

**Developing and Strengthening Community
Health Worker Programs at Scale:
A Reference Guide for Program Managers and
Policy Makers**

Henry Perry and Lauren Crigler, Editors

Steve Hodgins, Technical Leader

Table of Contents

Section 1: Setting the stage

- Chapter 1. Introduction (Steve Hodgins, Lauren Crigler, and Henry Perry)
- Chapter 2. A Brief History of CHW Programs (Henry Perry and Shelly Amieva)
- Chapter 3. National Planning for Community Health Worker Programs Planning (Jessica Gergen, Lauren Crigler, and Henry Perry)
- Chapter 4. Governing Large-Scale Community Health Worker Programs (Simon Lewin and Uta Lehmann)
- Chapter 5. The Financing of Large-Scale Community Health Worker Programs (Henry Perry, Francisco Sierra-Esteban, and Peter Berman)

Section 2: Human resources

- Chapter 6. Community Health Worker Roles and Tasks (Claire Glenton and Dena Javadi)
- Chapter 7. Recruitment of Community Health Workers (Wanda Jaskiewicz and Rachel Deussom)
- Chapter 8. Training of Community Health Workers for Large-Scale Programs (Iain Aitken)
- Chapter 9. Supervision (Lauren Crigler, Jessica Gergen and Henry Perry)
- Chapter 10. What Motivates Community Health Workers? Designing Programs that Incentivize Community Health Worker Performance and Retention Incentives (Christopher Colvin)

Section 3: CHW programs in context

- Chapter 11. Community Health Worker Relationships with Other Parts of the Health System (Henry Perry, Steve Hodgins, Lauren Crigler, and Karen LeBan)
- Chapter 12. Community Participation in Large-Scale Community Health Worker Programs (Karen LeBan, Henry Perry, Lauren Crigler, and Christopher Colvin)

Section 4. Achieving impact

- Chapter 13. Scaling Up and Maintaining Effective Community Health Worker Programs at Scale (Steve Hodgins, Simon Lewin, Sharon Tsui and Henry Perry)
- Chapter 14. Measurement and Data Use for Community Health Services (Steve Hodgins, Dena Javadi and Henry Perry)
- Chapter 15. Wrap up (Henry Perry, Lauren Crigler, and Steve Hodgins)

Appendix

Appendix 1. Case studies Case Studies of Large-Scale Community Health Worker Programs: Examples from Bangladesh, Brazil, Ethiopia, India, Iran, Nepal and Pakistan (Henry Perry, Rose Zulliger, Kerry Scott, Dena Javadi, and Jess Gergen)

Appendix 2. Current Perspectives of Large Scale Community Health Worker Programs: Summary of Findings from Key Informants Opinions (Sharon Tsui, Elizabeth Salisbury-Afshar, Rose Zulliger and Henry Perry)

Authors and Their Affiliations

Senior Writing Team

Lauren Crigler, Crigler Global Consulting, formerly with the USAID-funded Health Care Improvement (HCI) Project

Claire Glenton, Norwegian Knowledge Centre for the Health Services

Steve Hodgins, Saving Newborn Lives, formerly with Maternal and Child Health Integrated Project (MCHIP)

Karen LeBan, The CORE Group

Simon Lewin, Norwegian Knowledge Centre for the Health Services and Medical Research Council of South Africa

Henry Perry, Department of International Health, Johns Hopkins Bloomberg School of Public Health

Other Senior Authors

Iain W. Aitken, previously with Management Sciences for Health and Harvard School of Public Health

Christopher Colvin, University of Cape Town School of Public Health (South Africa)

Jessica Gergen, Johns Hopkins Bloomberg School of Public Health

Wanda Jaskiewicz, Capacity*Plus*/IntraHealth International

Sharon Tsui, Johns Hopkins Bloomberg School of Public Health

Collaborating Authors

Shelly Amieva, Johns Hopkins Bloomberg School of Public Health

Peter Berman, Harvard School of Public Health

Rachel Deussom, Capacity*Plus*/IntraHealth International

Dena Javadi, Johns Hopkins Bloomberg School of Public Health

Uta Lehman, University of Western Cape School of Public Health (South Africa)

Elizabeth Salisbury-Afsar, Johns Hopkins Bloomberg School of Public Health

Kerry Scott, Johns Hopkins Bloomberg School of Public Health

Francisco Sierra-Esteban, London School of Hygiene and Tropical Medicine

Rose Zulliger, Johns Hopkins Bloomberg School of Public Health

SECTION 1: SETTING THE STAGE

Introduction

Steve Hodgins, Lauren Crigler, and Henry Perry

18 September 2013

Key Points

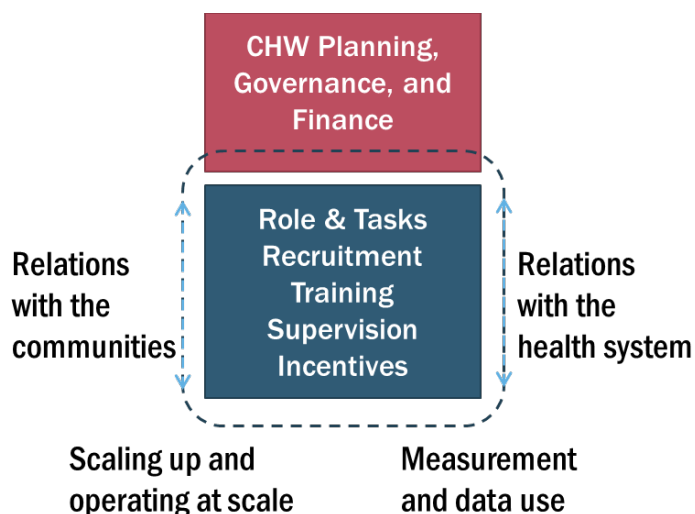
- The current enthusiasm for large-scale community health workers (CHWs) needs to be tempered with a sobering reflection on the disappointments that followed a similar wave of enthusiasm in the 1970s and 1980s, noting challenges in scaling up and sustaining large-scale public sector CHW programs.
- Large-scale public sector CHW programs are complex entities that require adapting a systems perspective to the national and local contexts.
- CHWs are a diverse group of community-level workers. This guide distinguishes between two levels of CHWs: 1) full-time, paid, with formal pre-service training, and 2) volunteer, part-time workers.
- The guide attempts to avoid categorical recommendations, but rather offers suggested issues and principles to consider and, when possible, brings in relevant program experience.

INTRODUCTION

Recently, a renewed interest in large-scale community health worker (CHW) programs has been seen globally. This renewal provides an opportune moment to take stock of issues and challenges such programs face and what can be done to make them as effective as possible. With this in mind, this manual is intended to be used a practical guide for policymakers and program managers wishing to develop or strengthen a CHW program, drawing lessons from other countries that have implemented CHW programs at-scale. Throughout, we discuss major policy and programmatic issues that decision-makers and planners need to consider when designing, implementing, scaling up or strengthening a national-level CHW program. We offer an overview of specific challenges CHW programs face, country lessons, tools, and other resources that may be helpful, while incorporating relevant programmatic examples as much as possible.

Proceeding from broader, higher-level issues down to the more specific and operational ones, this manual sets the stage with a section addressing planning, governance and finance. The next major section considers a range of important issues related to human resources, notably: roles and tasks of the CHW, recruitment, training, supervision, and motivation. The third section concerns the context for community health work, looking at both the health system and the community. The fourth and final section addresses operational issues essential for achieving program impact, such as scaling up and operating at-scale, as well as measurement and data use. All of these functions have critical inter-relations; therefore, design decisions in one area have consequences in many others, as Figure 1 depicts. Within the manual, this concept is reflected in frequent cross-referencing among chapters. Further, the manual includes, as appendices, profiles on a number of large-scale CHW programs and insights arising from interviews with a number of key thought leaders in global CHW work.

Figure 1. Overview of CHW program sub-systems and their interactions



The contents herein draw particularly upon experiences from large-scale, public sector CHW programs. We have looked comprehensively across a range of factors determining the effectiveness of community health services—and taking a pragmatic view and promoting no single model since CHW programs serve different purposes depending on context. However, we believe that the experiences of other programs often provide useful lessons that can impact decisions to be made regarding CHW programs in additional settings. Specifically, we are interested in the factors that contribute to program effectiveness and performance in institutionalized programs operating in the public sector at-scale.

Although decisions are frequently made to establish or close programs on the basis of “effectiveness,” in many instances, data available are insufficient to make a solid judgment on how effective these programs have actually been. As such, in trying to capture important lessons about what works under which circumstances, wherever possible, we make such inferences based on the best available evidence (which is often thinner than preferred) and on experience and expert judgment arising from those experiences.

THE COMMUNITY HEALTH CHALLENGE

For more than 50 years, as leaders in primary health care (PHC) have tried to elaborate strategies to better meet the health needs of populations, they have gravitated repeatedly to solutions that involve recruiting and training local people to play roles complementing and supplementing those of health professionals, encouraging healthier practices and care-seeking and, in some instances, providing services that otherwise would fall within the responsibility of health professionals through task-shifting. Such strategies have varied considerably by place and time, with different names for community-level workers being used. Some notable names include: health auxiliary worker, village health worker, community health worker and, most recently, front-line health worker (albeit, a designation used also to cover PHC professionals and lesser-trained community-level workers).

Established in the 1960s–1980s, the initial wave of CHW programs were for a world that was very different from the one today. Many of the societies in which we work have become more prosperous since then: the standard of education and literacy has improved; economies have evolved in the direction of greater monetization and away from traditional subsistence economies; in many settings, the private sector now accounts for a large proportion of health services provided; road networks have expanded; and new technologies (e.g., mobile phones) are in widespread use. Perhaps most importantly, the world today is much more urbanized.

Nevertheless, many of the issues that face policymakers, program managers, and external development partners, as they make decisions and design and manage community health programs, are essentially the same as those faced by their predecessors. Namely, how to sustainably finance such a program; how to design it so it will function effectively; how to select, train, motivate, retain, and supervise CHWs; how to ensure consistent supply of needed drugs and commodities; and how to monitor and ensure performance. Now more than ever, CHW programs need to be resilient and adaptable, adjusting to new evidence and policies with an improved capacity to implement newly approved recommendations.

Unfortunately, examples can be found today of decisions being made in the development or implementation of CHW programs that repeat mistakes made in the past, dooming programs to the same compromised effectiveness as before. Therefore, the goal of this guide is to enable policymakers and program implementers to reduce the frequency of such decisions, which often fail to take into account lessons from past experience.

SMALL-SCALE NONGOVERNMENTAL ORGANIZATION PROJECTS VERSUS LARGE-SCALE MINISTRY OF HEALTH PROGRAMS

Over the past 50 years, there have been a variety of highly influential, small-scale CHW program experiences, either linked to universities or nongovernmental organizations (NGOs). These experiences have served as the inspiration for important global initiatives in community health. For example, the 1978 Declaration of Alma-Ata was inspired in part by such experiences. Similarly today, recommendations are made to ministries of health and donors, calling for large-scale, public-sector CHW programs, based on experiences with much smaller, more intensively supported programs. Though attractive, large-scale CHW programs are not a one-size-fits-all solution, and context-specific considerations must be made at-scale. The value of these small-scale experiences is found in the sensitization of national- and global-level decision-makers to the power of CHW programs in achieving population-level health gains. However, these small pilot projects are often not replicable at-scale.

An example of this discontinuity among successes observed in a small-scale, intensively supported program versus efforts in a large-scale program is the intensive postnatal, home-visit approach pioneered by Bang and colleagues in Maharashtra, India. Based on this approach and a few other small-scale, intensively supported community randomized controlled trials (RCTs) and demonstration projects, the United Nations Children's Fund (UNICEF) and the World Health Organization (WHO) jointly issued a call to ministries of health to introduce such programs at-scale. These programs have since been widely introduced; though none are achieving high rates of effective coverage (and therefore population-level health impact). That said, the translation from small-scale demonstration projects to large-scale programs is not straightforward. It is crucial to understand the conditions necessary for successful implementation of a particular approach and what it would take to meet these conditions at scale.

ARE CHWS NECESSARILY THE ANSWER, OR PART OF THE ANSWER, TO YOUR SPECIFIC PROBLEM?

They may or may not be. The appropriateness or adequacy of the local health system can be judged by its results. What population coverage is currently achieved for key health services (e.g., immunizations, family planning [FP], tuberculosis detection, and treatment)? Depending on the setting, an approach involving some kind of outreach may be essential to reach high coverage. In some settings, however, such coverage may be achievable using services based entirely on health professionals. In fact, in some settings, CHWs are not the appropriate answer, and program decisions-makers need to consider feasibility before scaling up any given CHW program. This guide details all the necessary considerations that would feed into a judgment of appropriateness and feasibility of any particular plan for use of CHWs.

