



2 million African community health workers

Harnessing the demographic dividend,
ending AIDS and ensuring sustainable
health for all in Africa

The health and well-being of Africans are fundamental to Africa's future. To ensure a healthier, more secure future, Africa has embarked on a historic effort to lay the foundation for sustainable health and development for all. Agenda 63 envisages a 50-year effort to galvanize a socioeconomic transformation across the continent. A key element of this transformation involves harnessing the “demographic dividend” to drive progress towards increased economic growth, social development and shared prosperity. The African Union's ‘Africa Health Strategy’ and the ‘Catalytic Framework to End AIDS, TB and Eliminate Malaria by 2030’ provide key goals, strategies and milestones for the journey towards a healthy and prosperous Africa. Making optimal use of technology, including digital communications platforms where feasible, will play a pivotal role in achieving these aims.

In this multifaceted quest for sustainable health and development, communities represent a unique and potent resource. Communities that are healthy, empowered and prosperous are the grassroots drivers of national and regional development. Without communities as partners and leaders, all of our aspirations for health and development will amount to little more than rhetoric.

Community health workers – who come from the communities they serve, are answerable to these communities, and receive training that is shorter than that required for doctors, nurses or other health professionals – represent the essential “missing link” between broad societal yearnings and the communities who both need assistance the most and serve as essential vehicles for progress. Few, if any, of our health and development tools match the potential of community health workers to drive gains on multiple fronts. A substantial body of evidence demonstrates that community health workers increase uptake of health services, reduce health inequalities, provide a high quality of services and improve overall health outcomes. Community health worker programmes also represent good jobs, bolster national and local economies and increase productivity by improving health and well-being. Investments in community health workers will also enable Africa to turn the projected near-doubling in the youth population through 2050 from a potentially perilous “youth bulge” into a dynamic “demographic dividend” that drives economic growth and improves living standards. Indeed, investments in community health workers represent an ideal opportunity to tackle one of the most vexing problems in Africa -- the perilously high levels of unemployment among young people.

This report makes the case for a major new initiative—to rapidly recruit, train and deploy 2 million community health workers in Africa. Drawing on a vast body of evidence and substantial regional experience, the report shows how community health workers save lives and improve quality of life and how investments in community health workers effectively harness the demographic dividend, reduce gender inequality and accelerate economic growth and development. Indeed, the benefits of community health workers stretch from one end of the Agenda for Sustainable Development to the other.

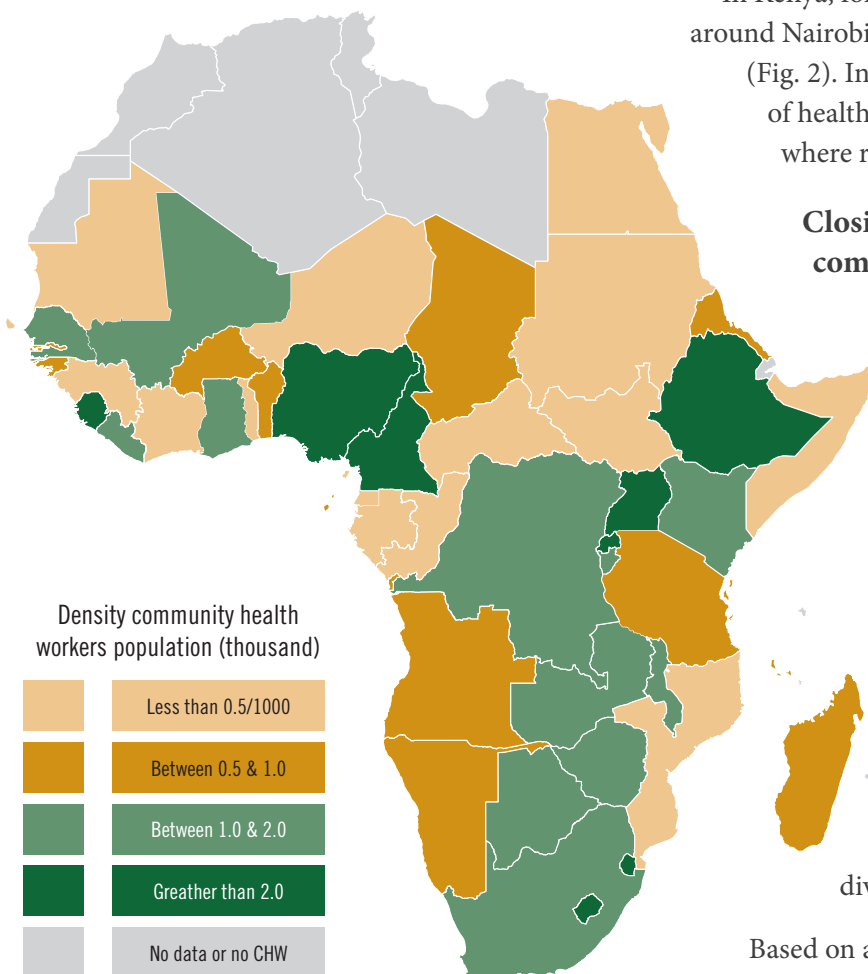
Although ambitious, this new initiative is entirely feasible. Some of the world's most successful community health worker programmes are in Africa, and training modules and deployment strategies exist that can be immediately adapted for different languages and countries. In contrast to lengthy, expensive and labour-intensive education programmes for

higher-cadre health professionals, community health workers can be trained and deployed in high-need, underserved communities at a fraction of the time and cost.

