both in the medical field and in the society, from a dignity-based perspective, and including accompaniment and respect for the natural course of the disease, and to its emotional and spiritual dimensions

ABOUT THE ARNHOLD INSTITUTE FOR GLOBAL HEALTH, ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI

The Arnhold Institute for Global Health at the Icahn School of Medicine at Mount Sinai seeks to improve the health of people and the communities they live in, both in the United States and abroad. Its mission is to drive lasting global health impact at scale for the poor. Under the leadership of Prabhjot Singh, MD, PhD, the Arnhold Institute serves as a global arm of the Mount Sinai Health System. It leads research on the design of more equitable and effective care models that are disseminated through digital products, training systems and input on policy design. Broadening the understanding and purview of global health makes its hidden infrastructure visible so that new solutions can be developed, and impact can be scaled.

By recognising common problems faced by diverse communities globally, the Arnhold Institute creates new opportunities for learning and action. The Arnhold Institute designs, accelerates, and replicates health care models that put people first and drive meaningful impacts on health and wellbeing. By combining innovative thinking with intellectual rigor and data science, the Arnhold Institute is making maximum use of both human and technological resources.

Further information about the Arnhold Institute for Global Health at: http://icahn.mssm.edu/research/arnhold

ABOUT THE INTERNATIONAL ASSOCIATION FOR HOSPICE AND PALLIATIVE CARE (IAHPC)

The International Association for Hospice and Palliative Care (IAH-PC) works with UN agencies, governments, associations, and individuals to increase access to essential medicines for palliative care, foster opportunities in palliative care education, research and training, and increase service provision around the globe. IAHPC works at the international, regional, and national levels to promote appropriate policies and regulations to ensure access to palliative care.

The Vision of IAHPC is for universal access to palliative care, integrated in a continuum of care with disease prevention and treatment.

The Mission of IAHPC is to improve the quality of life of adults and children with life-threatening conditions and their families. IAHPC works with governments, agencies and individuals, to improve knowledge and foster opportunities in education, research and training around the globe.

Further information on the IAHPC programme at: http://hospicecare.com/home/

The Mission of IAHPC is to improve the quality of life of adults and children with life-threatening conditions and their families. IAHPC works with governments, agencies and individuals, to improve knowledge and foster opportunities in education, research and training around the globe

Preface

The African continent has witnessed significant development in palliative care both as a health care service and an academic discipline. This is at a time when regional and global frameworks are being emphasised and adopted. These include the World Health Assembly Resolution on Palliative Care of 2014 which focuses on "Strengthening palliative care as a component of comprehensive care throughout the life course" and "the African Common Position on pain medications and controlled substances of 2012".

Despite the recent developments, tracking and documenting progress in Africa has remained a challenge due to lack of region-appropriate indicators that mirror the unique African health systems. The last comprehensive review focusing on palliative care service development in Africa is 12 years old and the need for more recent information in the region is pressing. We bridge this critical knowledge gap by providing the **APCA Atlas of Palliative Care in Africa**. The development of the Atlas is informed by African-specific palliative care indicators, which have been developed through a rigorous and largely consultative process. Thus, besides the atlas, we are pleased to launch African Palliative Care indicators which can be used to measure palliative care development in the region. This is a huge milestone for palliative care in Africa, and I call upon partners, palliative care practitioners, and institutions to utilise these resources to advance palliative care in the region.

Specal thanks go to Professor Carlos Centeno and his team at the University of Navarra, John Rhee at the Icahn School of Medicine at Mount Sinai, Liliana De Lima from the International Association for Hospice and Palliative Care, and all the partners who have supported this effort.

> Dr. Emmanuel Luyirika Executive Director African Palliative Care Association

Note from the Authors

The APCA Atlas of Palliative Care in Africa 2017 (APCA Atlas) was conceived in January 2016. We felt there was a lack of comprehensive, up-to-date information on palliative care development in Africa. Therefore, we decided on a context-specific African project, context-specific, combining our previous expertise with the in-depth and rich knowledge of our African colleagues in the field. African palliative care professionals have shared with us the important issues in palliative care development in Africa and helped us develop the indicators used in this Atlas. The APCA Atlas adds to the growing body of regional atlas projects led by University of Navarra such as the EAPC Atlas of Palliative Care in Europe, the ALCP Atlas of Palliative Care.

The APCA Atlas of Palliative Care in Africa comes at a crucial time where palliative care is growing in African countries, but the growth has been unevenly distributed. Furthermore, this is the first report of its kind to comparatively analyse African countries' progress in palliative care, and there has been no document providing a comprehensive overview of the palliative care situation in Africa in the past decade. As in previous atlases, the current APCA Atlas covers countries that fall under the umbrella of the regional palliative care association, in this case, the African Palliative Care Association (APCA).

For the present publication, we wanted to improve on the methodology used in the EAPC and ALCP Atlases by initially studying and developing indicators specific to palliative care development in Africa. This consisted of a series of interviews with experts from seven different African countries followed by indicator extractions from those interviews and rating of those indicators by 16 African experts in palliative care. The indicators then went through a rigorous tworound Delphi consensus process with 14 international committee members who are experts in palliative care indicators. Finally, the indicators were ranked internally by the project team to arrive at the final set of 19 indicators used to build the current report.

We have also decided on a smaller set of more specific indicators than previous atlases in Europe and Latin America for greater ease in comparative analysis and obtaining only that information which is most pertinent to palliative care development in Africa.

The present APCA Atlas provides information on 89% (48/54) of countries on the continent and provides a cross-country comparison of the progress of palliative care in Africa. Information was provided by country key informants in each country, which consisted of leaders of national palliative care associations, members of the Ministry of Health, or experts within each country defined as either the leader of an important hospice or palliative care service or among the few persons working to further palliative care progress within the country.

Therefore, in the current APCA Atlas, we are working with "best estimates" provided by such experts. However, as information is scarce in many countries in Africa, and since methodology must be uniform across all countries included in the study, we believe obtaining information through experts to be the best way to obtain such data within the current constraints. Where available, we have cross-compared data provided by experts with the peer-reviewed literature through a scoping review of palliative care development in Africa from 2005-2016. We have also checked the information with the African Palliative Care Association, as the regional representative body for palliative care on the continent as well as other atlases, such as the Eastern Mediterranean Atlas of Palliative Care, where some African countries were also included.

Following this APCA Atlas, we will continue to work on secondary analyses of the data we have collected for publication in a series of scientific papers and reports. We will focus on disseminating this information to key experts in African countries so that it may be used for advocacy efforts in working with governments and Ministries of Health.

We truly thank all of those who volunteered their time for the project. We thank the key informants, country experts, and international committee members for all of their assistance in making this APCA Atlas a reality as well as their tireless work in building up palliative care in their respective countries.

Abstract

BACKGROUND

Since Wright & Clark's book on palliative care in Africa in 2006, there has not been a comprehensive overview describing the state of palliative care development in African countries.

AIMS

To describe the current state of palliative care development in African countries according to the World Health Organisation Public Health Strategy for integrating palliative care: palliative care services availability, policies, medicine availability, educational programs, and palliative care professional activity/vitality.

METHODS

Qualitative interviews were conducted with 16 Country Experts selected through strict criteria. From those interviews, indicators were derived and content analysis performed. The same Country Experts then rated the indicators for validity and feasibility in the African setting. The indicators underwent a two-round modified UCLA-RAND Delphi consensus with an international committee of experts on indicators, comprised of 14 members. The final set of 19 indicators were then further defined and organised and sent to 66 Key Country Informants representing 54 African countries. Separately, a scoping review of the state of palliative care in African countries was conducted using PubMed, CINAHL, Embase, and a manual search with 76 African experts in palliative care; the results of the scoping review are published elsewhere and information from the review was used to develop milestones in this Atlas.

The indicators underwent a two-round modified UCLA-RAND Delphi consensus with an international committee of experts on indicators, comprised of 14 members

RESULTS

Surveys were received from 89% (48/54) of African countries. 30 countries had one respondent and 18 countries had two respondents. Uganda, South Africa, Rwanda, and Kenya have the highest number of total hospice and palliative care services in Africa; 19% (9/48) of responding countries have no hospice and palliative care services. 42% (20/48) of responding countries reported having a dedicated person to palliative care in their respective countries' Ministries of Health. Zambia, Uganda, South Africa, Kenya, Ghana, and Egypt reported some form of accreditation for physicians for palliative care by official bodies in their countries. Opioid consumption per capita, in general, was very low across all countries with highest opioid consumption per capita seen in Mauritius, South Africa, Namibia, Morocco, Tanzania, and Tunisia. 54% (26/48) of respondents reported having a national palliative care association advocating for palliative care in their respective countries.

CONCLUSION

Palliative care remains underdeveloped in African countries. However, there has been growth on the continent, with only nine countries without any services dedicated to hospice and palliative care compared to 17 countries with no palliative care activity in Lynch et al's updated global atlas. There has been large growth in advocacy efforts with more than half of countries reporting a national palliative care association, and almost half the countries having a dedicated person responsible for palliative care in their respective countries. Efforts should be mobilized to improve availability of formal education in palliative care and increasing service provision and opioid consumption.

Value of the Book

WHAT IS IT ALREADY KNOWN ABOUT PALLIATIVE CARE DEVELOPMENT IN THE AFRICAN REGION?

The last comprehensive overview of palliative care development focusing on Africa was written in 2006 in the form of a textbook by Wright & Clark, "Hospice and palliative care in Africa: a review of developments and challenges". Since then, our team has undertaken a scoping review, explained in greater detail in the Methodology section of the APCA Atlas, in order to provide an updated comprehensive overview of the developments in palliative care in the peer-reviewed literature in Africa over the subsequent years since the publication of the textbook.

From 2006 to 2017, what is known about palliative care development in Africa is mostly from global comparative studies on palliative care development such as the global atlas of palliative care and the Economist Intelligence Unit's Quality of Death Index as well as global comparative studies on opioids. From the initial global atlas to its 2013 update, palliative care has grown in Africa, with 15 African countries having moved to higher levels. However, the global atlas lacks detailed information on palliative care development at the country level, providing categorizations of countries into various levels of development, and the Economist Intelligence Unit's most recent 2015 Index had information on only 13 countries in Africa.

WHAT IS THIS BOOK ADDING?

The current APCA Atlas, therefore, provides the most up-to-date information of palliative care development in nearly all countries in Africa, using indicators derived, rated, and chosen by in-country African experts followed by a thorough Delphi consensus process with a panel of international experts on palliative care indicators. Therefore, the current APCA Atlas also provides an up-to-date base of indicators specific to the African context, chosen by African experts. The Atlas offers a panoramic view utilising the World Health Organization's (WHO) palliative care public health strategy dimensions and palliative care professional activity (vitality) through a combination of methods including data collection from national experts in the field and peer-reviewed literature, ensuring data quality. These results provide the most comprehensive and reliable information on palliative care development, to date.

IMPLICATIONS FOR THEORY, PRACTICE AND POLICY

Information from the APCA Atlas can be used to inform policies and practice for countries in Africa. The comparative information allows for in-country advocates to work with governments and/or Ministries of Health to further advance palliative care in their respective countries. Progress can only be measured if the current state of development is known. The APCA Atlas provides this information so that progress can be gauged and measured and accountability for health systems provided to support continued development of palliative care.

Furthermore, the set of indicators provides evidence-based measures for governments and national palliative care associations in Africa to use in order to measure progress in palliative care in their respective countries.

Lastly, the APCA Atlas allows for transparency, allowing palliative care experts from different countries to identify experts in other countries with whom best-case practices can be exchanged and shared. The Atlas has contributed a network of contacts throughout Africa, to allow for future collaboration in continuing to build-up palliative care throughout the continent.

The APCA Atlas provides the most up-to-date information of palliative care development in nearly all countries in Africa, using indicators derived, rated, and chosen by in-country African experts followed by a thorough Delphi consensus process with a panel of international experts on palliative care indicators

Aims and Objectives

The goal of this comparative study is to provide an updated and reliable descriptive analysis on the development of palliative care in African countries.

Through this research, we hope to encourage discussion on the current progress of palliative care development, its impact on the delivery of care, and therefore, in the long run, improve care at the end of life and for those suffering with life-limiting illnesses. We also hope that the current APCA Atlas will provide important data and information for those working within or with Ministries of Health to continue improving palliative care provision within their respective countries.

The objectives of the project are:

1. To measure and compare the development of palliative care in countries in Africa and to explore the existing progress of hospice and palliative care development in countries in Africa.

2. Develop a database of valuable indicators that will be openly available, capable of measuring palliative care development in the APCA African Region for use in future research and discern areas of additional need (resources and research).

3. Provide comparative data for open access on palliative care development of each African country to facilitate discussion and measure progress.

4. Create a network of palliative care professionals across Africa, promote access to information, and improve communication and cooperation.

5. To promote the development of palliative care across the African continent.

Through this research, we hope to encourage discussion on the current progress of palliative care development, its impact on the delivery of care, and improve care at the end of life and for those suffering with life-limiting illnesses

Methods

DEFINITION OF "PALLIATIVE CARE DEVELOPMENT"

The current report focuses on palliative care development in Africa.

Development, in this context, refers to the processes, structures, policies, and resources that support the delivery of palliative care.

Palliative care development was organised according to the World Health Organization (WHO) public health strategy for palliative care, which includes service provision and implementation, policies, education, and medicine availability (see WHO framework below). In addition, we provide information on a fifth dimension, palliative care vitality, which reflects the level of professional activity within the country.

Figure 1. Detailed WHO Public Health Model for Palliative Care Integration (modified by Stjernswärd, 2007).

Policy

- realted regulations
- care delivery
- > Essential medicines

Drug availability

- > Opioids essential medicines
- > Importation quota
- > Cost
- > Prescribing
- > Distribution
- > Dispensing
- > Administration (Pharmacists, drug regulators, law enforcement agents)

Implementation

- > Opinion leaders
- > Trained manpower
- > Standars, guidelines measures

WHO FRAMEWORK

In order to effectively develop and integrate palliative care into a society with existing health care systems, the WHO launched a Public Health Model. This model includes advice and guidelines to governments for implementing national palliative care based on four components: 1) appropriate policies, 2) adequate drug availability, 3) education of health care workers and the public, and 4) implementation of palliative care services at all levels of society. This process is always applied within the cultural context, disease demographics, socioeconomics and the health care system of the country.

> Palliative care part of national health plan, policies,

> Funding service delivery methods support palliative

(Policy makers regulators, WHO, NGOs)



Education

- > Media & public advocacy
- > Curricula and courses—
- professionals, trainees
- > Expert training
- > Family caregiver training & support (Media & public healthcare providers & trainees palliative care experts, family caregivers)

> Strategic & business plans—resources, infrastructure (Community & ckinical leadres, administrators)

Methods

GROUP OF RESEARCHERS

The project team consists of seven members from different countries and backgrounds, bringing a wide-range of experiences.

Table 1. Background and experiences of project team members for the current study on development of palliative care in Africa.

RESEARCHER	COUNTRY	BACKGROUND	AFFILIATION(S) AND TITLE(S)		
John Yohan Rhee	United States of America	Global and Public Health, Epidemiology	> Arnhold Institute for Global Health, Icahn School of Medicine at Mount Sinai		
			 Research Assistant, ATLANTES Research Program, Institute for Culture and Society (ICS), University of Navarra 		
Emmanuel Luyirika	Uganda	Family Medicine, HIV Medicine, Palliative Medicine	> Executive Director, African Palliative Care Association		
Eve Namisango	Uganda	Economics, Epidemiology, Research, Biostatistics	 > Research Manager, African Palliative Care Association 		
Richard A. Powell	Kenya	International Palliative Care Research	 Former Director of Learning and Research, African Palliative Care Association 		
			> Co-Director, MWAPO Health Development Group, Nairobi, Kenya		
Eduardo Garralda	Spain	Palliative Care Development Research, History	 > Research Assistant, ATLANTES Research Program, Institute for Culture and Society, University of Navarra 		
Juan José Pons	Spain	Geography, Cartography	> Adjunct Professor, Department of Geography, University of Navarra		
Liliana de Lima	United States of America Clinical psychology, Healthcare Administration, Pain and Policy		> Executive Director, International Association for Hospice and Palliative Care		
Carlos Centeno	Spain	Palliative Medicine, Oncology	> Palliative Medicine Attending Physician, Clínica Universidad de Navarra		
			> Professor of Palliative Medicine, School of Medicine, University of Navarra		
			 > Principal Investigator, ATLANTES Research Program, Institute for Culture and Society, University of Navarra 		

IDENTIFICATION OF "COUNTRY EXPERTS", "INTERNATIONAL COMMITTEE OF EXPERTS", AND "KEY INFORMANTS"

There were multiple levels of participation in the current project.

"Country Experts" refers to the 16 persons with whom initial interviews were conducted in order to derive the initial broad set of indicators. These same persons also rated the indicators on a scale from one to four for feasibility and validity. Country Experts were chosen from seven different African countries based on geographical location, languages spoken, and level of palliative care development. Country Experts were chosen by the Executive Director and Research Manager of the African Palliative Care Association as important advocates in palliative care development within their respective countries.

The experts were chosen according to their backgrounds using the following hierarchy: 1) leader or representative of the national palliative care association or similar organisation, 2) member from the noncommunicable diseases section or division of the Ministry of Health, 3) leader of a large and/or pioneering palliative care service in the country, 4) early pioneer and advocate of palliative care in the country, and 5) an oncologist or palliative medicine provider at the national cancer institute or similar institute.

