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POLICY ANALYSIS

Prioritizing Community Health Worker Data for Informed Decision-Making

November 2016

Follow-up to FHWC report, *A Commitment to Community Health Workers: Improving Data for Decision-Making* (2014)

Current trends suggest the world will be short at least 18 million health workers by 2030 to achieve and sustain Universal Health Coverage

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This analysis was produced by members of the Frontline Health Workers Coalition (FHWC), an alliance of more than 35 United States-based organizations working together to urge greater and more strategic US investment in frontline health workers in developing countries as a cost-effective way to save lives and foster a healthier, safer, and more prosperous world.

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INTRODUCTION

In September 2014, the Frontline Health Workers Coalition (FHWC) released a report—*A Commitment to Community Health Workers: Improving Data for Decision-Making*—advocating for measures to strengthen data on the number, distribution, training, and impact of community health workers (CHWs) globally. Since the release of that report, global action calling for low- and middle-income countries to increase access to high-quality primary health care underscores the need for country governments and their partners to focus on improving data on CHWs.

In 2015, 193 countries unanimously adopted the Sustainable Development Goals (SDGs), including SDG 3: to ensure healthy lives and promote well-being for all at all ages. Within that goal is target 3.8: to achieve universal health coverage (UHC) by 2030. Because health workers are critical to achieving this and other SDG health targets, the SDGs also call for an increase in the recruitment, development, training, and retention of health workers in developing countries (target 3.c).

Increasing access to trained and supported health workers is central to driving progress on the SDGs, as strongly underscored by the unanimous adoption of the Global Strategy on Human Resources for Health: Workforce 2030 at the 69th World Health Assembly in May 2016¹ and by the findings and recommendations of the United Nations Secretary-General's High-Level Commission on Health Employment and Economic Growth (the HEEG Commission) released in September 2016.² Workforce 2030 provides a roadmap to optimize the health workforce and accelerate progress toward SDG 3. The HEEG Commission report presents a robust economic case for investing in the health workforce and recommends focus 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.”³

International Labour Organization's definition of CHWs

Definitions for CHWs and community-based practitioners vary widely between countries. The International Labour Organization (ILO) defines CHWs as providing “health education, referral and follow-up, case management, basic preventive health care, and home visiting services to specific communities. They provide support and assistance to individuals and families in navigating the health and social services system.”⁸

To meet SDG 3 and achieve UHC, World Health Organization (WHO) analysis estimates that the minimum density of doctors, nurses, and midwives necessary is 4.45 per 1,000 people.⁴ Yet the data utilized to project these estimates are far from complete. Countries must address the significant gaps in data collection on access to and support for all health workers to ensure they have the fit-for-purpose workforce needed to achieve SDG 3 and drive progress toward all SDGs. The data gap remains particularly acute across the spectrum of health workers identified as CHWs, who are an essential component of UHC initiatives in reaching rural and

otherwise underserved populations. Current trends suggest the world will be short at least 18 million health workers by 2030 to achieve and sustain UHC⁵—highlighting a tremendous need for investment in health workers that growing evidence suggests will promote inclusive economic growth, decent work for all, and gender equality.⁶

Countries face severe constraints on the health workforce needed to meet the SDG targets, to implement Workforce 2030, and to enact the recommendations of the HEEG Commission. Health workers on the frontlines of care, including CHWs, provide the first level of health care to clients and will be critical to reaching growing populations with the services they need and providing a vital link between communities and health systems. Yet many of the same barriers related to counting, regulating, and supporting CHWs highlighted in FHWC's 2014 report remain: wide variation in defining CHW tasks and competencies, lack of standard methodology for reporting on CHWs, and lack of harmonious support for CHWs among countries and their partners.⁷

To optimize the role of all CHWs in expanding equitable access to health services and meeting the SDG targets, country governments—with support from their global and local partners—must improve data on CHWs to gain the necessary information to strengthen support, planning, and decision-making. There is momentum globally and in many countries to ensure access to essential, primary health services. Now is the time for governments and all stakeholders to come together to advocate for and deliver the data on health workers, including CHWs, that will foster the enabling policy environments and programs needed to address the most severe access gaps.