A SYSTEMS PERSPECTIVE

Although much of this guide focuses on CHWs, we are more fundamentally concerned about community health services, including efforts to influence health-related household practices and care-seeking. There are various strategies or approaches available to ensure adequate delivery of such services to a population. The use of a particular cadre of worker—whether volunteer or paid and whether a fully trained professional or a lesser-trained community-level worker—is one among a set of choices that, together, constitute the arrangements for community health services in a particular locality.

The CHW works within the context of a program, a community, and a health system. How effectively he or she contributes to improved health in the community depends on the

effectiveness of a system. By nature, systems are interconnected, nonlinear, self-organizing, and dynamic. Although there may be some utility in categorizing components of the system as building blocks, to understand the functioning of the system requires that we acknowledge the dynamic interactions among the various system elements. Throughout this manual, we will look at CHWs within this larger systems context. With such a perspective, there is considerable cross-referencing among sections. Furthermore, we will focus not only on CHWs but also on community health *services* and the organization of care.

The organization of services—the system provisions to ensure effective delivery and linkages with the beneficiary population—consists of elements and relationships within a dynamic system. Overall performance of the system (i.e., how well it actually meets the needs of the population it is meant to serve) depends on the effective functioning of all of its parts, as they interact. As a result, design choices or the performance of particular elements, can have very important consequences. Both at the design stage and during ongoing implementation, the needs and performance of the system *as a whole* need to be kept in view. This may seem to unnecessarily complicate things. However, if we are interested in effective programs, we do need to grapple with this complexity.

The important take-home message is that **any decision we make about a particular detail within a program potentially has ramifications or consequences for other parts of the system.** One should be wary, therefore, of categorical statements; for example, “to have CHWs who can safely do case management of sick children, an absolute criterion of selection needs to be high school graduation.” In a given setting, making such a decision may narrow the choice to men in their early 20s, who may, in turn, not be considered acceptable by the community for a role in sick child care, which, in turn, could result in quite low coverage. If that is the case, it may be appropriate to revisit the initial assumption. At the end of the day, we need programs that work—ones that effectively contribute to improving population health status.

Often, in a single location there are multiple programs making use of different types of CHWs. All of these may be officially under ministry of health (MOH) auspices. Yet, with different external partners supporting the programs, there may be little harmonization, with some more generously endowed programs providing more attractive training allowances or other incentives, with significant differences in how supervision is done, and without any provision for coordination across programs or across the different types of CHWs. Adding new CHW programs, or new functions to existing CHW cadres, needs to be understood as not happening within a vacuum, but within a local service delivery context that may, in some ways, be a bit of a mess.

CONTEXT

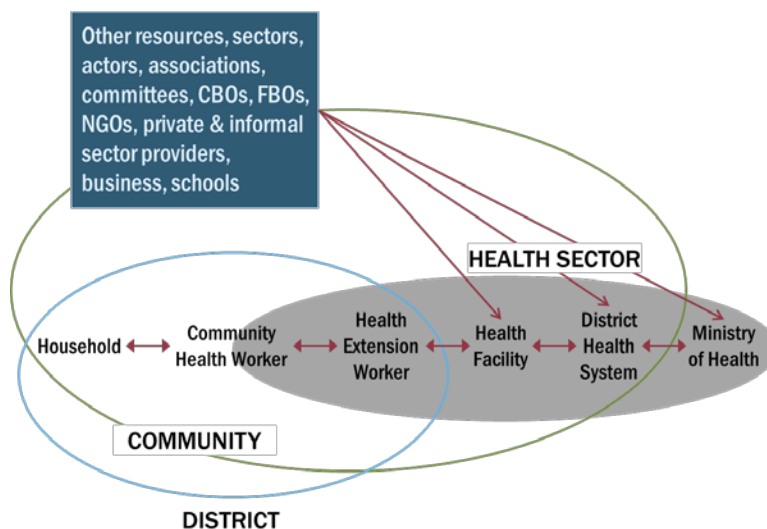
Any particular CHW cadre works in a setting along with other health workers, CHWs, managers, and actors—each with their own roles and each, potentially, interacting with others. This set of relationships and interactions resembles an ecosystem. In that, these interactions, in turn can affect the performance of particular actors, the emergence of competing interests, and the evolution of these dynamics over time (Figure 2).

Because different CHW programs are trying to do different things, and they operate in a wide range of settings, specific choices that work well or are essential in one particular setting are not necessarily helpful in another. Ray Pawson *et al.* have made helpful contributions to our thinking on the need to consider performance for particular types of programs looking closely at *how they are implemented* and the characteristics of the *specific settings* in which they are implanted, seeing how that plays out with regard to program performance.¹ From multiple such

cases, one can then progressively build a “mid-level theory” that begins to draw fruitful, if contingent, lessons across settings.

Drawing on Pawson *et al.*, we do not want to be overly prescriptive, but rather to try to raise a range of options and possibilities that need to be considered. Ideally, we would like to make specific suggestions in the form of, “under X conditions or type of context, if you are trying to do A, you should consider L, M, and N.” However, appreciating the complex interactions among the various systems dimensions underlying CHW programs, the diversity of what CHW programs are trying to do, and the conditions in which they are implemented, such advice would be very difficult to give. Nevertheless, in this guide, we will try to avoid making categorical recommendations, and instead offer **suggestions for consideration**, making explicit, when possible, the particular program experiences from which the lessons are drawn.

Figure 2. CHWs within the health sector



WHO ARE COMMUNITY HEALTH WORKERS?

The term community health worker is currently used to cover a wide variety of cadres and programs. As such, it can be a source of confusion. For this reason, in this manual, we use the terminology shown in Table 1. Auxiliary health workers (AHWs) are, in some settings, considered to be CHWs. They are paid, generally full-time workers with pre-service training usually of at least 18–24 months, who may or may not be recruited from the localities where they serve. In most settings, however, such workers are not considered as CHWs.¹ The next grade down is what we will call health extension workers (HEWs), who are also usually paid, full-time employees but normally have less than a year of initial training (in some cases, just a few weeks) and are generally recruited from the localities where they work. In some cases, compensation is mixed, with a fixed monthly amount plus incentives related to specific activities (e.g., the Accredited Social Health Activist Program in India).

On the spectrum from more to less formalized/professionalized CHWs, below the HEW, we have what will refer to in this guide as Community Health Volunteers-Regular (CHVs-R). These CHVs-R may have a role that can involve not only health promotion but also some limited elements of service delivery. They normally work at least several hours a week, generally not on a salaried basis, but may receive some material incentives. These CHVs-R, in turn, grade into

¹ Note that in the 1960s and early 1970s, this term was used more broadly than how we are using it, and included health-facility-based support staff, as well as what we are describing as health extension workers.

various types of what we refer to as community health volunteers-intermittent (CHVs-I), whose duties normally involve only health promotion or community mobilization and who, in any given week, may not be involved in any such activity.

We recognize that this list is not fully exhaustive. There are other types that do not closely correspond to any of these categories, and there are cadres that stand in an intermediate position with respect to these types. For example, Ethiopia’s HEWs have more training than our category of HEWs, but less than our category of AHWs. However, we will use this vocabulary consistently and will use this typology to anchor our discussion. This clarity can avoid considerable confusion, when we might otherwise make generalizations about CHWs that, in fact, only validly apply to one of these categories.

Table 1. Categories of CHWs

	TERMS OF SERVICE, TRAINING, RECRUITMENT	FUNCTIONS (and further notes)
Auxiliary health workers (AHWs)	Salaried and full-time; pre-service training lasting one or more years (in a specialized training institution); not necessarily recruited from the area. May be hired through some unit of local government or through national civil service structure.	These workers often provide routine clinical preventive services (e.g., immunizations, FP), as well as case management, for a limited range of conditions (e.g., childhood illness). These functions may be provided from a very peripheral health unit (e.g., a health post) or, at least in part, from outreach sites.
Health Extension Workers (HEWs)	Salaried and expected to work more or less full-time; initial training generally at least several months (usually provided after recruitment); in some cases, this can be for up to a year. Usually recruited from the area, but may or may not originate in the community where they are serving.	This is the highest level of cadre that is commonly referred to as a CHW, though they may also be considered a type of AHW. Their functions may be very similar to those described above for AHWs.
Community Health Volunteers-Regular (CHVs-R)	Volunteer with certain regular duties (usually with at least some activity every week); possibly with regular episodes of short training (up to several days at a time) and may have some initial training lasting several weeks. They are from and live within their local communities.	May be involved in case management of childhood illness and in dispensing (e.g., birth control pills, condoms, and antenatal iron). In rare cases, may give injectable contraceptives, such as Depo-Provera or other injections. In some programs, duties and terms of service of regular CHVs start to approach those of a HEW (see above), with significant part-time involvement (e.g., 10–20 hours/week) and financial incentives representing an important revenue source (may be performance- or commission-based). In other programs, though these CHVs perform regular functions, they normally put in less time (e.g., 5 hours/ week or less) and financial incentives may be minimal or not used at all.
Community Health Volunteers-Intermittent (CHVs-I)	Volunteer, relatively light, intermittent commitment; minimal orientation/training; may be numerous; local.	Typically have functions limited to health promotion, though they may also support periodic campaign activities (e.g., distribution of insecticide-treated bed nets, ivermectin, or vitamin A) and support for immunization campaigns.

VARIATION IN COMMUNITY HEALTH WORKER PROGRAMS

There is a multitude of differing CHW programs. At one end of the spectrum, we have national CHW programs or cadres, under MOHs. These are generally paid, full-time workers belonging to the first two categories above (i.e., AHWs or HEWs). There are, however, examples of programs with CHWs in the third category of CHV-R (e.g., female community health volunteers in Nepal) and the fourth category of CHV-I (e.g., CHWs in large community-directed intervention programs). National public-sector programs may also make intermittent use of CHVs. All of these programs are typically tied closely to peripheral public sector health services (e.g., supported and supervised from health centers or health posts). But there are certainly many exceptions, such as national programs that make use of CHWs not having strong links with a particular health facility. The BRAC Shasthya Shebika CHW program is an example of such an exception.

At the other end of the spectrum, there are many NGOs and community-based organizations (CBOs) that have their own CHWs, who are not formally linked with public sector programs. There are also many examples of CHW cadres that are formally recognized by government but have strong links with NGOs (including donor-funded NGOs). Additionally, there are a few examples of large CHW programs operated by major NGOs, a prime example again being BRAC in Bangladesh.

Because our principal interest in this document is on efforts expected to contribute to population health impact at-scale, our focus is primarily on large (generally national) programs and cadres operating under the MOH. In addition to varieties in institutional characteristics across CHW programs, programs differ markedly by technical content. On one hand, we have CHWs who are generalists that are responsible for a wide range of primary health care services (e.g., acute illness care, maternal and child health, immunizations, FP, and environmental health). But there are also many examples of cadres of CHWs working for specific technical programs (e.g., HIV/AIDS, malaria, or tuberculosis). In many countries, there are several different types of CHWs working at the community level, with responsibilities falling under different programs.

CONCLUSIONS

The effective functioning of large-scale CHW programs offers one of the most important opportunities for improving the health of impoverished populations in low-income countries. This guide presents principles and programmatic suggestions that we hope will be useful as decision-makers and program implementers consider the initiation, expansion, or strengthening of CHW programs in their country.

References

1. Pawson R, Greenhalgh T, Harvey G, Walshe K. Realist review: a new method of systematic review designed for complex policy interventions. *J Health Serv Res Policy* 2005; **10 Suppl 1**: 21–34.

A Brief History of Community Health Worker Programs

Henry Perry

18 September 2013

Key Points

- The first Community Health Workers (CHWs) were “Farmer Scholars” who were trained in China in the 1930s and were the forerunners of the Barefoot Doctors, of whom there were more than one million from the 1950s to the 1970s.
- In the 1960s and 1970s, small CHW programs began to emerge in various countries, particularly in Latin America.
- The experience from CHW programs predating the 1970s provided the inspiration for much larger CHW programs in many low-income countries in the 1980s.
- Following the failure of many of the programs in the 1980s and 1990s, new highly successful programs have emerged and, at present, as a result of research findings demonstrating the effectiveness of community-based programs in improving child health in particular, there is now a resurgence of interest and growth of CHW programs around the world.

ORIGINS AND EARLY HISTORY OF COMMUNITY HEALTH WORKER PROGRAMS

The first example of formally well-trained non-physicians to carry out duties that were normally given to physicians is Russia's Feldshers who, in the late 1800s, were trained as paramedics to assist physicians and to function in their stead in rural areas where physicians were not present. In contrast to the Barefoot Doctors in China and their forerunners at Ding Xian in the 1920s, Feldshers were literate and had three years of formal training. Large numbers of Feldshers also obtained training in midwifery.^{1, 2} Further, Feldshers were local people with limited training (and were therefore not formally trained medical doctors) who were authorized by the state to provide primary health care (PHC) services in rural villages. In this sense, they constitute an important forerunner of the CHW movement.

