



# THE CASE FOR FRONTLINE HEALTH WORKERS IN ADDRESSING NON-COMMUNICABLE DISEASES GLOBALLY

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# ACKNOWLEDGEMENTS

This analysis was produced by IntraHealth International in partnership with the Medtronic Foundation. For over 35 years in 100 countries, IntraHealth International has worked to improve the performance of health workers and strengthen the systems in which they work. The Medtronic Foundation focuses on expanding access to quality health care among underserved populations worldwide.

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# INTRODUCTION: BUILDING RESPONSIVE HEALTH SYSTEMS FOR THE GLOBAL NON-COMMUNICABLE DISEASE BURDEN

The growing burden of non-communicable diseases (NCDs) on low- and middle-income countries threatens many health systems that are already weakened. In many countries, health systems—and health workers—are not prepared to address the complex nature of NCDs. Health systems are often fragmented, and designed to respond to single episodes of care or long-term prevention and control of infectious diseases.<sup>1</sup> Many countries also continue to face shortages and distribution challenges of trained and supported health workers. As most NCDs are multifactorial in origin and are detected later in their evolution, health systems face significant challenges to provide early detection as well as affordable, effective, and timely treatment, particularly in underserved communities.

According to the 2015 Global Burden of Disease Study, NCDs accounted for 71%, or 40 million, of the 56 million deaths globally in 2015. NCDs are now the leading cause of death in many low- and middle-income countries, with cardiovascular disease, cancers, respiratory disease, and diabetes accounting for the largest number of NCD-related deaths.<sup>2</sup> The NCD Alliance has shown that reducing the burden of NCDs is essential to ending extreme poverty, reducing inequality, and improving health and wellbeing. This lesson is applicable to all countries, including high-income countries like the United States, where significant health outcomes disparities persist among low-income and vulnerable populations.<sup>3</sup>

Responding to the global burden of NCDs, United Nations Member States included a target in the Sustainable Development Goals (SDGs) for all countries to reduce premature mortality from NCDs by one-third, by 2030. The SDG NCD-related target builds on objectives set in the Global Action Plan for the Prevention and Control of NCDs 2013–2030, which was passed by more than 190 member states of the World Health Assembly and called for a 25% relative reduction in premature mortality from NCDs by 2025.

Recognizing that health systems in low- and middle-income countries must evolve to respond to NCDs, the

Global Action Plan calls for health systems strengthening that can improve prevention, early detection, treatment, and sustained management of people with or at risk of cardiovascular disease, cancer, diabetes, and other NCDs. This systems strengthening must include the strengthening of primary care systems and the integration of NCDs into programs targeting other priority health issues, such as nutrition, HIV, tuberculosis, malaria, reproductive health, and maternal and child health.

At the center of making health systems stronger is ensuring an adequate supply of qualified health workers who are well-trained, highly skilled, continuously supported, and appropriately deployed. The World Health Organization (WHO) estimates that the minimum density of doctors, nurses, and midwives necessary to meet SDG Goal 3, to ensure healthy lives and promote well-being for all at all ages, including target 3.4, to reduce premature mortality from NCDs by one-third<sup>4</sup>, is 4.45 per 1000 people, and 3.8 to achieve universal health coverage (UHC). Current trends, however, suggest the world will be short at least 18 million health workers by 2030, highlighting an urgent need for significant financial investments to scale up the number of health workers and policies that optimize the performance of existing health workers to address this significant gap.<sup>5</sup>

**Frontline health workers** (FHWs) provide services directly to communities where they are most needed, especially in remote and rural areas. Many are community health workers and midwives, though they can also include local emergency responders/paramedics, pharmacists, nurses, and doctors who serve in community clinics.