Jhpiego

CHWs as part of a frontline health team

Success of CHWs in the primary health care team requires links to supervisors and health facilities for support and mentorship, as well as to their communities for ongoing community engagement, trust, and support.^{19, 20} Higher level health workers who supervise CHWs (most often nurses and nurse midwives) must have the management and leadership skills to provide quality mentorship and supervision to CHWs. Additionally, they must be up to date on their clinical skills to provide guidance to CHWs on the clinical services they provide and ensure consistent quality of services delivered.

THE IMPORTANCE OF CHWS IN MEETING THE SUSTAINABLE DEVELOPMENT GOALS

CHWs hold great potential in advancing progress toward the health SDG targets by expanding essential health services toward UHC. As countries build stronger, more resilient primary health care systems to reach more people, these health workers play a particularly important role in reaching isolated and vulnerable populations. Research shows that CHWs have made significant contributions to reducing maternal and child mortality and deaths due to infectious diseases such as HIV/AIDS and tuberculosis.^{9, 10} Evidence also shows that in both rural and urban areas, CHWs can carry out a range of activities to effectively prevent, control, and manage noncommunicable diseases, including hypertension and diabetes.^{11, 12, 13} CHWs can also play a critical role as first responders in global health security – providing disease prevention, detection, and response

services and providing early warnings for outbreaks.¹⁴

As demand for health services increases from growing populations, governments will need to pursue cost-efficient, community-based strategies to deliver integrated health services, and evidence has shown trained, supported, and connected CHWs can be a key piece of such strategies. A 2015 literature review found that cost-per-patients with tuberculosis that were treated and cured by CHWs was between 40% and 74% less than facility-based care-treated patients. The study also found that CHWs were cost-effective compared to standard care in reducing deaths among children under-5 and that CHWs cost-efficiently increased the coverage and equity of primary care.¹⁵ A study of community-based practitioner programs in three countries – Ethiopia, Indonesia, and

Kenya – found that CHW programs, when compared with interventions delivered by other types of health workers, were more cost-effective and improved access to essential health services.¹⁶ While these studies faced methodological limitations, they indicate that CHW programs have the potential, depending on setting and area of focus, to be a good value for countries in providing essential health services.

In addition to advancing progress toward the SDG 3 health targets, investing in a strong health workforce, including CHWs, holds the potential to influence gains across other SDGs, including SDG 1 (poverty elimination), SDG 4 (quality education), SDG 5 (gender equality) and SDG 8 (decent work and economic growth). Good health underlies the ability to learn and engage in productive work that forms the backbone of economic growth and development.

Investments in health systems also deliver economic value through their multiplier effect on the wider economy

– establishing infrastructure such as facilities, creating markets for pharmaceuticals and technology, and building skills through education and training. The health sector is also a significant source of jobs – particularly for women and young people. In fact, the proportion of women employed in the health sector is, on average, higher than in any other sector. An analysis of 123 countries found women make up 67% of employment in the health and social sectors compared with 41% in all sectors combined. Investments in community-based health workers also provide jobs in remote and rural locations, unlike many sectors whose opportunities are concentrated primarily in urban areas – an example of the inclusive growth called for in the SDGs.¹⁷

Overall, investments in health sectors, particularly the workforce, can spur improvement in social and economic development in addition to health and well-being for the population, making it a worthwhile investment for countries.

CHWs stand at the intersection of sectors

The intersection of sectors like agriculture, health, water, and economy is most clearly manifested in communities. CHWs often stand at the intersection point of these various sectors, working with all facets of the community to meet the needs of the people they serve. Optimizing the role of CHWs in the primary health care team can help to facilitate better coordination across sectors in communities.



“The Commission recognizes that women’s employment in the health and social sectors could make a significantly larger contribution across the 2030 Agenda by addressing persistent gender biases, ensuring equal pay for work of equal value, recognizing and valuing women’s unpaid work, ensuring decent working conditions, and expanding leadership roles for women.”¹⁸ – UN Secretary-General’s High-Level Commission on Health Employment and Economic Growth

IntraHealth International

COUNTRY CASE STUDIES OF CHW PROGRAMS



IntraHealth International

With CHWs' proven impact on health outcomes and emerging evidence on their contributions to the cost-effectiveness of the frontline team, most countries rely on these health workers to provide at least some health services. Countries have relied on CHWs to increase immunization coverage, manage childhood pneumonia, distribute bed nets to prevent malaria, provide home-based newborn care, and counsel women on family planning.