The first example of a large-scale CHW program was in Ding Xian, China, in the 1920s. At that time, Dr. John B. Grant, of the Rockefeller Foundation assigned to Peking Medical University, and Jimmy Yen, a Chinese community development specialist with a background in teaching literacy to adults, trained illiterate farmers to record births and deaths, vaccinate against smallpox and other diseases, give first aid and health education talks, and help communities keep their wells clean.^{3, 4} These services were delivered by what were originally known as Farmer Scholars, who later became known as Barefoot Doctors in communities where the infant mortality was more than 200 deaths per 1,000 live births and life expectancy was only 35 years.⁵ This CHW program grew rapidly, parallel to and in close coordination with the people's commune movement. By 1972, there was an estimated one million Barefoot Doctors serving a rural population of 800 million people in the People's Republic of China (or roughly one per 800 people).

These Barefoot Doctors were peasants who were given three months of training (which would correspond to our category of health extension worker [HEW]). They were expected to work half-time performing their health-related duties—which included environmental sanitation, health education, immunization, first aid, and basic primary medical care—and half-time doing agricultural work.⁶ Central to the role of the Barefoot Doctors was their expected contribution serving as change agents, engaging their fellow community members in addressing and taking responsibility for their health problems.³

In the 1960s, the inability of the modern Western medical model of trained physicians to serve the needs of rural and poor populations throughout the developing world was becoming progressively more apparent. The need for new approaches was obvious, and the Barefoot Doctor concept gained attention around the world as a type of alternative health worker who could complement more highly trained staff who did not have university-type training as medical doctors or graduate nurses, such as auxiliaries and paramedics.⁷ During this period, the Barefoot Doctor approach served as a guiding concept for early CHW programs in many countries, including Honduras, India, Indonesia, Tanzania, and Venezuela.

With these pioneering experiences and with a growing awareness of the failure of the Western "missionary model," the Christian Medical Commission (CMC), a unit of the World Council of Churches, based in Geneva, began to envision a new approach to providing health services in developing countries. This approach was based on principles of: social justice, equity, community participation, prevention, multi-sectoral collaboration, decentralization of services to the periphery as close as possible to the people, appropriate technology, and provision of services by a team of workers, including community-based workers. Leaders of the World Health Organization (WHO), just down the street from the CMC, began to interact with the CMC and be influenced by them.⁸

These new ideas were reflected in a WHO book published in 1975 entitled *Health by the People*, which consisted of a series of case studies from different countries where CHWs were the foundation of innovative (generally small-scale) community health programs.⁹ The book served as part of an intellectual foundation for the International Conference on Primary Health Care at Alma-Ata, USSR (now Kazakhstan) in 1978, sponsored by WHO and the United Nations Children’s Fund (UNICEF). This conference was attended by official government representatives from virtually all WHO and UNICEF member countries, making it the first truly global health conference. Ultimately, the conference resulted in the Declaration of Alma-Ata, which called for the achievement of “Health for All” by the year 2000 through PHC. The Declaration was explicit in defining a role for CHWs. Article VII.7 of the Declaration states:

Primary health care ... relies, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries, and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community.¹⁰

Thus, the Declaration explicitly defined CHWs as one of the important providers of PHC in certain circumstances.

During this early period of experience with CHWs, the movement incorporated two agendas: the first was a **service-oriented** agenda of extension of preventive and curative services within the existing health system, while the second was a **transformative** agenda concerned with engagement of communities in the process of taking responsibility for their health, and addressing the environmental, social, and cultural factors that produce ill health, including inequity and deep poverty.¹¹⁻¹⁴ This latter orientation was particularly strong in Latin America.

New approaches to health service delivery were particularly important in post-colonial countries in Africa in the 1960s and 1970s, as well as in newly established centrally planned economies.¹⁴ In the 1970s and 1980s, there was a proliferation of government CHW programs at national scale in countries such as Indonesia,¹⁵ India,¹⁶ Nepal,¹⁶ Tanzania,¹⁸ Zimbabwe,¹⁷ Malawi, Mozambique, Nicaragua¹⁹ and Honduras,²⁰ as well as in other Latin American countries. During the same period, there was also the beginning of smaller CHW programs operated by nongovernmental organizations (NGOs) in many low-income countries around the world.

In the 1980s, it was becoming apparent that a number of large-scale programs were encountering serious difficulties due to inadequate training, insufficient remuneration or incentives, along with insufficient continuing education, supervisory support, integration with the health system, logistical support for supplies and medicines, and acceptance by higher-level health care providers. Furthermore, in many CHW programs, political favoritism led to the selection and training of individuals who were not well-motivated or suited for the role of CHW.³ A series of publications in the late 1980s brought attention to these issues, but they expressed optimism that these problems could be overcome without a major setback to the global PHC and CHW movements.²¹⁻²³

WHY COMMUNITY HEALTH WORKER PROGRAMS FAILED IN THE 1980S AND 1990S

Further issues arose in the 1980s. The rising prominence of selective approaches that did not require CHWs, as well as the loss of momentum of the nascent PHC movement as envisioned at Alma-Ata, led to the demise of a number of large-scale CHW programs. Additional factors also

contributed to this faltering. The global oil crisis of the 1970s led to a global recession and a debt crisis for many developing countries in the 1980s. Governments were forced by international donors, most notably the World Bank, to embrace free market reforms and to reduce their public sector financing, including financing for health services. Thus, financial resources needed to support new health initiatives, including large-scale CHW programs, were not available.^{14, 24} The cumulative effect of these shocks led to loss of financial and political support for comprehensive PHC generally,²⁴ and many CHW programs fell by the wayside.¹⁴

Political commitment for PHC and for strong and effective CHW programs was often lacking. There was a sense that these programs represented “second class care” and that CHWs were a temporary solution. Returning to strategies prevalent before Alma-Ata, priority was again given to investments in secondary and tertiary levels of care, often benefitting primarily urban and elite populations whose influence on government decision-making for health services was notable.²⁵ Furthermore, monitoring and evaluation systems for PHC programs and for large-scale CHW programs were weak, and evidence of their effectiveness and cost-effectiveness were limited.²⁵ In a publication released in 1992, when there were more than two million CHWs throughout the world, one knowledgeable observer remarked that:

...it is striking how little is known about what CHWs actually do in relation to the tasks assigned to them, the impact of these activities upon health status, how much time they actually spend doing these various tasks, the response they find among the communities they serve, attrition rates, and costs of CHW programs.¹³

Another reason for the loss of momentum among large-scale CHW programs in the 1980s was that these programs required more financial and supervisory inputs than had been originally envisioned.²¹ Consequently, many governments reduced or discontinued their CHW programs in the late 1980s and early 1990s, as efforts at selective PHC and vertical programs with strong international donor and technical support gained prominence.^{3, 26}

EVOLUTION OF COMMUNITY HEALTH WORKER PROGRAMS THAT EMERGED DURING THE MID-1980S

Successful examples of CHW programs at scale began to emerge during the mid-1980s. Among the most notable was the Brazil national health care program (i.e., Special Service for Public Health – *Serviço Especial de Saúde Pública*, or SESP), which started in 1987. Since then, the program has been able to gradually achieve universal coverage of PHC services and marked improvement of population health status. Of note, the program employs health teams that include one of the largest CHW networks in the world, consisting of 222,280 CHWs called *visitadoras*, who provide home visits and services to 110 million people.²⁷⁻²⁹ (See Box 1.)

Box 1. The Brazilian CHW Program

The Brazilian public health system dates back to large vaccination and other campaigns that were implemented by sanitary police in the late 1800s and early 1900s. The history of the health system is well-characterized by Paim and colleagues in a recent Lancet series on Brazil.³⁰ Briefly, the health system was shaped by the country’s tumultuous history. Public health was institutionalized under the Vargas dictatorship, and Brazil’s first Ministry of Health was later formed in 1953. A strong private health care system also developed during this time and continued to expand with the support of the federal government, as did PHC programs. The country transitioned from dictatorship to democracy, and 1985 marked the start of the New Republic. The 1986 8th National Health Conference established the principle that health is “a citizen’s right and the state’s duty.”³¹

The *Sistema Único de Saúde* (SUS) (Unified System of Health) was instituted as part of the constitution in 1988. The system has its origins in the struggle for democracy within the country, and health is defined broadly as encompassing social and political dimensions beyond the scope of traditional medical services.³¹ This development was associated with a movement to provide social protection, social mobilization, and expansion of social rights³² to facilitate “community participation, integration, shared financing among the different levels of government, and complementary participation by the private sector”³³ and to provide free access to services.³⁴ States and municipalities were given taxation authority, and federal guidelines mandated that 10% of this revenue be allocated to health.³⁵

CHW programs have been implemented in Brazil for decades, including the successful *Visitadora Sanitaria* program in which these workers provided immunizations, information, and various other maternal and child health interventions.²⁷ The Community Health Agent (CHA) Program developed as a pilot in Ceará and influenced subsequent primary health care programs.³⁶ The program started in the late 1980s during a drought, after initial pilot projects, including a project that trained 6,000 women in 112 municipalities. The women received two weeks of training to promote breastfeeding, the use of oral rehydration salts, and immunization.³⁵ In 1989, 1,500 of the original 6,000 CHWs were incorporated with a new CHA system, supervised by local nurses. These CHAs provided mostly health promotion and health education services to clearly defined geographic areas near their homes. The program was highly successful and served as a model for subsequent CHA programs.³⁵ It did, however, face formal resistance from nurses for a variety of reasons, including unclear roles and overlap of CHA work with that of auxiliary nurses.³⁷ The first national Community Health Agent Program (CHAP) was developed in 1991 and implemented as a first national PHC effort, later becoming integrated with the *Programa Saúde da Família*.³⁸

The *Programa Saúde da Família* (PSF) (Family Health Program, now called the Family Health Strategy)—was launched in 1994 to expand health care access to the poorest Brazilians.³⁴ CHAs in programs such as the one in Ceará have been integrated with the PSF.³⁵ In 1996 the federal government transferred control of the management and financing of health care services to the states³⁹ and in 2002 CHAs were officially recognized as professionals by Law No. 10.507/2002. CHAs originally provided vertical maternal and child health services, but have evolved into the cornerstone of PHC services.³¹

In the mid-1970s, Bangladesh had started a community-based family planning (FP) program with an initial cadre of family welfare assistants that expanded in the mid-1980s and was complemented by NGO CHWs working in FP. By 1997, Bangladesh had 30,000 female CHWs providing home-based FP services.⁴⁰ This program became what has been widely regarded as one of the world’s most successful FP programs in a developing country not undergoing rapid socio-economic development. In the mid-1980s, BRAC, a national Bangladeshi NGO, initiated a CHW program composed of women who were members of a BRAC micro-credit savings group. Each group had women who obtained special training in an area of personal interest, including various types of income-generating activities or health. The CHWs were called Shasthya Shebikas. This program expanded gradually such that, at present, this national NGO cadre consists of 100,000 CHWs who reach more than 110 million people with comprehensive services.^{14, 40}

Another notable program that emerged in the late 1980s is Nepal’s Female Community Health Volunteer (FCHV) Program, established in 1988. This program arose out of an earlier CHW program that had begun in Nepal following the 1978 Alma-Ata Conference and failed to receive continued funding from the government in the early 1980s. The resurrected program engaged female volunteers, many of whom had been trained under the initial CHW program, but were

abandoned in the earlier 1980s. Initially, their role consisted of FP promotion, first aid, and some dispensing functions. But, beginning in 1993, the government of Nepal progressively introduced twice-annual distribution of vitamin A capsules to children, delivered by FCHVs. Over the following decade, the National Vitamin A Program gradually scaled up to cover the whole country. Over the past decade, these 40,000 FCHVs have taken on expanded responsibilities that include detection and treatment of common childhood diseases (including pneumonia), distribution of oral contraceptives, and promotion of available health services for first aid, antenatal care, FP, and immunization.^{41, 42}

Bangladesh, Brazil, and Nepal are noteworthy because they have had some of the most rapid achievements in reducing under-five mortality in the world since 1990.⁴³ The strong CHW programs in each of these countries have all made vital contributions to this important achievement.

COMMUNITY HEALTH WORKER PROGRAMS THAT HAVE EMERGED SINCE 1990

More recently, multiple countries have begun to invest again in large-scale CHW programs. The Lady Health Worker (LHW) Program in Pakistan was launched in 1992 and has gradually scaled up to serve 70% of the rural population, with around 100,000 workers at present.⁴⁴ (See Box 2.) Uganda introduced its Village Health Team Strategy in 2003.⁴⁴ In 2004, Ethiopia began to train health extension workers (HEWs), who now number more than 30,000.⁴⁴ India initiated a Rural Health Mission in 2005 that involves support for more than 800,000 workers called Accredited Social Health Activists (ASHAs).⁴⁴

Over the past decade, as evidence has continued to accrue on the effectiveness of interventions delivered by CHWs, enthusiasm has grown for a stronger investment in CHW programs as a strategy for accelerating progress to reach the Millennium Development Goals (MDGs) for PHC.