Country Experts were chosen from seven different African countries based on geographical location, languages spoken, and level of palliative care development

The "International Committee" refer to the 14 persons that took part in the two-round modified UCLA/RAND Delphi consensus to narrow down the indicators that scored greater than or equal to three for feasibility and validity by the Country Experts. The International Committee members were recommended by the project team based on the following qualifications: 1) published previously or expertise in palliative care development indicators, 2) published previously or expertise in palliative care development in Africa, and/ or 3) member of board, executive committee, or leader of a global or regional palliative care association or international health organisation working in palliative care.

"Key Informants" refer to the 66 persons that reported on the data for each of the indicators for their respective countries. Key Informants were identified in 51 of the 54 African countries of which 48 countries replied to the survey. Three countries had no Key Country Informants due to the fact that palliative care services and/or activity was not yet available in the country or were at such an initial stage that no experts were able to be identified. The Key Informants were chosen based on the following qualifications: 1) leader of national palliative care association, where available, 2) Ministry of Health representative or WHO representative for the region or country, 3) leader of only or major palliative care service in the country, 4) one of the first drivers of palliative care activity in the country, 5) attendant at the African Palliative Care Association Congress in Uganda in 2017, 6) healthcare worker at major cancer or pain unit in the country, or 7) researcher who published or wrote reports and/or publications on palliative care or oncology in the country. Key Informants were nominated by the Executive Director and Research Manager of the African Palliative Care Association or by the Executive Director of the International Association for Hospice and Palliative Care. Key Informants were also nominated by Sylvie Dive, a palliative care nurse in charge of education for Francophone African countries at the Institute for Hospice and Palliative Care Africa in Uganda. For countries where there were no contacts, the project team searched websites for contacts from the WHO, Ministry of Health, or those that have written reports or published in the field of palliative care.

Key Informants were identified in 51 of the 54 African countries of which 48 countries replied to the survey.

Methods

DEVELOPMENT AND EVALUATION OF INDICATORS

Five in-depth interviews were initially conducted with five Country Experts from four African countries. Interviews were open-ended asking for general palliative care development in the country and using the WHO palliative care public health framework as a guide. Interviews were recorded, transcribed, and analysed by two co-authors for any indicators directly mentioned from the conversations.

Country Experts rating. From an initial 178 indicators, 75 were excluded due to the fact they were duplicates, not country-level, and unable to be obtained by experts. The remaining 103 indicators were given to 16 Country Experts for rating on a scale from one to four for feasibility and validity in the African setting. Those indicators that were rated greater than or equal to three for both feasibility and validity in Africa were sent automatically to the Delphi consensus process.

Additional 11 open-ended interviews: To ensure that saturation of indicators had been reached, an additional 11 open-ended interviews were conducted with the remaining subset of 11 Country Experts from the 16 Country Experts. Transcriptions were likewise analysed by two co-authors and an additional 27 unique indicators were sent to the two-round modified UCLA/RAND Delphi consensus, resulting in a total of 58 indicators that proceeded to the first round of the Delphi.

Two-round modified UCLA/RAND Delphi consensus

- > 1st Round) The 14-member International Committee was then asked to rate the 58 indicators on a scale from one to nine for importance in Africa. 29 indicators reached agreement and were rated as important and proceeded directly to the next stage for ranking.
- > 2nd Round) The remaining 29 indicators plus an additional four indicators suggested from comments from the International Committee were sent back for a second round of Delphi from which nine additional indicators reached agreement and were rated as important, resulting in a total of 38 indicators that proceeded to the final ranking stage.

Project team Ranking: The internal Project Team, the co-authors on this project, then ranked the 38 indicators for importance in Africa within each WHO public health strategy dimension and palliative care vitality. The top five ranked indicators were given points, the highest ranked indicator receiving a score of five, followed by four for the next highest, with the sixth to the last ranked indicator receiving scores of zero. Then, the indicators in each WHO public health strategy dimension that scored in the top 50% were compiled, resulting in a final 19 indicators.

Compilation and definition of indicators: The final 19 indicators were then compared with existing indicators, where available, such as the World Health Organisation's (WHO) global observatory of indicators and the Latin American Association of Palliative Care's development of regional indicators. Each of the indicators were carefully defined using existing indicators, where available. (See Figure 1 for the flowchart on the process of deriving the indicators)

NETWORK OF KEY INFORMANTS

All key informants were invited and informed via email following the APCA Conference held in Kampala. At each stage of the project mentioned above, all of the Key Informants were kept updated throughout the whole process through email.

SURVEY DESIGN AND FLOWCHART OF RESPONSES

The 19 compiled and defined indicators were then translated into French, Spanish, and Portuguese. All surveys were then sent out to Key Country Informants for each of the 51 countries where we were able to identify an expert using Survey Monkey, accompanied by a consent approved by three Institutional Review Boards: the Icahn School of Medicine at Mount Sinai (IRB-16-00242), the University of Navarra (2016.054), and Mildmay Uganda Ethics Review Board (RECREF 0505-2016). 69 key informants from 48 countries responded the survey.

Socioeconomic data for each country as well as data on opioid consumption were obtained from separate sources to ensure uniformity of responses. Socioeconomic data was obtained from the World Bank database and the United Nations Human Development Index data. Opioids consumption data were gathered from the Pain and Policy Studies Group at the University of Wisconsin.

DATA CLEANING

Once the data was returned, each data point was reviewed by the Principal Investigator and one additional member of the project team. The data was cleaned (clarified and reworded) based on the following: 1. Where there were discrepancies between data for two Key Infor-

- mants from the same country, the data was confirmed using the following method
- a. Comparing with the comments for any clarifications from both
- b. Comparing with the Scoping Review data and data from other Atlases where countries matched
- c. Cross-checking with a member of the African Palliative Care Association
- d. Giving priority in answers to a member of the national association or Ministry of Health when the other respondent was from a single hospital or hospice
- e. Returning back to the Key Informants for clarification on unreconcilable data points
- 2. Where there was only one Key Informant from a country, the same process was used.

The internal Project Team, the co-authors on this project, then ranked the 38 indicators for importance in Africa within each WHO public health strategy dimension and palliative care vitality

Figure 2. Indicators process flowchart.



Methods

SCOPING REVIEW

A scoping review of the peer-reviewed literature was conducted from 2005-2016 on the development of palliative care in African countries. The purpose of the review was to supplement the current Atlas by providing additional information available in the literature on palliative care development in Africa plus serving as a validation reference for the data from the Key Informants. A thematic analysis of the scoping review has been published in the literature (ref).

A scoping review was chosen to gain a broad overview of the state of the literature on palliative care development in Africa. In order to ensure quality of data, a rigorous, systematic search of the literature, based on Arksey and O'Malley, was chosen.

Search Strategy

Three different sources were utilised in the search: PubMed, CINAHL, and Embase. A combination of the following search terms using subject headings and/or MeSH terms was used for each database: palliative care, palliative medicine, palliative nursing, hospice, hospice care, hospice patient, cancer palliative therapy, and [country name].

An additional manual search was conducted with 76 experts in palliative in Africa, across 43 African countries. These experts were identified by the Research Manager of the African Palliative Care Association and the Chief Executive Officer of the International Association for Hospice and Palliative Care. Experts included heads of national palliative care associations, healthcare workers working in major palliative care services in their respective countries, or advocates in the government and/or Ministries of Health.

Figure 3. Scoping Review Flowchart.



Selection Criteria

The following criteria was used for inclusion:

- Mention of at least one dimension of the WHO palliative care public health strategy (palliative care services, policy, education, medicine availability) and palliative care vitality
- 2. Inclusion of country-level data
- Published between January 1, 2005 and December 31, 2016
 Written in English, French, Portuguese, or Spanish

Any study that resulted from the searches, including comparative studies, conference abstracts, conference presentations, letters to editors, and others, like commentaries and/or editorials, were included.

Two independent investigators rated each article by title, abstract, and full text. Where there was disagreement, the authors came together and discussed until consensus was reached. 654 articles were identified through the database searches and eight through the manual search. After assessing for inclusion criteria, 48 articles were included in the subsequent analysis. Information was found for 26 (48%) of African countries.

Information was then extracted from each article that met inclusion criteria and organized into tables by WHO palliative care public health strategy dimensions and palliative care vitality by country.

Two investigators then chose the most important milestones for each country, where available. These information points have been added under the sub-heading of "Milestones" within each Country Information section in the present Atlas with bibliographic references to guide the reader to additional sources of information for further reading.

A special mention is needed here for Santiago Blanco, Carlos Torrado and Ibone Ayala; three students of the Faculty of Medicine of the University of Navarra that conducted the search and extraction as their final degree thesis. Information was found for 26 (48%) of African countries

THE CARTOGRAPHY

The cartography has been developed by the Geography Department of the University of Navarra, under the management of Professor Juan José Pons.

The digital covers 'World Countries' and 'World Cities' (DeLorme Publishing Company, Inc.) were obtained from the ArcGIS Website (under a Creative Commons license). In both cases, information was updated in March 2017 and the geographic coordinates system used was WGS 1984. The software used for map construction is the Arc-GIS program (ESRI) version 10.0.

The choice of the Cartographic projection (in this case, pseudocilíndric Times) is based on the criteria of making the most of the available space, so as to fully represent all countries correctly. The representation scale is 1:25.000.000. The types of maps utilized for the thematic representation are: choropleths map (basically for "relative data"), symbols map (for absolute data or to highlight determined values presence/absence) and bars and sectorial cartodiagrams.

In terms of representation style, a constant colours "range" has been adopted and used throughout this publication: blue for choropleths and "reds" for symbols and cartodiagrams; this was done to enhance the homogeneity and coherence of the cartographic version as a whole. In terms of the socioeconomic and health information used in the country reports, the data has been collected mainly from "World Bank" databases" and the United Nations reports with the clear criteria of finding the most accurate, updated and reliable data for the maximum number of countries of the WHO European region.

LIMITATIONS AND CONSTRAINTS

This is the first Atlas of palliative care in Africa. Though we worked hard to improve on the methodology of previous atlases from different regions, there were still some limitations and constraints in building the current APCA Atlas.

Information was not available for all 54 countries that fall under the umbrella of the African Palliative Care Association. The current Atlas was able to obtain information from 48/54 (89%) of African countries. Due to the fact that palliative care development is still in its initial stages in many countries, we were unable to identify country informants in certain countries, and we were unable to obtain responses from second informants in others.

The current Atlas gathers information from experts working in palliative care within each country. Though the numbers were cross-checked, where available, with the peer-reviewed literature as well as experts in the African Palliative Care Association, due to the fact that, for the majority of countries only one informant was available, some data points may be over- or under-estimates. The discrepancies may have been most exaggerated for number of palliative care services, as experts were asked to provide estimates for the majority of the indicators under the WHO dimension of services. In order to try to ensure quality of data, we have taken multiple steps to "sense check" the data, including careful reading of explanatory comments accompanying the data, revision with experts from APCA, cross-checking with the peer-reviewed literature from the scoping review, and, when necessary, going back to the Country Key Informants for clarification (sense checking process outlined in more detail above in the sub-section "Data Cleaning").

Lastly, though a rigorous process was utilised in choosing the indicators used in this project, due to the diversity across the continent, some of the indicators may not reflect realities in certain countries. For example, one Key Informant highlighted the important fact that in francophone African countries, focusing on availability of immediate-release oral morphine may not best reflect their realities because of different types of opioids available in their respective countries. Such comments will be taken into account in further secondary analysis of the information.

In summary, though there are limitations to using Country Key Informants, since information is still very scarce in Africa, we felt that this was the best methodology to use for the current context. In order to try and strengthen the quality of data, we have implemented different cross-checks to provide the best information available.

ABREVIATIONS

Below is a list of abbreviations used in the Country Information section of the current APCA Atlas.

APCA	African Palliative Care Association
MOH	Ministry of Health
NCD	Noncommunicable Diseases
PC	Palliative Care
WHO	World Health Organisation



Map 1: Geopolitical Map

The Atlas focuses on the development of palliative care in a group of countries included under the African Palliative Care Association (APCA). This includes 54 countries, representing approximately a 15% of the world's population.

It has a total surface area of 30 272 922 km². The continent is divided into 54 countries according to the African Union, with the exception of Morocco, and another five non-officially recognised territories, and 23 dependent territories.

In the present study, a total of 48/54 of the countries (89%) have agreed to participate and have responded, each with at least one expert in palliative care. Nearly half of these countries had at least one of their official languages as English, and the other half of the countries had French, Portuguese, and/or Spanish as the official language used in the government. This was considered for research purposes, and all communications between the team and the Key Informants were done through the language which was most comfortable for each Key Informant.

All African countries except for Chad, Cape Verde, Djibouti, Guinea-Bissau, Seychelles, and Somalia have responded the questionnaire.



1:50.000.000

MA	Morocco
MG	Madagascar
ML	Mali
MR	Mauritania
MU	Mauritius
MW	Malawi
ΜZ	Mozambique
NA	Namibia
NE	Niger
NG	Nigeria
RW	Rwanda
SD	Sudan

SN	Senegal
SS	South Sudan
ST	Sao Tome and Principe
SZ	Swaziland
TG	Тодо
ΤN	Tunisia
ΤZ	U. R. of Tanzania
UG	Uganda
ZA	South Africa
ZΜ	Zambia
zw	Zimbabwe

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Map 2. Socioeconomic Context

Socioeconomic data is provided for those countries participating in the study (48/54), and for which population density data, total population, surface, Gross Domestic Product (GDP) per

capita, Health expenditure both total of the GDP and that per capita, number of physicians, the Human Development Index (HDI) score and ranking position; are offered.

COUNTRY	POPULATION DENSITY	POPULATION, TOTAL	SURFACE AREA	GDP PER CAPITA	HEALTH	HEALTH EXPENDITURE	Per 1,000	HDI	HDI RANK
	People per Sq. Km of Land Area		Sq. km	Current US\$ 2015	% of GDP	PER CAPITA PPP Constant, 2011 International \$	people		
Algeria	16.66	39,666,519	2,381,740	4206	7.20717804	932.108	1.207	0.736	83
Angola	20.07	25,021,974	1,246,700	4,101.50	3.31	239.01	0.20	0.53	149
Benin	96.49	10,879,829	114,760	762.1	4.59	85.61	0.06	0.48	166
Botswana	3.99	2,262,485	581,730	6,360.10	5.41	870.84	0.34	0.698	106
Burkina Faso	66.18	18,105,570	274,220	589.8	4.96	82.31	0.05	0.402	183
Burundi	435.32	11,178,921	27,830	277.1	7.54	58.02		0.4	184
Cameroon	49.38	23,344,179	475,440	1,217.30	4.10	121.92	0.08	0.512	153
Central African Rep.	7.87	4,900,274	622,980	323.2	4.20	24.96	0.05	0.35	187
Comoros	423.68	788,474	1,861	717.4	6.75	100.82		0.503	159
Côte d'Ivoire	71.39	22,701,556	322,460	1,399.00	5.72	187.02	0.14	0.462	172
Dem. Rep. of Congo	34.08	77,266,814	2,344,860	456.1	4.33	32.28		0.433	176
Egypt	91.93	91,508,084	1,001,450	3,614.70	5.64	594.11	2.83	0.69	108
Equatorial Guinea	30.13	845,060	28,050	14,439.60	3.80	1163.42		0.587	138
Eritrea	51.76	4,789,568	117,600	544.5 (2011)	3.34	51.04		0.391	186
Ethiopia	99.39	99,390,750	1,104,300	619.2	4.88	72.96	0.02	0.442	174
Gabon	6.70	1,725,292	267,670	8,266.40	3.44	599.26		0.684	110
Gambia	196.70	1,990,924	11,300	471,50	7.30	118.40	0.00	0.441	175
Ghana	120.46	27,409,893	238,540	1,369.70	3.56	145.37	0.10	0.579	140
Guinea	51.31	12,608,590	245,860	531.3	5.64	68.46	0.10	0.411	182
Somalia	17.19	10,787,104	637,660	549.30			0.04		
Kenya	80.91	46,050,302	580,370	1,376.70	5.72	168.98	0.18	0.548	145
Lesotho	70.32	2,135,022	30,360	1,067	10.62	276.04		0.497	161
Liberia	46.75	4,503,438	111,370	455.9	10.04	98.29	0.01	0.43	177
Libya	3.60	6,278,438	1,759,540	5,517.8 (2011)	5.00	806	1.90	0.724	94
Madagascar	41.7	24,235,390	587,295	401.8	3.00	43.70	0.20	0.51	154
Malawi	182.60	1,7215,232	118,480	372	11.38	93.48	0.02	0.445	173
Mali	14.40	17,599,694	1,240,190	819.6	6.90	108.10	0.10	0.419	179
Mauritania	3.95	4,067,564	1,030,700	1,371 (2014)	3.77	148.11	0.13	0.506	156
Mauritius	621.97	1,262,605	2,040	9,252.10	4.81	896.16		0.777	63
Mozambique	35.58	27977,863	799,380	529.2	6.98	79.32	0.04	0.416	180
Morocco	77.03	34,377,511	446,550	2,878.20	5.91	446.64	0.62	0.628	126
Namibia	2.99	2,458,830	824,290	4,673.60	8.93	869.30	0.37	0.628	126
Nigeria	200.05	182,201,962	923,770	2,640.30	3.67	216.87	0.40	0.514	152
Niger	15.71	19,899,120	1,267,000	359	5.82	53.53	0.02	0.348	188
Republic of Congo	13.53	4,620,330	342,000	1,851.20	5.15	322.63	0.10	0.591	136
Rwanda	470.60	11,609,666	26,340	697	7.50	125.10	0.10	0.483	163
São Tomé e Príncipe		190,344	960	1,669.10	8.35	299.73		0.555	143
Senegal	78.58	15,129,273	196,710	899.6	4.66	106.94	0.06	0.466	170
Sierra Leone	89.40	6,453,184	72,300	653.1	11.09	223.74	0.02	0.413	181
South Africa	45.35	54,956,920		5,724	8.80	1148.37	0.78	0.666	116
South Sudan		12,339,812	644,330	730.6	2.74	72.82		0.467	169
Sudan	22.13	40,234,882	1,879,357	2,414.70	8.43	281.64	0.28	0.479	167
Swaziland	74.82	1,286,970	17,360	3,200.10	9.25	586.82	0.17	0.531	150
Tanzania	60.36	53,470,420	947,300	879	5.58	137.49	0.01	0.521	151
Togo	134.30	7,304,578	56,790	559.6	5.25	76.25	0.05	0.484	162
Tunisia	72.44	11,107,800	163,610	3,872.50	7.00	785.32	1.22	0.721	96
Uganda	194.66	39,032,383	241,550	705.3	7.22	132.59	0.12	0.483	163
Zambia	21.81	16,211,767	752,610	1,304.90	4.99	194.68	0.07	0.586	139
Zimbabwe	40.33	15,602,751	390,760	924.1	6.44	114.61	0.07	0.509	155



Map 3. Palliative Care Hospices or Services

INDICATOR

Number of hospices or palliative care services in the country (estimate)

DEFINITION

Hospices or palliative care services refers to the total number of palliative care services in the country, including, but not limited to, free standing hospices, hospices that are a part of public or NGO hospitals, any kind of other hospices or home care teams, support teams in hospitals, palliative care units, inpatient units in hospices, paediatric palliative care hospices and services, etc. Of note, there may be additional organisations providing palliative care in the country, but here, we have included those whose primary mission is to provide palliative care services. Additional organisations providing services, where relevant, have been indicated in the "Comments from Key Informants" section within each Country Information section.