In some countries such as Brazil, Ethiopia, and India, these programs are well-established, have national reach, and are guided by national strategies. In other countries, like Liberia, Senegal, and Tanzania, CHWs are a significant

part of the health system, but efforts to bring CHW programs to scale are more nascent, though gaining momentum.

CHWs are an important part of the fit-for-purpose workforce needed to expand equitable access to health services

Some countries, including Malawi, Sierra Leone, Uganda, and Zambia, are adapting examples from more established CHW programs to their own contexts in order to institutionalize the planning, training, supervision, and incentives for both salaried and volunteer CHWs.

Below are examples from three

countries at different stages in implementation of their nationally-led CHW programs. Brazil has a longstanding national CHW program, deeply integrated into the country's primary health care system, that has contributed to significant reductions in infant mortality. Drawing on evidence of the success of CHW programs in other countries and the impact that their own CHW cadres have had to date, Liberia and Uganda are scaling up their nationally-led CHW programs to address severe health worker shortages, reduce mortality rates, and improve health. Each country faces distinct challenges in scale-up and data collection.

Brazil

Brazil's *agentes comunitários de saúde*, or community health agents (CHAs), represent a longstanding and well-documented case of community-based primary health care integration. The Brazilian Ministry of Health created the Family Health Program in 1993, formally integrating CHAs into the primary health system by placing them in interdisciplinary frontline teams working together to achieve local priorities set by municipalities. Each health team includes one doctor, one nurse, two nursing assistants, and four to six CHAs providing comprehensive care for up to 4,000 people in a defined geographic area.²¹ The CHAs visit each family once per month to deliver essential services and make referrals as needed. Additionally, CHAs collect and update household data on occupancy, socio-demographics, education levels, occupation, and predominant health issues for each family member on a monthly basis, enabling policy-makers to provide tailored services and

messages.

The CHAs are selected from the communities they serve, with each municipality responsible for the training of its CHAs. The national recommendation is that local nurses provide eight weeks of formal didactic training at regional health schools, followed by four weeks of field supervision. CHAs are paid by the government and were officially recognized as professionals by law in 2002.²²

The CHA program has witnessed dramatic scale-up and expansion over time, growing from 2,000 health teams with 60,000 CHAs serving 7 million people (4% of the population) in 1998, to 40,000 teams with over 265,000 CHAs serving 120 million people (64% of the population) in 2016.²³ Brazil's CHA program is now the second largest CHW program in the world.²⁴

The health gains accorded to the Family Health Program are substantial. Evidence suggests particular benefits to maternal and child health,²⁵ as Brazil has one of the most rapidly declining

under-5 mortality rates in the world and achieved its MDG target for child mortality five years ahead of schedule.²⁶ Immunization coverage is 99% and only 2% of children are underweight.²⁷ Evidence also suggests the CHA program contributed to substantial and equitable expansion in health coverage across the country, improved detection of neglected tropical diseases, reduced disparities in oral hygiene, and enhanced reporting of vital statistics.²⁸ The CHA program is a cost-effective investment at about \$50 per person annually and serves as a model for nationally-led CHW programs across the globe.²⁹

To monitor its primary care teams, including CHAs, the Brazilian Ministry of Health is rolling out a new information system, the e-SUS, or electronic-Sistema Único de Saúde (unified health system). CHAs electronically record individual patient information in the system. The e-SUS strategy is part of an ongoing effort to restructure health information systems in the country.³⁰

Liberia

The Liberian government launched its first national CHW initiative in July 2016, marking a bold national effort to extend essential primary health services to the nearly 30% of its population living farther than 5 kilometers – about an hour's walk – from a health facility. Through the National Community Health Assistant (CHA) Program, the Ministry of Health will recruit, train, and deploy more than 4,000 salaried community health workers and 230 clinical supervisors over the next seven years.³¹ This example of coordinated national leadership steering the professionalization of a qualified community health workforce represents a marked shift from a fragmented system at the community level.