Box 2. The Pakistan CHW Program

Pakistan's formal support for PHC dates back to the country's signing of the 1978 Declaration of Alma-Ata.⁴⁵ In 1993, Pakistan established the Prime Minister's Program for Family Planning and Primary Health Care, which employed CHWs to provide PHC services in their communities. The program subsequently only employed female CHWs. The Lady Health Worker (LHW) Program was developed in 1994.⁴⁶ The goal of the program is to reach rural areas and urban slums with a set of essential PHC services, including promotive, preventive, and curative,⁴⁷ to improve patient-provider interactions, to facilitate timely access to services,⁴⁸ to increase contraceptive uptake, and ultimately to reduce poverty.⁴⁵ In 2000, the program was renamed the National Program for Family Planning and Primary Health Care, but it is still commonly called the Lady Health Worker Program.⁴⁹

The 2003–2011 Strategic Plan set the two goals of improving quality of services and expanding coverage of the LHW Program. Key determinants of LHW provision of high-quality service were described as: selection based on merit; provision of professional knowledge and skills; supply with necessary medicines and other supplies; and adequate remuneration, performance management, and supervision. A management information system was also understood to be essential to assess and encourage high-quality performance and facilitate informed programmatic decision-making.⁵⁰ The 2001–2011 National Health Policy described “investment in the health sector as a cornerstone of the government's poverty reduction plan.”⁴⁷ At present, there are approximately 100,000 LHWs.

The LHW Program has evolved over time, and LHWs' scope of services has grown from its initial

focus on maternal and child health. It now also includes participation in large health campaigns, newborn care, community management of tuberculosis, and health education on HIV/AIDS. There are concerns, though, that the expansion in the LHWs' role and tasks has increased their job-related stress.⁵¹ LHW programs have also been advertised in a series of mass-media campaigns that promote community uptake of and respect for LHW services.⁵²

In spite of growing enthusiasm for expanding CHW programs, as evidenced by a recent high-level call by a global task force to train one million CHWs in Africa,⁵³ it remains the case, as Frankel noted two decades ago,¹³ that our knowledge of the effectiveness of large-scale CHW programs remains limited, and the challenges faced by early large-scale CHW programs appear to still be present.

RENEWED INTEREST AND NEW PROGRAMS IN THE 2000S

A renewed interest in CHW programs has been sparked by a sense of urgency in achieving the MDGs, particularly MDGs 4 and 5 for reducing child and maternal mortality, and from a growing base of evidence on the potential contributions of CHW programs to the health status of populations.⁵³ This revitalized interest also arose from a commitment to (or financial demand for) decentralization of health services and expansion of services to the poorest segments of the population, who were being left behind by economic progress of the better-off segments of the population.

In Africa, the lack of progress in many countries fueled interest among government leaders and donors in either establishing new cadres of CHWs or, as in the case of South Africa, in reactivating a dormant CHW program that had been previously abandoned. Thus, Ethiopia established its Health Extension Worker Program in 2004 (see Box 3), while similar initiatives began in Malawi (see Box 4) and Kenya at around the same time.

Box 3. The HEW Program in Ethiopia

CHWs have an extensive history in Ethiopia dating back to the Alma-Ata Conference. One program during the 1980s civil war employed 3,000 CHWs in Tigray. These workers were selected by their communities to receive training in maternal, child, and environmental health and in malaria diagnosis and treatment. This program was suspended in 1991, at the end of the war, but various CHW programs continued throughout the country.⁵⁴

In 1997–1998, the Ethiopian Federal Ministry of Health launched the National Health Sector Development Program (HSDP). This program shifted the focus of the health system from predominantly curative to more preventive and promotive care and prioritized the needs of the rural inhabitants,⁵⁵ who account for 83% of the Ethiopian population.⁵⁶ A review of the first five years of the HSDP found that challenges remained in achieving universal PHC coverage.⁵⁷ In response to these identified needs, in 2003 the government of Ethiopia launched the Accelerated Expansion of Primary Health Care Coverage and the Health Extension Program (HEP).⁵⁸ Multiple stakeholders, including the Federal Ministries of Health, Education, Labor, Finance, and Capacity Building were involved in development of the HEW model.⁵⁹ The program was designed to expand health service coverage, particularly in rural areas, using locally available human resources. These included community-based human resources such as HEWs, voluntary community health workers (vCHWs)⁵⁸ and Community Health Promoters (CHPs). The first group of HEWs were trained in 2004–2005.⁶⁰ At present, there are 34,000 HEWs working out of 15,000 health posts.

Box 4. The Malawi CHW Program

The current CHW program in Malawi dates back to the 1950s, when Health Surveillance Assistants (HSAs) were recruited and salaried by the MOH to provide immunizations. In the 1960s and 1970s, the HSAs played a prominent role in the smallpox eradication campaign. They were at the frontline for managing cholera epidemics in the 1970s and 1980s and were engaged in environmental health education in the 1990s. With financial support from the Global Fund for HIV, Tuberculosis, and Malaria, in 2008, the government was able to double the size of the HSA workforce to 10,000, so that there would be one HSA for every 1,000 people. Today, they continue to provide health education, promote sanitation and hygiene, and conduct outreach clinics, including immunizations. However, they have, in addition, recently received training in integrated community case management (iCCM) and the diagnosis and treatment at the community level of childhood pneumonia, diarrhea, and malaria.⁶¹

CONCLUSIONS

The effective functioning of large-scale CHW programs offers one of the most important opportunities for improving the health of impoverished populations in low-income countries. This guide presents principles and programmatic suggestions that we hope will be useful as decision-makers and program implementers consider the initiation, expansion, or strengthening of CHW programs in their country.

Acknowledgments

The author thanks Shelly Amieva for helpful support with the literature review for this chapter.

References

1. Terris M. Issues in primary care. False starts and lesser alternatives. *Bull N Y Acad Med* 1977; **53**(1): 129–40.
2. USSR Ministry of Health. *The training and utilization of feldshers in the USSR: a report prepared by the Ministry of Health of the USSR for the World Health Organization*. Geneva: World Health Organization; 1974.
3. Rifkin S. Community Health Workers. In: Kirch W, ed. *Encyclopedia of Public Health*. Berlin: Springer Reference; 2008: 773–81.
4. Taylor-Ide D, Taylor C. *Ding Xian: The First Example of Community-Based Development. Just and Lasting Change: When Communities Own Their Futures*. Baltimore, MD: Johns Hopkins University Press in Association with Future Generations; 2002: 93–101.
5. Kan X. The current situation of the Village Health Worker programmes in China. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 88–101.
6. Sidel VW. The barefoot doctors of the People's Republic of China. *N Engl J Med* 1972; **286**(24): 1,292–300.
7. King M, editor. *Medical care in developing countries*. Oxford, England: Oxford University Press; 1966.
8. Litsios S. The Christian Medical Commission and the development of the World Health Organization's primary health care approach. *Am J Public Health* 2004; **94**(11): 1,884–93.
9. Newell KW, editor. *Health by the People*. Geneva, Switzerland: World Health Organization; 1975.
10. WHO, UNICEF. Declaration of Alma-Ata: International Conference on Primary Health Care. September 6–12, 1978. Available at: http://www.who.int/publications/almaata_declaration_en.pdf (accessed 4 January 2013).
11. Werner D. The village health worker: lackey or liberator? *World Health Forum* 1981; **2**(1): 46–68.
12. Stark R. Lay workers in primary health care: victims in the process of social transformation. *Soc Sci Med* 1985; **20**(3): 269–75.
13. Frankel S. Overview. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 1–61.
14. Standing H, Chowdhury AM. Producing effective knowledge agents in a pluralistic environment: what future for community health workers? *Soc Sci Med* 2008; **66**(10): 2,096–107.
15. Berman P. Community-based health programmes in Indonesia: the challenge of supporting a national expansion. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 63–87.
16. Desai PB. Community health work: India's experience. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 125–55.
17. Sanders D. The state and democratization in PHC: community participation and the village health worker programme in Zimbabwe. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 178–219.

18. Heggenhougen HK, Magari FM. Community Health Workers in Tanzania. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 156–77.
19. Coyle E, Smith GD, Sandiford P. The limits of participation in health: *brigidista* programmes in Nicaragua. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 220–40.
20. Kendall C. The village context of Honduras' VHW programme: 1980-84. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 241–60.
21. Berman PA, Gwatkin DR, Burger SE. Community-based health workers: head start or false start towards health for all? *Soc Sci Med* 1987; **25**(5): 443–59.
22. Walt G. CHWs: are national programmes in crisis? *Health Policy and Planning* 1988; **31**(1): 1–21.
23. Walt G, editor. *Community Health Workers in National Programmes: Just Another Pair of Hands?* Milton Keynes, UK: The Open University Press; 1990.
24. Segall M. District health systems in a neoliberal world: a review of five key policy areas. *Int J Health Plann Manage* 2003; **18 Suppl 1**: S5–26.
25. Hall J, Taylor R. Health for all beyond 2000: the demise of the Alma-Ata Declaration and primary health care in developing countries. *The Medical journal of Australia* 2003; **178**(1): 17–20.
26. Walsh JA, Warren KS. Selective primary health care: an interim strategy for disease control in developing countries. *N Engl J Med* 1979; **301**(18): 967–74.
27. Rice-Marquez N, Baker TD, Fischer C. The Community Health Worker: Forty Years of Experience in an Integrated Primary Rural Health Care System in Brazil. *Journal of Rural Health* 1998; **4**: 87–100.
28. Mayberry AL, Baker TD. Lessons from a Brazilian-U.S. cooperative health program: the servico especial de saude publica. *Public Health Rep* 2011; **126**(2): 276–82.
29. Cufino Svitone E, Garfield R, Vasconcelos MI, Araujo Craveiro V. Primary health care lessons from the northeast of Brazil: the Agentes de Saude Program. *Rev Panam Salud Publica* 2000; **7**(5): 293–302.
30. Paim J, Travassos C, Almeida C, Bahia L, Macinko J. The Brazilian health system: history, advances, and challenges. *Lancet* 2011; **377**(9,779): 1,778–97.
31. Starfield B. *Primary Care: Concept, Evaluation, and Policy*. New York: Oxford University Press; 1992.
32. Fleury S. Brazil's health-care reform: social movements and civil society. *Lancet* 2011; **377**(9,779): 1,724–5.
33. Macinko J, Guanais FC, de Fatima M, de Souza M. Evaluation of the impact of the Family Health Program on infant mortality in Brazil, 1990–2002. *Journal of epidemiology and community health* 2006; **60**(1): 13–9.
34. Victora CG, Aquino EM, do Carmo Leal M, Monteiro CA, Barros FC, Szwarcwald CL. Maternal and child health in Brazil: progress and challenges. *Lancet* 2011; **377**(9,780): 1,863–76.
35. Svitone EC, Garfield R, Vasconcelos MI, Craveiro VA. Primary health care lessons from the Northeast of Brazil: the Agentes de Saúde Program. *Rev Panam Salud Publica* 2000; **7**(5): 293–302.

36. Macinko J, Marinho de Souza Mde F, Guanais FC, da Silva Simoes CC. Going to scale with community-based primary care: an analysis of the family health program and infant mortality in Brazil, 1999–2004. *Soc Sci Med* 2007; **65**(10): 2070–80.
37. Zanchetta MS, McCrae Vander Voet S, Galhego-Garcia W, et al. Effectiveness of community health agents' actions in situations of social vulnerability. *Health Educ Res* 2009; **24**(2): 330–42.
38. Kluthcovsky AC, Takayanagui AM. Community health agent: a literature review. *Revista latino-americana de enfermagem* 2006; **14**(6): 957–63.
39. Jurberg C, Humphreys G. Brazil's march towards universal coverage. *Bull World Health Organ* 2010; **88**(9): 646–7.
40. Perry H. *Health for All in Bangladesh: Lessons in Primary Health Care for the Twenty-First Century*. Dhaka, Bangladesh: University Press Ltd; 2000.
41. Gottlieb J. Reducing child mortality with vitamin A in Nepal. In: Levine R, ed. *Case Studies in Global Health: Millions Saved*. Washington, D.C.: Center for Global Development; 2007: 25–31.
42. Thapa S, Choe MK, Retherford RD. Effects of vitamin A supplementation on child mortality: evidence from Nepal's 2001 Demographic and Health Survey. *Trop Med Int Health* 2005; **10**(8): 782–9.
43. Rohde J, Cousens S, Chopra M, et al. 30 years after Alma-Ata: has primary health care worked in countries? *Lancet* 2008; **372**(9,642): 950–61.
44. Bhutta ZA, Lassi ZS, Pariyo G, Huicho L. *Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendation for Integration into National Health Systems*. Geneva: World Health Organization and the Global Health Workforce Alliance; 2010. Available at: http://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf
45. Hafeez A, Mohamud BK, Shiekh MR, Shah SA, Jooma R. Lady health workers programme in Pakistan: challenges, achievements and the way forward. *JPMA The Journal of the Pakistan Medical Association* 2011; **61**(3): 210–5.
46. Oxford Policy Management. *Lady Health Worker Programme: Fourth External Evaluation for the National Programme for Family Planning and Primary Health Care- Quantitative Survey Report*, 2009. Available at: <http://www.opml.co.uk/projects/lady-health-worker-programme-third-party-evaluation-performance>.
47. Global Health Workforce Alliance Task Force and WHO. *Pakistan's Lady Health Worker Programme*. World Health Organization and Global Health Workforce Alliance; 2008.
48. Jalal S. The lady health worker program in Pakistan—a commentary. *European journal of public health* 2011; **21**(2): 143–4.
49. Bhutta ZA, Lassi ZS, Pariyo GW, Huicho L. *Global Experience of Community Health Workers for Delivery of Health-Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems*. In: WHO and Global Health Workforce Alliance, editor. Geneva; 2010.
50. Oxford Policy Management. *Lady Health Worker Programme: External Evaluation of the National Programme for Family Planning and Primary Health Care – Systems Review*, 2009. Available at: <http://www.opml.co.uk/projects/lady-health-worker-programme-third-party-evaluation-performance>.
51. Haq Z, Iqbal Z, Rahman A. Job stress among community health workers: a multi-method study from Pakistan. *International journal of mental health systems* 2008; **2**(1): 15.