2 million community jobs: stemming the health workforce gap

In 2013, there were 17.4 million fewer health workers worldwide than were needed to provide essential primary health care services, with the most acute health workforce shortages occurring in Africa and South-East Asia [1]. Although further investments in existing medical education programmes are essential, these programmes on their own are unlikely to close the health workforce gap. WHO projects that the global unmet need for trained health care workers will decline by only 17% from 2013 to 2020, leaving the world 14.5 million workers shy of what is required to achieve SDG 3 [1]. In Africa, closing the projected gap of nearly 1.1 million doctors by 2030 would require a three-fold increase in the capacity of medical schools, at an estimated cost of US\$ 17 billion to US\$ 23 billion for construction alone. Clearly, to realize the promise of primary health care, new approaches will be required to complement the urgently needed continuation and strengthening of investments in traditional medical education.

Figure 1. Population density of community health workers varies considerably across Africa



These new approaches will also need to address the disparities in the distribution of health workers in Africa. In Kenya, for example, 46% of doctors are located in or around Nairobi, home to only 19% of the national population (Fig. 2). In Angola and South Africa, only 15% and 17% of health workers, respectively, serve the rural areas where roughly half the population lives.

Closing the health workforce gap: 2 million community health workers in Africa

Numerous health services, including those requiring sophisticated technology, a high level of medical expertise, or substantial knowledge of physiology or biochemistry, are not amenable to delivery by community health workers. But experience and extensive scientific study have shown that many health services *can* be effectively delivered through community health workers and in community settings. Leveraging community health workers to serve as a bridge to sustainable health systems requires the rational, synergistic sharing of clinical responsibilities among diverse cadres of health workers.

Based on a review of available data, established coverage benchmarks and literature regarding the health workforce gap, it is estimated that 2 million community health workers are needed by 2020 to help close

the human resource gap for health and accelerate progress towards the broad array of health targets in SDG 3. Drawing from experience in Ethiopia's pioneering programme of health extension workers, each of these community health workers requires a year of training (including nine months of field-based learning) and must be fairly compensated. Community health workers need to be fully integrated in the health system (both in national health budgeting and planning and at the granular level of service delivery), their status should be formalized and reflected in national policy frameworks, and associations of community health workers should be in place at the regional and national level to advocate on their behalf. Mechanisms should be in place to ensure appropriate supervision of community health workers, and these workers should be provided with opportunities for continued education and career advancement.

Building on a strong foundation: learning from previous investments in community health workers in Africa

As Figure 1 illustrates, community health worker programmes currently exist within the territories of almost every African Union member state. However, the density of community health worker programmes does not fully reflect the quality or impact of these programmes. In many countries, community health workers are largely under-paid, under-utilized and poorly integrated in health systems in the region. Most existing community health workers in Africa work in vertical projects focusing on a single health area and receive narrowly focused training, whereas the greatest leverage to existing health system resources would come from broadly proficient community workers who are capable of addressing multiple health problems.

A number of African countries, however, have made notable investments in community health workers and have incorporated these workers as integral, pivotal players in the health system. The following is a select and non-exhaustive list of country experiences:

- **Ethiopia:** the deployment of 42 000 health extension workers serves as the backbone of the country's health extension programme [2].
- **Rwanda:** Rwanda's 45 000-strong community health worker cadres (agents de santé binôme and animatrice de santé maternelle), coupled with the introduction of universal health coverage through the cooperative insurance (mutuelle de santé), have helped achieve marked reductions in under-five and maternal mortality [3].
- **Kenya:** a growing multi-tier cadre of 64 000 community health workers (estimated) contribute to health care delivery in Kenya under the supervision and governance of voluntary community health committees [4].
- **Botswana:** to reach a widely dispersed population, Botswana has roughly 4 200 community health workers who function collaboratively with nurses, often as part of over 800 mobile teams traveling to the most remote parts of the country [4].

- **Senegal:** one of the continent's most extensive community health worker programmes is in Senegal, where 26 000 community health workers operate in various complementary cadres. Many work in health posts that are fully managed by communities (through a community health committee), supported primarily through receipts from the financial participation of the population and the support of partners, and supervised by the district's chief medical officer.

Health extension workers in Ethiopia

In Ethiopia, half of government health spending is used at the primary care level. The deployment of 42 000 health extension workers—the backbone of the country's health extension programme—has helped drive the country's 39% reduction in its overall burden of disease between 2005 and 2015 as well as the country's higher-than-average life expectancy. Ethiopia's investment and results are all the more remarkable for having been initiated in 2003 when the country had among the lowest income in the world. Ramping up its investments in health, Ethiopia by 2014 spent 19% of total government expenditure on health, successfully leveraging and channelling investments from international partners to support and complement its health extension programme.

Ethiopia's health extension workers are trained, formalized and fully integrated in the primary health care system. Initial training spans a full year, including nine months of field-based learning, and covers 17 essential health services relating to family health, disease prevention and control, hygiene and environmental sanitation and health education and communication. Health extension workers are deployed in pairs to some 16 000 health posts tied to 3 200 health centres, with a rigorous and multilevel supervisory system and opportunities afforded for further medical education and qualification. Four-person supervisory teams support 50 health extension workers in 25 satellite health posts, which together form a primary health care unit. At the same time that Ethiopia has created a pioneering system for training and deploying community health workers, they have in parallel expanded national output of physicians, nurses, midwives and emergency surgical officers.

Ethiopia Public Expenditure Review, the World Bank, 2016.

Notably, each of these five countries that have made major investments in community health workers experienced declines in health burden from 2005 to 2015 that were substantially superior to those achieved by the region as a whole—39% in Ethiopia, 48% in Rwanda, 38% in Kenya, 46% in Botswana and 36% in Senegal [5].