Over the course of its

implementation, the CHA program aims to create thousands of rural jobs while building a more resilient health system to address current health service shortages and future public health threats. It seeks to address the nation's severe and longstanding health workforce shortage, which was exacerbated by the Ebola epidemic of 2014 and 2015. Prior to the epidemic, Liberia had fewer than 0.3 doctors, nurses, and midwives per 1,000 people – far less than the 4.45 per 1,000 people that WHO recommends as a minimum to achieve UHC.³² By professionalizing, expanding, and better supporting its community health workforce, the CHA program also seeks to impact some of Liberia's most dire health statistics: the infant mortality rate is one of the highest in the world at 66 deaths per 1,000 live births, while maternal

mortality ranks the eighth highest in the world at 725 deaths per 100,000 live births.³³

In developing the CHA program, stakeholders aimed to align its data collection efforts with the existing national data system. The number of CHW reporting forms was significantly reduced and indicators were consolidated to focus on the most useful data that could be efficiently collected and integrated into national systems. For example, the monitoring and evaluation framework incorporates a standardized methodology for reporting on CHAs, drawing records from the open source data tools iHRIS and DHIS2, monthly supervisor reports, and payroll records to monitor supervision of the CHAs, recruitment and retention of health workers, and timely and high-quality data reporting.³⁴

Uganda

Uganda's evolving CHW efforts, drawing on best practices from other countries, demonstrate a national commitment to equipping CHWs and other health workers with innovative eHealth tools to strengthen local- and national-level data for enhanced decision-making.

Since 2001, the national Village Health Team (VHT) program has recruited volunteers to provide basic health promotion, prevention, community mobilization, and referral services, with some also providing integrated community case management services.³⁵ According to a national VHT assessment in 2015, the program has faced challenges including ownership, sustainability, governance, and the selection and training of VHTs.³⁶ In response to these challenges and the persistence of poor health outcomes like high maternal mortality, the Ministry of Health adopted a VHT Revitalization Strategy and committed to formalizing a new cadre of salaried

Community Health Extension Workers (CHEWs), a program based on Ethiopia's national CHEW model.

Under the new CHEW strategy, the ministry plans to deploy at least two CHEWs in each parish for an estimated nationwide total of 15,000 CHEWs. Anticipated to begin in March 2017, CHEW training will involve yearlong, in-service training at accredited institutions – a notable departure from the five-day, community-based training of VHTs. The CHEWs will be based at health centers with 60% of their time spent working in communities. CHEWs will largely be recruited from the ranks of high-performing VHTs, while unabsorbed VHTs will continue to provide voluntary services in their community. A digital registry of VHTs and CHEWs will enable performance-based management against set targets. With the Revitalization Plan still in development, the CHEW program is expected to be rolled out to all districts over a five-year period.³⁷

Essential to the new CHEW strategy

is its prioritization of digital health tools to address traditional challenges like distance and provider shortages in remote communities. The Ministry of Health is developing a Community Health Management Suite of tools, including smartphone and text message-based platforms to engage CHEWs, VHTs, and patients in addressing delays in seeking, reaching, and receiving essential health services. Through these tools, CHEWs and VHTs will be able to register births, monitor patient-level outcomes, receive patient feedback, submit questions to a central HelpDesk, and access detailed health information through pre-populated menus. The tools, which will be integrated into national data systems like iHRIS, are designed to identify demand- and supply-side bottlenecks not captured in formal health management information systems, build the response capacity of local and national governments, and monitor the effectiveness of interventions while increasing accountability for results.³⁸



CHW DATA CHALLENGES

The challenges in collecting CHW data highlighted in FHWC's 2014 report still remain.

- Wide variation in how countries define CHWs due to variation in CHW roles, training, credentials, and services that they provide;
- Lack of a minimum data set of key information on CHWs, leading to difficulties in tracking CHWs;
- Fragmentation of support for CHWs by ministries of health, donors, civil society organizations, international agencies, and implementing partners, leading, in many countries, to multiple community health systems both for service delivery and data; and
- Lack of processes and data systems to collect information on CHWs.³⁹

Insufficient data on health worker numbers, competencies, and services they provide constrain the ability of country governments and their partners to make evidence-based decisions around the effective deployment and management of these and all health workers, as well as CHWs' rational integration into the health system. Researchers lack the information to analyze global trends and progress over time. With the ambitious new targets set forth in the SDGs, including UHC, the need to take action to address these health workforce gaps and challenges is more urgent than ever.