52. Haq Z, Hafeez A. Knowledge and communication needs assessment of community health workers in a developing country: a qualitative study. *Human resources for health* 2009; **7**: 59.
53. Earth Institute. *One Million Community Health Workers: Task Force Report*. New York: Columbia University; 2011.
54. Ghebreyesus TA, Alemayehu T, Bosman A, Witten KH, Teklehaimanot A. Community participation in malaria control in Tigray region Ethiopia. *Acta Trop* 1996; **61**(2): 145–56.
55. Health Extension and Education Center. Health Extension Program in Ethiopia. In: Federal Ministry of Health, editor; 2007. Available at: <http://www.moh.gov.et/english/Resources/Documents/HEW%20profile%20Final%2008%2007.pdf>.
56. World Health Organization. *Ethiopia: Health Profile*. 2012. Available at: <http://www.who.int/gho/countries/eth.pdf>.
57. Gopinathan U, Lewin S, Glenton C. *An analysis of large-scale programmes for scaling up human resources for health in low- and middle-income countries*. 2012
58. Dynes M, Buffington ST, Carpenter M, et al. Strengthening maternal and newborn health in rural Ethiopia: Early results from frontline health worker community maternal and newborn health training. *Midwifery*; 2012.
59. Celletti F, Wright A, Palen J et al. Can the deployment of community health workers for the delivery of HIV services represent an effective and sustainable response to health workforce shortages? Results of a multicountry study. *AIDS* 2010; **24 Suppl 1**: S45–57.
60. Banteyerga H. Ethiopia's Health Extension Program: Improving Health through Community Involvement. *MEDICC Review* 2011; **13**(3).
61. Nsona H, Mtimuni A, Daelmans B, et al. Scaling up integrated community case management of childhood illness: update from Malawi. *Am J Trop Med Hyg* 2012; **87**(5 Suppl): 54–60.

National Planning for Community Health Worker Programs

Jessica Gergen, Lauren Crigler, and Henry Perry

22 August 2013

Key Points

- The planning process defines many of the other topics in this manual (e.g., supervision, training, roles and responsibilities of community health workers [CHWs]) using an informed and methodical process.
- The most effective planning mechanism is a feedback loop, where community-level information is fed through the multiple sub-levels (e.g., district, regional) to the national level, where policy, funding, and evaluation can be continually revised.
- Careful planning during the design and implementation of a national CHW program results in a context-appropriate program that successfully trains, supervises, and retains CHWs, while simultaneously improving the health service delivery on the community level.

INTRODUCTION

Expansion or development of a community health worker (CHW) program on a national level requires a planning strategy that coordinates many of the topics covered in the other chapters, such as supervision, training, and community relations. Further, incorporating or expanding use of CHWs into existing health system infrastructures—which are often complex and operate differently across countries—is a difficult task that requires careful planning. Planning for such an expansion demands the involvement of multiple stakeholders from the national to the village level. The direct result of careful planning during the design and implementation of a national CHW program is a context-appropriate program that successfully trains, supervises, and retains CHWs, while simultaneously improving the health service delivery in the community level.

PHASES OF THE COMMUNITY HEALTH WORKER PROGRAM PLANNING PROCESS

A national-level plan should coordinate planning committees and stakeholders from multiple governmental and community levels, as well as nongovernmental organizations (NGOs) and relevant implementing actors, to create an informed strategic plan for the CHW program that includes:

- A situational analysis
- An operational model
- Integration of the program with policy
- CHW training
- CHW supervision
- A deployment strategy
- Routine and systematic monitoring and evaluation (M&E)

Clear and carefully chosen strategies across each of these areas, taking into account their inter-relationships, contribute to the success and sustainability of the program at scale. The group charged with planning and developing this effort must give careful attention to ensure that the program will continue to be adequately supported by the multiple levels of government involved, national level down to community level, and that this support includes appropriate provision for long-term financial sustainability (see Chapter 5 for more detail on financing). Table 1 summarizes the key considerations for planning CHW-delivered services, phase by phase. These key steps were informed by the One Million Health Workers document and developed using best practices shared across international organizations and national governments.¹

Table 1. Phases of planning a CHW program*

PHASE 1	POLICY-LEVEL PLANNING	
	Situational analysis	Documents the current state of the local health system, informing planners on the overlap or differing needs of communities.
	Development of an operational model	Provides a framework illustrating how all of the working parts of the health system are expected to function.
	Coordinated planning	Decision-makers meet with stakeholders to determine timeline, indicators, objectives, evaluation tools and internal communication strategy, and to establish regular planning meetings.

	Policy planning and formalization	Decision-makers communicate a draft of these policies to all stakeholders and then, once feedback has been obtained, formalize the policies.
PHASE 2	TRANSLATION OF POLICIES INTO A PLAN	
	Development of the key ideas for the program	Planners translate the CHW program policies into an operational national-level plan.
PHASE 3	PREPARATION OF A DETAILED IMPLEMENTATION PLAN	
	Development of details for the specific sub-systems of the program	Program implementers develop detailed plans for governance/management, selection, training, supervision, engagement with communities, relationship with the health system, scaling up, and monitoring and evaluation (covered in other chapters).
*Adapted from: ¹		

CHW cadres should be selected, trained, and deployed in accordance with local norms and context-specific constraints in mind. This chapter helps to define clear processes to develop and implement a national plan for community health services. Such a plan must be responsive to local norms, context-specific constraints, and the results of the situational analysis, and the planning process needs to be a continuous, ongoing process. BRAC's Shasthya Shebika CHW Program (Box 1) provides an example of a stable and sustainable national CHW program.

In this chapter, we provide suggestions for how a country might plan a large-scale community health services program. What we propose here is a rather top-down approach, quite different from the BRAC example from Bangladesh. But linking top-down strategies with frequent interactions at the grassroots level is certainly an option to be considered. Our intention is not to prescribe a unilateral way of planning, but to provide a useful starting point for developing an appropriate planning process.

Box 1. A sustainable large-scale CHW program in Bangladesh^{2,3}

BRAC (formerly the Bangladesh Rural Advancement Committee and now sometimes known as Building Resources Across Communities) has recently become the largest NGO in the world. Throughout Bangladesh, BRAC has trained and actively supports 100,000 CHWs known as Shasthya Shebikas.

Key Features: This is a public-private partnership successfully deploying a sustainable CHW program at scale without financial support from the government. Over the past two decades, BRAC has scaled up its Shasthya Shebika Program using a sustainable, local financing model whereby Shasthya Shebikas earn a modest income by selling medicines and commodities at a competitive market price through a highly efficient supply system managed by BRAC. Shasthya Shebikas are responsible for 150–250 households that they visit on a regular basis (every 1–2 months). They provide general health education and promotion about nutrition, family planning (FP), immunizations, and other priority topics. They treat common diseases, such as fever, cold, scabies, and diarrhea. They also provide community case management for childhood pneumonia and collect sputum specimens for patients with chronic cough and; for those diagnosed with tuberculosis, they dispense directly observed therapy for them. Notably, there are no literacy requirements for Shasthya Shebikas.

Shasthya Shebikas are supervised by Shasthya Kormis, who are also recruited from their communities. Shasthya Kormis are paid a sum equivalent to about US\$40 per month to supervise the Shasthya Shebikas and perform antenatal care in villages. The Shasthya Kormis, all of whom are women, have a minimum of 10 years of schooling and work between four and five hours per

day. They accompany each of the Shasthya Shebikas in their charge on community visits at least twice per month and meet monthly with their group of Shasthya Shebikas to discuss problems, gather information, and provide supplies and medicines.

Shasthya Shebikas earn an income by selling supplies, such as oral contraceptives, birthing kits, iodized salt, condoms, essential medications, sanitary napkins, and vegetable seeds, at cost plus a small profit margin. They receive incentives for good performance that are based on achieving specific objectives during that month, such as identifying pregnant women during their first trimester. Supervisors verify and monitor performance during their visits to communities, where they have the chance to talk with village women.

The development of Shasthya Shebikas Program is an example of a planning process that was deliberate but slow and organic. There was no preconceived national blueprint that was scaled up rapidly. Rather, a viable role was established for these CHWs, appropriate for the Bangladesh context, and a way was found to provide sufficient locally generated financing to motivate these women to carry out their responsibilities. Then, as BRAC was able to provide appropriate training and supervision, the program began to grow over the following two decades.

BRAC is one of the most business-like NGOs in the world, because the profits generated by their various social enterprises are fed back to support program operations—making BRAC nearly 80% self-funded.

PHASE ONE: POLICY-LEVEL PLANNING

Situational Analysis

To ensure effectiveness when designing community health services, it is necessary to begin with a clear understanding of the local environment. A situational analysis can both identify context-specific needs and challenges and guide design decisions about key program elements. To ensure meeting the needs of a diverse population, a national program may use a variety of implementation strategies depending on the local situation. In BRAC's case, it was already operating community development programs and had a "built-in" situational analysis based on its own programmatic experience, since it had been functioning for a decade before beginning to plan and scale up its CHW program.

A situational analysis also documents the current state of the health system and may include information on health services offered by the formal and informal sectors, care-seeking behaviors by priority groups such as women and young children, supply chain management, utilization and coverage of care provided by the health system, and human resources challenges.

Sources of information for a situational analysis can include:

- A review of the peer-reviewed and gray literature (e.g., programmatic publications and reports) and NGO projects
- Documentation from meetings with stakeholders (i.e., local leaders, women's groups, church leaders, representatives of the Ministry of Health [MOH], local NGOs, etc.)
- Documentation from visits to local communities by small teams to gain a better understanding of the environment, the social and economic context, and the needs expressed by the people living there

- Identification of gaps and existing assets on which to build (e.g., collaborating with current NGO programs, using existing human resources in the health and non-health sectors, and engaging with the existing health system infrastructure)
- Formative research on issues that the program is to address and on the communities the program is meant to serve

To expand on the third point listed above, some countries have diverse geographic and socio-cultural populations. Oftentimes, a situational analysis needs to be completed at the provincial or regional levels, as well as on a national level. A good example is India, where rural people, lower-caste people, religious minorities, tribal ethnic groups, women, and the poor in particular suffer gross health inequalities and lack access to good-quality care because of social, geographic, and economic barriers.⁴⁻⁶ This is one reason why it is important that district and regional authorities play a strong role in the planning and design processes. Regional and district leadership involvement in the planning is just the beginning, since their participation is needed across all the areas discussed in this manual—supervision, training, support, supplies, and incentives.

Specific questions to address in the situational analysis include:

- What are the main health problems and who experiences them? Which of these persons can be identified and referred or directly managed by the types of CHWs you expect to deploy? What are the direct, indirect, and underlying causes of these health problems? (This latter question will help frame the operational model as well.)
- Are there specific subgroup(s) of the population that will be a particular focus for the type(s) of CHWs deployed? Who are those most affected by the priority health problems? Who will be the easiest to reach and who will be the hardest? What strategies will be used to reach them?

Development of an Operational Model of the Current Health System

An operational model, as we use the term here, is a representation of how the current health system operates. Development of an operational model provides an opportunity to visualize how the health system functions, including service provision, human resources, technology and information management systems, and the supply and distribution of commodities. Specifically, using an operational model to map the dynamics of the current health system helps those involved in planning to characterize where further development of community health services fits into the broader health system. For example, if a health system currently has only one clinic for every 10,000 people that offers voluntary HIV counseling and testing (VCT) along with anti-retroviral drug treatment for patients with HIV/AIDS, then an outreach program may need CHWs to provide VCT services and help ensure follow-up appointments for patients who test positive. Further, an operational model can be used to define CHW roles in order to address identified gaps in the local health care system, such as defining who CHWs are, what they do, how they get their supplies, how the system intends to retain them, and what training and supervision will be required.