The expansion of health services, particularly in the most hard-to-reach communities, that are necessary to meet the ambitious vision set forth for NCDs in the SDGs and the Global Action Plan, will require more trained and supported frontline health workers (FHWs). These health workers provide services where they are most needed, especially in remote and rural areas. Although they



represent a vital link to health care for people who are out of reach of the health system, in many countries they are, unfortunately, not connected to the formal health system. Meeting the growing demand for health services related to NCDs will require not only more FHWs, but also policies and strategies that allow countries to expand the scope of practice and to reduce barriers, optimizing the contribution of FHWs to the prevention and control of NCDs.<sup>6</sup>

Responding to the need to address access gaps, in May 2016 the World Health Assembly unanimously approved Workforce 2030 – the first ever first-ever global health workforce strengthening strategy. Developed by WHO Member States and technical working groups, Workforce 2030 provides a roadmap to both increase the number of health workers and optimize their performance to accelerate progress toward SDG 3. In September 2016, the United Nations Secretary-General’s High-Level Commission on Health Employment and Economic Growth (the HEEG Commission), released a report proposing actions to stimulate the creation of health and social sector jobs as a means to advance not only SDG 3, but also inclusive economic growth.

In light of global commitments through SDGs, including UHC, the NCD Global Action Plan, Workforce 2030, and the HEEG Commission report, there is strong global momentum around increasing access to primary health care services. As countries align their strategies with these global goals and actions plans, the health workforce considerations are paramount. Leaders must consider and invest in workforce strategies required to adequately address NCD prevention, control, and management, including the competencies and integration of frontline health workers who deliver these services, to order to ensure access for all.

## WHO Workforce 2030 Strategy

Workforce 2030: Global Strategy on Human Resources for Health calls on countries and partners to:

- Make progress towards halving inequalities in access to a skilled health worker by 2030
- Asks all countries to strengthen training of health workers by improving course completion rates in medical, nursing, and allied health professionals training institutions
- Calls on countries and partners to reduce barriers to access in health services by adding at least 10 million additional full-time jobs in health and social care sectors
- To address the needs of underserved populations and to make progress to increase health financing and the recruitment, development, training, and retention of health workers.<sup>7</sup>

## HEEG Commission Report

The UN Secretary-General’s High-Level Commission on Health Employment and Economic Growth recommends:

- Stimulating investment to create decent health sector jobs, particularly for women and youth, with the right skills, in the right numbers and in the right places;
- Scaling up transformative, high-quality education and lifelong learning so that all health workers have the skills that match the health needs of populations and can work to their full potential;
- Reforming service models concentrated on hospital care and focus instead on prevention and on the efficient provision of high-quality, affordable, integrated, community-based, people-centered primary and ambulatory care, paying special attention to underserved areas.

# THE IMPORTANCE OF FRONTLINE HEALTH WORKERS IN NCD PREVENTION, CONTROL, AND MANAGEMENT

While evidence on the role of FHWs in addressing NCDs is insufficient, available data indicate that FHWs can have a positive impact on the prevention, management, and control of NCDs. Existing research demonstrates that FHWs who have appropriate training, supervision, and support can carry out a range of activities to help prevent, control, and manage NCDs. These activities include raising awareness and promoting healthy behaviors, conducting screenings of individuals and households at risk; monitoring symptoms; administering and managing medication; providing referrals to a health facility; responding to time critical events, and supporting follow-up after acute events<sup>8</sup>, providing follow up monitoring and care; and tracking health outcomes.

For example, a study in Pakistan showed that, on average, frontline health workers were effective at reducing the onset of hypertension in the children and young adults receiving interventions (~2100 receiving the intervention, ~2100 in control group), leading to lower

risk for cardiovascular disease. After six weeks of training, frontline community health workers (CHWs) delivered health education messages at the household level on the negative effects of hypertension and conducted non-drug interventions to help prevent and control hypertension and cardiovascular disease. This home health education blunted the increase in blood pressure with age that was the trend in the general population of Pakistan.<sup>9</sup>

Another study of CHWs in Bangladesh, Guatemala, Mexico, and South Africa found that they could be adequately trained to effectively screen for and identify people at high risk of cardiovascular disease. Using information on patients' status on risk indicators such as age, body-mass index, smoking status, and average blood pressure, well-trained CHWs were able to ascertain absolute cardiovascular disease risk as well as trained professionals. These findings indicate a potential to train CHWs in other tasks related to other NCD screening and detection.<sup>10</sup>



A national CHW program in Iran showed that CHWs were effective at management and control of diabetes and hypertension, identifying high-risk individuals for referral to a health facility, providing follow up care to ensure adherence to treatment, and referring patients with higher level needs to health centers. For those receiving treatment for diabetes, treatment lowered the mean fasting plasma glucose. And, for those individuals receiving treatment for hypertension, in both rural and urban areas, treatment lowered systolic blood pressure. The CHWs in this study were chosen from the communities they served, had two years of classroom and practical training before beginning their work in the community and participated in ongoing training throughout their career. In addition, they were fully integrated into the primary health care system with a support structure and strong referral system to physicians in rural health centers and received a salary and performance-based bonuses.<sup>11</sup>