Improving data on volunteers

As countries work toward institutionalizing CHWs as part of the public health workforce, the role of informal sector, civil society, and private-entity-engaged volunteers will continue to be critical to providing community health services. These volunteers pose distinct data challenges for governments as they are more fragmented than the formal CHW cadre, with a multitude of stakeholders engaged in their training and management. The ability of governments to coordinate partners is often lacking at the district and sub-district levels. Without strong coordination, governments may record duplicate data from NGOs and other civil society organizations (e.g. head counts for training, community mobilization activities and distributions). Without some level of standardization for identifying and tracking volunteers, partner contributions to expanding quality health services remain unclear, hampering governments' ability to optimize their contributions and provide them proper support. In addition, as women and girls provide the majority of unpaid contributions to the health sector,⁴⁰ strengthening volunteer monitoring will also help to redress the undervaluation of women in the health workforce. Public health districts should have the mandate to track and monitor the informal community health workforce through their human resource information systems.

GLOBAL CALLS FOR BETTER HEALTH WORKFORCE DATA

Policymakers have increasingly acknowledged the need to improve the collection and use of data on health workers, including CHWs.

Recognizing that standardized, interoperable, and consistent data is necessary to strengthen policy, planning, and practice, global leaders have called for changes at the global and national levels to provide the data that will move the world toward the success of the SDGs.

Global strategy on human resources for health: Workforce 2030⁴¹

In 2016, WHO developed and Member States at the World Health Assembly approved a global human resources for health (HRH) strategy that provides a roadmap to optimize the health workforce to accelerate progress toward SDG 3, including the UHC target. Workforce 2030 recommends that national and global stakeholders strengthen data on HRH for monitoring and ensuring accountability of implementation of both national HRH strategies and the global strategy itself. The strategy includes recommendations to

strengthen national-level data collection on health workers, standardize data at the country level and across countries, and ensure more consistent reporting at the global level. Specifically, Workforce 2030 calls for the following:

- Countries to make progress on health workforce registries to track the health workforce stock, education, distribution, flows, demand, capacity, and remuneration.
- Countries to make progress on National Health Workforce

Primary Health Care Performance Initiative:

Tracking data to drive improvements in countries' primary health care systems

Launched in 2015 by the Bill & Melinda Gates Foundation, World Bank Group, and WHO, the Primary Health Care Performance Initiative (PHCPI) is focused on catalyzing improvements in primary health care in low- and middle-income countries through better measurement and knowledge-sharing. The initiative will help countries track 25 key performance indicators for their primary health care systems to provide decision-makers with essential information to drive improvements. Because having a sufficient number of health workers is critical to the delivery of primary health services, the initiative includes the density of CHWs, nurses, and midwives per 1,000 people as one of the indicators. Health worker counts are derived from population censuses, labor force and employment surveys, health facility assessments, and routine administrative information systems (including reports on public expenditure, staffing, and payroll as well as professional training, registration, and licensure).⁴⁷ The lack of reliable data on CHWs nationally and globally will pose challenges for successfully determining CHW density, underscoring the need for PHCPI partners to support country governments in strengthening their health workforce registries.

Accounts, which would allow for the standardization of data collection and sharing of HRH information among countries. It also calls on countries to report health workforce data annually through the WHO Global Health Observatory.

- Countries to adopt a minimum data set (as described in the WHO publication, Human Resources for Health Information System: Minimum Data Set for Health Workforce Registry) to standardize data for health workforce information systems.⁴²
- The ILO to revise the International Standard Classification of Occupations 2008 (ISCO-08) for greater clarity on the delineation of health workers and health professions, with a move toward definitions that “reflect worker competency together with the tasks they perform.”⁴³ The strategy puts particular urgency on the need to “streamline and rationalize the categorization and nomenclature of CHWs and other types of community-based practitioners.”