In this indicator, one organisation may have more than one local branch; we consider each branch as a separate service when the community of the local branch has local ownership, local proactivity, and local focal point of the service. For example, in the case of Hospice Africa Uganda, there are branches that offer services in Kampala, Hoima, and Mbarara under the larger organization of Hospice Africa Uganda, and we would consider these to be three separate palliative care services, which are sometimes referred to as "satellites" of the "primary" or mother organization.

COUNTRY	HOSPICES OR PC SERVICES	COUNTRY PC SERVIC	
Uganda	229	Sierra Leone	4
South Africa	160	Sudan	4
Kenya	70	Dem. Rep. of Congo	4
Rwanda	54	Algeria	2
Nigeria	17	Angola	2
Tanzania	16	Benin	2
Malawi	14	Burundi	2
Swaziland	14	Côte d'Ivoire	2
Zambia	14	Gabon	2
imbabwe	11	Guinea	2
gypt	10	Mauritania	2
Gambia, The	10	Mauritius	2
Cameroon	7	Namibia	2
Ethiopia	7	Niger	2
1 ozambique	6	Тодо	2
Aorocco	5	Tunisia	2
Senegal	5	Republic of Congo	1
Botswana	4	Equatorial Guinea	1
Ghana	4	Madagascar	1

Information is missing from Libya.

There were no reported services in the following countries: Burkina Faso, Central African Republic, Comoros, Eritrea, Lesotho, Liberia, Mali, São Tomé e Príncipe, and South Sudan.



Map 4. Palliative Care Services per Population

The following table shows the density of palliative care services per million inhabitants, according to population data from the World Bank.

COUNTRY	HOSPICE OR PC SERVICES/ MILLION INHAB.	PC	OSPICE OR SERVICES/ ON INHAB.
Swaziland	10.88	Тодо	0.27
Uganda	5.87	Republic of Congo	0.22
Gambia, The	5.02	Mozambique	0.21
Rwanda	4.65	Benin	0.18
South Africa	2.91	Burundi	0.18
Botswana	1.77	Tunisia	0.18
Mauritius	1.58	Guinea	0.16
Kenya	1.52	Ghana	0.15
Equatorial Guin	ea 1.18	Morocco	0.15
Gabon	1.16	Egypt	0.11
Zambia	0.86	Niger	0.1
Malawi	0.81	Sudan	0.1
Namibia	0.81	Côte d'Ivoire	0.09
Zimbabwe	0.71	Nigeria	0.09
Sierra Leone	0.62	Angola	0.08
Mauritania	0.49	Ethiopia	0.07
Senegal	0.33	Algeria	0.05
Cameroon	0.3	Dem. Rep. of Congo	0.05
Tanzania	0.3	Madagascar	0.04

Information is missing from Libya.

There were no reported services in the following countries: Burkina Faso, Central African Republic, Comoros, Eritrea, Lesotho, Liberia, Mali, São Tomé e Príncipe, and South Sudan.



Map 5. Paediatrics Hospices or Palliative Care Services

INDICATOR

Number of hospices or palliative care services in the country with palliative care programs specific to paediatrics (estimate)

DEFINITION

Hospices or palliative care services with palliative care programs specific to paediatrics refers to the total number of palliative care services in the country with programs specific to paediatrics, including, but not limited to, free standing hospices, hospices that are a part of public or NGO hospitals, any kind of other hospices or home care teams, support teams in hospitals, PC units, inpatient units in hospices, etc.

In the case of Africa, many organizations may provide both adult and paediatric services. A service can be included here if they have a person or team dedicated to paediatrics on the team and a service whose main mission is to provide paediatric palliative care services.

In this indicator, one organisation may have more than one local branch that offer programs specific to paediatrics; we consider each branch as a separate service when the community of the local branch has local ownership, local proactivity, and local focal point of the service. For example, in the case of Hospice Africa Uganda, there are branches that offer services in Kampala, Hoima, and Mbarara under the larger organization of Hospice Africa Uganda, and we would consider these to be three separate palliative care services if each service offers a program specific to paediatrics, each service is sometimes referred to as "satellites" of the "primary" or mother organization (Clark et al., 2007)

"We've definitely taken palliative care from a lot earlier, from diagnosis, and then, because of the impact that HIV has had on our country, we have a much bigger focus on children and on families (...)Look, in South Africa in 2004, we were one of the first hospices to start antiretrovirals... it has been extraordinary that we've got very few children who are now born, HIV positive and are really managed well. But our children are now teenagers and are sick. And coping with teenagers and HIV is really a new challenge"

Extract from an interview with Country Expert (Confidential) from South Africa

COUNTRY	PAEDIATRIC HOSPICES OR PC SERVICES	COUNTRY	PAEDIATRIC HOSPICES OR PC SERVICES
South Africa	20	Zimbabwe	2
Nigeria	10	Botswana	
Malawi	7	Egypt	
Swaziland	3	Ghana	-
Kenya	2	Morocco	
Mauritania	2	Senegal	
Tanzania	2	Togo	-
Uganda	2	Zambia	

Information is missing from Angola, Ethiopia, and Libya.

There were no reported services in the following countries: Algeria, Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Comoros, Republic of Congo, Côte d'Ivoire, Democratic Republic of Congo, Equatorial Guinea, Eritrea, Gabon, Gambia, Guinea, Lesotho, Liberia, Madagascar, Mali, Mauritius, Mozambique, Namibia, Niger, Rwanda, São Tomé e Príncipe, Sierra Leone, South Sudan, Sudan, and Tunisia.



Map 6. Home-based Palliative Care Services in Hospices

INDICATOR

Number of home-based palliative care services offered by hospices (estimate)

DEFINITION

A home-based palliative care service is when patients stay in their own homes and are cared for by their families, and the hospice team visits patients at home to provide medical care, nursing advice and psychosocial support.

(World Health Organization, Planning and Implementing Palliative Care Services, 2016)

Home-based palliative care provides care to people with chronic, life-limiting health problems such as cancer, advanced cardiac, renal and respiratory diseases, HIV/AIDS and chronic neurological disorders, in the home in which the patient lives. It is best delivered by a multidisciplinary team trained in palliative care, including doctors, nurses, community health workers and volunteers.

(World Health Organization, Planning and Implementing Palliative Care Services, 2016)

Here, we are asking specifically for the number of home-based services offered specifically by hospices.

In this study, one umbrella hospice organisation may provide more than one community- or home-care service. For example, in the case of Hospice Africa Uganda, there are branches that offer home care services in Kampala, Hoima, and Mbarara under the larger organization of Hospice Africa Uganda, and we would consider these to be three separate home care services, which are sometimes referred to as "satellites" of the "primary" or mother organization. (Clark et al, 2007)

	HOME-BASED	:	HOME-BASED SERVICES OFFERED
COUNTRY	BY HOSPICES	COUNTRY	BY HOSPICES
South Africa	109	Egypt	2
Tanzania	26	Ethiopia	2
Zimbabwe	25	Ghana	2
Uganda	13	Malawi	2
Kenya	12	Тодо	2
Nigeria	10	Tunisia	2
Côte d'Ivoire	7	Burundi	1
Rwanda	6	Cameroon	1
Morocco	5	Republic of C	ongo 1
Sierra Leone	4	Guinea	1
Dem. Rep. of Cong	o 4	Mauritania	1
Botswana	3	Namibia	1
Algeria	2	Senegal	1
Benin	2	Swaziland	1

Information not available for Angola, Libya, and São Tomé e Príncipe.

There were no reported services in the following countries: Burkina Faso, Central African Republic, Comoros, Equatorial Guinea, Eritrea, Gabon, Gambia, Lesotho, Liberia, Madagascar, Mali, Mauritius, Mozambique, Niger, South Sudan, Sudan, Zambia.

Hospice Africa Uganda provides home care throughout multiple regions in Uganda. The hospice has teams that go out daily to see patients in their homes. Teams are made up of a nurse, lay counsellor or social worker, driver, and usually accompanied by a volunteer. Depending on the complexity of the case, a medical doctor may accompany the visit or a separate home visit may be scheduled specifically for psychosocial counselling by the social worker or lay counsellor. Hospice Africa Uganda is a model in Africa for homebased care provided by a hospice.



Hospice Africa Uganda.



Map 7. Patients Cared for by Palliative Care Services

INDICATOR

Number of palliative care patients cared for (in the last year)

DEFINITION

Please give your best estimate of the total number of patients in the country who have received palliative care in the last year.

SUGGESTION FOR CALCULATION

Think of the number of patients cared for in the past year in the care of palliative care services or hospices that you are most familiar with. You can then estimate the total number of palliative care services or hospices there are in your country. With both of those numbers, you can make an estimation of the total number of patients served by palliative care services or hospices in the past year.

FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Number of palliative care patients cared for per 100,000 inhabitants. However, please give the TOTAL number of patients in the country, NOT per 100,000 inhabitants.

We will do the calculation ourselves afterwards.

(WHO Planning and Implementing Palliative Care Services, 2016; http://apps.who.int/iris/bitstream/10665/250584/1/9789241565417eng.pdf?ua=1)

COUNTRY	NUMBER OF PATIENTS CARED FOR	OF COUNTRY C
South Africa	40,000	Ghana
Zimbabwe	5,000	Senegal
Zambia	4,000	Gabon
Botswana	3,210	Equatorial Guinea
Kenya	3,000	Tunisia
Egypt	1,600	Mauritius
Sierra Leone	1,350	São Tomé e Príncipe
Gambia, The	1,320	Benin
Ethiopia	1,000	Burundi
Malawi	970	Burkina Faso
Swaziland	900	Mauritania
Sudan	800	Republic of Congo
Tanzania	660	Guinea
Namibia	600	Comoros

Information not available for Algeria, Angola, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Eritrea, Lesotho, Liberia, Libya, Madagascar, Morocco, Mozambique, Niger, Nigeria, Rwanda, South Sudan, Togo, and Uganda.

NUMBER

400 400

300

180

180 100

80

51

51

50

50

40

14

7

OF PATIENTS

CARED FOR

There were no reported patients cared for by palliative care in the following countries: Central African Republic, Mali.



Map 8. Hospitals with an Inpatient Palliative Care Unit

INDICATOR

Number of hospitals (public and private) with inpatient palliative care units (estimate)

Definition: The total number of hospitals, both publicly and privately owned, that have inpatient palliative care units.

If one larger mother organization owns two hospitals, each with its own inpatient palliative care unit, we would consider this to be two separate inpatient palliative care units in two separate hospitals. Of note, private hospitals include both private not-for-profit and private-for-profit hospitals.

COUNTRY	TOTAL NUMBER OF HOSPITALS	NUMBER WITH IMPATIENT PC UNITS	PROPORTION ON THE TOTAL
Swaziland	11	11	100
Gambia, The	12	10	83
Uganda	1000	203	20
Kenya	300	42	14
Senegal	39	4	10
Tanzania	300	30	10
Morocco	10	1	10
Botswana	40	3	8
Тодо	28	2	7
Gabon	18	1	6
Mauritius	20	1	5
Namibia	45	2	4
Equatorial Guinea	23	1	4
Zimbabwe	131	5	4
Benin	70	2	3
Sudan	50	1	2
Malawi	83	1	1
Zambia	84	1	1
Ethiopia	350	4	1
South Africa	650	5	1
Egypt	1610	8	0
Nigeria	5000	20	0
Côte d'Ivoire	4000	2	0
Ghana	2434	1	0
Rwanda	N/A	48	N/A

Information not available for Angola, Cameroon, and Libya.

There were no reported hospitals in the following countries: Central African Republic, Comoros, and São Tomé e Príncipe.

None of the following countries had a PC unit in hospitals: Algeria, Burkina Faso, Burundi, Republic of Congo, Democratic Republic of Congo, Eritrea, Guinea, Lesotho, Liberia, Madagascar, Mali, Mauritania, Mozambique, Niger, Sierra Leone, South Sudan, Tunisia.



Map 9. National Palliative Care Plans or Programmes

INDICATOR

Existence of a current national palliative care plan/programme: 1) Stand-alone national palliative care plan/programme, 2) National cancer plan/programme with a section for palliative care, 3) National HIV plan/programme with a section for palliative care

DEFINITION

Existence of a national palliative care plan or programme as a result of policy/actions defined with the objective of implementing and/or improving care of palliative care patients currently in place.

The national plan/program should:

- > Have national scope
- > Be designed to integrate palliative care in health care services
- > Have a budget assigned
- > Have a responsible person assigned

STAND-ALONE

A stand-alone national plan or program is defined as a specific palliative care plan or program separate from a palliative care component within a broader program, such as prevention and control of non-communicable diseases, a national cancer control, or HIV program. (Palliative Care Indicators, ALCP, 2013)

CANCER

A national cancer plan or programme is defined as a specific palliative care plan or program or a palliative care component within a broader program for prevention and control of cancer or a national cancer control programme. (Palliative Care Indicators, ALCP, 2013)

HIV

A national HIV plan or programme is defined as a specific palliative care plan or program or a palliative care component within a broader program for prevention and control of HIV or a national HIV control programme. (Palliative Care Indicators, ALCP, 2013)

FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Existence of a current national palliative care plan/programme (WHO Planning and Implementing Palliative Care Services, 2016;

(WHO Planning and Implementing Palliative Care Services, 2016; http://apps.who.int/iris/bitstream/10665/250584/1/9789241565417eng.pdf?ua=1)

SUMMARY

Twelve of responding African countries indicated having stand-alone palliative care policies. The first stand-alone palliative care policy was in Rwanda. Since then, Botswana, Ethiopia, Guinea, Libya, Malawi, Mozambique, Rwanda, South Africa, Swaziland, Tanzania, and Zimbabwe have implemented stand-alone palliative care policies, though implementation varies greatly by country. Twenty-four of responding countries indicated having palliative care in the national cancer plan/programme, and twenty-three countries indicating having it in the national HIV plan/programme.



Map 10. Other Policy Indicators

1A / INDICATOR

Existence of current national palliative care clinical guidelines

1B / DEFINITION OF PALLIATIVE CARE GUIDELINES

National palliative care clinical guidelines promote standardized clinical palliative care management and standardize palliative care training as well as provide a framework for clinical management. (HPCA, 2012: http://www.hpca.co.za/item/hpca-clinical-guidelines-2012.html)

2A / INDICATOR

Presence of a person/desk/unit/branch/department in the Ministry of Health (MOH) or equivalent with responsibility for palliative care

2B / DEFINITION OF PERSON OR DESK

Existence of a current designated person, desk, unit, branch, or department within the Ministry of Health or equivalent government agency with responsibility for palliative care. A responsible person, desk, unit, branch, or department should be assigned in the government to oversee palliative care activities, development, and/or growth in the country with an accompanying budget (Palliative Care Indicators, ALCP, 2013)

2C / FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Is there a unit/ branch/department in the MOH or equivalent with responsibility for NCDs and their risk factors?

However, we have adjusted the wording to include components that we felt were important from our Country Experts and International Committee of Experts who commented on all of the indicators. (WHO NCD CCS 2015; http://apps.who.int/iris/bitstream/10665/246 223/1/9789241565363-eng.pdf?ua=1)

3A / INDICATOR

Presence of funding for palliative care activities/functions in the national health budget by the Ministry of Health or equivalent government agency

3B / DEFINITION OF FUNDING

Ministry of Health or equivalent government agency has reserved some type of funding in the national health budget for activities and/ or function for palliative care in the budget for this current year. (WHO 2015; http://apps.who.int/iris/bitstream/10665/206513/1/ WHO_NMH_NVI_16.4_eng.pdf)

3C / FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Is there funding for the following NCD and risk factor activities/functions (palliative care)?