In July 2016, Liberia formally launched its National

Community Health Assistant Program, aimed at serving 1.2 million Liberians living more than 5 kilometers from the nearest health facility with high-quality care. The program mobilizes Community Health Workers nationally, linked to primary care through supportive supervision and mentorship from clinical supervisors like nurses, physician's assistants and midwives. The Ministry of Health, with support from the US Agency for International Development (USAID), UNICEF, Last Mile Health, and others has led the design and refinement of data collection systems, clinical protocol, supervisor curricula and tools, and supply chain processes required to implement the program. The program could test a case for future integration of NCDs into the protocol, including referrals for diabetes management and high blood pressure screening.<sup>12</sup>

Other cadres of FHWs, such as nurses, also have effectively contributed to the control and management of NCDs, including hypertension and non-insulin depending diabetes. A district-wide nurse-led NCD program in a



resource-poor area of South Africa showed positive impact on the control of hypertension (nurses achieved control in 68% of patients), non-insulin dependent diabetes (82%), and asthma (84%) for patients receiving services in the hospital outpatient department. Simple protocols and treatment strategies tailored to the local context allowed the majority of these patients to receive convenient and appropriate management of their NCD at their local primary care facility. The availability of disease management at local clinics was particularly important for the rural population of this district, which had limited access to transportation and spare time in their daily routines.<sup>13</sup>

While more large-scale, national studies are necessary to determine the optimal role of and support system for frontline health workers in addressing NCDs, these studies indicate the great potential of these health workers to provide the community-based services necessary to reach more people affected by NCDs.



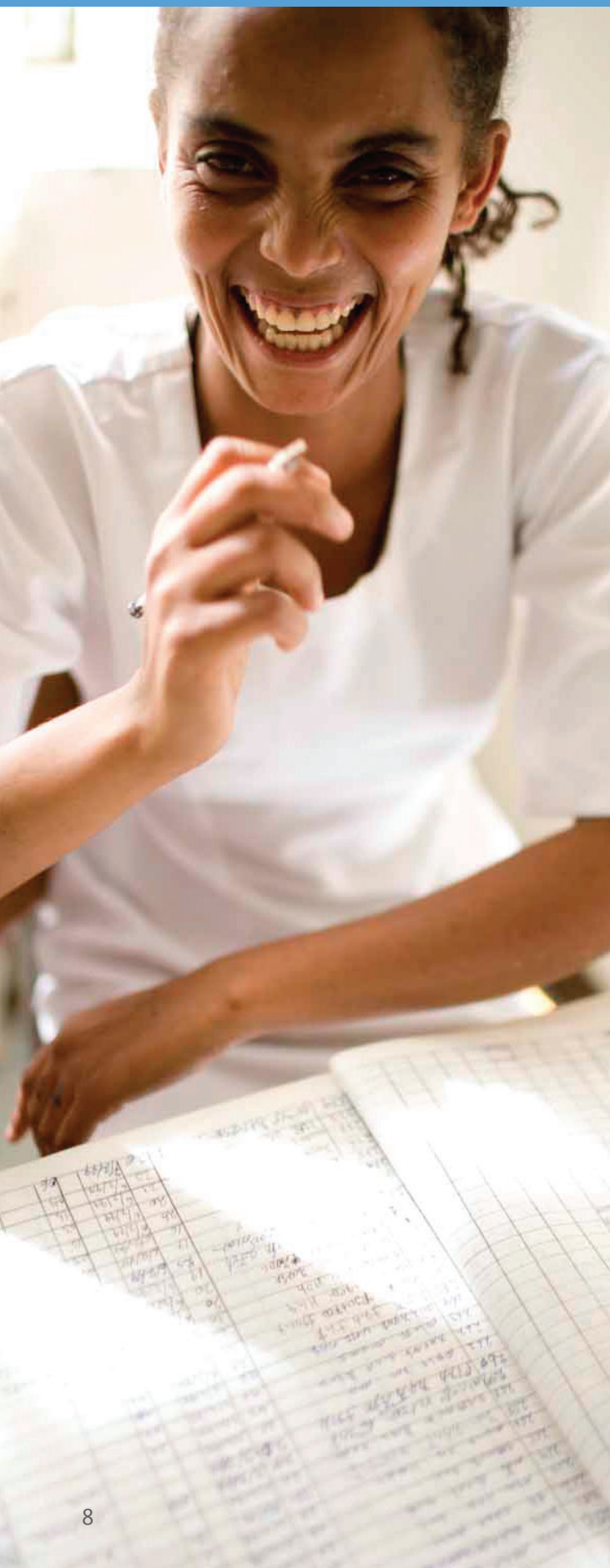
## Surgery: A Critical Treatment Intervention for NCDs