Although most of the 1 million community health workers currently at work across the continent will require extensive re-training and fuller integration into health systems, existing programmes offer a strong foundation on which to launch this major new initiative. Indeed, the extraordinary successes achieved by Africa's pioneering community health worker programmes have convinced other countries in the region, such as Ghana, to begin creating their own community health workforce.

The record in Africa is clear. In the effort to improve health and accelerate development, community health workers help translate aspirations into concrete health results for Africa's people.

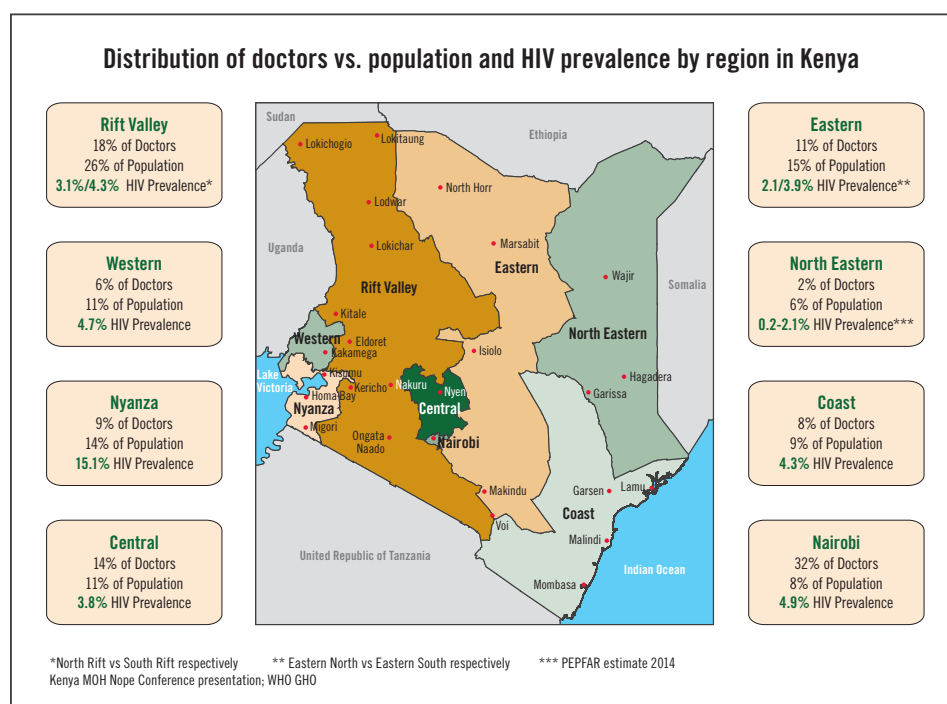
The health case for community health workers: improving the reach, impact and efficiency of health services

A comprehensive review of available evidence by global health experts concluded that community health workers “provide the world’s most promising health workforce resource for accelerating progress” towards global health goals [6].

Community health workers increase health access

Evidence has long demonstrated that community health workers improve health service access for hard-to-reach patients [7]. According to the United States Agency for International Development, community health workers prevent a child from dying worldwide *every three seconds* [8]. Mothers served by community health workers are nearly six times more likely to exclusively breastfeed than mothers not exposed to

Figure 2



community health workers, [9] and community health workers are more likely than mainstream health systems to identify and initiate interventions for moderately or severely malnourished children [10]. Community health workers improve immunization uptake [11]. In Nepal, community health workers save more than 10 000 lives each year by increasing utilization of recommended interventions for management of childhood pneumonia [12]. By spurring service uptake, community-based interventions delivered by community health workers have the potential to reduce malaria mortality by 40-60% [13].

Unlike traditional health facilities, which are often prohibitively far from where people live or work, community health workers take services directly to individuals and communities, at a convenient time and place. The access-enhancing benefits of community health worker programmes are especially pronounced for rural communities. In Ethiopia, the most striking improvements in health indicators since 2005 have occurred among poor populations living in rural areas, the primary focus of the health extension workers programme [14].

Where connectivity exists and as it expands, digital communications technology provided to community health workers can help link rural areas more closely with other health resources. However, in Ethiopia and other parts of Africa, it is apparent that community health workers that rely on paper records can nevertheless make transformative contributions to health service delivery.

Community health workers and attaining the 90–90–90 targets

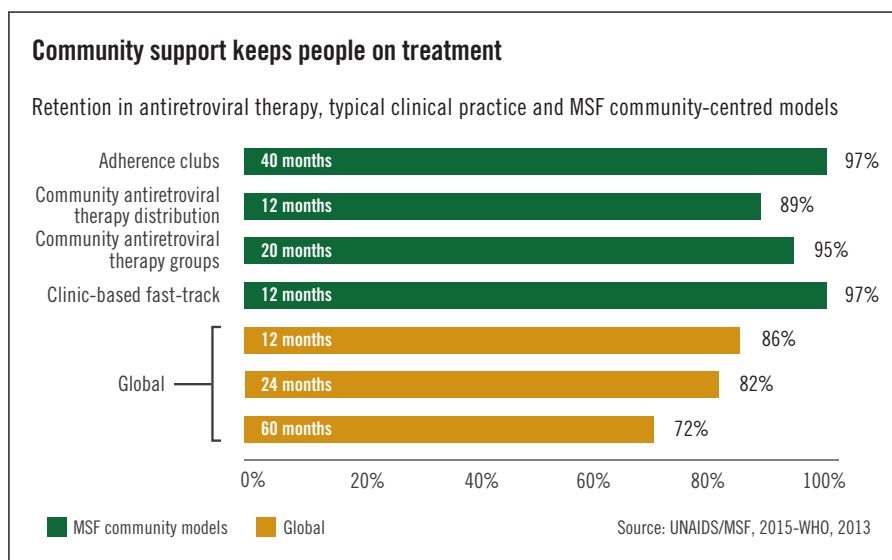
Achieving the 90–90–90 target is central to hopes for ending AIDS. According to modelling by UNAIDS, 90–90–90 will account for 60% of new HIV infections averted through 2030 under the recommended Fast-Track approach [15]. Globally, substantial progress has been made in bringing HIV treatment to scale, and numerous countries in Africa appear on track to reach the 90–90–90 milestones.