However, we have adjusted the wording to include components that we felt were important from our Country Experts and International Committee of Experts who commented on all of the indicators. (WHO NCD CCS 2015; http://apps.who.int/iris/bitstream/10665/246 223/1/9789241565363-eng.pdf?ua=1)

SUMMARY

Only thirteen of responding countries indicating having national palliative care clinical guidelines. Those that did have clinical guidelines sometimes did not have national endorsement and/or were created and maintained instead by the national palliative care association. Of importance, twenty countries reported having a person or desk in the Ministry of Health responsible for palliative care, indicating that there is growing interest in the government on palliative care. Though twelve countries indicated having funding, the vast majority indicated that funding was very minimal. Of note was Uganda and Kenya, where the country does pay for morphine for patients throughout the country, and in Kenya, someone from the Ministry of Health sits in the national palliative care association offices to help in coordination of palliative care efforts in the country.



Map 11. Palliative Care Education

1A / INDICATOR

Proportion of medical schools which include palliative care education in undergraduate curricula (obligatory/optional/total) Proportion of nursing schools which include palliative care education in undergraduate curricula (obligatory/optional/total)

1B / DEFINITION OF OBLIGATORY AND OPTIONAL

Obligatory

An obligatory component means that a component of palliative medicine is included as mandatory or compulsory teaching for all medical or nursing students in order to graduate. The course may be

- 1. an independent subject or course with the name "palliative" included in the title OR
- 2. sharing of the course with other components and with a reference in the title (for example oncology and palliative medicine)
- **3.** sharing of the course with other components where a significant number of hours of palliative medicine is included in different courses as a component or as part of the longitudinal study for that course

Optional

An optional component means that a component of palliative medicine is included as electives or optional teaching but are not required for all medical or nursing students and are not required to graduate. The course may be

- 1. an independent subject or course with the name "palliative" included in the title OR
- 2. sharing of the course with other components and with a reference in the title (for example oncology and palliative medicine)
- 3. sharing of the course with other components where a significant number of hours of palliative medicine is included in different courses as a component or as part of the longitudinal study for that course

For the purpose of this project, undergraduate education is defined as course or specific module within a course, which includes the basic aspects of palliative care. Basic aspects of palliative care include:

- > The identification, evaluation and treatment of the most frequent symptoms
- > The physical, psychological and social aspects of care
- > Communication issues with the patient, relatives and caregivers. (Palliative Care Indicators, ALCP, 2013)

1C / FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Proportion of medical or nursing schools which include palliative care education in undergraduate curricula (i.e. ratio of medical or nursing schools with palliative care at undergraduate level to total medical or nursing schools)

(WHO Planning and Implementing Palliative Care Services, 2016; http://apps.who.int/iris/bitstream/10665/250584/1/9789241565417eng.pdf?ua=1)

2A / INDICATOR FOR THE AVAILABILITY OF A PALLIA-**TIVE CARE SPECIALISATION FOR DOCTORS**

Existence of specialized palliative care educational programmes for physicians, accredited by the national responsible authority, with specialized palliative care education defined as specialty, sub-specialty, master, or diploma, as defined by the respective competent authority

2B / DEFINITION SPECIALISATION

Official recognition of palliative medicine as a specialty, sub-specialty, master, diploma, or equivalent by a professional or governmental body such as, but not limited to, the Public Service Commission, Health Service Commission, professional councils, or other equivalent associations and/or organisations within the country.

2C / FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: Number of specialized palliative care educational programmes for physicians, accredited by the national responsible authority (absolute number), with specialized palliative care education defined as specialty, subspecialty, master, or diploma, as defined by the respective competent authority

(WHO Planning and Implementing Palliative Care Services, 2016; http://apps.who.int/iris/bitstream/10665/250584/1/9789241565417eng.pdf?ua=1)

SUMMARY

There is a great need for increased educational opportunities for palliative care in Africa. Six African countries, including Egypt, Ghana, Kenya, South Africa, Uganda, and Zambia indicated some form of official recognition of palliative medicine by an official body within the country. Egypt offers a post-graduate diploma in Supportive & Palliative Care, Ghana offers a Palliative Medicine Fellowship for physicians trained in Family Medicine, Kenya offers a higher diploma in conjunction with Oxford Brookes University, South Africa offers a Master in Palliative Care at the University of Cape Town, Uganda offers a Diploma as well as a Degree in palliative care through the Institute for Hospice and Palliative Care Africa and Makerere University, and Zambia offers a Continuous Professional Development Certificate Program in palliative care.



Map 12. Medicines

1A / INDICATOR

General availability of immediate-release oral morphine (liquid or tablet) in the public health sector

1B / DEFINITION OF AVAILABILITY OF MORPHINE

Indicates whether or not the country has immediate-release oral morphine (liquid or tablet) generally available in primary health care facilities in the public health sector

(Global Health Observatory indicator views, WHO, 2016; http:// apps.who.int/gho/data/node.imr)

We understand that some facilities may use immediate-release oral morphine for surgical use and not specifically for palliative care pain management. However, we are still interested in whether immediate-release oral morphine (liquid or tablet) is generally available in primary health care facilities in the public health sector.

1C / FOR YOUR INFORMATION

Wording for this indicator was derived from the WHO: General availability of oral morphine in the public health sector (WHO Global Health Observatory, 2016; http://apps.who.int/gho/data/node.home)

2A / INDICATOR

Opioid consumption per capita

2B / DEFINITION OF OPIOID CONSUMPTION

Data on opioid consumption is obtained from the International Narcotics Control Board. These data represent the amounts of opioids distributed legally in a country for medical and scientific purposes to those healthcare institutions and programs that are licensed to dispense to patients, such as hospitals, nursing homes, pharmacies, hospices and palliative care programs. Consumption does not refer to the amounts dispensed to, or used by, patients, but rather to amounts distributed to the retail level. The opioid consumption data are displayed in milligrams per capita (or per person), which is calculated by first converting the raw consumption data we receive from INCB from kilograms to milligrams and then dividing by the population of the country for a particular year. United Nations population data is used. This provides a population-based statistic that allows for comparisons between countries.

(http://www.painpolicy.wisc.edu/opioid-consumption-data)

3A / INDICATOR

The laws and regulations allow different health professionals to prescribe and do not restrict prescription to specialist physicians

3B / DEFINITION OF LAWS AND REGULATIONS

Special authority/license may include prescriptions limited to certain medical specialties or sub-specialties (eg. Oncologist) or specific opioid-prescribing licenses that allow opioids to be prescribed only with special permits or authorization or only in emergency situations. If no such restrictions exist, then a primary care provider, such as a family doctor, can prescribe always prescribe opioids without any of the restrictions above. (Cleary J, et al., 2013)

4A / INDICATOR

Nurses with special training in palliative medicine prescribe morphine in the country with or without a national nurse-prescriber policy in place

4B / DEFINITION OF NURSE PRESCRIBING

Nurses prescribe morphine in the country whether there is or there is no a specific national policy allowing nurses with special training in palliative medicine to prescribe opioids in the country.

One example of a specific national policy allowing nurses with special training in palliative medicine to prescribe opioids is the nurse prescribing policy in Uganda allowing nurses to prescribe opioids and other palliative care medications.

(Jagwe J& Merriman A, 2007; Uganda: Delivering Analgesia in Rural Africa: Opioid Availability and Nurse Prescribing)

SUMMARY

In general, average opioid consumption in across the continent is very low, averaging around 1 mg/capita/year. Mauritius, South Africa, Namibia, and Tanzania have the highest opioid consumption. Palliative care trained nurses prescribe opioids in about nine countries through Task Shifting Policies or, as in the case of Uganda, through a policy allowing for trained nurses to prescribe, though in a few countries, there is no official law for nurse prescribing. Morphine was available in the public sector for about half of the reporting countries (24/48), and laws and regulations limited opioid prescriptions to specialist or certain types of physicians in half of the reporting countries (24/48).







Map 13. Palliative Care Professional Activity (Vitality)

1A / INDICATOR

Existence of a national association or national association equivalent for palliative care

1B / DEFINITION ASSOCIATION

Existence of a national association for palliative care or a national association equivalent for palliative care. For example, in Rwanda, the Rwanda Biomedical Centre has a National Coordinator for Palliative Care that functions as a national association equivalent for palliative care.

2A / INDICATOR

Existence of a periodic national conference for palliative care in the country

2B / DEFINITION CONFERENCE

Existence of a periodic national conference for palliative care in the country. Periodic indicates every certain number of years, with at least one conference having taken place in the past.

SUMMARY

Twenty-six of reporting countries reported having a national association for palliative care. However, funding continues to be a challenge in terms of having an active association, and some countries indicated that though the association exists, due to lack of funding, there have not been much or any activity by the national association. Ten countries indicated having a periodic conference for palliative care, though some countries, like Algeria, does not have a separate conference for palliative care, but rather, has palliative care included as a section in conferences on pain. Here, South Africa, Uganda, Nigeria, Cameroon, and Kenya stand out for having periodic national conferences specifically for palliative care, run or organized by the national palliative care association.



Map 14. Palliative Care Research

DEFINITION

The number of articles included in the scoping review conducted with PubMed, Embase, and CINAHL on palliative care development in African countries compared with total hospice and palliative care service provision per population.

COUNTRY	PUBLISHED ARTICLES Number of articles	COUNTRY	PUBLISHED ARTICLES Number of articles
Kenya	12	Zambia	2
Uganda	11	Botswana	1
South Africa	7	Ethiopia	1
Egypt	5	Gambia, The	1
Morocco	5	Lesotho	1
Nigeria	5	Libya	1
Malawi	4	Madagascar	1
Tanzania	4	Mozambique	1
Zimbabwe	4	Namibia	1
Algeria	2	Rwanda	1
Côte d'Ivoire	2	Somalia	1
Sierra Leone	2	Sudan	1
Tunisia	2		

SUMMARY

As it can be appreciated in our study, in the published literature, there is no information on about half of the African countries, and where there is data available, it pertains mostly to Anglophone African countries as compared to non-Anglophone African countries. This fact has been reflected in work by advocacy groups such as Human Rights Watch (HRW), which states that Francophone African countries are lagging behind in palliative care development compared to development in Anglophone countries and the recent focus given to Francophone countries by the Department of International Programmes at Hospice Africa Uganda, which provides training in palliative care to healthcare professionals across Africa. Furthermore, the identified articles cover mostly medicines-related issues, and less frequently on services, policies, education or professional activity.





Algeria



MILESTONES

<mark>2013</mark>

> Algeria had six of the seven essential opioids available. (Cleary J, et al., 2013)

REFERENCES

Cleary J, Powell RA, Munene G, Mwangi-Powell FN, Luyirika E, Kiyange F, Merriman A, Scholten W, Radbruch L, Torode J, Cherny NI. Formulary availability and regulatory barriers to accessibility of opioids for cancer pain in Africa: a report from the Global Opioid Policy Initiative (GOPI). Annals of Oncology. 2013; 24 Suppl11:xi14-23.



US\$4,206 1.21 Gross Domestic Physicians per 1000 inh., 2010

Health Human Development expenditure total Index, 2015

8: Human Development Index Ranking, 2015

Mill, inh

16.65

Population density, 2015

US\$932.10

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

(% of Gross), 2014

> There is no structure of PC in Algeria. PC is provided in non-PC-specific services.

Policies

> N/A.

Education > N/A.

Medicines

> Immediate-release morphine and oxycodone are being registered. > There is available prolonged-release morphine and transdermal fentanyl only. Opioid prescriptions are strictly restricted to doctors.

Vitality

> There are periodic conferences carried out by the Algerian Society of Medical Oncology and the Algerian Society for the Assessment and Treatment of Pain.





services (offered by hospices)



in the last year (estimation)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Benmoussa Dalila, Centre Pierre et Marie Curie Alger.

Algeria



MILESTONES

N

1:35.000.000

None available.

REFERENCES

None available.



Services

> PC was initiated at the Angola Cancer Control Institute and the Américo Boavida Hospital.

1,246,700

Surface area

(km²)

0.20

Physicians

per 1000 inh., 2010

()h:3

Human Development

Index, 2015

Policies > N/A.

Education > N/A.

Medicines > N/A.

Vitality > N/A.

KEY INFORMANTS

Joseth Rita de Sousa, DNSP - Ministério da Saúde de Angola.



0.2-0.5

Mill. inh

20,07

Population density, 2015

US\$239.01

Health expenditure

per capita, 2015

149

Human Development

Index Ranking, 2015



Number of hospices or PC services with paediatric-specific programmes N/A



or PC services



Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units N/A



Number of PC cared for in the last year (estimation)



Districts with at least one PC service N/A

NATIONAL ASSOCIATION OR INSTITUTION

None.

Angola	
--------	--



Benin

MILESTONES

REFERENCES

None available.

2015



> The Benin Association of PC is established. (Anthelme AK, 2017)







US\$85.61 Health expenditure per capita, 2015

0.48 Human Development Index, 2015

114,760

Surface area

(km²)

0.06

Physicians

per 1000 inh., 2010

66 Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

Ahl

Health

> Benin has two units that depend on the medical service; one unit at the CNHU-HKM of Cotonou and the other at the Comè Zone Hospital. Both teams offer home-based services for home-bound patients.

Policies

> Cancer management and HIV care programmes exist but do not include a session dedicated to PC.

Education

> N/A.

Medicines

> There is an equipped production unit, but it is not currently functional due to difficulties in obtaining morphine powder.

Vitality

> N/A.



SERVICES

Number of home-based PC services (offered by hospices)

 \cap

Number of hospices

or PC services

Hospitals with inpatient **PC** units 3% (2/70)

Number of hospices

or PC services with

0/2(0%)

Number of PC cared for in the last year (estimation)



Districts with at least one PC service **17%** (2/12)

NATIONAL ASSOCIATION OR INSTITUTION

Association Béninoise de Soins Palliatifs (ABSP).

KEY INFORMANTS

Agbodande Kouessi Anthelme, Médecine Interne CNHU-HKM de Cotonou.

Benin



Botswana



MILESTONES

2016

> Botswana has drafted national policies that are in the process of being adopted. (Luyirika EBK, et al., 2016)

REFERENCES

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national PC policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

2,262,485 581,730 Population 2015 Surface area (km²)

US\$6,360.10 Gross Domestic

Physicians Product per capita, 2015 per 1000 inh., 2010

b.4 Health Human Development expenditure total Index, 2015

()ŀ Human Development Index Ranking, 2015

3.99

Population density, 2015

US\$870<u>.</u>84

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

(% of Gross), 2014

> Generally, hospitals do not have separate PC units. Currently patients needing PC services are offered in their own respective wards, e.g. medical, surgical etc.

0.34

Policies

> Botswana has a PC strategy. However, there is currently no separate budget. PC activities are carried out within the Community Home Based Care Programme.

Education

> PC is currently offered as an extra additional topic in medical schools, plans are underway to request schools to include it in the curriculum.

Medicines

> Medical Doctors are the only ones allowed to prescribe medicines according to Drug Regulatory Act.

Vitality

> The MOH commemorates hospice and PC week annually in different districts and involve different stakeholders.







Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **8%** (3/40)

Number of PC cared for in the last year (estimation)

Districts with at least

one PC service 15% (4/27)

NATIONAL ASSOCIATION OR INSTITUTION

Botswana Hospice Palliative Care Association (BHPCA) https://www.facebook.com/Botswana-Hospice-Palliative-Care-Association-766289516744104/

KEY INFORMANTS

Penny Sebuweng Makuruetsa, Ministry of Health.







MILESTONES

None available.

REFERENCES

None available.

Burkina Faso









Human Development Index Ranking, 2015

Mill, inh

COMMENTS FROM KEY INFORMANTS

Services

> Some organisations care for HIV-infected children without being able to offer continuous and recognised services of PC. There are individual organisations or aid associations that perform home visits and provide aspects of PC such as psychological and financial support.

Policies

> N/A.

Education

> N/A.

Medicines

> Compressed form of opioids is available including Actiskenan (Morphine Sulfate) 5mg, 10mg, 15mg

Vitality

> N/A.



Number of hospices

or PC services

Hospitals with inpatient **PC** units **0%**(0/2194)

Number of hospices

or PC services with

o/o(0%)

Number of PC cared for in the last year (estimation)

Districts with at least one PC service **0%**(0/63)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Dr. Some Ollo Roland, Cancerologue Chirurgien.







SERVICES



Burkina Faso



Burundi









Human Development Index Ranking, 2015

per capita, 2015

MILESTONES

2014

> The first advocacy workshop on PC was organised and conducted by a sinergy of organisations. (Ciza R, 2017)

<mark>2015</mark>

> The Association for PC in Burundi was established. (Muhigirwa Ciza J, 2017)

2015

> In Burundi, there are 2 hospices or PC services. The first is the Association for PC in Burundi and the second is a hospice for the aged run by the Congregation of Catholic Sisters BENEMUKAMA in Bujumbura. (Muhigirwa Ciza J, 2017)

NATIONAL ASSOCIATION OR INSTITUTION

fs-au-Burundi-Asopabu-200400217043360/

Association pour les Soins Palliatifs au Burundi (ASOPABU)

https://www.facebook.com/Association-pour-les-Soins-Palliati-

REFERENCES

None available.

COMMENTS FROM KEY INFORMANTS

Services

11.178.92

Population 2015

Gross Domestic

754

Health

expenditure total



27,830

Surface area

(km²)

N/A

Physicians

per 1000 inh., 2010

[]4[]

Human Development

Index, 2015

Policies

> It should be noted that with the current crisis in the country, the situation worsened with the departure of almost all the partners who supported the PC work. The government does not have the means to introduce and maintain new programmes. The partners are no longer there, and the professionals feel stuck.