Surgery is often a critical treatment intervention for some NCDs, including CVD and cancer. Clients with CVD may require operations such as coronary artery bypass to repair a damaged artery or angioplasty to open a blocked artery. For cancer patients, surgery to remove tumors can be a lifesaving procedure.

Despite the essential role that surgery can play in treating these and other diseases, as many as 5 billion people lack access to essential surgical services worldwide. Less than 6% of all surgical interventions are delivered to the world's poorest populations.<sup>17</sup> Marginalized populations continue to suffer due to a lack of trained and supported health workers, inadequate infrastructure, disproportionate out-of-pocket health care costs, and a lack of prioritization of surgical care as part of national health plans.

In 2015, delegates of the World Health Assembly agreed to a resolution on strengthening emergency and essential surgical care, recognizing its importance as a critical component of UHC. The resolution highlights the importance of both expanding access and improving the quality and safety of services, strengthening the surgical workforce, and improving data collection, monitoring and evaluation.<sup>14</sup> FHWs have a critical role to play in the follow-up care for clients after they return home from surgery—visiting them to ensure adherence to postsurgery protocols, monitoring recovery, communicating with surgery teams, and referring clients to health facilities if complications arise.

# OPTIMIZING THE ROLE OF FHWs IN NCD PREVENTION, CONTROL, AND MANAGEMENT OF NCDs



While frontline health workers have the potential to play a significant role in the reduction of deaths caused by NCDs, ensuring that there is an adequate number of skilled health workers who are well-trained and continuously supported is an ongoing challenge for low-income countries. Country strategies must prioritize efforts to address:

- Workforce shortages to ensure equitable coverage, at least 400 million people currently lack access to the essential health services health workers provide,<sup>15</sup> and current trends point to a shortage of at least 18 million health workers needed to achieve UHC by 2030, with shortages projected to worsen in Africa.<sup>16</sup>
- Inequities in the distribution of health workers across countries.
- Policy reform to expand the scopes of work and authorize FHWs to provide services related to NCD control and management.
- Human and financial resources needed to provide initial and ongoing training of FHWs in NCD prevention, control, and long-term management.
- Adequate support and supervision, ensuring that frontline health workers are integrated into frontline health teams and the broader health system.
- Financing to support salaries and benefits and incentive packages to motivate and retain health workers, particularly in remote, isolated areas.
- Integration of NCD prevention, control, and management into the roles and responsibilities of FHWs, many of whom also play significant roles in providing services related to maternal and child health and infectious diseases.



Across a wide variety of health programs, countries have effectively used many approaches like task shifting to address some of these ongoing challenges.<sup>17,18</sup> To achieve a more appropriate skills mix for frontline health teams, some countries have expanded standards of practice, allowing health workers with less training to perform tasks traditionally performed by health workers with more training.<sup>19</sup>

Countries have used a variety of monetary incentives, such as insurance schemes, and non-monetary incentives, such as development opportunities and peer support, to motivate and retain FHWs.<sup>20</sup> To improve distribution of health workers, governments have also used incentives such as housing allowances and education grants for children to recruit and retain health workers to under-served areas.<sup>21</sup>

In some countries, districts have successfully integrated NCD prevention, diagnosis, and treatment services into their primary health care systems by using established protocol for interventions, providing training on these interventions for non-physician health workers, and ensuring access to basic diagnostic equipment and essential drugs.<sup>22</sup> While in other countries, NCD services have been successfully integrated into existing programs for other diseases – such as integrating NCD screenings at the community level through HIV support groups.<sup>23</sup>

Some countries have expanded training for nurses and district health officers on supportive supervision, including counseling, problem solving, and quality improvement, to ensure that community health workers have the support they need to provide quality health care services.<sup>24</sup> Drawing from these and other experiences, countries must prioritize approaches to address ongoing health workforce challenges in their own national health policies and practices.