However, not all countries are on track to meet the target, and treatment outcomes in central, western and North Africa are much lower than in eastern and southern Africa [16]. As “business as usual” will leave the region short of the target, new approaches are urgently needed.

Evidence suggests that whether urgent new investments are made in recruiting, training and deploying community health workers could determine Africa’s success in ending AIDS as a public health threat. Mobilizing community health workers to aid in the delivery of HIV testing services offers an efficient and effective way to increase testing uptake as part of a “testing revolution” [17]. In the push to reach the second 90 by increasing the number of people receiving antiretroviral therapy from 18 million in June 2016 to 30 million by December 2020, community health workers can deliver medicines, monitor patients and support treatment adherence, achieving outcomes that exceed those reported for health facilities [18] [19]. Diverse community-delivered models (e.g. peer-delivered adherence assessments, peer adherence clubs) have achieved extremely high retention rates that are superior to those achieved in health facilities [20] [21] [22] [23].

Community health workers drive innovation in health service delivery

Figure 3



Living in the communities they serve, community health workers bring a passion to their work and a laser-like focus on achieving results. In the face of seemingly insurmountable challenges, community health workers have proven to be innovators. For example, in response to the congestion of HIV treatment clinics, community health workers pioneered community distribution of antiretroviral medicines, spurring treatment uptake while achieving rates of treatment adherence that are superior to those reported by mainstream health facilities [20].

Sub-optimal rates of retention in HIV care led to the creation of peer-led adherence clubs, peer-based adherence assessments and other innovations that have proven highly successful (Fig. 3) [20]. These community-generated innovations in the HIV treatment field—initially regarded as unorthodox but ultimately validated by rigorous evaluations—are now widely being adopted as standard national policy in high-burden countries [24].

Community health workers provide a high quality of care

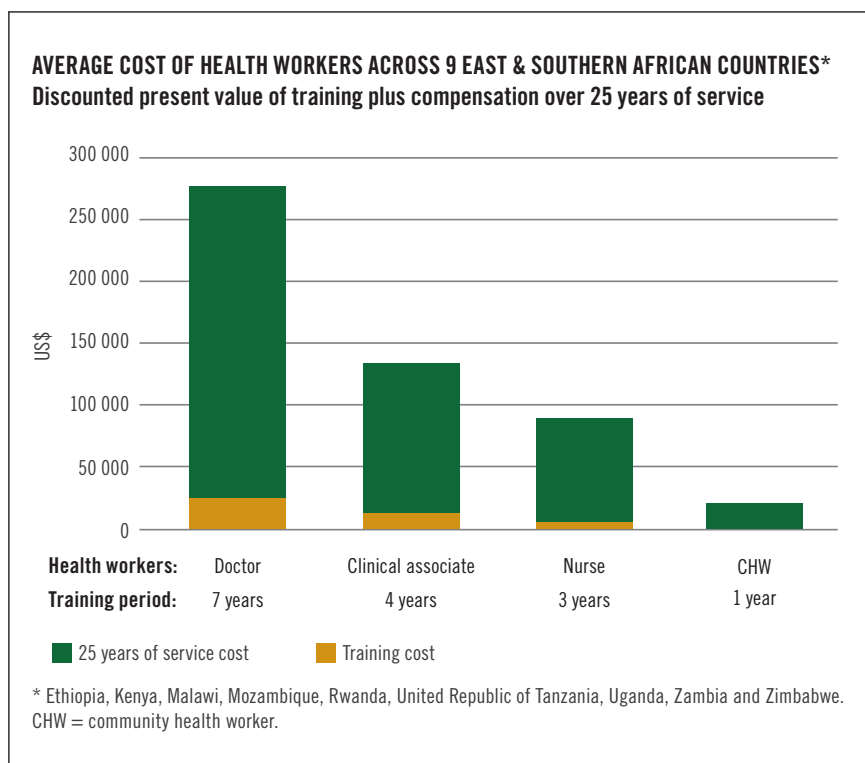
Early concerns that the health services provided by community health workers would be of poor quality have given way to recognition that trained, well-supervised community health workers who function as integral components of health systems deliver an excellent standard of care. Studies indicate that supervision of community health workers contributes both to the satisfaction of these workers but also the quality of the services they provide [25]. A systematic review of available evidence found that community- and home-based approaches to the management of antiretroviral therapy generate clinical outcomes that are at least as good as those produced by facility-based care management, with patients receiving community support reporting superior health outcomes [26].

Community health workers expedite progress towards universal health coverage

In Ethiopia, Rwanda and other non-African settings, community health workers have made substantial contributions towards universal health coverage by ensuring meaningful service access for the hardest-to-reach [27] [14] [28] [29]. The value of these workers for universal health coverage is especially pronounced in remote settings, with workers often traveling considerable distances to link rural residents with health services [30].