During the design or scale-up of new community health services, CHW interaction with providers of the health system and their potential impact on the health system itself must also be carefully considered and planned. To aid this endeavor, the World Health Organization (WHO) has produced useful tools for examining the interaction and impact of CHWs on the formal health system, including the WHO Health Systems Building Block Framework, which highlights the inter-relationships of the six major components of a health system (i.e., service delivery, human health workforce, health information system, access to commodities, financing, and governance) and offers a conceptual model of how CHWs may interact with the health system.⁷ Additionally, WHO has developed monitoring tools and indicators to assess these

health system building blocks. These tools can be used to examine the impact of CHWs on the health system. Using these measurement strategies to track progress of health system indicators ensures that continued improvement in health care and accountability at country and global levels is sustained. (See Chapter X on monitoring and evaluation).

Coordination of Planning

National-scale implementation of community health services has implications for health care governance from the MOH down to village leaders. Before any implementation of program development or expansion, determining how the multiple levels of government will communicate and interact during the planning, funding, and implementation stages will ease the tensions and challenges that often accompany systematic program scale-up (See Chapter X on scale-up, for a more detailed description of these challenges). The level of coordination will depend on the country, the current degree of decentralization, and what responsibilities have been delegated. However, many countries have not succeeded in decentralizing health care, and in these cases, the mechanisms that exist to support health programs at the local and regional levels should be utilized. Depending on the situation, it may be appropriate to consider, and, if necessary, incorporate NGOs and/or the private sector as part of a national CHW program. Regardless of who will be included in the planning process, coordinated communication is key. For example, in Zambia where multiple NGOs cover the country, it may not be possible for the government to take that over all at once, so coordination with and among the NGOs is an important first step.

Health system planning and ongoing monitoring of performance must begin at the community level and provide feedback through various levels to the national level, where policy, funding, and evaluation can be periodically revised. The most effective planning mechanism is a feedback loop, where the community level feeds back information about their program through the multiple levels (e.g., district, regional) to the national level. Additionally, each level should have a defined set of responsibilities during each stage of program development (i.e., planning, implementation, activity coordination, resource security and dispersion, continual monitoring, and program improvements). The establishment of responsible bodies at each level, with oversight from central level, helps to ensure clear roles and responsibilities are determined through the process of conducting the situational analysis and building the operational model (two stages of Phase 1).

National-Level Roles and Responsibilities

A planning body at the national level should be established, and this body may comprise high-level leaders, such as members of the relevant government ministries and departments, as well as leaders of NGOs and private partners. The national-level planning body is responsible for providing leadership for the development of community health services. Support and engagement from the finance ministry, national planning commissions, and other sector leaders are useful, if not essential, since the MOH in many countries may not have sufficient political influence on decisions involving significant commitment of new resources. A national committee can provide high-level leadership, make decisions on resource allocation, oversee the development of implementation guidance, monitor implementation, oversee national monitoring and evaluation (M&E), and adapt the program based on M&E findings.

Some questions to consider when forming the CHW national-level planning committee are:

- What national governing bodies need to be on the committee?
- Who are the high-level leaders and advocates for CHW programming?
- How often does the committee need to meet?

- What specific planning documents will be needed, and when will they be needed in order to guide the regional- and district-level planning committees?
- How and how often will the national and sub-national committees communicate?
- How will the national-level committee document its meetings and share this information with sub-committees?
- What policy changes are needed to support or integrate a CHW program with the national health sector policy?
- How will data from the district and regional levels be collected and managed?
- How will the M&E data be used to revise the program? How will this data be shared?

Regional-Level Roles and Responsibilities

Regional leaders may include regional or district supervisors, program implementers, NGO managers, and private sector representatives. Their responsibilities may include planning for the engagement and coordination of key partners in training and for the oversight of supervision activities and the supply chain.

District-Level Roles and Responsibilities

District health committees, when they are present, can help coordination among health facilities, CHW program supervisors, and local NGO partners within the district. District- and municipal-level stakeholders, health care providers and their professional organizations, local NGO leaders, and community-led groups are examples of district-level actors who can be involved in developing and overseeing community health services. Potential responsibilities of a district-level planning committee include ensuring supervisor support and evaluation, overseeing the supply chain, and supporting CHWs from facility-based providers and communities. Relevant questions for district committees include: Are there particular sub-group(s) of the population who will be a particular focus for the type(s) of CHWs deployed? Who are those most affected by the priority health problems? Who will be the easiest to reach and who will be the hardest? What strategies will be used to reach them?

Health Center Roles and Responsibilities

Further development or expansion of community health services, if not adequately planned and resourced, can over-burden an already over-stretched health facility staff due to new supervisory and mentoring responsibilities and additional paperwork, meetings, and field visits. (See Chapter X on relationship with health systems.) Therefore, effectiveness of any new services will depend, in part, on appropriately engaging health facility staff early in the planning process. As part of the situational analysis, the typical functional state and human resources capacity of health facilities that are expected to be involved in the provision of community health services will be documented. This documentation will help planners determine what additional resources are needed to ensure that health facility staff can take on the functions associated with these new community health services.

The capacity of facility-based staff to take on new supervisory or support roles for community-based cadres will vary by setting. Brazil has mandated that community health agents (CHAs) be supervised by nurses and physicians from the local clinics. In many settings in Brazil, nurses have half of their work time reserved to serve as CHA supervisors. In Ethiopia, by contrast, the supervision of health extension workers (HEWs) falls to a designated supervisory team comprised of a health officer, a public health nurse, an environmental/hygiene specialist, and a health education specialist.⁸

Community-Level Roles and Responsibilities

A community-based health committee can assume a planning function as well. It may include members from village-level government (e.g., a village development committee), traditional or other local leaders, and representatives from other committees concerned with community development. These committees potentially have the ability to take certain responsibilities for CHW oversight. (See Chapter X on community participation.) They can coordinate with the CHW's supervisor, assist the CHW in mobilizing the community, and generate support for CHWs by advocating their importance for the community's improved health. A strong community commitment helps ensure more effective community health services and can mitigate stress points on the system. Planning for this from the outset is important.

PHASE TWO: TRANSLATION OF POLICIES INTO A GENERAL PLAN

The principle ideas that emerge from the planning process need to be converted into CHW program policies, and these, in turn, need to be translated into an operational national-level plan. In response to political pressures, political leaders often promise to devote resources and enact legislation that will improve coverage, access, and service provision within their country's health system. Yet, too often these promises are inadequately funded, lack proper legislative authorization, and are not integrated with the existing health system. For example, national and regional initiatives and goals are adopted and supported by political figures throughout sub-Saharan Africa, to end preventable maternal and child death by 2030. A critical component of ending preventable maternal and child death is to deliver health services at the household level and ensure referral networks begin at the household. CHWs could aid in achieving this goal. However, without proper legislation to define the role of CHWs within the health system and adequate financing to support this cadre of workers, such a system cannot be developed.

PHASE THREE: PREPARATION OF A DETAILED IMPLEMENTATION PLAN

Once an operational national plan has been created, the next step is to prepare a detailed implementation plan. Among other things, this preparation requires development of details for the specific sub-systems of the program, including governance, financing, selection and recruitment, training, supervision, engagement with communities, relationship with the health system, scaling up, and M&E. These implementation components are covered in detail in other chapters. Here, we will briefly focus on planning for training and deployment, supervision, and M&E. (See Chapters XX, XX, and XX for further discussion on these and other issues.)

Training and Deployment

The information collected by the situational analysis, the operational model developed, and the analysis arising from formative research will inform the design of new community health services. Specifically, this information can help direct decisions about selection criteria for CHWs and their training needs. Further, information arising from the situational analysis on spatial distribution of facility-based services can inform the deployment strategy of CHWs.

Supervision, Monitoring, and Evaluation

Countries vary considerably in their approaches to supervision. For instance in Brazil, as previously mentioned, national policy mandates that nurses who are selected to supervise CHAs spend 50% of their paid time providing clinical care and the other 50% of time fulfilling their role as supervisors of CHAs. However, this approach would not be appropriate in places where there are massive human resources shortages, such as Sierra Leone, where there are only 1.9 health care providers per 10,000 people. In many instances, clinics have only one or two providers and are bombarded with lines of clients starting at sunrise. Planning for supervision has to take into account the capacity of existing staff to take on additional time-consuming responsibilities. For instance, if a program requires that supervisors accompany and evaluate

all CHW work at the household level at least quarterly, fill out reports on CHW commodity use, manage their supply of commodities, and ensure that CHWs have a proper monthly work plan, then the supervisors must have sufficient time for these duties. Inadequate planning for the time and human resources required for CHW supervision has been a common contributor to failed CHW programs.

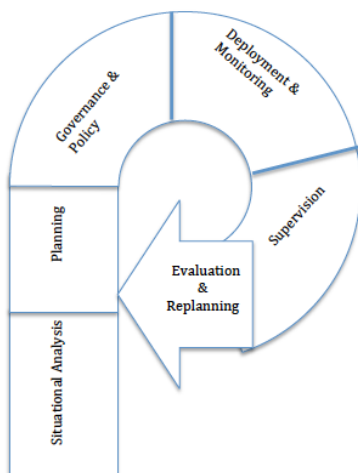
Ultimately, adequate ongoing monitoring is necessary for sound community health services. M&E is an integral part of any CHW program, particularly since services provided are far away with limited personal contact among CHWs and other members of the health team. As such, M&E tools and mechanisms for their use for feedback into modifying program operations are important when developing a detailed implementation plan.

Data Use for Continuous Improvement

Developing an initial plan based on these three phases is just the beginning of national CHW program planning. As a program is implemented, scaled up, or modified, an ongoing re-planning process is required. Based on M&E feedback, certain program components may be working very well, while others may not be functioning as intended. To know what is actually occurring requires adequate tracking of intervention coverage and its impact/effectiveness (e.g., whether the CHWs are actually functioning, whether the supply chain is working, and so forth). Based on information from a variety of sources (e.g., routine monitoring, field visits, special studies), almost invariably certain aspects of program performance will not meet expected standards. Based on such findings, re-design of some program features may be needed to address performance problems.

In short, planning is an iterative process that requires many revisions, improvements, and modifications in order to have an effective CHW program that responds to local needs and that improves the health of the population (Figure 1). Regardless of whether a CHW program is new or old, re-planning of program components must happen on a continual basis and be informed by evidence arising from monitoring, evaluation, and current recommendations from the global health community. Re-planning at least once every 10 years and preferably every five years would seem reasonable. Table 2 contains some of the key components of selected CHW programs that might be useful as one thinks about the content of a plan for a large-scale CHW program.

Figure 1. The P-Process of CHW program planning



Adapted from the *Health Communication*, Plotrow et al. Praeger, 1997, page 27; and Health Communication Partnership (December 2003), *The New P-Process: Steps in Strategic Communication* [PDF]. Baltimore: Johns Hopkins Bloomberg School of Public Health / Center for Communication Programs / Health Communication Partnership.

Table 2. Examples of key components of selected CHW programs

BRAZIL ⁹⁻¹¹	POLICY
	<ul style="list-style-type: none"> ▪ The <i>Programa Saúde da Família</i> (Family Health Program) was launched in 1994. ▪ CHAs were officially recognized by law in 2002.
	MANAGEMENT
	<ul style="list-style-type: none"> ▪ CHAs are managed by local nurses who spend half their time working in the local clinic and the other half fulfilling their supervisory role. ▪ The CHAs have a strong referral system in which they report any ill person within their catchment. ▪ Upon discharge, the CHA is expected to maintain the continuum of care and follow up with the patient.
	COMMUNITY INVOLVEMENT
PAKISTAN ^{12, 13}	POLICY
	<ul style="list-style-type: none"> ▪ In 1993, Pakistan established the Program for Family Planning and Primary Health Care, which employed only female CHWs to deliver health services to communities and was informally called the Lady Health Worker (LHW) Program. ▪ In 2003–2011, the strategic plan set the two goals of improving quality of services and expanding coverage nationwide.
	MANAGEMENT
	<ul style="list-style-type: none"> ▪ Supervision is highly organized and tiered, with several levels of supervision (i.e., supervision of the supervisors). ▪ LHWs are supervised monthly by the LHW supervisors, who are in turn supervised by the District Coordinator and Assistant Coordinator. ▪ Once a month, LHW supervisors should meet with LHWs' clients and make a work plan for the next month.
	COMMUNITY INVOLVEMENT
QUALITY ASSURANCE	<ul style="list-style-type: none"> ▪ One of the goals of the Family Health Program is to “promote the organization of the community” and analyze community needs. ▪ Some communities are involved in the organization and budget of health system. At times, the public is able to vote on the proportion of the overall budget devoted to health.
	<ul style="list-style-type: none"> ▪ Data is collected by CHAs, which provides municipal-level data on implementation. ▪ CHAs in the program keep records that allow for population-based monitoring of local health conditions and help to identify problems as they arise. ▪ CHAs' role in the community is expected to increase the accountability of the health system.
	<ul style="list-style-type: none"> ▪ For the LHW Program, high-quality service is described as: selection based on merit; provision of professional knowledge and skills to the LHW; supply with necessary medicines and other supplies; and adequate remuneration, performance management, and supervision. ▪ A management information system is also essential to assess and encourage quality performance and facilitate informed programmatic decision-making.