# KEY OPPORTUNITIES: TASK SHIFTING

Task shifting, often also referred to as task sharing, has been shown to be both effective and economical in expanding access to quality health services in countries constrained by severe shortages of health workers. Per WHO's definition, "task shifting involves the rational redistribution of tasks among health workforce teams. Specific tasks are moved, where appropriate, from highly qualified health workers to health workers with shorter training and fewer qualifications in order to make more efficient use of the available human resources for health."<sup>25</sup>

There has been an increasing focus on task shifting for maternal health, HIV, and family planning services. A literature review of task shifting related to treatment and care for HIV/AIDS showed that "task shifting offers high-quality, cost-effective care to more patients than a physician-centered model."<sup>26</sup> Similar research found that task shifting could "increase access to and availability of maternal and reproductive health services without compromising performance or patient outcomes and may be cost effective."<sup>27</sup>

Evidence is also emerging that task shifting can be an effective approach in the addressing NCDs. A systematic review of task shifting for NCDs in low- and middle-income countries concluded that when accompanied by health system restructuring, task shifting is a potentially effective and affordable strategy for improving access to NCD-

related health services.<sup>28</sup> There are also many examples of the success of nurse-led strategies for chronic disease management, including hypertension and diabetes, from sub-Saharan Africa.<sup>29</sup>

While these studies found task shifting to be effective, they also highlight some of the barriers countries face in implementing effective task-shifting policies and practices. Barriers include staff retention, the ability of FHWs to prescribe medication, irregular drug supply, unavailability of equipment, and formalized linkages between FHWs and health facilities, including integration into facility-based care teams. Other concerns have emerged around how an increasing reliance on task shifting may overburden less skilled health workers, leading to problems with quality of care and detrimental effects on workers' physical and emotional health.<sup>30</sup> For task-shifting models of care to function optimally, countries must prioritize addressing these barriers through adequate resources, sound policies, and programs that respond to the concerns of both FHWs and the communities they serve.

## Primary Health Care Performance Initiative

Recognizing that strengthening primary health care systems is essential to addressing persistent global health challenges, the Bill & Melinda Gates Foundation, World Bank Group, and WHO launched the Primary Health Care Performance Initiative in 2015 focused on catalyzing improvements in primary health care (PHC) in low- and middle-income countries. The initiative supports PHC by focusing on four areas of work: 1) using existing and emerging data to monitor and report on PHC performance, helping governments to pinpoint underlying challenges; 2) extracting lessons from effective PHC delivery models to provide countries with guidance on how to improve their systems; 3) supporting countries in making improvements by working with global partners to develop practical tools for PHC system improvements; and 4) elevating PHC as a global priority by bringing together a network of committed country-level policymakers, advocates, and other development partners.<sup>31</sup>

## US Government Initiative Leverages Team Care for Cardiovascular Disease Prevention and Control<sup>32</sup>

To support governments in strengthening CVD prevention and control, WHO and the US Centers for Disease Control and Prevention launched Global Hearts: a new initiative comprising three technical packages (tobacco control, CVD management in primary health settings, and reduction in the consumption of salt) to prevent and control CVD. The CVD management technical package aims to systematically address barriers to care by using highly effective, scalable, sustainable, and proven interventions, similar to those that have been successfully used in scaling up tuberculosis treatment and antiretroviral therapy. The approach includes: simplified treatment with standard protocols for primary and secondary prevention, appropriate referral, using a core set of medicines and basic technology, and improved cascade of service delivery and robust clinical monitoring.

The program will support team care shared tasks by training health care providers, including non-physician health workers, in using CVD risk management protocols to they can appropriately identify, treat, and refer high-risk patients and complex cases, collect clinical information, and maintain simple treatment registers. In addition to the training, the program will also provide supportive supervision and skill-building as incentives for sharing tasks and will support and sustain linkages to the community.