Community health workers improve the efficiency and sustainability of health systems

Figure 4



Studies have consistently found that services delivered by community health workers are highly cost effective. Community-delivered services cost approximately US\$ 26 per disability-adjusted life years saved (DALY) for child health interventions, US\$ 6 per DALY for maternal health services, US\$ 3.35 per DALY for hygiene interventions, and US\$ 370 per DALY for hypertension management counselling [31].

Community health workers can be deployed far faster and at lower cost than other medically trained cadres. This is true even for programmes that require

more extensive training, such as the one year of technical and vocational training provided to health extension workers in Ethiopia. Average 25-year costs for training and compensating community health workers across nine African countries (Ethiopia, Kenya, Malawi, Mozambique, Rwanda, United Republic of Tanzania, Uganda, Zambia and Zimbabwe) represent a small fraction of costs for doctors, clinical associates and nurses (Fig. 4).

The crisis prevention case for community health workers: identifying and containing health emergencies

The Ebola outbreak in West Africa in 2014 illustrates the critical role of community health workers in identifying and stemming health emergencies. In addition to Guinea, Liberia and Sierra Leone, where most Ebola transmission occurred, the disease also spread to Senegal, where it was quickly contained, in large degree due to the actions of the country's substantial community health workforce. Community workers focused on polio eradication played a similarly important part in implementing Ebola prevention measures in Nigeria and preventing a potentially devastating outbreak in the continent's most populous country.

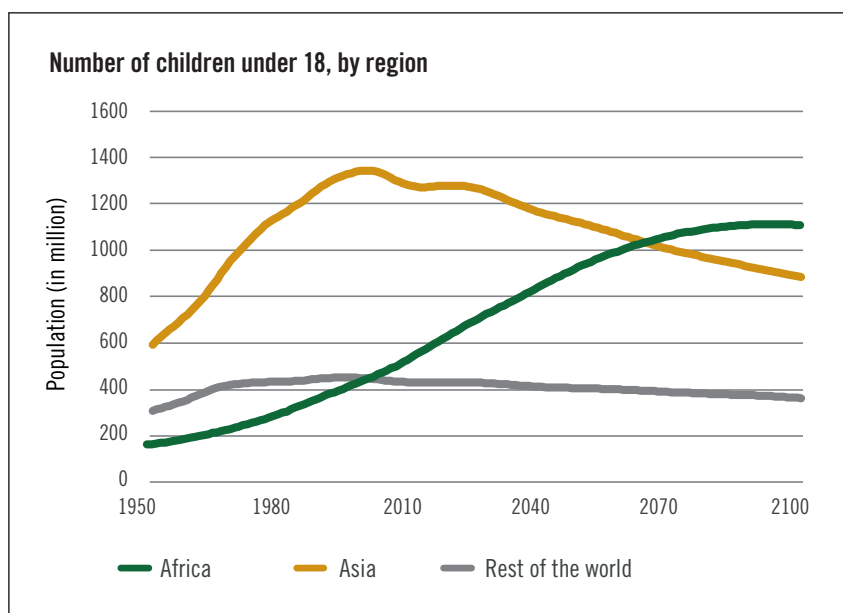
Experience with the Ebola outbreak underscores the importance of early detection of emerging health emergencies and rapid action to contain their spread. In 2015 alone, the Ebola crisis reduced gross domestic product by an estimated US\$ 2.2 billion in the three most heavily affected countries [32]. In addition to the cases of illness, disability and death caused by Ebola itself, an additional 10 600 lives were lost in the three countries through the end of 2015 as a result of reduced utilization of health services [32]. Children, who accounted for 20% of all Ebola cases, were among the most heavily affected by the crisis, with more than 17 000 children orphaned as a result of the epidemic [32].

In the aftermath of the Ebola outbreak, African stakeholders have actively examined how best to build vigilance and resilience in health systems to avoid such a cascading crisis in the future. Given their pivotal role in detecting and responding to Ebola, community health workers may well represent the first line of defence against future such health emergencies.

The economic and social case for community health workers: harnessing the “demographic dividend”

Investments in trained community health workers create good jobs, thereby reducing unemployment and strengthening national and local economies, especially in rural areas. The recruitment of 2 million paid community health workers in Africa would represent fully 14% of all new wage-paying jobs created regionally between 2005 and 2010 [33]. Moreover, each new health job has a multiplier effect, with every trained health worker supported by one to two workers in other sectors (e.g. administration, finance, information technology) [34].

Figure 5



Investing now to create these community jobs will help enable Africa to withstand the coming demographic wave and actually harness population growth to drive economic and social development. The number of young people in Africa is projected to almost double in the coming years, approaching nearly 1 billion by 2050 (Fig. 5) [35]. As today's unprecedentedly large cohort of children grow into adolescence and young adulthood, a severe increase in joblessness is likely without major new job-creating efforts.

Fortunately, another, more promising scenario is feasible, especially if countries invest now in the recruitment, training and

deployment of community health workers. With the proper investment in young people, the coming increase in job seekers could be a boon rather than a curse. Community health worker programmes represent the kind of investment in young people recommended in the *African Union Roadmap on Harnessing the Demographic Dividend through Investments in Youth* [36]. Scaling up community health worker programmes offers talented young people not only a good job but also an opportunity to give back to their local communities. By working to build human capital and increase the supply of well-paying jobs—as the initiative here proposes—Africa could use this “demographic dividend” to accelerate economic growth, ensure social stability and accelerate realization of the socioeconomic transformation envisaged in Agenda 63 [37].

The value for young people of scaled-up community health worker programmes can be compared to rapidly expanding cash transfer programmes, which the World Bank is helping bring to scale across the region. Cash transfers aim to reduce vulnerability, increase educational attainment and otherwise build human capital. Likewise, the compensation provided to young people who serve as community health workers would achieve precisely the same result, while also providing the added benefit of improving health access and outcomes in underserved communities.