ETHIOPIA⁸	POLICY
	<ul style="list-style-type: none"> In response to unmet needs, the government of Ethiopia launched the expansion of primary health care (PHC) and the Health Extension Program (HEP), targeted at rural areas, which included community-based HEWs, vCHWs, and health promoters.
	MANAGEMENT
	<ul style="list-style-type: none"> There are multiple levels of HEW supervision, including the <i>woreda</i> (district) supervisory team, comprising: a health officer, public health nurse, hygiene expert, and a health education expert. In 2005, HEWs reported an average of three supervisory visits over the course of nine months. HEWs supervise a lower cadre of vCHWs.
	COMMUNITY INVOLVEMENT
	<ul style="list-style-type: none"> There are active health committees involved in the selection and oversight of HEWs. The committee is supposed to be involved in every step of the HEP from program planning through to evaluation.
NEPAL^{14, 15}	POLICY
	<ul style="list-style-type: none"> The first Nepal Health Sector Program (NHSP) was developed for implementation from 2004-2009 to increase equality of access and to improve health outcomes. A second NHSP from 2010–2015 aims to increase access/utilization of high-quality services, and reduce cultural and economic barriers to accessing care.
	MANAGEMENT
	<ul style="list-style-type: none"> Voluntary health workers (VHWs) and maternal and child health workers (MCHWs) supervise the female community Health volunteers (FCHVs) in their catchment areas. They are responsible for providing support, advice, and feedback during monthly supervision visits. FCHVs meet with village groups every four months to review progress.
	COMMUNITY INVOLVEMENT
	<ul style="list-style-type: none"> Women’s groups and local Village Development Committees (VDCs) are highly involved in the selection and oversight of FCHVs. A national evaluation demonstrated that mothers groups’ functioning improved and they were more supportive of FCHVs.
QUALITY INSURANCE	<ul style="list-style-type: none"> A recent qualitative study highlighted the need for “context-specific incentives” for FCHVs. Despite serving as volunteers, attrition rates in the program are very low with less than 5% turnover each year. Data, particularly program evaluations and research in the field, are highly influential in programmatic policy development and implementation.

INDIA ^{4, 16}	POLICY
	<ul style="list-style-type: none"> In early 2000, the government of India developed the National Rural Health Mission (NRHM) to improve rural PHC, accountability and community engagement in the public health sector, including a provision for a national CHW cadre that focused on FP and maternal and child health. In 2005, the NRHM launch an Accredited Social Health Activist (ASHA) program.
	MANAGEMENT
	<ul style="list-style-type: none"> According to national guidelines, there is one ASHA facilitator (supervisor) for every 20 ASHA workers. The facilitator is to help with the selection of the ASHAs, run monthly ASHA meetings, establish a grievance re-dressal system, accompany ASHAs on home visits, maintain records of ASHA activities, attend Village Health and Nutrition Days with the ASHAs, and attend monthly block PHC meetings. The ASHA facilitator is supervised at the block-level by the Block Community Mobilizer, who is in turn supervised by the District Mobilization/Coordination Unit, which liaises with the state-level ASHA resource center.
	COMMUNITY INVOLVEMENT
<ul style="list-style-type: none"> ASHAs are to be selected by and accountable to the local village-level government, called the Gram Panchayat, through a participatory process involving the whole village. After selection, ASHAs are to work closely with the Village Health and Sanitation Committee (VHSC), comprising key stakeholders in the village including the ASHA workers, Anganwadi Workers, and self-help group members (women's groups). 	
IRAN ¹⁷	QUALITY INSURANCE
	<ul style="list-style-type: none"> Several states have introduced ASHA motivation and recognition initiatives, such as cash awards for the best performing ASHAs, newsletter and radio programs, bicycles for all ASHAs, and career development opportunities through scholarships to study nursing. The main source of performance monitoring data is generated by the ASHA facilitator based on monthly meetings with the 20 ASHAs she or he oversees. The ASHA facilitator is responsible for developing health reports on ASHA functionality, as well as consolidating information about pregnancies, births, deliveries, newborn care, and deaths.
	POLICY
	<ul style="list-style-type: none"> Shortly after 1978, the West Azerbaijan project, developed in one province, aimed to expand health services through the establishment of a comprehensive health delivery system and training of CHWs (<i>Behvarzs</i>). In other parts of Iran, the use of CHWs expanded to deliver services beyond maternal and child health to include care for the elders and management of non-communicable diseases.
	MANAGEMENT
<ul style="list-style-type: none"> Regular supervisory visits to Health Houses, where CHWs are based, are planned and performed by staff members at rural health centers and by provincial and national teams to evaluate program effectiveness and to increase the quality of care. A unique practice for CHWs in Iran is the "<i>behvarz</i> council," established in 2006, with the aim of engaging <i>Behvarzes</i> in problem identification, problem-solving, knowledge transfer, and policymaking. 	
COMMUNITY INVOLVEMENT	
<ul style="list-style-type: none"> Promotion of community participation and other social sectors in health programs is part of the role of <i>Behvarzs</i>. <i>Behvarz</i> council meetings are held on a regular basis to discuss a broad range of issues concerning the <i>Behvarzs</i>' work, work-related problems, and recommendations to overcome any problems. Meeting minutes and the final report are submitted to the higher-level council for further follow-up. <i>Behvarzs</i>' representatives are responsible for transferring ideas and solutions to other team members and to follow up issues raised in the meeting. 	

	QUALITY ASSURANCE
	<ul style="list-style-type: none"> ▪ Provincial and national teams use checklists to assess data recording, <i>Behvarz</i>'s knowledge, drug supplies and equipment, review of work-related problems, and suggestions from each <i>Behvarz</i>.

CONCLUSION

Although health systems are varied and complex, careful planning during the design and early implementation of a national-level CHW program is essential for a context-appropriate program that successfully trains, supervises, and retains CHWs, while simultaneously improving the health service delivery on the community level. The methodology of planning a program at scale is somewhat flexible, but each of the phases outlined in this chapter should be included to ensure that the program design and implementation is both feasible and appropriate. Phase One includes a situational analysis, operational model, coordinated planning effort, and supportive policy changes. Phases Two and Three are processes meant to ensure that the implementation steps are carefully planned and that information is continually fed back about how well the program is being implemented and how it can be improved. Re-planning a program should happen periodically—at least every 10 years—and be informed by evidence arising from monitoring, evaluation, and recommendations from those engaged in program implementation. Policy-makers and program planners should note that the biggest challenge in planning a national CHW program is the capacity of each level to adequately complete the tasks assigned.

Key resources

GUIDES TO FORMATIVE RESEARCH

Fisher AA, Foreit JR. 2002. *Designing HIV/AIDS Intervention Studies: An Operations Research Handbook*.

Piwoz EG. 2004. *What are the options? Using formative research to adapt global recommendations on HIV and infant feeding to the local context*. Department of Child and Adolescent Health and Development; WHO, Geneva.

GUIDES TO USING THE FINDINGS FROM FORMATIVE RESEARCH TO INFORM PROJECT DESIGN

Ellis AA, Winch P, Daou Z, Gilroy KE, Swedberg E. 2007. Home management of childhood diarrhoea in southern Mali—implications for the introduction of zinc treatment. *Social Science & Medicine*; **64**(3):701–712.

Gabrysch S et al. 2009. Cultural adaptation of birthing services in rural Ayacucho, Peru. *Bulletin of the World Health Organization*; **87**(9):724–729.

EXPERIENCES FROM THE FIELD IN CONDUCTING SITUATIONAL ANALYSIS

Ministry of Healthcare and Nutrition, Sri Lanka. 2009. Human Resources for Health Strategic Plan. Situational Analysis.

Taylor H. 2009. *Situation Analysis: Village Health Teams in Uganda 2009*. Ministry of Health, Uganda.

References

1. CHW Task Force. 2011. *One Million Community Health Workers: Technical Task Force Report*. The Earth Institute at Columbia University. New York City, New York. http://www.millenniumvillages.org/uploads/ReportPaper/1mCHW_TechnicalTaskForceReport.pdf
2. 2010. BRAC in business: Fazle Hasan Abed has built one of the world's most commercially minded and successful NGOs. *The Economist*. <http://www.economist.com/node/15546464> (accessed 15 August 2013).
3. Ahmed SM. 2008. Taking healthcare where the community is: the story of the Shasthya Sebikas of BRAC in Bangladesh. *BRAC University Journal*; **V**(1): 39–45.
4. MOHFW/India. 2006. National Family Health Survey. <http://www.nfhsindia.org/pdf/Uttar%20Pradesh.pdf> (Accessed 25 June 2011).
5. Banerji D. 2005. Politics of rural health in India. *Int J Health Serv*; **35**(4): 783–96.
6. Bang AT, Bang RA, Reddy HM. 2005. Home-based neonatal care: summary and applications of the field trial in rural Gadchiroli, India (1993 to 2003). *J Perinatol*; **25** **Suppl 1**: S108–22.
7. World Health Organization. 2010. *Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies*. Geneva, Switzerland: World Health Organization. http://www.who.int/healthinfo/systems/WHO_MBHSS_2010_full_web.pdf
8. Health Extension and Education Center. 2007. *Health Extension Program in Ethiopia: Profile Addis Ababa, Ethiopia*. Health Extension and Education Center, Federal Ministry of Health. <http://www.moh.gov.et/english/Resources/Documents/HEW%20profile%20Final%2008%2007.pdf>
9. Svitone CE, Garfield R, Vasconcelos MI, Araujo Craveiro V. 2000. Primary health care lessons from the northeast of Brazil: the Agentes de Saude Program. *Rev Panam Salud Publica*; **7**(5): 293–302.
10. Rocha R, Soares RR. 2010. Evaluating the impact of community-based health interventions: evidence from Brazil's Family Health Program. *Health Economics*; **19**(Supplement 1): 126–58.
11. Kluthcovsky AC, Takayanagui AM. 2006. Community health agent: a literature review. *Revista latino-americana de enfermagem*; **14**(6): 957–63.
12. Bhutta ZA, Lassi ZS, Pariyo G, Huicho L. 2010. *Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendation for Integration into National Health Systems*. Geneva: World Health Organization and the Global Health Workforce Alliance. http://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf
13. Oxford Policy Management. 2009. *External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Summary of Results*. Oxford, U.K.: Canadian International Development Agency. http://www.opml.co.uk/sites/opml/files/Lady%20Health%20Worker%20Programme%20-%204th%20Evaluation%20-%20Summary%20of%20Results_0.pdf
14. Government of Nepal, Ministry of Health and Population (MoHP). 2010. *Nepal Health Sector Programme-2 Implementation Plan (2010–2015)*. In: (MoHP) MoHaP, editor. Kathmandu, Nepal: Government of Nepal; p. 267. http://www.nhssp.org.np/health_policy/Consolidated%20NHSP-2%20IP%20092812%20QA.pdf

15. Glenton C, Scheel IB, Pradhan S, Lewin S, Hodgins S, Shrestha V. 2010. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. *Soc Sci Med*; **70**(12): 1920–7.
16. Ministry of Health and Family Welfare, Government of India. 2011. *Rural Health Care System in India: The Structure and Current Scenario*. Ministry of Health and Family Welfare, Government of India. <http://mohfw.nic.in/WriteReadData/1892s/file35-33319850.pdf>
17. Javanparast S, Baum F, Labonte R, Sanders D, Heidari G, Rezaie S. 2011. A policy review of the community health worker programme in Iran. *J Public Health Policy*; **32**(2): 263–76.

Governing Large-Scale Community Health Worker Programs

Simon Lewin and Uta Lehmann

23 September 2013

Key Points

Improving how community health worker (CHW) programs, and health systems more broadly, are governed is increasingly recognized as important in achieving universal access to health care and other health-related goals. Governing comprises the processes and structures through which individuals and groups exercise rights, resolve differences, and express interests. The process of governing involves ongoing interactions among **actors**, such as health care decision-makers, community representatives, and agencies, and **structures**, with regard to the laws, resources, and beliefs within which these actors operate. Because CHW programs are located between the formal health system and communities and involve a wide range of stakeholders at local, national, and international levels, their governance is complex and relational. In addition, CHW programs frequently fall outside of the governance structures of the formal health system or are poorly integrated with it—making governing these programs more challenging. In the past, poor governance has undermined the planning and management of programs and the delivery of services. This chapter discusses the following key questions that decision-makers need to consider in relation to governing CHW programs:

- How, and where within political structures, are policies made for CHW programs?
- Who, and at what levels of government, implements decisions regarding CHW programs?
- What laws and regulations are needed to support the program?
- How should the program be adapted across different settings or groups within the country or region?