Education

> PC is not integrated into the health system or into medical and nursing academic training. PC is not in the medical or paramedical training and there is no program to train healthcare professionals, even pain management is almost non-existent.

Medicines

> Morphine exists only in injectable form, reserved for patients in the operating room. Morphine is prescribed exclusively by doctors.

Vitality

> N/A.

KEY INFORMANTS

Muhigirwa Ciza Josephine, Representante Legale de l'ASOPABU. CONFIDENTIAL.





services (offered by hospices)

Burundi

MILESTONES

2006

2007

2010

(Mbeng NG, 2017)

REFERENCES

None available.

Cameroon



> First PC unit called the Integrated Hospice Program started at Banso

Baptist Hospital, part of the Cameroon Baptist Convention Health Ser-

vices. It is a hospital PC team that provides care at the hospital as well

> The Bamenda Regional Hospital PC Unit was started and carries out

> The HPCAC (the Hospice and PC Association of Cameroon) was started.

interdisciplinary services like Banso Baptist Hospital. (Mbeng NG, 2017)

as home based care follow-up. (Mbeng NG, 2017)





Uh Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

23,344,179

Population 2015

US\$1,217.30

Gross Domestic

> Services are not developed well enough to start building services in paediatric PC. We are hoping to get there with time and training. One community home-based care service was started at Bana in the Western Region but developing slowly due to lack of funding and staff.

Policies

> There has been much discussion on developing a PC plan/policy but there are no concrete results yet. The MOH can only budget for PC like they do for cancer and HIV when it is included in the national plan. In terms of guidelines, we are still working to build a strong country team and a committee to develop one.

Education

> We have been trying to include PC in the medical school curriculum since 2008 but have not yet been able to do so. In 2014, the University of Buea started a workshop programme for nurses in PC.

Medicines

> Immediate-release oral morphine is available in the private sector. Nurses with special training in PC prescribe but there is no formal policy for nurse prescribing. However, it is generally understood that specialist nurses have acquired very good training.

Vitality

> We have held two national PC conferences in 2015 and 2016.



Hospice and Palliative Care Association of Cameroon (HPCAC).

KEY INFORMANTS

Ndikintum George Mbeng, HPCAC.







Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC units** N/A



Number of PC cared for in the last year (estimation)



Districts with at least one PC service N/A



Consumption of morphine per capita (mg/capita/year), 2013

YES NO

YES NO

VITALITY

Existence of a national association or equivalent for PC

Existence of a periodic national conference for PC

Nursing schools which include PC education as mandatory **0%** (0/5)



Nursing schools which include PC education as optional **20%** (1/5)
Central African Republic



MILESTONES

None available.

REFERENCES

None available.

None.





JS\$323.20 0.05 Gross Domestic Physicians

per 1000 inh., 2010 J:Sh

Health Human Development expenditure total Index, 2015 (% of Gross), 2014

COMMENTS FROM KEY INFORMANTS

Services > There are no PC facilities yet.

Policies > Cancer is included in the NCD Program.

Education > N/A.

Medicines > N/A.

Vitality > N/A.

NATIONAL ASSOCIATION OR INSTITUTION

CONFIDENTIAL

KEY INFORMANTS



7.87

Population density, 2015

US\$24.96

Health expenditure

per capita, 2015

18,

Human Development

Index Ranking, 2015







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Comoros



MILESTONES

None available.

REFERENCES

None available.





Physicians per 1000 inh., 2010 Product per capita, 2015

1,861

Surface area

(km²)

h b/b Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

159

COMMENTS FROM KEY INFORMANTS

Services > Home-based care services provide some non-specialised PC.

Policies > N/A.

Education > N/A.

Medicines

> Only injectable Morphine is available.

Vitality > N/A.

0.2-0.5 Mill. inh

423.68

Population density, 2015

US\$100.82

Health expenditure

per capita, 2015





NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Nassur Soimihi, CHN El Maanrouf Hospital.





2005

> A national policy was developed and validated in 2005. (Coulibaly JD, etal., 2009)

2006

> The national Policy for PC was presented by the MOH. (Coulibaly JD, et al., 2009)

2008

> Twoworkshops have taken place since 2008. (Coulibaly JD, et al., 2009)

REFERENCES

Coulibaly JD, Adoubi I, Touré M, Oseni A, Echimane KA. [Difficulties with using morphine in cancer pain management: Ivorian experience]. Bulletin du Cancer. 2009; 96(6):703-7.

Coulibaly JD, Datie AM, Binlin-Dadie R, Kouame I, Nguessan Z, Barouan MC, Koffi E, Coulibaly I, Mensah J, Yenou HM, Dedomey E, Echimane K, PloK, Kouassi B. [Implementation of palliative care in Ivory Coast]. Bulletin du Cancer. 2009; 96(5): 609-14.

Policies

chronic diseases.

Services

> Funding is very limited. Most of the funding for cancer and HIV programmes is devoted to the prevention of these diseases and very little to PC.

> There are 280 centres dedicated to HIV that provide comprehensive

services including PC but whose main purpose is not to provide PC

services. Of the 255 hospices, specifically for HIV patients, about 5 are

dedicated to children with cancer and other chronic diseases and 250

dedicated to children with HIV. PC is mainly provided by NGOs working

in HIV and private clinics. All regions have PC units for people living with

HIV, but only 3 regions have PC services for cancer patients and other

Education > N/A.

Medicines > Only doctors prescribe morphine.

COMMENTS FROM KEY INFORMANTS

Vitality

> N/A.

KEY INFORMANTS

Siagbe Soungolé, Association desoins palliatifs de Côte d'Ivoire (ASPI).





NATIONAL ASSOCIATION OR INSTITUTION

L'association de soins palliatifs de Côte d'Ivoire (ASPI).

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Cote d'Ivoire

Dem. Rep. of the Congo



MILESTONES

2016

> The medical school of the University of Kinshasa inserted a course on PC of 15 hours in the final year of medicine. (Makassi JS, 2017)

REFERENCES

None available.



Surface area (km²)

N/A Physicians

per 1000 inh., 2010 0.433

36.814

Population 2015

Gross Domestic

Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

34.08

Population density, 2015

JS\$32.28

Health expenditure

per capita, 2015

l/h

COMMENTS FROM KEY INFORMANTS

Services

> PC is provided by private organisations and is only available in the capital. There are two organisations providing PC services at home: Pallia familli and Magnificat. The university clinics of Kinshasa want to organise a unit of PC, but it is still in the very early stages.

> There are another two home care services based in the Capital: L'ASBL Elongo Elonga and the Pain Relief Foundation.

Policies

> There is a national HIV program in the country, but not one with a section for PC. PC is not included in the health system; it is only through private initiatives.

Education

> With the support of the African PC Association, the university clinics of Kinshasa have been able to make available a few bottles of oral morphine and the Faculty of Medicine of the University of Kinshasa had just trained a few doctors and nurses.

> In 2017, a session on pain management and PC was organised in Ngaliema Clinic for physicians and nurses of public hospital institutions.

> A workshop on accessing opioids was organised by the WHO, the Ministry of Public Health and the UNODC.

Medicines

> N/A.

Vitality

> National PC association was created in 2015. There is a periodic national conference for PC organised by pallia familli in collaboration with Magnificat and the MOH.

NATIONAL ASSOCIATION OR INSTITUTION

Association Nationale de Soins Palliatifs en RDC (ANSP).

KEY INFORMANTS

Jean Sampert Makassi, Pallia familli asbl.









0%(N/A)

Egypt



MILESTONES

2003

> NGO PC Initiative was launched.

2008

> Palliative Medicine unit opens in Cairo University. (Atlas of Palliative Care in the Eastern Mediterranean Region, 2017)

<mark>2012</mark>

- > Egypt has National Guidelines for: 1) Management of acute and chronic pain 2) Management of other physical symptoms. (Silbermann M, et al., 2012)
- > There is available postgraduate medical education. (Silbermann M, et al., 2012)

REFERENCES

Bingley A, Clark D. A comparative review of palliative care development in six countries represented by the Middle East Cancer Consortium (MECC). J Pain Symptom Manage. 2009; 37(3):287-96.

Alsirafy SA, El-Mesidi SM, El-Sherief WA, Galal KM, Abou-Elela EN, Aklan NA. Opioid needs of patients with advanced cancer and the morphine dose-limiting law in Egypt. J Palliat Med. 2011; 14(1):51-4.

Silbermann M, Arnaout M, Daher M, Nestoros S, Pitsillides B, Charalambous H, Gultekin M, Fahmi R, Mostafa KA, Khleif AD, Manasrah N, Oberman A. Palliative care in Middle Eastern countries: accomplishments and challenges. Ann Oncol. 2012; 23 Suppl 3: 15-28.

NATIONAL ASSOCIATION OR INSTITUTION

None.

1,001,450 91.508.084 Population 2015

91.93 Surface area Population density, 2015 (km²) **JS\$**594.1

2.83 Physicians per1000 inh., 2010

()<u>6</u> Human Development

Index, 2015

Health expenditure total (% of Gross), 2014

Gross Domestic

b64

Human Development Index Ranking, 2015

()8

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

> N/A.

Policies

> PC for cancer patients is one of the items reimbursed for by the Egyptian government.

Education

> A post-graduate diploma in Supportive & PC is available at Alexandria University.

Medicines

> So far, there is no form of oral morphine accessible now for more than one year, though theoretically available. A few institutions import small amounts of immediate-release oral morphine for their own use. One company recently registered immediate-release oral morphine in Egypt, but it is not yet available in the market.

> According to the Egyptian Narcotics Control Law, any physician can prescribe opioids, but many institutions develop their own internal regulations and limit the prescription of opioids to pain specialists, oncologists, senior physicians, etc.

> There are not yet any nurses with special training in PC, and nurses cannot prescribe morphine.

Vitality

> N/A.

KEY INFORMANTS

Maged El-Ansary, Al Azhar University, faculty of medicine, Dept. of Anesthesiology, IC and Pain Medicine, Avicenna Pain relief Unit. Samy Alsirafy, Palliative Medicine Unit, Kasr Al-Ainy School of Medicine, Cairo University.





 \int

Hospitals with inpatient

Number of home-based PC services (offered by hospices)

PC units **0.5%**(8/1616)

Number of PC cared for

in the last year (estimation)

Districts with at least one PC service **22%**(6/27)





None available.

REFERENCES

None available.

Equatorial Guinea



28,050 845,060 Population 2015 Surface area

(km²)



US\$1163.42

Health expenditure

per capita, 2015

0.2-0.5

Mill. inh

US\$14,439.60 N/A Gross Domestic Physicians

per 1000 inh., 2010 Product per capita, 2015 059

3.80 Health Human Development expenditure total Index, 2015 (% of Gross), 2014

138 Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

> There is a hospice and PC service at the Hospital de la Paz in Bata.

Services

Policies > N/A.

Education

> N/A.

Medicines

> Morphine is one of Equatorial Guinea's essential medicines list. This does not mean that it is systematically available in health centres.

Vitality > N/A.

Number of home-based PC services (offered by hospices)

Number of hospices

or PC services

Hospitals with inpatient **PC** units **4%** (1/23)

Number of PC cared for in the last year (estimation)

Districts with at least one PC service **6%** (1/18)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Alvar Jones, UNED. Yolanda Aixelà-Cabré, IMF- Spanish Council for Scientific Research.



SERVICES



Number of hospices or PC services with paediatric-specific programmes **0/1**(0%)





None available.

REFERENCES

None available.

Eritrea



117,600



(km²) N/A

Surface area

Physicians per 1000 inh., 2010

)30 Human Development expenditure total Index, 2015 (% of Gross), 2014

186 Human Development Index Ranking, 2015

US\$51.04

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

4,789,568

Population 2015

Gross Domestic

3.34

Health

> There are no centres that provide PC. Cancer patients receive care in the general hospital or clinic.

Policies

> PC is integrated into national HIV plan/programme, and HIV control is well-integrated into the community and healthcare service. Plans are underway to establish funding for PC activities at the national level.

Education

> It is not a specific course that is provided separately. Pain management and PC is provide with the internal medicine course.

Medicines

> General hospitals have limited options for pain as there is a misconception that pain medications will result in addiction, and patients also refrain from getting adequate pain management. Morphine is not prescribed for outpatient care. It is strictly controlled even for outpatient care, and it is only prescribed by authorised physicians.

Vitality

> N/A.





services (offered by hospices)



in the last year (estimation)



NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Asmerom T. Sengal, Orotta School of medicine and Dental medicine.

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Eritrea

Ethiopia









Health expenditure per capita, 2015

()44 Human Development expenditure total Index, 2015 (% of Gross), 2014

104,300

Surface area

(km²)

0.02

Physicians

per1000 inh., 2010

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services > Hospice Ethiopia and Strong Hearts are NGOs providing PC. Sandafa

Population 2015

US\$619.20

Gross Domestic

Health

> PC was included in training for physicians in a basic ARV programme. (Onyeka TC, et al., 2013)

<mark>2016</mark>

2006

MILESTONES

> National PC guidelines were completed in June 2016 and are currently being printed. (Ayers N, 2017)

2017

> As part of this year's Federal MOH plan, PC as part of pre-service medical and nursing training has been proposed and accepted. (Ayers N, 2017)

REFERENCES

Onyeka TC, Velijanashvili M, Abdissa SG, Manase FA, Kordzaia D. Twenty-first century palliative care: a tale of four nations. European Journal of Cancer Care. 2013; 22(5):597-604.

Policies

eleven regions.

> PC is part of the Speciality Case Team, under the Clinical Services Directorate at the Federal MOH.

has a PC clinic. There are four PC hubs in Addis Ababa in four tertiary

hospitals. There are no specific paediatric services, but the hubs and

Hospice Ethiopia see children, if referred. At present, PC is limited to

Addis Ababa. The plan for this year is to set up services in four of the

Education

> American Cancer Society and FMOH have a Pain Free Hospital Initiative involving training doctors and nurses on pain assessment and control.

Medicines

> The Pain Free Hospital Initiative helps ensure supply of morphine. All physicians can prescribe.

Vitality

> N/A.



Zelalem Gizachew, American Cancer Society. Dr. Nicola Ayers, Federal Ministry of Health.



SERVICES



Number of hospices or PC services



 \int

Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units 1% (4/350)

Number of PC cared for

in the last year (estimation)



Districts with at least one PC service **9%**(1/11)

Ethiopia



Gabon







3.44 068 Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

725,292

Gross Domestic

> There is a public hospital at the Cancer Institute and a private homecare service that provide PC. All home-care services in the country are private and not affiliated with a public service. The Cancer Institute has a unit for PC with dedicated beds for PC. (Christie FKA, 2017)

REFERENCES

MILESTONES

<mark>2017</mark>

None available.

> There are beds for PC in the public hospital's cancer department. There is no specialised structure for paediatrics. Because all home-care structures are private and not affiliated with a public service, it is costly for middle- and low-income patients. Only the province where the capital is located has structures offering PC.

267,670

Surface area

(km²)

N/A

Physicians

per 1000 inh., 2010

Policies

> Programs exist in the fight cancer and HIV, but there is no emphasis in these programs on the need for PC. PC is still not well known at the Ministry level.

Education

> C education is not yet available at the Faculty of Medicine in Gabon, the only faculty in the country. There have been discussions with certain university authorities so that it can be available in years to come. No nursing schools provide PC training.

Medicines

> There is immediate- and slow-release morphine capsules and injectable morphine given free to patients at the Cancer Institute. A request for an agreement for the manufacturing of oral liquid morphine has been made but without approvals yet for morphine powder. There is no law on the prescription of narcotic drugs, including morphine, but lack of prescription due to opiophobia.

Vitality

> N/A.

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Filankembo Kava Angéla Christie, Institut de cancérologie de libreville.





Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **6%** (1/18)





Number of PC cared for in the last year (estimation)





The Gambia



MILESTONES

None available.

REFERENCES

None available.



US\$471.50 0.00 Gross Domestic Physicians

per 1000 inh., 2010 Product per capita, 2015 7.3(()44

Health Human Development expenditure total Index, 2015 (% of Gross), 2014

1/b Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

> There are no separate services for paediatrics; they are integrated. Home-based care services are offered by hospitals and their healthcare teams rather than by hospices.

Policies

> PC is in the HIV care guidelines. It is part of the HIV care package funding.

Education

> N/A.

Medicines > Only doctors can prescribe morphine.

Vitality

> N/A.



196.70

Population density, 2015

US\$118.40

Health expenditure

per capita, 2015





0/10(0%)





Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **83%** (10/12)



Number of PC cared for in the last year (estimation)



Districts with at least one PC service 100%(7/7)

NATIONAL ASSOCIATION OR INSTITUTION

Gambia Palliative Care Association.

KEY INFORMANTS

Dr. Samba Ceesay, Ministry of Health & Social Welfare.

The Gambia



ko EBA, 2017)

ko EBA, 2017)

REFERENCES

None available.

(Opare-Lokko EBA, 2017)

2014

<mark>2012</mark>

2016

Ghana



> The American Society for Clinical Oncology, and AFROCS (a British NGO

in Kansake) came together with the MOH of Ghana, and Ghana Health

Service to do some training so as to start PC in the country. (Opare-Lok-

> In September 1, an active PC service started in the hospital. (Opare-Lok-

> During the family medicine portion of their mandatory community health

rotation, final year students at the University of Ghana Medical School

attend a three-hour seminar on PC, which covers an overview of PC,

pain management, and communication skills (breaking bad news).

238,540

Surface area (km²)



US\$145.37

Health expenditure

010Physicians

3.56 Health expenditure total

COMMENTS FROM KEY INFORMANTS

Services

> An initiative of the Paediatric Oncology unit in Korle Bu Teaching Hospital is providing paediatric PC.