While the creation of 2 million community jobs will provide direct economic stimulus, community health workers will also make more indirect, but equally important contributions to long-term economic growth. Healthier populations are more productive. By improving health outcomes and increasing productivity in underserved communities, investments in community health workers can generate massive indirect economic returns. According to a high-level international panel, the total economic value of productivity gained from a fully scaled backbone of community health workers generates a nearly 10:1 return on investment when averted economic losses and the multiplier effects of health investments are taken into account.

Community health workers and migration

Never before in human history have so many people been on the move at the same time. In 2015, the number of international migrants reached 244 million [38], with many millions more having moved to a different setting within their national borders. Migration from Africa to other regions of the world has increased, with net migration in the region doubling from 2000-2010 to 2010-2015 [38].

Freedom of movement is a human right, and population migration often carries with it long-lasting benefits, including enhanced cultural exchanges, family reunification and greater access to livelihood. However, unplanned migration frequently has considerable costs, depriving home countries of the productive potential of those who leave, disrupting families and communities and increasing burdens on the countries to which people migrate.

Although many people flee their homes due to civil conflict or other humanitarian disaster, many leave their country in search of employment or improved living conditions. The major new initiative here—which would in a short period of time create as many as 1 in 7 of all jobs generated across the region in 2005-2010—could help address the root causes of migration by creating good new jobs.

In particular, creating 2 million community jobs could help alleviate the impact of the loss of trained health personnel to other countries. According to surveys, substantial percentages of doctors and nurses in Africa migrate to OECD countries—16.5% in South Africa, 17% in Nigeria and 43% in Zimbabwe [39]. Trained community health workers who are paid a living wage and valued by their community, by contrast, will be much less likely to move, as they live in the communities they serve and are often elected to fill this role by their fellow community members.

The gender equality case for community health workers: empowering women

Investments in community health workers also advance progress towards another priority in the Agenda for Sustainable Development—achieving gender equality and empowering all women and girls (SDG 5).

Economic empowerment is a critical path towards gender equality and women's ability to take control of their own lives [40]. Health care has long provided women with job opportunities that are frequently unavailable in other sectors. Globally, women account for 80% of nurses and midwives [41].

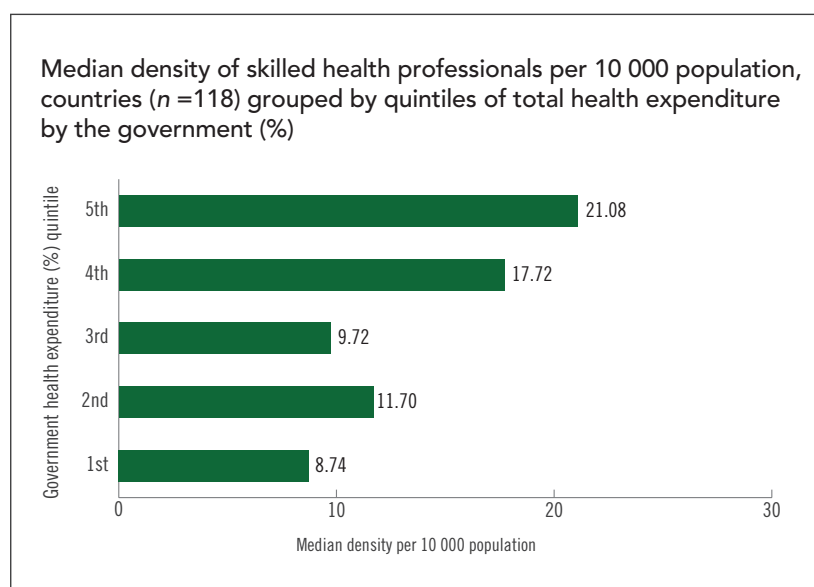
Women are also the driving force in existing community health worker programmes. In India, for example, 900 000 women living in village communities have been trained as grassroots workers to link communities with the health system. Ethiopia's landmark national system of health extension workers consists of more than 40 000 women from rural communities. In Pakistan, the average annual salary for trained female health workers (US\$ 343) represents an important source of income—for women and their families [42].

Although women are making important contributions to global health—through formal, informal and unpaid care—the World Bank advises that their workforce potential remains under-utilized. Recruiting, training and deploying 2 million new community health workers will provide new economic opportunities for women. In particular, elevating the status of community health workers and ensuring that they are paid a living wage – as envisaged in this new initiative – will promote human rights, gender equality and fair labour practices.

Realizing the benefits of community health workers: confronting barriers to scale-up

Although community health workers offer a proven strategy to close health workforce gaps and drive progress across the full health and development agenda, needed reforms to enable the scale-up of community health workers have yet to be implemented or taken to scale in most settings. With a few notable exceptions, community health workers in Africa are underpaid, under-utilized and poorly integrated in health systems. Several factors have prevented broad, rapid uptake of reforms.

Figure 6



Inadequate political commitment

In countries that have adopted innovative strategies for community health workers, these efforts have benefited from the strong support of political leaders and health ministries. Where such political commitment has not materialized and innovative approaches have not been implemented, human resource reforms have often struggled to gain traction. As Fig. 6 reveals, human resource shortages are closely tied with a country's overall spending on health, since countries that spend a greater proportion of public resources on health are likely to achieve a greater density of health professionals [43].