National Health Workforce Accounts

In October 2016, WHO released a draft of the National Health Workforce Account Handbook for consultation. The handbook presents a concept for the National Health Workforce

Accounts (NHWA) to include 90 core indicators divided into 10 modules that aim to provide concise information on the health workforce situation trends of a country. The modules include:

1. active health workforce stock (the WHO Minimum Data Set for Health Workforce Registry serves as the basis for the indicators in this module);
2. health workforce in education;
3. education regulation;
4. education finances;
5. health labor market flows;
6. employment characteristics and working conditions;
7. health workforce spending and remuneration;
8. skill mix compositions for models of care;
9. performance and productivity; and
10. health workforce governance, information systems, and planning.

The NHWA aims to facilitate standardization of a health workforce information system, which will allow interoperability and support tracking HRH policy performance toward UHC. WHO will be conducting consultations in several regions throughout 2017 and will finalize the handbook after these consultations.⁴⁴

The HEEG Commission⁴⁵

In March 2016, the UN Secretary-General announced the appointment of a Commission on Health Employment and Economic Growth to propose actions to stimulate the creation of health and social sector jobs as a means to advance inclusive economic growth.



In its September 2016 report to the Secretary-General, the HEEG Commission acknowledges that investments in the health workforce need to be guided by analyses of the labor markets – including demand, supply, and need. Therefore, the HEEG Commission recommends that national and global stakeholders “undertake robust research and analysis of health labor markets using harmonized metrics and methodologies.” The HEEG Commission recognizes that variations in health labor market definitions, data collection systems, and reporting requirements within and across countries create barriers for collecting health labor market data that is comprehensive, comparable, and reliable. To address these issues, the HEEG Commission calls for the following:

- National governments, led by ministries of health, education, employment, and finance, to accelerate the progressive implementation and reporting of NHWA.
- ILO, OECD, WHO, and relevant partners to establish an interagency global data exchange on the health labor market hosted by the Global Health Observatory. The first step in this process is to “develop global harmonized interagency definitions and methodologies for the collection and analysis of health labor market metrics, which

will enable analysis and visualization of changes and trends in health labor markets.”

In addition to these data-related recommendations, the HEEG Commission acknowledges the effectiveness of community-based service providers in delivering people-centered care and their importance in addressing the health worker supply gap. The HEEG Commission welcomes WHO’s development of new guidelines to optimize community-based health worker programs to inform skill mix strategies and enable more effective investment in education and training.

WHO guidelines on CHWs⁴⁶

Recognizing that the support for CHWs and their integration into the health system remains uneven across and within countries, WHO is developing guidelines to assist national governments, as well as national and international partners, to improve the design, implementation, performance, and evaluation of CHW programs. The WHO guidelines will focus on the contributions of community-based practitioners, both volunteer and salaried, giving specific attention to the differing occupational classifications (including lay workers, community health workers, auxiliary/associate professionals, advanced practitioners, and professionals). This guidance also aims to capture the broad variety of definitions that exist for CHWs.

US government commitment to strengthen data for decision-making

The US government has committed to strengthening data collection to improve decision-making in the President’s Emergency Plan for AIDS Relief (PEPFAR). The current PEPFAR strategy (PEPFAR 3.0) emphasizes data collection at the community and clinic levels to inform resource allocation decisions. PEPFAR is sharing that data with country governments and other partners so that they can use data to better target their resources. The program is simultaneously helping to build local capacity of government and civil society to collect data on health services and to use that data to inform decision-making.⁴⁸

The US government also has been an active supporter of Workforce 2030. The US Agency for International Development’s (USAID) continued investments in HRH align with this new global strategy, including investments in strengthening the availability and utilization of HRH data for decision-making through support for national human resource information systems and the roll-out of WHO National Health Workforce Accounts. In the Five-Point Call to Action, USAID, along with WHO and the World Bank, endorsed a set of priority actions and targets for health measurement and accountability, including strengthening countries’ institutional capacity to collect and use data at all levels of the health system.⁴⁹

Health workforce strengthening commitments have also been made under USAID’s 2015-2019 Vision for Health Systems and the Global Health Security Agenda (GHS).^{50, 51}



Save the Children



Indian Red Cross Society



RECOMMENDATIONS FOR LEVERAGING GLOBAL MOMENTUM TO IMPROVE CHW DATA COLLECTION

These calls to action provide an opportunity to ensure that CHWs are at the center of data strengthening efforts as countries and international partners work together to strengthen health workforce data. To that end, this report recommends the following:

- Countries recognize CHWs as a formal cadre in their national health strategies, including their national HRH strategies, and clearly define CHW roles and responsibilities. This is a necessary first step in strengthening CHW data and the rational integration of CHWs into countries' health systems.
- Countries adopt the minimum data set for health workers recommended by WHO to integrate into their health workforce registries.⁵² The minimum data set has 10 data categories, including the names and locations of CHWs, as well as their certifications, licenses, and titles.
- Countries should expand this data set for CHWs to include information such as gender (as a separate category), trainings, and competencies, which will help countries to make better decisions on deploying and supporting CHWs and integrating CHWs as a key component of community health

systems. Because trainings for CHWs, including volunteers, might or might not include certifications and licenses, modifying the data set to include the training record is necessary for countries to collect information on the qualifications of CHWs. To capture volunteer CHWs, the employment status data element should include registration as either employed or volunteer. Countries might also find it helpful for the registry to include: 1) salary status, such as full-time employee, part-time employee, per diem, or volunteer; 2) information on the type of health facility at which a CHW is supervised and the type of patient population to which the CHW provides services; and 3) the CHW's specialty, if applicable, such as maternal care, child health, chronic care, or cancer care. Countries should also be aware that CHWs may be hesitant to provide personal information because of privacy concerns, such as names of parents or immigration status.

- Because building health workforce registries and integrating CHWs into registries will be a significant undertaking, countries should prioritize immediate steps that accelerate

progress on implementing the health workforce registries and NHWAs. WHO recommends full engagement of stakeholders at the onset of designing registries. While the stakeholders will vary by country, categories might include producers of health workers (colleges and training institutions), health professional councils, credentialing authorities, employers, and donors. WHO further recommends that stakeholders develop a plan at the beginning of the design phase to address policy and governance mechanisms, financing of implementation, identification of all authorized data-submitting entities (which also ensures data security, privacy, and confidentiality), and adequate staffing for all day-to-day operations and management of the registry.⁵³

- As called for in Workforce 2030 and the HEEG Commission report, ILO should update the ISCO-08 definition of health workers, including CHWs, to include an updated set of core tasks and competencies. In updating the definition, ILO should consider findings from WHO's forthcoming CHW guidelines that explore the broad variety of definitions that exist for

CHWs in the formal and informal sectors. An updated ILO definition will allow for aggregation of data across countries to provide a global snapshot of the number of CHWs. ILO, OECD, and WHO should align their definitions of CHWs to facilitate data exchange across agencies.

- Countries should continue progress on their NHWAs to have more standardized and consistent data collection on health workers to enable planning, implementation, and monitoring of health workforce policies toward UHC. Countries should include CHWs in the NHWAs. These NHWAs will require defining a scope of work for a specific type of health worker relative to their qualifications, skills, and competencies and consideration of how this aligns with ISCO-08 for international comparability.
- Countries should increase investments in mHealth technologies that would not only enable better data collection on CHWs, but also provide tools for CHWs to be better connected to and supported by other members of the frontline health team, including their supervisors. Countries already using mHealth technologies to connect and support CHWs should further harness these technologies to enable HRH data collection on CHWs.
- Donors and partners should invest in strengthening the capacity of countries to collect and analyze health workforce data, including enabling technologies, and provide technical support to countries in developing these capacities. This support should be aligned with strengthening countries NHWAs and health workforce registries

and strengthening their ability to provide accurate metrics on the health labor markets to global partners (ILO, OECD, WHO).

- Countries should coordinate donor and partner investments and commit to investing domestic resources, both public and private, to facilitate scale up and sustainability of CHW program implementation, data collection, and support integrated into national systems.
- Countries should ensure that data collected on CHWs is collected through community health centers, where possible, and integrate that data with routine data reported on all health workers. Data is often collected at the district level, but community health centers provide important sources of data on CHWs and community health needs.