Policies > N/A.

Education

> A Palliative Medicine Fellowship Program is offered by the Faculty of Family Medicine, Ghana College of Physicians and Surgeons. A threeyear residency program for clinical nurse specialists in PC is offered by the Ghana College of Nurses and Midwives. PC is included in the curriculum for nursing schools that has been approved by the Ghana Nurses and Midwives Council, however, it is not taught in all schools, and it is not obligatory, except in the degree program run by the Central University College.

Medicines

> Immediate-release morphine syrup is available in the teaching hospitals, their attached primary care centres, and at some regional hospitals, but is not generally at the primary care level. Morphine is restricted to be prescribed by physicians only.

Vitality

> There is a Ghana PC Association, but it is not active currently. However, there have been periodic national training workshops.

KEY INFORMANTS

Edwina Beryl Addo Opare-Lokko, Korle Bu Palliative Care Team, Korle Bu Teaching Hospital and Flagstaff House Medical Centre.



 \cap



Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **0.0%** (1/2434)

Number of PC cared for

in the last year (estimation)

Districts with at least one PC service **30%** (3/10)

NATIONAL ASSOCIATION OR INSTITUTION

Ghana Palliative Care Association (GPCA) http://ghanapalliativecare.blogspot.com.es/







Ghana



Guinea







82

Human Development Index Ranking, 2015



245,860

Surface area

(km²)

expenditure total Index, 2015 (% of Gross), 2014

COMMENTS FROM KEY INFORMANTS







Number of hospices or PC services

SERVICES



MILESTONES

2014

> SOPAG was the first NGO working in the field of PC in Guinea and started in 2014. SOPAG offers home visits. (SOPAG, 2017)

<mark>2016</mark>

> In February, SOPAG organized a national PC conference in collaboration with Hospice Africa Uganda at the John Paul II Hospital. (SOPAG, 2017)

REFERENCES

None available.

Services

Population 2015



Policies

> Within the MOH, there is a component that includes PC within the NCD Program. There are plans and programs for PC but are not implemented. At the national level, there are clinical guidelines for PC, but they are not available. SOPAG uses guidelines from Camilla Borjesson of Sweden and Hospice Uganda. At the health department level, there is a department of care which includes PC.

Education

> In the oncology module in medical school, there are two lessons, one on PC and one on pain. PC is taught as a subject in the schools of medicine and nursing.

Medicines

> No form of morphine exists. There are laws prohibiting prescribing medicines among non-health specialists.

Vitality

> N/A.

Number of home-based PC services (offered by hospices)

Hospitals with inpatient **PC** units **0%** (0/35)



Number of PC cared for in the last year (estimation)



Districts with at least one PC service **1%** (1/120)

NATIONAL ASSOCIATION OR INSTITUTION

ONG Soins palliatifs de Guinée (SOPAG) https://www.facebook.com/Soins-Palliatifs-Guin%C3%Age-SO-PAG-1712005192369437/

KEY INFORMANTS

Pr. Agr Bangaly Traore, Unité de chirurgie oncologique de Donka, CHU de Conakry. ONG Soins palliatifs de Guinée (SOPAG).

Guinea



2005

<mark>2014</mark>

2016

REFERENCES

2016;10:1-4.

http://kehpca.org/

2007)

Kenya



> The Kenya Hospice and PC Association was formed. (Clark D., et al.,

> Through the partnership formed between KEHPCA and the MOH, other

and nursing curriculum. (Ali Z, 2016)

into their services. (McGowan BJ, et al., 2014)

Pain Symptom Manage. 2007;33(5):558-62.

[Internet]. 2014;16(4):240-245.

initiatives have indirectly resulted in integrating PC education medical

> KEHPCA worked closely with the MOH to create a Coordinator for PC

and Pain Relief to ensure that government hospitals incorporate PC

Gwyther L, Rawlinson F. Palliative Medicine Teaching Program at the Uni-

versity of Cape Town: Integrating Palliative Care Principles into Practice. J

McGowan Boit J, Ototo R, Ali Z, Malloy P. Rural Hospice in Kenya Provides

Compassionate Palliative Careto Hundreds Each Year. J Hosp Palliat Nurs

Ali Z. Kenya Hospices and Palliative Care association: integrating pallia-

tive care in public hospitals in Kenya. Ecancermedicalscience [Internet].

NATIONAL ASSOCIATION OR INSTITUTION

Kenya Hospices and Palliative Care Association, KEPHKA



Surface area (km²)



US\$168.98

Health expenditure

per capita, 2015

0.18 Physicians

per 1000 inh., 2010

Jhh Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

14h

COMMENTS FROM KEY INFORMANTS

Services

Population 2015

Gross Domestic

Health

> Paediatric PC services are integrated into adult PC. Home-based PC services are usually provided by stand-alone hospices. Areas without services is inhabited by the nomadic people. The five counties without services have at least one trained healthcare provider but no PC unit.

Policies

> There is a national training curriculum, and PC is included in the National Patient's Rights Charter. A person dedicated to PC sits in the National PC Association Offices and is a MOH employee, dedicated to work with KEHPCA to support integration of PC and pain relief in the government institutions. At hospitals with PC, the budget is integrated in the hospital budget. The MOH is currently buying morphine powder for government and mission hospitals.

Education

> PC has recently been included under "care for terminally ill patients" in the medical curricula. KEHPCA has developed content which has been reviewed and accepted. However, each university adopts it according to their own criteria and hours.

PCwasintegrated into the core nursing curriculum. In the Diplomain Nursing, it has 12 hours and in the Bachelor of Nursing, 35 hours. One hospice, with Oxford Brookes University, offers a Higher Diploma. However, most doctorstrain in the UK with Cardiff University since they offer clinical training.

Medicines

> The MOH, KEHPCA, and American Cancer Society have worked together to make morphine more available in the public health sector. Only Registered medical doctors and dentists can prescribe.

Vitality

> Facilitated by KEHPCA, every 2 years, there is the National PC Conference and is open to regional and international participants.

KEY INFORMANTS

Zipporah V Ali, Kenya Hospices and Palliative Care Association. Saraphina Guichochi, Nyeri Hospice.







Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **14%**(42/300)





Number of PC cared for in the last year (estimation)







Lesotho









US\$1,067.00 N/A Gross Domestic Physicians

per 1000 inh., 2010

30,360

Surface area

(km²)

lh Health Human Development expenditure total Index, 2015

Human Development Index Ranking, 2015

JS\$276.04

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

Population 2015

> There is no formal PC service in Lesotho.

Policies

> There is no stand-alone plan or programme, but the National Health Strategic Plan and the new NCD Strategic plans point towards future inclusion of PC. There are currently no PC guidelines, but they are being worked on with the help of the International Children's PC Network.

Education

> There is no medical school in Lesotho, but with support from the Boston University School of Medicine the Lesotho MOH initiated a Post-graduate training in Family Medicine. Cancer and PC Advocates are being trained through APCA. There is currently funding available from OSISA for development of guidelines and trainning of health care workers. It is within this grant that the MOH has committed some funds.

Medicines

> Morphine availability is minimal with poor reporting.

Vitality

> In the process of registering for a national association.









Number of home-based PC services (offered by hospices)



in the last year (estimation)



MILESTONES 2017

> Development of national PC clinical guidelines are in progress. (Nkabane-Nkholongo E, 2017)

> A Non-Communicable Diseases - Cancer and PC Advocate is trained and was nominated during the African PC Association Trainings. The MOH has sent the letter of nomination to WHO in Lesotho. (Phaaroe S, 2017)

REFERENCES

None available.

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Sejojo Phaaroe C.T(I.A.C): M.I.B.M.S: A.H.M.P, Disease Control (Non-Communicable disease unit) Ministry of Health Focal Person. Elizabeth Nkabane-Nkholongo, Lesotho Boston Health Alliance.

Lesotho

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Liberia







None available.

REFERENCES

None available.







COMMENTS FROM KEY INFORMANTS

Services > N/A.

b.(

Policies > N/A. Education

> N/A.

Medicines > N/A.

Vitality > N/A.

KEY INFORMANTS

Omar Salem M, Emhmed Head of Hospitals Department, Ministry of Health.









Number of hospices or PC services







Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units N/A



Number of PC cared for in the last year (estimation)



Districts with at least one PC service N/A

NATIONAL ASSOCIATION OR INSTITUTION

N/A.





REFERENCES

None available.

2010

Madagascar



> National Cancer Programme 2010 Refers to Need for Pain Manage-

ment and PC. (Rasoanambininjanahary T, 2017)



US\$43.70 Health expenditure per capita, 2015

Uh Human Development expenditure total Index, 2015 (% of Gross), 2014

Physicians

per 1000 inh., 2010

COMMENTS FROM KEY INFORMANTS

Services

Population 2015

Gross Domestic

3.(

Health

> Pain Without Borders (which has a partnership agreement with the MOH and the HJRA Hospital) has set up a new home-based PC facility for women and children. Some oncology departments (eg. HJRA Hospital, Military Hospital, Antananarivo) indirectly include PC in their care.

Policies

> N/A

Education

> The Faculty of Medicine of Antananarivo includes PC in its course on cancer. It has also instituted a University Diploma (DU) for doctors, and one of the five modules is dedicated to PC. 6 IFIRP public schools, including that of Antananarivo, includes a course on PC.

Medicines

> In practice, there are lists of prescribing doctors in some departments and establishments that limit the number of prescribers.

Vitality

> N/A.





SERVICES Number of hospices Number of hospices or PC services or PC services with paediatric-specific programmes

0/1(0%)

Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **0%**(0/45)

Number of PC cared for in the last year (estimation)

Districts with at least one PC service **5%** (1/22)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Tianarivo Rasoanambininjanahary, Douleurs Sans Frontières.



Madagascar



Malawi





Surface area

(km²)

0.02

Physicians

per 1000 inh., 2010





Health expenditure per capita, 2015 1/วั

0.4b Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

17.215.232

Population 2015

U**S\$**372.00

Gross Domestic

Health

> There are 78 PC services, but 14 prioritize PC as their core mission. Out of the 14, are two hospices (Ndimoyo Hospice and PC Centre in Slaima and St. Gabriel Hospice in Lilongwe). There are home-based care services available run by nongovernmental and faith-based organizations such as Partners in Health, Kaso, Matunkha, College of Medicine Bangwe, and PCSupportTrustoperatingPCservices.Paediatric-specific programs are available at Level 2 health facilities. Tertiary and Level 3 facilities are mandated by the national PC policy to have PC units.

Policies

> The PC national programme originated from the national home-based care program, which was a national response to the HIV pandemic. It is housed in the community health nursing department in the Directorate of Nursing and Midwifery Services, through which funding is channelled. All districts and PC implementing sites have designated PC coordinators / focal persons that take responsibility for PC.

Education

> In nursing, PC is examinable.

Medicines

> Morphine slow-release tablets and liquid morphine are available. Morphine powder is procured by the government through the Central Medical Stores, A National Task Force on Morphine Availability meet guarterly, coordinated by the PC Association of Malawi and chaired by the MOH Pharmaceuticals Directorate.

Doctors, including Clinical Officers and Medical Assistants trained in PC, prescribe morphine without restrictions. Nurses prescribe but are not included in a policy. Nurses and Midwives Act is undergoing review and a clause has been inserted to allow nurses with special training in PC medicine. Vitality

> N/A.

KEY INFORMANTS

Lameck Thambo, Palliative Care Association of Malawi. Immaculate Kambiya, Ministry of Health.





Number of home-based PC services (offered by hospices)



Number of PC cared for in the last year (estimation)



MILESTONES 2005

Creation of the National PC Association of Malawi. (Kambiya I, 2017)

<mark>2014</mark>

> The national PC policy was approved. (Luyirika EBK et al., 2016)

2017

> Efforts are in progress to introduce Bachelor of Science degree in PC. So far. needs assessment has been conducted and disseminated. application submitted to institutions of higher learning, and curriculum submitted to Senate for approval. Clinical placement sites are being upgraded to APCA standards and student hostels are being built. (Kambiya I, 2017)

REFERENCES

Thambo L, Gombwa S, Lavy V, Wiggin T, Chowns, G. Meeting the need for palliative care in Malawi: the story so far. European Journal of Palliative Care. 2010; 17(4):197-201.

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national palliative care policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

NATIONAL ASSOCIATION OR INSTITUTION

Palliative Care Association of Malawi palliativecareassociationofmalawi.org

Malawi

Mali

MILESTONES

None available.

REFERENCES

None available.



1,240,190

Surface area (km²)



Mill, inh

0.10 Physicians per 1000 inh., 2010

0.42 Health Human Development expenditure total Index, 2015 (% of Gross), 2014

I/Y Human Development Index Ranking, 2015

US\$108.10

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

17.599.694

Population 2015

Gross Domestic

> There is no PC unit or hospice in Mali. There is home-based medical support for people living with HIV/AIDS.

Policies > N/A.

Education

> N/A.

Medicines > There is no morphine syrup.

Vitality > The national association for PC is in the process of being created.





services (offered by hospices)

in the last year (estimation)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Dr. Zakari Saye, Surgical Oncologist.

Number of PC cared for



Mali

Mauritania



1,030,700

Surface area (km²)

0.13 Physicians Product per capita, 2011 per 1000 inh., 2010

4.067.564

Population 2015

US\$1,37

Gross Domestic

3

Health

(% of Gross), 2014

Uŀ Human Development expenditure total Index, 2015

56 Human Development Index Ranking, 2015

3.95

Population density, 2015

US\$148.11

Health expenditure

per capita, 2015



<mark>2015</mark>

2008

MILESTONES

> Some research work done in Mauritania was presented at the Francophone Congress on PC held in Tunisia. (Fearon D, 2017)

training health care professionals in PC. (Fearon D, 2017)

2016

> The latest version of the national cancer plan was validated, containing a section for PC. (Fearon D, 2017)

REFERENCES

None available.

Policies

> There is a national cancer plan in the works, with plans to include PC.

Education > N/A.

the capital.

Medicines

> Injectable morphine is often used as an immediate-release formulation for children. There is access to long-acting morphine and injectable, which can be well-employed to control pain, especially in conjunction with tramadol. This is the case for several francophone countries in Africa. Any doctor working at the National Cancer Centre can prescribe opioids.

Vitality

> N/A.



NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

David Fearon, Cairdeas International Palliative Care Trust.



SERVICES



Number of hospices or PC services



Number of home-based PC services (offered by hospices)

Hospitals with inpatient **PC** units **0%**(0/30)

Mauritania



MG

N

2017

None available.

None.



22% (2/9)

Number of hospices

or PC services with

0/2(0%)

Hospitals with inpatient

PC units

5%(1/20)

Mauritius



Morocco



MILESTONES

2005

> The first PC unit opened in Rabat, linked to the National Oncology Institute. (Lancet, 2016)

<mark>2012</mark>

> Two separate national health policies laid out a vision for the development of PC in 2010 and 2012. (Lancet, 2016)

2015

> For the first time, PC education was included as a module in the undergraduate medical curriculum. (Lancet, 2016)

REFERENCES

Tazi I. Palliative care for patients with hematologic malignancies in Morocco: a real challenge. Journal of Palliative Medicine. 2011; 14(3):270.

Hessissen L, Madani A. Pediatric oncology in Morocco: achievements and challenges. Journal of Pediatric Hematology/Oncology. 2012; 34 Suppl 1:S21-2.

Morocco's long road to comprehensive palliative care. Lancet. 2016; 387(10019):620.

NATIONAL ASSOCIATION OR INSTITUTION

Moroccan Society for Palliative Care and Management of Pain, National Institute of Oncology https://hospicecare.com/global-directory-of-providers-organizations/ listings/details/990/

446,550 Surface area

(km²)

0.62 US\$2,878.20 Gross Domestic Physicians

per 1000 inh., 2010 Product per capita, 2015 062

իլ Health Human Development expenditure total Index, 2015 (% of Gross), 2014

COMMENTS FROM KEY INFORMANTS

Services

Policies > N/A. Education

> N/A.

> N/A.







26 Human Development Index Ranking, 2015



> N/A.

34,377,51

Population 2015

Medicines

Vitality > N/A.

Number of PC cared for in the last year (estimation)

Districts with at least one PC service

KEY INFORMANTS

ne paliative, Clinique Al Farabi, Casablanca

Professeur Mati Nejmi, Unité de médecine de la douleur et de médeci-



Number of hospices

or PC services with

paediatric-specific programmes **1/5** (20%)

Number of home-based PC services (offered by hospices)

Number of hospices

or PC services

SERVICES

Hospitals with inpatient **PC** units 10% (1/10)

31% (5/16)







Mozambique



MILESTONES

2009

> The Mozambique PC Association (MOPCA) was created (Monjane L, interview, 2016)

<mark>2012</mark>

> National PC Policy approved in July. (Luyirka EBK, et al., 2017)

<mark>2016</mark>

> A local oral morphine reconstitution plan is being developed with support from the African PC Association with support from the American Cancer Society. (Luyirika EBK, et al., 2017)

REFERENCES

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national palliative care policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

799,380 Surface area

Population density, 2015 (km²) ()()4

Physicians per 1000 inh., 2010

0.42 Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

35.58

US\$79.32

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

27,977,863

Population 2015

JS\$529.20

Gross Domestic

> There is one NGO that works in six districts with home-care teams.

Policies

> The PC Policy mentions specific training but is not implemented.

Education

> At this time, doctors are receiving specialised training in PC outside of the country.

Medicines

> There is oral morphine in Mozambique but in primary health care it is not always available. It is available in some quaternary hospitals.

Vitality

> N/A.







NATIONAL ASSOCIATION OR INSTITUTION

Mozambique Palliative Care Association (MOPCA).