Insufficient funding

Sustaining a robust, well-motivated supply of community health workers requires that these workers be paid and that their work burdens remain reasonable. Voluntary efforts by people living with HIV have yielded many of the self-care models that have proven so effective, such as adherence clubs and community distribution of medicines, but sustaining such efforts over the long term will require funding and institutional support. Unpaid volunteers often leave once they obtain more remunerative employment, disrupting care systems and successful provider-patient relationships, and devaluing investments in training and accumulated experience. To achieve the 90–90–90 targets, UNAIDS estimates that funding community-delivered services will need to increase about four-fold during the next five years [15].

Policy and regulatory gaps

Community health workers are only able to play an optimal role if they are properly trained, are appropriately supervised and receive the institutional support they need, such as being fully integrated into comprehensive care teams and having reliable access to HIV medicines and other commodities. In addition to enabling community workers to deliver relevant and high-quality services, training, supervision and support also contribute to job satisfaction and retention among community health workers.

However, many national regulatory frameworks do not permit community health workers to perform health-related tasks; indeed, in some countries, only physicians are allowed to administer an HIV test, excluding both community workers and even nurses from undertaking this vital, straightforward service. Of 11 countries surveyed in eastern and southern Africa, only the United Republic of Tanzania reported that current regulations for nurses and midwives allow for task shifting, which transfers specific clinical service responsibilities from the limited number of higher-cadre health workers to more plentiful community health workers or lower-cadre medical professionals [44].

Lack of partnerships with other health professionals

An important reason why greater action has yet to be taken to build the community health workforce is that firm bridges have yet to be built between community health workers and other health professionals. From the very outset of national efforts to build a robust community health workforce, educational, sensitization and partnership-building exercises are needed for other health professionals. These programmes should focus on enabling other health professionals to understand how community health workers can effectively contribute to improved health outcomes and to greater work fulfillment for all health professionals. In particular, integrating community health workers in health care teams has been proven to free doctors, nurses and other health workers to focus more on clinical tasks requiring their specific training and experience. By building partnerships among diverse groups of health professionals, countries can ensure that the full breadth of the health workforce participates in the transformation of national health systems.

Going to scale: what will it take?

The rapid recruitment and deployment of 2 million community health workers in Africa is both feasible and urgent. Tools and validated strategies already exist for the swift mobilization and training of community health workers for HIV and other health services, including the re-training of many of the estimated 1 million community health workers in Africa who are already participating in health service delivery. WHO, UNAIDS and other partners are prepared to provide technical support to aid national efforts.

Moving from aspiration to reality within the next two years will need to build on 10 key action steps:

1. Make development of a robust community health workforce a key political priority

From heads of state/government to grassroots leaders, the creation of a strong, people-centred community health workforce, overseen by the Ministry of Health,

needs to be embraced across Africa as a critical priority. Political decision-makers, national ministries, international partners, civil society and underserved communities (especially those in rural areas) should recognize a robust community health workforce as a “missing link” that can galvanize rapid health gains. In this regard, the AU and its member states and organs have a potentially vital role to play.

2. Reform policy frameworks to enable and accelerate mobilization of a community health workforce

Policy frameworks should expressly institutionalize task shifting and clarify roles and responsibilities of differing health cadres and how these varying cadres should work together in an integrated manner. In addition to ensuring integration of community health workers into the broader health system and specifically in local care teams, policy frameworks should also formalize and elevate the status of community health workers, promote their professionalization and enable the funding and training required.

3. Develop a time-bound national scale-up plan for community health workers

Due to the widely differing national situations, each country will need to develop its own plan for scale-up and deployment of new and retrained community health workers. Development of costed national plans should build on multisectoral collaboration, including health, labour, finance and civil society. International partners should prioritize assistance to countries in the development of these national plans, including analytical work to identify key gaps and policy barriers to be overcome. Costing should take into account the need for proper remuneration of community health workers. These plans should have clear timelines and milestones to guide and drive progress, and mechanisms should be in place to enable stakeholders to assess progress over time and adapt plans as needed. Criteria and standards for the deployment of community health workers should be specified in the national plan, with priority given to rural areas and underserved urban settings.

4. Empower communities to drive the recruitment of community health workers

Globally and in Africa, the most successful models for community health workers empower communities to identify trusted community members that meet eligibility criteria to work as community health workers. This approach helps ensure that community health workers will have the trust and confidence of those they serve, better enabling them to reach those who not reached by existing services.

To operationalize this approach, national health officials should use existing health utilization data and mapping of health delivery sites to identify remote rural areas as well as underserved urban communities where access to and utilization of health services is limited. In each community identified, village community health committees should be established. Early community education and outreach will help ensure that communities are full partners in the push to mobilize a robust community health workforce.

5. Use and adapt existing tools to train community health workers

To enable community health workers to perform multiple tasks (as opposed to a single intervention), year-long training will be needed. Training should impart a core set of knowledge, spanning the health targets of SDG 3. Ethiopia's model—which includes three months of intensive classroom instruction along with nine months of supervised field work—has proven highly effective in equipping community health workers to address multiple health issues. Training manuals and tools are readily available for adaptation and use across Africa; indeed, Namibia has already emulated Ethiopia's approach in creating its own community health workforce. Development of training tools in French, Portuguese and Arabic may lend itself to regional or sub regional cooperation through entities such as the East African Health Professions Educators Association. Training programmes should also provide for refresher training and continuing educational opportunities for community health workers to reinforce education, further build needed skills, and enable them to address emerging challenges, such as an outbreak of Ebola, pandemic flu or other infectious disease.