The standardized and consistent data

called for in these recommendations will contribute to stronger alignment across partners at the community, national, and global levels. This data also will provide country governments with the information they need to make data-driven decisions on their CHW programs in order to optimize CHW impact. Because CHWs are an important part of the fit-for-purpose workforce needed to expand equitable access to health services, knowing their numbers, locations, trainings, and competencies will also help decision-makers to better plan and support other members of the frontline health team so they can work cohesively to deliver patient-centered care that is effective, efficient, responsive, and safe. By maximizing the contributions of CHWs as part of a primary health care team, countries are better positioned to improve the health and well-being for all of their people and to make great progress on the SDGs across all sectors.

Minimum data set for health workforce registry

<i>Minimum data set</i>	<i>Data elements</i>
1. Identification number	Unique identification number or other form of ID, date of issue, date of expiration, place of issue
2. Full name	First name, last name, middle name, maiden name, other name 1, other name 2, other name 3
3. Birth history	Date of Birth, Sex at Birth, Place of Birth (country, town), father's name and mother's name, photograph
4. Citizenship, country of residence, and language	Citizenship at birth, citizenship at present, country of residence, ability in spoken and written languages
5. Address	Physical address (country, town, street address)
6. Contact information	Telephone number, email address, emergency contact name
7. Professional license and certification	Education, license and certification name, issuing institution, date of issue and date of expiration, photograph
8. Employment status	Employment status, employment title and occupational category
9. Employment address	Full address of current employer
10. Data submission institution	Name of the institution submitting data, date and time of submission

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PHOTO CREDITS

COVER: GAPPS community educator Queen Tembo holds Cleopatra Phiri's infant daughter in Phiri's home in the Misisi slum in Lusaka, Zambia. Photo by ©Paul Joseph Brown, Global Alliance to Prevent Prematurity and Stillbirth (GAPPS).

PAGE 4: Home health promoter Wilma Ajiba educates a group of women in Lanyi, South Sudan, on the benefits of giving birth in a health facility. Photo by Kate Holt, Jhpiego.

PAGE 5: Midwife Kebabazi Februn (in blue sweater) speaks during a midwives meeting in Uganda. Photo by Trevor Snapp, IntraHealth International.

PAGE 6: A nurse at the Wirika Hospital in Fort Portal, Uganda, goes through their complex paper filing system which the HRIS program was created to streamline. Photo by Trevor Snapp, IntraHealth International.

PAGE 8: Health workers meet in the lawn of a clinic in Uganda. Photo by Trevor Snapp, IntraHealth International.

PAGE 10 (left): Health volunteer Daniel Zeh works out of his home in Adjap, Cameroon, and explains to a pregnant woman the importance of taking medicine to prevent malaria. Photo by Karen Kasmauski, Jhpiego.

PAGE 10 (right): Health workers trained by Project HOPE in Serang Province, Indonesia, provide services for pregnant women and small children, including counseling, immunizations, pre-natal check-ups, height and weight screening, nutritional education, and classes for women about breast feeding and post-partum care. Photo by Tiana Markova-Gold, Johnson & Johnson.

PAGE 11 (left): With Helping Babies Breathe (HBB) training, health workers at Dedza District Hospital in Malawi are saving newborn lives every day. The HBB program implemented by Save the Children in Uganda and Malawi aims to reduce neonatal mortality due to birth asphyxia by integrating neonatal resuscitation skills and equipment within existing maternal and newborn health services in low resource settings. Photo by Mark Tuschman, Johnson & Johnson.

PAGE 11 (right): Nurses trained through the Red Cross Auxiliary Nurses and Midwives Program at Bel Air Hospital and Training College in Panchgani, India, conduct health posts in local villages such as Amgaon Village, which are very remote and have no access to health facilities. Photo by Tiana Markova-Gold, Johnson & Johnson.

PAGE 12: Health Supervisor S.P. Sharma and Computer Vinod Kumar lead a monthly ASHA meeting at Rampur community health clinic in India where they conduct a group exercise and present their findings about what to do with new born babies using the GATHER technique, "Greet, Ask, Tell, Hear, Explain and Return." Photo by Trevor Snapp, IntraHealth International.

BACK COVER (top): A health worker at Mathare North Health Centre in Nairobi, Kenya, where Intrahealth works. Photo by Trevor Snapp, IntraHealth International.

BACK COVER (bottom): A new born baby is wrapped in a cotton shawl at a healthcare facility supported by Jhpiego in Dar Salaam, Tanzania. Photo by Kate Holt, Jhpiego.



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