KEY INFORMANTS

Emília Pinto Miquidade, Unidade da Dor, Hospital Central de Maputo.

Mozambique

Namibia



MILESTONES

<mark>2004</mark>

> APCA brought an office for PC to Namibia. (Bauer R, 2016)

<mark>2011</mark>

> A full semester of PC was established at the University of Namibia. (Bauer R, 2016)

REFERENCES

None available.

2,458,830 824,290 Population 2015 Surface area (km²) 0.37 **US\$**4,673.60

Physicians per 1000 inh., 2010 Product per capita, 2015

8.93 Uh¦∹ Health Human Development expenditure total Index, 2015

26

Human Development Index Ranking, 2015

2.99

Population density, 2015

US\$869.30

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

Gross Domestic

(% of Gross), 2014

> Central Hospital in Windhoek has some aspects of PC, and Catholic AIDS Action has satellites with active PC. However, only Catholic AIDS Action has staff trained in community/home-based PC.

Policies

> There is PC in the policy, but the problem is implementing the policy.

Education

> In the School of Social Work, there is a full semester course in PC in the University of Namibia. In Namibia, PC is seen as giving up; there is much to do for community education of PC.

Medicines

> Only patients in Windhoek have oral morphine both available and accessible. It is available but not accessible.

Vitality

> APCA functioned as the Association, and we had a Task Force on PC at the MOH.



services (offered by hospices)



in the last year (estimation)



NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Richard W. Bauer, Maryknoll Fathers & Brothers. Desderius Haufiku, University of Namibia.

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Namibia

Niger



MILESTONES

2017

> Six training programs for doctors and nurses have been completed. (Badé M, 2017)

REFERENCES

None available.





per 1000 inh., 2010 Product per capita, 2015

5.82 03h Health Human Development expenditure total Index, 2015 (% of Gross), 2014

188 Human Development Index Ranking, 2015

15,7

Population density, 2015

JS\$53.53

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

> PC is provided through the oncology and haematology service. There is no specific paediatric service for PC; it is provided as part of the overall care of patients.

Policies

> There is a National Cancer Control Programme and a National HIV Programme but without sections for PC.

Education

> N/A.

Medicines

> Morphine is available but in a dequate and prescriptions are not frequently prescribed to patients.

Vitality

> N/A.







Number of hospices or PC services





Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **0%**(0/15)



Number of PC cared for in the last year (estimation)



Districts with at least one PC service **0%**(0/0)

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Malam-Abdou Badé, Hôpital National de Niamey.

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Nigeria



MILESTONES

2002

> In 2002, the Federal Medical Centre in Abeokuta (FMCA) evolved into the first hospital-based PC service in Nigeria. (Oliver D, et al., 2011)

2007

> The Nigerian Association for Hospice and PC was established in January. The National Association and Hospice Nigeria have helped Centres in other areas across Nigeria to develop PC. (Oliver D, et al., 2011)

2013

> The University College Hospital, Ibadan has successfully introduced PC into its undergraduate curriculum, and other tertiary institutions are in the process of following suite. (Onyeka TC, et al., 2013)

REFERENCES

Soyannwo OA. Palliative care and public health, a perspective from Nigeria. Journal of Public Health Policy. 2007; 28(1):56-8.

Oliver D, Olupitan D, Oyebola F. Developing palliative care in Nigeria - a collaborative approach. European Journal of Palliative Care. 2011; 18(6):298-301.

Onyeka TC, Velijanashvili M, Abdissa SG, Manase FA, Kordzaia D. Twenty-first century palliative care: a tale of four nations. European Journal of Cancer Care. 2013; 22(5):597-604.

NATIONAL ASSOCIATION OR INSTITUTION

Hospice and Palliative Care Association of Nigeria (HPCAN).

923,770 Population 2015 Surface area (km²)

US\$2,640,30 0.40 Gross Domestic Physicians

Product per capita, 2015 per1000 inh., 2010 3.6 Uh Health Human Development

52

Human Development Index Ranking, 2015

20005

Population density, 2015

US\$216.87

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

expenditure total

(% of Gross), 2014

> PC is available in urban areas, mostly at tertiary hospitals and at various stages of development.

Index, 2015

> Historically, palliative care development in Nigeria has been driven by individual 'champions' since 1991. These individuals from various parts of the country with support from their institutions have succeeded in establishing the current palliative care services.

Policies

> There is a National cancer plan with palliative care as goal number ten. PC is responsibility of the cancer desk officer in the Federal Ministry of Health.

Education

> National accreditation bodies are currently working on curriculum review to include PC in the undergraduate medical curriculum. The Nursing and Midwifery Council are also working on a process for inclusion. Accreditation of palliative medicine for physicians is in progress.

Medicines

> Morphine is available where there is a PC service, mostly in tertiary hospitals.

Vitality

> There is an annual conference.

KEY INFORMANTS

Olaitan Soyannwo, University College Hospital, Ibadan.





Number of home-based PC services (offered by hospices)



Number of PC cared for in the last year (estimation)



Nigeria

None available.

REFERENCES

None available.

Republic of Congo



Mill. inh



0.2-0.5

0.10 Physicians per1000 inh., 2010

342,000

Surface area

(km²)

b.1b Jhl Health Human Development expenditure total Index, 2015 (% of Gross), 2014

36 Human Development Index Ranking, 2015

JS\$322.63

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

Population 2015

Gross Domestic

> There is a mobile team in Brazzaville, and soon four beds of PC will be available through a medical home of the Association Congolaise Accompagner ACA which supports the ACA2, the national PC association. There was also a mobile team at Pointe Noire but stopped due to lack of funding.

Policies

> PC is included in the cancer control programme but without specific funding.

Education

> There is a course on pain for medical students, but no specific course on PC.

Medicines

> Currently, there is no access to morphine. Some 500mg ampoules are available.

Vitality

> The Congolese national association will open a multi-purpose medical home with PC activities. Past conference have been organized, and an international conference is scheduled for October 12-14th.





services (offered by hospices)

in the last year (estimation)

NATIONAL ASSOCIATION OR INSTITUTION

L'Association Congolaise Accompagner ACA.

KEY INFORMANTS

Burucoa Benoît, CHU-Université de Bordeaux.



Rwanda



MILESTONES

2009

> Dr. Christian Ntizimira, Director of Kibagabaga Hospital in Kigali, opened Rwanda's first paediatric PC unit at Kibagabaga in 2009 and first adult unit in 2010. (Vogel L, 2011)

<mark>2014</mark>

> There is a National Coordinator of PC in the MOH. (Mukasahaha D, 2017)

2016

> To date, six African countries have stand-alone national PC policies and these are: Malawi, Mozambigue, Rwanda, Swaziland, Tanzania, and Zimbabwe. (Luyirika EBK, et al., 2016)

REFERENCES

Vogel L. Rwanda moving to provide "good deaths" for terminally ill. CMAJ. 2011; 183(14):E1053-4.

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national palliative care policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

NATIONAL ASSOCIATION OR INSTITUTION

Palliative Care Association of Rwanda **Ministry of Health** https://www.facebook.com/pcarwanda/

26,340 11.609.666 Population 2015 Surface area (km²)

US\$697.00 0.10 Gross Domestic

Physicians Product per capita, 2015 per 1000 inh., 2010

75(0.48 Health Human Development expenditure total Index, 2015

Human Development Index Ranking, 2015

63

47060

Population density, 2015

US\$125,10

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

(% of Gross), 2014

- > There are 54 organisations providing integrated PC as part of their services, with four providing it as its main mission.
- > Included in the total number of hospice and PC services are PC units in government district and referral hospitals.

Policies

> Rwanda is the first African country to develop a stand-alone PC policy. There are clear and specific PC guidelines. PC is integrated into the NCD Budget.

Education

> Rwanda is currently in the stage of developing a curriculum of PC for medical schools. There is, however, no accredited education programmes in PC; only short-term trainings are available.

Medicines

> There are 10mg and 30mg morphine tablets and oral liquid morphine. There is a task-shifting policy allowing nurses to prescribe.

Vitality

> PC is coordinated in the MOH rather than by an association, but there is a national association of PC. There is also a Periodic PC Technical Working Group that organizes conferences.

KEY INFORMANTS

Mukasahaha Diane, Rwanda Biomedical Center.





SERVICES



Number of hospices or PC services



Number of home-based PC

services (offered by hospices)

Hospitals with inpatient **PC units** N/A



Number of PC cared for in the last year (estimation)



Districts with at least one PC service 100% (42/42)





Sao Tome & Principe



960 98.28

Surface area

(km²)

N/A

Physicians

per 1000 inh., 2010

lhh

Human Development

Index, 2015

> PC is available at the Central Hospital (referral hospital) in the inpatient district health centres and at the Health Posts which function as an exten-

sion of the district health centres. Such care is provided in the infirmary

where the patient is hospitalised or at home. The country does not have

specialised PC teams. Nurses, doctors, or other health care profes-

sionals may provide PC where the patient is. PC is provided in paediat-

ric wards by professionals with no specific specialty in PC and not from

COMMENTS FROM KEY INFORMANTS

Mill. inh

Population density, 2015

JS\$299.73

Health expenditure

per capita, 2015

43

Human Development

Index Ranking, 2015







MILESTONES

None available.

REFERENCES

None available.





> There are health agreements established with health institutions outside of the country, making it possible to refer patients for treatment abroad, so a considerable number of patients who need such care are sent to other countries for care. There is a national programme for NCD, but it lacks funding.

Education

Policies

190344

Population 2015

Gross Domestic

Health

expenditure total

(% of Gross), 2014

specific PC programmes.

Services

> There is a Higher Institute of Health Sciences at the University of São Tomé, but it does not form doctors.

Medicines

> A law allows family doctors to prescribe morphine, but access is limited to the referral hospital in specific departments. Morphine is restricted for hospital use and may be purchased by tertiary health care centres. The law allows family practitioners to prescribe but access is limited to referral hospitals in specific departments.

Vitality

> N/A.

KEY INFORMANTS

NATIONAL ASSOCIATION OR INSTITUTION

None.

Arlindo Vicente de Assunção Carvalho, Centro Nacional de Endemias.

Senegal



196,710

Surface area

(km²)

0.06

Physicians

per1000 inh., 2010

0.46





per capita, 2015

Health expenditure

Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS



Policies

Population 2015

Gross Domestic

Δhh

> A specific section for PC will be included in the project to establish a new National Cancer Centre. There is also a point person for PC in the NCD Division. There are not yet any clinical guidelines at the national level and no funding for PC activities at the MOH.

Education

> In oncology, there are introductory courses for fourth and seventh year students on the medicine rotation as well as for students who specialise in oncology.

Medicines

> Liquid morphine is generally reserved for paediatrics. By 2015, 8 pots of 25g were used for paediatric patients and some for the cancer patients. Morphine tablets exist but often break and, therefore, not accessible. Morphine prescription is limited to doctors and can be used for up to 28 days.

Vitality

> A dedicated association for PC training has just been created: ASSOPA, whose president is Professor Claude Moreira.





Number of home-based PC services (offered by hospices)

Number of PC cared for in the last year (estimation)

MILESTONES

2016

> A service named MAM, created by MADJI, which is a private non-profit organisation providing home-care services; started in the second half of 2016 after receiving training in Uganda. (Sow BP, 2017)

> The Association Sénégalaise de Soins Palliatifs was created. (Sow BP, 2017)

REFERENCES

None available.

NATIONAL ASSOCIATION OR INSTITUTION

Association Sénégalaise de Soins Palliatifs (ASSOPA).

KEY INFORMANTS

Coumba Gueve, Institut Joliot Curie. Boubacar Poulho Sow, MAADJI, Société de Services aux personnes Agées avec une unité mobile de soins palliatifs.



der. (Bosnjak Set al., 2011)

(Bosnjak Set al., 2011)

Palliative Nursing. 2006; 12(4):157.

REFERENCES

19(8):1239-1247.

2008

2009

Sierra Leone



> In October 2008, Shepherd's Hospice, the only hospice in the country,

> Morphine solution was first produced in a labora he powder, and a hos-

pice first began treating patients with oral morphine in February 2009.

Kwakwa J. The hospice model in Sierra Leone. International Journal of

Bosnjak S, Maurer MA, Ryan KM, Leon MX, Madiye G. Improving the availability and accessibility of opioids for the treatment of pain: the International Pain Policy Fellowship. Supportive Care in Cancer. 2011;

received the first shipment of 500 g of low-cost morphine sulfate pow-





Physicians per 1000 inh., 2010

()4'Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

89,40

US\$223,74

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

Gross Domestic

> The Shepherd's Hospice is partnering with four communities to deliver PC. There is no specialized paediatric PC.

Policies > N/A.

Education

> N/A.

Medicines

> N/A.

Vitality

> There is no conference but periodic meetings are held to update members of the national association.









Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units **0%**(0/75)

Number of PC cared for

in the last year (estimation)

Districts with at least one PC service **33%** (4/12)

NATIONAL ASSOCIATION OR INSTITUTION

Sierra Leone Palliative Care Association (SLPCA).

KEY INFORMANTS

Gabriel Madiye, The Shepherd's Hospice in Sierra Leone.

Sierra Leone



Rawlinson F, 2007)

REFERENCES

https://www.hpca.co.za/

(Gwyther L & Rawlinson F, 2007)

Medical Journal. 2005; 95(10):722-726.

2000

2001

2005

South Africa



> In collaboration with the Palliative Medicine Division from the Universi-

ty of Wales College of Medicine (UWCM) in Cardiff, United Kingdom, the

University of Cape Town (UCT) created an honorary lecturer post in PC

and a distance-learning curriculum. (Gwyther L & Rawlinson F, 2007)

> The University of Cape Town, with support from the University of Wales

College of Medicine, now Cardiff University, developed the first post-

graduate PC diploma and degree (M.Phil.) in the region. (Gwyther L &

> PCwasincluded in the undergraduate medical curricula in South Africa.

Bateman C. Alleviating suffering - one patient at a time. South African

Gwyther L, Rawlinson F. Palliative medicine teaching program at the

University of Cape Town: integrating palliative care principles into prac-

tice. Journal of Pain and Symptom Management. 2007; 33(5): 558-62.

Connor S, Sisimayi C, Downing J, King E, Lim Ah Ken P, Yates R, Marston

J. Assessment of the need for palliative care for children in South Africa.

International Journal of Palliative Nursing. 2014; 20(3):130-4.

Hospice Palliative Care Association of South Africa (HPCA)

NATIONAL ASSOCIATION OR INSTITUTION







88 Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

54956920

Population 2015

Gross Domestic

> HPCA member hospices are all non-government organisations; there is very little PC that does not fall under this umbrella. Most of the care is home-based as inpatient units are expensive. A few years ago, there was a bigger emphasis on paediatrics but funding has dried up. There are, however, very strong services that are hospital-based for paediatric PC, and there is a group focusing on neonatal PC.

1,219,090

Surface area

(km²)

078

Physicians

per 1000 inh., 2010

066

> The areas with sparse population, because of harsh climatic conditions, and rural areas have the least services.

Policies

- > Clinical guidelines have been developed by HPCA who coordinates PC in the NGO sector; they are not government guidelines. Having a dedicated person in the Ministry is new since the WHA Resolution.
- > There is currently no funding for PC as PC is seen as part of generalist care though work is happening to ensure funding.
- > The final draft of the national PC programme has been developed and was presented on February 24th, 2017.

Education

> For medical schools, the curricula is only a few weeks with nearly no practical exposure. HPCA is working with various nursing schools to include PC into their curriculum; there is mention of PC but not a full module.

Medicines

> The availability of morphine is good but prescription and adequate dosage is often compromised due to lack of knowledge. Generalist physicians can prescribe morphine and currently, work is in progress for a policy for palliative nurses to prescribe morphine.

Vitality

> We have had annual national conferences but this is becoming regional as funding is limited.

KEY INFORMANTS

Elizabeth Scrimgeour, CEO Drakenstein Palliative Hospice and HPCA South Africa Vice-Chairperson.



SERVICES



Number of hospices or PC services with paediatric-specific programmes 20/160 (13%)

or PC services



Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units 1% (5/160)



Number of PC cared for in the last year (estimation)





South Africa



South Sudan



MILESTONES

None available.

REFERENCES

None available.



Surface area (km²)

N/A Physicians

per 1000 inh., 2010

]4 Health Human Development expenditure total Index, 2015

69 Human Development Index Ranking, 2015

Mill. inh

N/A

Population density, 2015

US\$72.82

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

12,339,812

Population 2015

Gross Domestic

(% of Gross), 2014

> South Sudan does not have hospice services. WHO South Sudan is planning on conducting assessments of PC services as part of NCD survey. South Sudan has a few partners providing home-based care programs, for example, for follow-up of patients on HIV/AIDS treatment and mother-to-mother support groups. The home-care package includes a small component of symptom management.

Policies

> There is a separate HIV guideline on PC. This is not, however, systematically implemented. The MOH is in process of establishing an NCD unit which will include PC.

Education

> N/A.

Medicines

> The government restricts importation and prescription of narcotics, including morphine.

Vitality

> N/A.





KEY INFORMANTS

Joseph Lou Kenyi Mogga, World Health Organization. CONFIDENTIAL.









South Sudan

training. (Gafer N, 2016)

2009

<mark>2012</mark>

2016

2017)

REFERENCES

None available.