6. Provide fair compensation to community health workers

Reviews have consistently found that settings that compensated community health workers are more successful in integrating these workers into health systems and in expanding the reach of care systems [45] [46]. Compensation improves job satisfaction and aids in elevating the status of community health workers, reflecting recognition of their role as integral members of the health system. Fair compensation for community health workers should be integrated as an essential component of the national health budget.

7. Ensure proper supervision, access to mobile technology and performance monitoring of community health workers

Community health workers require on-going supervision and support, as well as access to digital technology. Proper supervision enables community health workers to increase their skills and to maximize their role within clinical care teams. Proper supervision also helps guard against imposing excessive workloads on community health workers, a challenge frequently cited by community health workers. Rational supervision can also aid in ensuring that community health workers receive appropriate recognition and praise, increasing workers' job satisfaction and retention and that workers' performance improves over time. Supervision should be linked to a clear, context-specific set of standards for community health workers designed to continually improve programme performance.

8. Train other health care workers to address and overcome potential professional resistance

Proactive training and sensitization will be needed to minimize professional resistance and to enable the entire health system to transition to health delivery models that integrate community service delivery. Training materials that help minimize professional resistance to community health workers have already been

developed and rolled out by the Carter Center and are available for immediate adaptation and use across the region.

9. Ensure that community health workers have an organizational voice

Linked to all of the above-noted challenges is the lack of an organized voice for community health workers in most countries. The situation for community health workers contrasts with other cadres of health professionals—doctors, nurses, midwives, laboratory personnel and the like—who have well-organized entities to represent their perspectives and to advocate for their interests. Global, regional and national bodies that represent and advocate for community health workers are needed to help drive the integration of these workers in health systems.

10. Mobilize sufficient financing for implementation of each national plan

UNAIDS estimates that the recruitment, training, compensation and support of 2 million community health workers in Africa will cost US\$ 4.3 billion to US\$ 6.1 billion depending on specific country programme configuration and the need for complementary investments in enabling infrastructure such as health posts.

Meeting the financing challenge for implementation of community health worker programmes will need to draw on principles of global solidarity and shared responsibility. In examining financing options to mobilize the needed resources, national decision-makers and stakeholders should bear in mind the extraordinary return on investments in community health workers and the numerous health and development objectives that these workers advance.

Different countries will need to take different approaches to financing. While all African countries will need to allocate sufficient domestic budget resources towards community health workers and other health programmes, low-income countries will require extensive external support to launch and sustain community health worker programmes. Middle-income countries have greater capacity to allocate domestic funding, including through dedicated taxes and efficiency gains, although high-burden lower-middle-income countries will still need external assistance. Middle-income countries, especially those in the upper-middle-income bracket, have the potential to borrow at concessional rates to support health workforce initiatives.

In addition to the traditional channels of financing for health programmes (e.g. national budgets, dedicated national tax levy, international assistance), additional options are also available to mobilize needed financing. Financing avenues that should be considered include the following:

- **Reprogramming of funding:** as polio eradication efforts wind down and as continued progress is made in reducing the burden associated with neglected tropical diseases, spending currently allocated towards these activities can be reallocated to support the creation and maintenance of community health worker programmes.

- **European Union Emergency Trust Fund:** given the potential for community health worker programmes to reduce incentives for migration and enable people to remain in their own community, countries should actively explore mobilizing funding from the European Union's Emergency Trust Fund, which aims to provide up to €62 billion in address the root causes of migration.
- **Pandemic Emergency Facility:** as frontline sentinels and responders as new health emergencies arise, community health workers represent ideal candidates for funding through the Pandemic Emergency Facility of the World Bank Group.
- **Africa Community Health Workers Bond:** UNAIDS is prepared to work with the African Development Bank and other social impact investors to explore the issuance of bonds in the capital markets, which can convert long-term governmental pledges into immediately available cash reserves. A number of institutional investors have expressed interest in such a bond issue.
- **Africa Health Investment Fund:** UNAIDS is working with the Centre for Global Health and Development and Sarona asset management to launch a private investment fund for health in Africa, with hopes of mobilizing US\$ 1 billion of which US\$ 150 million will include grant funding for strengthening health systems.
- **Donor innovations:** some donors may be willing to write off debt on the condition that governments commit to invest a significant portion of the waived debts in measures to strengthen health systems. In addition, some donors may be willing to pay to specific health results or outcomes.
- **Universal health coverage:** as countries move towards scaling up health insurance, coverage of health services delivered by community health workers can provide new funding that can minimize burdens on health budgets and other traditional sources of funding for health services.

Other potential options to finance the scale-up and sustaining of community health worker programmes include voluntary contributions (such as the agreement by mobile telecommunications users to pay 1% of their bill towards community health service delivery), and the pooling of funding by public-private partnership funds. In addition,

as China and India are not only emerging economic powers but also home to some of the world's largest community health worker programmes, these countries might be approached to provide certain components of scale-up, such as training and capacity and systems building.

Conclusion: making it happen

The case for investing in a robust community health workforce is clear and compelling. With models and tools at our fingertips, implementation of this proven approach across Africa is plainly feasible and urgently needed. Community health workers are one of the few forces available to drive progress across the full breadth of the SDGs.

The time to act is now. Without major new investments in community service delivery, many countries in Africa will fall short of health goals and fail to harness the demographic dividend for economic growth. Without innovation to close health workforce gaps and to reach those who are left behind in an era of regional economic growth, the vision of sustainable health for all will likely prove to be a mirage.

Driven by the passion of the communities most affected, the AIDS response has inspired the world, reversing an epidemic that not long ago seemed likely to become an intractable, permanent feature of the African landscape. Now is the moment for lessons from the AIDS response to help lead the way towards healthy ensure healthy lives and well-being for all at all ages.

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