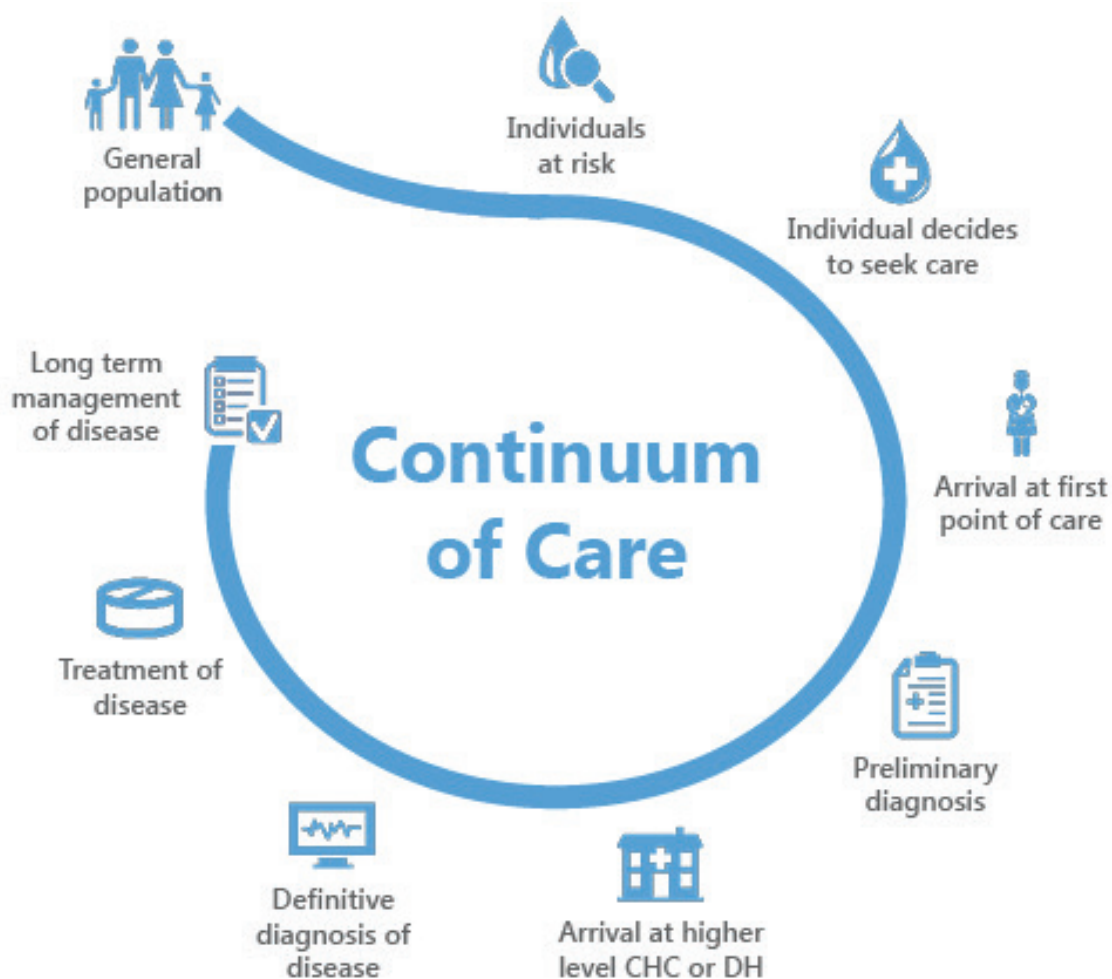


# RECOMMENDATIONS

As countries develop and refine their health workforce strategies to align with these global action plans and the aforementioned milestones, leaders must ensure that NCD prevention, control, and management are central components of these strategies. This includes:

- Training frontline health workers on NCD prevention, control, and management.
- Integrating NCD prevention, control, and management into the scopes of work of frontline health workers, including for frontline health workers who are providing other service- and disease-specific interventions.
- Refining task-shifting policies to address barriers to success, especially the potential to overburden frontline health workers, and ensure that protocol for NCDs are included in these policies.