Sudan



> Two personnel from Sudan went to Hospice Africa Uganda to receive PC

> A Task Force for PC was formed, and their activities help spread

> The MOH decided to include PC in its National Health Strategy. (Gafer N,

knowledge about availabilities of services and training. (Gafer N, 2017)





Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

> Four hospitals provide PC services:

1) Radiation & Isotope Centre, Khartoum (Khartoum Oncology Hospital), which has outpatient, home-care and inpatient beds) at the main oncology centre; 2) Soba University Hospital, which has an inpatient PC consultation service; 3) The National Cancer Institute at Medani, which has a PC team covering the oncology wards and with a referral clinic and a limited home-care service; 4) The East Oncology Centre, which is a recently opened oncology centre at Gedarif Teaching Hospital in eastern Sudan offering chemotherapy and a PC service.

> All sites see adults and children, but there is no specific paediatric service. There is a nurse who will complete her training (post-graduate degree in paediatric PC) soon.

Policies

> PC has been in the Cancer Control Programme for years but no funds were allocated.

Education

> There is a short course of PC for Health Professionals, attended by doctors, nurses, etc. This course is approved by the Ministry of Higher Education.

Medicines

> Immediate-release morphine is available at the four sites, and a few more. It is not available at the majority of hospitals and is not available in stand-alone pharmacies at all. Only consultants and registrars can prescribe morphine.

Vitality

> N/A.

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Dr. Nahla Gafer, Comboni College of Science & Technology. Shaima Sideeg, Radiation & Isotope Center, Khartoum. 00% 75% 50% 25% 0%

SERVICES



Number of hospices or PC services with paediatric-specific programmes **O/4** (O%)

Number of hospices

or PC services

Number of home-based PC services (offered by hospices)

Hospitals with inpatient PC units **2%** (1/50)





Number of PC cared for in the last year (estimation) Districts with at least one PC service **17%** (3/18)

Sudan



Swaziland







0.17 Physicians per 1000 inh., 2010

lh'-

Human Development Index, 2015

Surface area

(km²)

Human Development Index Ranking, 2015

bl

JS\$586.82

Health expenditure

per capita, 2015

COMMENTS FROM KEY INFORMANTS

Services

Health

> There are twelve government and two private facilities providing PC. Baylor provides PC services for HIV positive children. Two government facilities also provide paediatric PC services. There is one hospice in the country providing home-based care and five government and two private

facilities provide home-based care.

Policies

> There is no cancer programme, but the NCD Programme has a section for PC. The country is in the process of establishing a cancer programme where PC will be included. HIV is used as an entry point for PC, and therefore, PC is included. Currently, PC is mostly supported by donor funding, though the government provides minimal funding through the HIV programme.

Education

> PC education is provided as a seminar with about 3-4 hours per year. The following institutions are teaching PC: Southern African Nazarene University, Swaziland Christian University (started in January 2017), University of Swaziland, and Good Shepherd University.

Medicines

> N/A.

Vitality

> There is a National Technical Working Group for PC.





Number of hospices or PC services with paediatric-specific programmes 3/14 (21%)



Number of home-based PC services (offered by hospices)

or PC services

Hospitals with inpatient **PC** units **100%** (11/11)



Number of PC cared for in the last year (estimation)



Districts with at least one PC service 100% (4/4)

MILESTONES

2011

> Kingdom of Swaziland, MOH, approved its National PC Policy. (Luyirika EBK, et al., 2016)

2017

> National PC clinical guidelines are available for both adults and children. (Ginindza N, 2017)

REFERENCES

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national palliative care policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

NATIONAL ASSOCIATION OR INSTITUTION

None.

KEY INFORMANTS

Herve Nzereka Kambale, Swaziland National AIDS Programme, Palliative Care Unit. Ntombifuthi Ginindza, Ministry of Health.





Tanzania





Surface area (km²)

per 1000 inh., 2010



JS\$137,49

Health expenditure

per capita, 2015

US\$879.00 0.0^{\prime} Physicians

bb8

Human Development Index, 2015

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

53.470.420

Population 2015

Gross Domestic

Product per capita, 2015

Health

expenditure total

(% of Gross), 2014

> Some PC services in regional hospitals were previously active but not current due to lack of support. There is a shortage of paediatric PC/hospice services, therefore, existing services provide for both children and adults.

Policies

> None of the plans have budgets to finance PC. There is a National PC Strategy underway. PC is considered part of NCDs, which has a focal person. Cancer treatment is offered for free in the country, but in most cases, there is a shortage of drugs leading to many patients buying drugs out of pocket. Currently, there is an ongoing plan to ensure health insurance covers PC services.

Education

> For a long time, nurses and physicians had been getting training from Uganda and South Africa. Only training that involved field attachment to a PC unit is available in the country. The International Medical and Technological University (IMTU), University of Dodoma, and Ocean Road Cancer Institute have integrated PC into their training. There used to be a post-graduate diploma in Palliative Medicine at the IMTU but the program collapsed due to a lack of funding.

Medicines

> The Tanzania Food and Drug Authority (TFDA) is in charge of controlled drug permit certificates for hospitals. A Task Shifting Policy is being finalized, and therefore, in the near future, trained nurses will be able to prescribe opioids.

Vitality

> The main challenge with the national association is lack of funding.

KEY INFORMANTS

Dr. Alick Austine Kayange, Uhuru Medical Centre. Dr. Elias Johansen Muganyizi, Tanzania Palliative Care Association.









services (offered by hospices)



MILESTONES

2002

> Following the second National Multisectoral Conference on HIV/AIDS held in December, Tanzania passed a resolution stating that PC was to be a core component of all home-based care services for people living with HIV/AIDS in Tanzania. (Onyeka TC, et al., 2013)

2013

> A postgraduate diploma course in PC was established at International Medical Technology University. (Onyeka TC et al., 2013)

<mark>2014</mark>

> National PC policy approved. (Luyirika EBK, et al., 2016)

REFERENCES

Nanney E, Smith S, Hartwig K, Mmbando P. Scaling up palliative care services in rural Tanzania. Journal of Pain and Symptom Management. 2010;40(1):15-8.

Onyeka TC, Velijanashvili M, Abdissa SG, Manase FA, Kordzaia D. Twenty-first century palliative care: a tale of four nations. European Journal of Cancer Care. 2013; 22(5):597-604.

Luyirika EBK, Namisango E, Garanganga E, Monjane L, Ginindza N, Madonsela G, Kiyange F. Best practices in developing a national palliative care policy in resource limited settings: lessons from five African countries. Ecancermedicalscience [Internet]. 2016;10:652.

NATIONAL ASSOCIATION OR INSTITUTION

Tanzania Palliative Care Association (TPCA) http://archive.is/20130509141423/tpca.or.tz/

Tanzania





0.2-0.5



134.30

Population density, 2015

US\$76.25

Health expenditure

per capita, 2015

62







or PC services with paediatric-specific programmes **1/2**(50%)

MILESTONES

None available.

REFERENCES

None available.

Population 2015 Surface area **US\$**559.60

0.05 Gross Domestic Physicians per 1000 inh., 2010 Product per capita, 2015

56,790

(km²)



Index, 2015

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

> The Paediatric Hematology/Oncology Service at CHU Lome provides PC services as well as one private organization.

Policies

> There is a national cancer plan and HIV plan but do not include components for PC.

Education

> N/A.

Medicines > N/A.

Vitality > There are.

Number of home-based PC services (offered by hospices)

 \int

Number of hospices

or PC services

Hospitals with inpatient **PC** units **7%**(2/28)



Number of PC cared for

in the last year (estimation)

Districts with at least one PC service **17%** (1/6)

NATIONAL ASSOCIATION OR INSTITUTION

Association Togolaise des Soins Palliatifs

https://www.facebook.com/AssociationTogolaiseDesSoinsPalliatifs-ViePlus/

KEY INFORMANTS

Mofou Belo, Division de la surveillance des maladies non transmisibles, Ministère de la santé et de la Protection Sociale.

APCA Atlas of Palliative Care in Africa 144



ern Mediterranean Region, 2017)

Annals of Oncology. 2013; 24 Suppl11:xi14-23.

iterranean Region, 2017)

REFERENCES

1992

2017)

2006

2008

Tunisia



prevention, treatment, and research. (Atlas of Palliative Care in the East-

> Opioid prescribing laws were changed, making pain medications much

more accessible to patients. (Atlas of Palliative Care in the Eastern Med-

Cleary J, Powell RA, Munene G, Mwangi-Powell FN, Luyirika E, Kiyange F, Merriman A, Scholten W, Radbruch L, Torode J, Cherny NI. Formu-

lary availability and regulatory barriers to accessibility of opioids for can-

cer pain in Africa: a report from the Global Opioid Policy Initiative (GOPI).



Surface area (km²)



US\$785<u>.</u>32

Health expenditure

per capita, 2015

1.22 US\$3,872.50 Gross Domestic Physicians

per 1000 inh., 2010

Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

11.107.800

Population 2015

> The first PC association was started by Prof. Ben Ayed Farhat and Prof. > There are public health structures that provide limited PC without specific Henda Rais. (Atlas of Palliative Care in the Eastern Mediterranean Region, skills and qualifications. There is a PC unit with eight beds. A PC pavilion (12 beds) was created in 2010 at the Salah Azaiez Institute of Cancer but was reverted to oncological activities. Community-based palliative medicine is in the process of development; about 50 general practitioners are > The Tunisian MOH included PC in the National Cancer Plan along with trained and go to patients' homes with nurses.

Policies

> Some PC recommendations are included in the policy for the Fight Against Cancer.

Education

> N/A.

Medicines

> Oral slow-release morphine is widely available but there is no oral form of immediate-release morphine.

Vitality

> There is a national association for the promotion of the PC in the capital with an annex in the southeast (Gabes) which depends on the association and conducts training and support activities. The association has been supported by a Swedish NGO for its launch but is experiencing difficulties in continuity.



Assossiation Tunisienne pour la Promotion des Soins Palliatifs http://www.palliatifstunisie.org/

KEY INFORMANTS

Henda Rais, Professor in Medical Oncology and Palliative Care Chedly Azzouz, Assossiation Tunisienne pour la Promotion des Soins Palliatifs





services (offered by hospices)

Tunisia

Uganda



241,550

Surface area (km²)

Population density, 2015 **JS\$**132.59

0.12 Physicians per 1000 inh., 2010

048 Human Development expenditure total Index, 2015 (% of Gross), 2014

63 Human Development Index Ranking, 2015

Health expenditure

per capita, 2015

194.66

COMMENTS FROM KEY INFORMANTS

Services

Population 2015

JS\$705.30

Gross Domestic

.((

Health

> Thereare 216 hospitals providing hospital-based PC services and 13 standalone hospices. Hospital PC teams are available in regional referral hospitals. There are home-based care services that provide PC (eg. Kitovu Mobile Home Care, Kawempe Home Care). PC is integrated in the health care system, but some have strong PC while others are weak.

Policies

> National guidelines are finalized but are awaiting national endorsement. The MOH reserves 15 million Ugx for PC. The MOH also pays for morphine for all PC patients.

Education

> Training is included in the nursing curriculum across all schools. The challenge is lack of teachers. This year, one government nursing school will starting a Diploma in PC. There is a Diploma accredited by National Education of Higher Learning offered by the Institute of Hospice and PC Africa and a Diploma and Degree affiliated with Makerere Universiity.

Medicines

> Oral morphine is available in over 95 districts of Uganda. Uganda has a public-private partnership to ensure that liquid morphine is available to all patients. Morphine Slow Release (MST) tablets are available in specific pharmaceuticals but are expensive.

Vitality

> There are quarterly meetings at the national association as well as in its district branches. There is also a biennial PC conference. The next one will be in August 24-25, 2017.

KEY INFORMANTS

Dr. Amandua Jacinto, Formerly Commissioner Clinical Services, Ministry of Health. Rose Kiwanuka, Palliative Care Association of Uganda.



13



Number of home-based PC services (offered by hospices) Hospitals with inpatient **PC** units 20% (203/1000)





Number of PC cared for in the last year (estimation)



MILESTONES

2004

> In Uganda, a statute in 2004 allow specially trained nurses and clinical officers to prescribe oral morphine to patients who need it. (Kiwanuka R, 2017)

2009

> A major step forward was the co-operation with Makerere University, which validated the Distance Learning Diploma in Palliative Medicine, the first African PC qualification. (Merriman A, 2010)

2016

> Uganda has developed a diploma in paediatric PC through Mildmay Uganda. (Downing J, et al., 2016)

REFERENCES

Jagwe J, Merriman A. Uganda: delivering analgesia in rural Africa: opioid availability and nurse prescribing. Journal of Pain and Symptom Management. 2007; 33(5):547-51.

Merriman A. Going the extra mile with the bare essentials: home care in Uganda. Progress in Palliative Care. 2010; 18(1): 18-22.

Nabudere H, Obuku E, Lamorde M. Advancing palliative care in the Uganda health system: an evidence-based policy brief. 2014; 30(6):521-5.

Downing J, Leng M, Grant L. Implementing a Palliative Care Nurse Leadership Fellowship Program in Uganda. Oncology Nursing Forum. 2016; 43(3):395-8.

NATIONAL ASSOCIATION OR INSTITUTION

Palliative Care Association of Uganda (PCAU) http://pcauganda.org/





Zambia





21,81

Population density, 2015

US\$194.68



Health expenditure per capita, 2015 39

Human Development Index Ranking, 2015

COMMENTS FROM KEY INFORMANTS

Services

Policies

a mission hospital.



were four inpatient units for PC, but currently, only one is still running at

> The main problem has been implementation of the plans. National guide-

lines were facilitated by the PC Alliance Zambia. PC was placed under

Home Based Care focal point in the Directorate of Public Health. How-

ever, the national focal person is overworked, and greater collaboration

with non-state actors is needed. Funding continues to be a challenge.

> Pain management is not yet included in the curriculum. There is an

accredited Continuous Professional Development Program at certificate level in PC accredited by the Health Professions Council of Zambia.

<mark>2008</mark>

2012)

2006

MILESTONES

> The Diana, Princess of Wales Memorial Fund (DPWMF), recognising a change in policy in Zambia, established a 2-year small grants programme and planned to link it with the Pilot of Oral Morphine in Zambia's Hospices, a partnership between the MOH and the PCAZ, funded by The True Colours Trust. (Logie DE & Harding R, 2012)

> PC Association of Zambia (PCAZ) was founded. (Logie DE & Harding R,

REFERENCES

Logie DE, Harding R. An evaluation of a public health advocacy strategy to enhance palliative care provision in Zambia. BMJ Supportive & Palliative Care. 2012; 2(3):264-9.

Medicines

Education

> Oral Morphine suspension is available at secondary and tertiary institutions and a few primary care facilities though availability is erratic. Trained nurse prescribing for is allowed under a task-shifting process.

Vitality

> The PC Alliance Zambia is largely dormant due to lack of funding to run an active Secretariat.

KEY INFORMANTS

Dr. Fastone M. Goma, Palliative Care Alliance Zambia Mukelabai Mukelabai, ACCHAP Management Centre.







Palliative Care Alliance Zambia (PCAZ) https://palliaivecarealliancezambia.wordpress.com/

NATIONAL ASSOCIATION OR INSTITUTION

Zambia

Zimbabwe







h44 Uh Health Human Development expenditure total Index, 2015 (% of Gross), 2014

Human Development Index Ranking, 2015

MILESTONES

<mark>1979</mark>

> First hospice service in Africa appeared in Zimbabwe: Island Hospice. (Clark D, et al., 2007)

<mark>2004</mark>

> The African PC Association held its first annual general meeting in Tanzania and elected a board with representatives, including one from Zimbabwe. (Clark D, et al., 2007)

2006

> The WHO was involved in a joint PC project for cancer and HIV/AIDS patients in Zimbabwe, and the Diana, Princess of Wales Memorial Fund has supported PC initiatives in Zimbabwe. (Clark D, et al., 2007)

REFERENCES

Clark D, Wright M, Hunt J, Lynch T. Hospice and palliative care development in Africa: a multi-method review of services and experiences. Journal of Pain and Symptom Management. 2007; 33(6):698-710.

NATIONAL ASSOCIATION OR INSTITUTION

Hospice and Palliative Care Association of Zimbabwe (HOSPAZ) www.hospaz.co.zw/

COMMENTS FROM KEY INFORMANTS

Services

15.602.751

Population 2015

JS\$924.10

Gross Domestic

> There are MOH and child care institutions that are providing PC through oncology departments and wards. There are five hospices. All hospices and PC organisations look after children and adults. An organization called Kidzcan is for children with cancer, and there are special wards dedicated for children at Parirenyatwa Tertiary Hospital. Island Hospice runs a PC clinic and sees children. Seke Rural Island also has a monthly paediatric PC clinic.

Policies

> A PC Strategy is underway. There are PC Standards. PC falls under NCDs with no specific desk. The current National Health Service includes PC.

Education

> Medical School in Harare gets PC but it is not examinable. Final year students are obligated to attend PC lectures but dedicated time is limited with about 12 hours allocated over three years. The main challenge is that there are few trainers. There is a National PC Curriculum and Training Manual, but it is not yet accredited. A Diploma in Oncology and PC is available for nurses.

Medicines

> There are stock-outs and erratic supply. Tablet morphine is available in the urban areas. There is reluctance to prepare liquid morphine as it is not profitable. Trained PC nurses in Island Hospice can start the patient on morphine then seek a prescription from the doctor. We are in the process of advocating for trained PC nurses to prescribe. Only doctors can initiate prescription of opioids. PC trained nurses can apply for authority to prescribe.

Vitality

> N/A.

KEY INFORMANTS

Eunice Garanganga, Hospice and Palliative Care Association of Zimbwbe (HOSPAZ). Beverly Sebastian, Island Hospice and Healthcare.







Zimbabwe





iCS Universidad de Navarra Institute for Culture and Society