- The success of these plans in addressing the growing NCD burden for countries is contingent upon adequate resources from countries and donors. To make significant progress, countries and donors must ensure adequate finances to fully implement their health workforce strategies.
- The recommendations set forth in the Global Human Resources for Health strategy and the HEEG Commission report align with the health workforce targets in the NCD Global Action Plan and will help to accelerate progress on meeting these targets. In 2018, the UN General Assembly will review progress on the NCD Global Action Plan. Countries and their partners must double down on solidifying and resourcing their health workforces to ensure that countries are equipped to meet their targets, save more lives, and increase the overall wellbeing of their people.





## CASE STUDIES

# CASE STUDIES: STRENGTHENING THE HEALTH WORKFORCE TO RESPOND TO NCDs

## HealthRise South Africa

Supported by the Medtronic Foundation, Abt Associates is working with global and local partners, including the Institute for Health Metrics and Evaluation and the Human Sciences Research Council, to implement HealthRise, a program focused on expanding access to NCD detection, management, and control among underserved populations in Brazil, India, South Africa, and the United States. In South Africa, local partners Expectra 868 NPC and Project HOPE are implementing HealthRise demonstration projects in two districts to empower clients to seek and maintain care for diabetes and CVD while strengthening FHWs' ability to provide care and management services within an integrated primary care system.

To accomplish these goals, the HealthRise teams in South Africa will train their own CHWs, as well as government-funded CHWs, to incorporate NCD care into their scopes of practice. As community caregivers appear to be highly respected and liked by community members, they are well-positioned to complement the facility-based primary care system, in part by reducing patient load at facilities so facility-based care is available for patients in greatest need. Because many of these CHWs are already serving clients with HIV/AIDS or tuberculosis, the project will focus on the

integration of NCD care with existing services delivered in communities—leveraging the opportunity for CHWs to be one-stop shops for clients by managing multiple conditions.

Through HealthRise, the CHWs will be trained to screen for diabetes and hypertension during community screening campaigns and household visits, and to refer clients to clinical facilities to receive confirmatory diagnoses. CHWs will then follow up with clients to ensure they adhere to treatment regimens and appointment schedules, in addition to supporting clients with the ongoing challenges of living with chronic NCDs. Expectra will also equip CHWs with supplies like glucometers and blood pressure cuffs to facilitate NCD screening and monitoring, as well as bicycles so the CHWs can better follow up with clients. Furthermore, the organizations will establish client support groups to encourage treatment adherence and healthy behaviors, while linking clients to support services within the Departments of Health and Social Development.

To ensure sustainability and coordination of the projects, the HealthRise local partners are closely aligning their efforts with existing government priorities and strategies

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around comprehensive community-based health care broadly and NCD care specifically. South Africa was one of the first African countries to introduce an integrated chronic disease management approach in response to the double burden of HIV/AIDS and NCDs.<sup>33</sup> Given South Africa's high HIV prevalence of 19% among the general population and nearly 40% in Kwazulu-Natal province (the location of one of the HealthRise target districts), HealthRise will integrate its NCD care efforts with existing HIV prevention and treatment efforts in communities. For this integration to be successful, HealthRise is emphasizing strong connections for CHWs to health care teams in primary care centers, including linkages to supportive supervision for CHWs. This integration is essential to the national goal of re-engineering PHC to improve access to and the quality of health services.

## **FUNZOKenya**

In Kenya, cancer is the third leading cause of morbidity after infectious and cardiovascular diseases. Cervical and breast are the most common cancers among women and constitute particular health threats in a country where 1.6 million people live with HIV/AIDS, as women living with HIV are five times more likely to develop cervical cancer.

While the Kenyan government has recognized cancer screenings as a priority in all public health facilities across the country, severe shortages of health workers equipped with the skills to conduct screenings have constrained efforts to expand access to cancer diagnosis and care.

In response, the USAID-supported FUNZOKenya project, implemented by IntraHealth International in collaboration with the Kenya Ministry of Health, adopted cervical cancer screening in its health worker training portfolio. FUNZOKenya is a five-year project supporting the Kenyan government's efforts to strengthen preservice education of health workers and improve access to training for existing health workers. FUNZOKenya worked with regional training hubs and the Ministry of Health to deliver cervical cancer screening trainings for nurses and clinical officers across 16 districts, resulting in 462 health workers trained over a two-year period. As a result, facilities' had enhanced capacity to detect cervical cancer and adequately refer cases, and more clients have started to demand cervical cancer screenings.



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