INTRODUCTION

In this chapter, we consider and discuss a number of relevant questions regarding the governance of community health worker (CHW) programs. This chapter is intended to be read alongside Chapter 12 on community participation in CHW programs.

WHAT IS MEANT BY “GOVERNING” IN THE CONTEXT OF HEALTH SYSTEMS?

Governing in the context of health systems can be seen as being concerned with “political, economic, and administrative authority in the management of health systems.”¹ Governing comprises “the complex mechanisms, processes, and institutions through which citizens and groups articulate their interests, mediate their differences, and exercise their legal rights and obligations.”² As this definition suggests, governing involves ongoing interactions and relationships between **actors**, such as health care decision-makers, community representatives, associations, and agencies, and **structures**, including the laws, policies, resources, and beliefs within which these actors work.³ Governing is therefore a process rather than a static set of policies and structures. Consequently, this process is closely linked to context and may change over time as societies, health systems, and CHW programs change and evolve. Moreover, governing in the context of health systems may often overlap with management, which is sometimes seen to be more concerned with running or implementing programs.⁴

Governing health services can also be conceptualized in terms of inputs, processes, and outputs.⁵ Governance inputs include how and by whom the institutions governing the health system are constructed and managed. This includes “participation,” or the stakeholders involved in defining and designing health policies; and “consensus orientation,” or the extent to which government officials collaborate with or involve other stakeholders in setting goals and formulating policies for health. The processes of governance concern how administrative procedures and rules governing the health sector are implemented. This includes transparency, accountability, monitoring, and control of corruption. Finally, governance outputs can be seen as the benefits that should result from the implementation of governance rules and processes within a health system. Different political systems may emphasize different governance outputs, but these may include measures of how well the health system responds to population needs, equity of access to health services, and efficient use of health resources.

WHY IS GOVERNING AN IMPORTANT ISSUE FOR CHW PROGRAMS?

Decisions on the type of structures established for governing CHW programs, who will be involved in governing (i.e., the actors), and how these will relate to the wider health and political systems are political. These decisions are important, as they will affect a range of other processes in these programs, including day-to-day accountability, and will ultimately impact performance and sustainability. Some of important decision parameters include:

- Extent to which the CHW program is part of the formal health system
- Extent to which CHWs are formally recognized as a cadre within the health system
- Extent of decentralization of authority for governing CHW programs and for their management
- Scale of the program
- Roles that key stakeholders, including communities and/or service users, have in governing the programs
- How, and by whom, resources are obtained and administered

Also important is the extent to which CHWs are organized, for example, through a union or health provider organization. Different decisions on these parameters, in response to specific contexts and needs, may result in different models for governing CHW programs. For example, in relation to the health system:

- Some programs are not part of the formal facility-based health system, but have structures that provide good links to this system (e.g., the Accredited Social Health Activists [ASHA] CHW program in India and the Building Resources Across Communities (BRAC) CHW program in Bangladesh).
- Some programs are integrated with the formal health system and are well-supported within it (e.g., the Family Health Teams in Brazil, the Health Extension Worker [HEW] program in Ethiopia, and the CHW program in Venezuela).
- Some programs are centrally driven with national guidance, but implemented through separate structures (e.g., CHW programs in South Africa, which are currently largely implemented through NGOs, but within parameters established at the national level).

These varied models for governing CHW programs have implications, in turn, for how programs are financed and funded; how and by whom CHWs are selected and trained; how CHWs are supported and supervised; how CHWs are paid; and how communities are involved; among many other issues. We discuss the implications of these differing configurations in more detail below.

Improving how CHW programs, and health systems more broadly, are governed is increasingly recognized as important in achieving universal access to health care and other health-related goals. The concept of “good governance” is now used widely and can be understood as the interactions between relevant stakeholders and processes that enable monitoring, transparency, and accountability and that lead to public value and the common good.⁶ Improving on how CHW and other health system programs are governed requires a range of enabling factors. For example, clear goals and priorities for the CHW program; appropriate structures for implementing, coordinating, and integrating the program; standards regarding the selection and training of CHWs; data on how well these programs are performing; mechanisms for motivating CHWs and their supervisors; and meaningful involvement of, and accountability to, the range of stakeholders linked to these programs, including local communities and recipients of CHW care. Governing CHW programs, therefore, requires financial and other resources, and how these resources are managed will, in turn, impact the extent to which good governance can be achieved.⁷ ⁴ Table 1 provides a summary of governance principles within health care.

Table 1: Health systems governance principles²

GOVERNANCE PRINCIPLE	EXPLANATION
Strategic vision	Leaders have a broad and long-term perspective on health and human development, along with a sense of strategic directions for such development. There is also an understanding of the historical, cultural, and social complexities on which that perspective is grounded.
Participation and consensus orientation	All men and women should have a voice in decision-making for health, either directly or through legitimate intermediate institutions that represent their interests. Such broad participation is built on freedom of association and speech, as well as capacities to participate constructively. Good governance of the health system mediates differing interests to reach a broad consensus on what is in the best interests of the group and, where possible, on health policies and procedures.
Rule of law	Legal frameworks pertaining to health should be fair and enforced impartially, particularly the laws on human rights related to health.

GOVERNANCE PRINCIPLE	EXPLANATION
Transparency	Transparency is built on the free flow of information for all health matters. Processes, institutions, and information should be directly accessible to those concerned with them, and enough information is provided to understand and monitor health matters.
Responsiveness	Institutions and processes should try to serve all stakeholders to ensure that the policies and programs are responsive to the health and non-health needs of its users.
Equity and inclusiveness	All men and women should have opportunities to improve or maintain their health and well-being.
Effectiveness and efficiency	Processes and institutions should produce results that meet population needs and influence health outcomes while making the best use of resources.
Accountability	Decision-makers in government, the private sector, and civil society organizations involved in health are accountable to the public, as well as to institutional stakeholders. This accountability differs depending on the organization and whether the decision is internal or external to an organization.
Intelligence and information	Intelligence and information are essential for a good understanding of health system, without which it is not possible to provide evidence for informed decisions that influences the behavior of different interest groups that support, or at least do not conflict with, the strategic vision for health.
Ethics	The commonly accepted principles of health care ethics include respect for autonomy, nonmaleficence (a principle of bioethics that asserts an obligation not to inflict harm intentionally), beneficence (actions to benefit others), and justice. Health care ethics, which includes ethics in health research, is important to safeguard the interest and the rights of the patients.

WHAT KEY QUESTIONS DO DECISION-MAKERS NEED TO CONSIDER REGARDING GOVERNING CHW PROGRAMS?

Because CHW programs, to varying degrees, are located between the formal health system and communities, and can involve a wide range of stakeholders at local, national, and international levels, their governance is often complex and relational. CHW programs frequently fall outside of the governance structures of the formal health system or are poorly integrated with it, making governing these programs more challenging. In addition to the previously discussed topics, this chapter outlines key questions that decision-makers need to consider for governing CHW programs, and illustrates the options for governing with examples and case studies from programs in the field. These key questions are:

- How and, where within political structures, are policies made for CHW programs?
- Who, and at what levels of government, implements decisions regarding CHW programs?
- What laws and regulations are needed to support the program?

How should the program be adapted across different settings or groups within the country or region?

Table 2 summarizes the sub-questions for each of the main questions above. Tables 3 and 4 provide a cross-country comparison of issues in the governing of the overall CHW programs and policies that affect individual CHWs. These are based on case studies of Brazil, Ethiopia, India, Pakistan, and South Africa. We refer to examples from these tables in the main text. These tables also include additional material that complements and illustrates the issues raised in the main body of the chapter.

How, and Where within Political Structures, Are Policies Made for CHW Programs?

CHW programs experience a number of challenges in relation to policy processes. For example:

- Policies to govern these programs may be lacking if the program is seen to be peripheral to, or outside of, the formal health system or if it has developed out of programs initiated by nongovernmental organizations (NGOs), community-based organizations (CBOs), or civil society organizations (CSOs).
- Existing policies may not be “fit for purpose”; for instance, CHW program functioning may be hampered if a national Ministry of Health (MOH) department decentralizes primary health care (PHC) management to the regional or district level, but does not put in place policies that allow managers at those levels to manage and disburse funds to the CHW program itself and its staff.
- It may be difficult to ensure program consistency, for example, in terms of tasks and responsibilities, across a region or country where there are multiple players involved, including local and international NGOs and agencies and government health services. A national CHW policy framework may be needed to achieve this consistency.

It is therefore important to consider how and where policies for CHW programs are made, and the implications of this for developing and running the program. These policy decisions (such as whether to develop a volunteer-based or fully remunerated CHW program) need to be distinguished from implementation decisions (such as the timetable for continuing education of CHWs within a particular district or province).

Key issues to consider for CHW programs include the following:

- Where are policy decisions made?
- Who are the stakeholders involved in defining and designing these policies (participation), and to what extent is this done in a collaborative manner (consensus orientation)?
- Are there important historical legacies that may shape CHW policymaking?
- How might wider health and political systems goals in a particular context influence how CHW programs are governed?

Where Policy Decisions Are Made

Authority to make policy and operational decisions regarding CHW programs is located at different levels of government within different countries, depending on the country’s constitutional or legislative arrangements or historical policy legacies (see below). In some countries, such authority may be located with the national ministry or department of health. In other countries, regional or provincial departments of health or legislatures may have authority to develop health policies, or such authority may have been delegated by the legislature or the MOH to an independent body, such as a CHW Commission. Each of these scenarios has different benefits and drawbacks, as follows:

- When policy authority is located at the national level, it may be easier to achieve consistency of approach for CHW programs across a country. However, policymaking may be very removed from the day-to-day running of CHW programs and may therefore not be very responsive to challenges as they are experienced.
- When policy authority is delegated to an independent body, it may facilitate more rapid and responsive policy development since these decision-makers have a clear focus on the CHW program. However, policies made by this body may not be well-aligned with other policies developed by the MOH or other government ministries.

Those wishing to develop or change policies governing CHW programs need to consider²:

- Where are laws and regulations relevant to health initiated?
- Do laws need to be initiated by cabinet or parliament? Can other stakeholders initiate laws or regulations through other mechanisms?
- Who can initiate such laws and regulations? Do laws need to be initiated by a government minister or a ministerial permanent secretary?

In addition, consideration needs to be given to what provisions there are locally for accountability and support. For example, what recourses citizens have if they feel that they not being treated respectfully, or if CHWs are not carrying out their duties adequately? This is addressed in more detail in Chapter 12.

Box 1: Governance within the Brazilian Family Health Program, where policy decisions are made⁸

In Brazil, the new constitution adopted in 1988 reinforced the role of state (provincial) and municipal governments in implementing public policies, while the central government had the role of issuing the main guidelines for implementing public policies. Later legal provisions shifted more responsibility for the management and organization of health services over to municipal governments, while at the same time, emphasized the technical and financial role of the central government and the states. Municipalities have the authority to decide whether to implement the Family Health Program. Once a decision to implement is made, the local government determines the organization of the program in their municipality, for example, specifying the number of family health teams they want to establish and selecting the areas to which these teams will be assigned.

The positive effects on the program resulting from such a process of implementation appear to be more local ownership of the implementation and improved local management of the program. On the other hand, the process could lead to unprepared and uncommitted local management, as well as heterogeneity of implementation.

Box 2: Governance of programs supported by the National Rural Health Missions in India⁸

The three tiers of governance (i.e., government, state, and *panchayats*) in India pose challenges for a range of government programs, including for carrying out certain functions of the National Rural Health Mission (an initiative of the Ministry of Health and Family Welfare to strengthen rural health services). An evaluation from 2009 reported that transfers of funds to lower levels of governance were being held up at the state levels. The evaluation proposed direct disbursement of funds from the central government to the *panchayats* as a solution to this problem. However, it was noted that this change may be difficult, given that health is defined as a state responsibility in the constitution of India. The evaluation suggests that individual states would like to gain more autonomy from the center. However, states are reluctant to devolve the necessary powers to govern CHW programs to the *panchayat* level, where primary health centers and sub-centers are located. Similar tensions were reported between the central government and the states in relation to program financing.

Who, and at What Levels of Government, Implements Decisions Regarding CHW Programs?

Stakeholders Involved in Defining and Designing these Policies and to What Extent Is this Done in a Collaborative Manner

A range of stakeholders may have roles in defining and designing CHW policies. The extent to which there is wide participation in this process may depend on the orientation of the political system within a particular context, the formal and informal power stakeholders are able to exert, and the attitudes of those driving a particular policy process.

Which stakeholders are involved in CHW policymaking, and how these stakeholders are involved, have important benefits and drawbacks for programs:

- When it is not clear who has final responsibility for policymaking, decisions may not be made or may be much delayed.
- When policy decision-making is dispersed across a range of stakeholders, important inconsistencies may develop across program policies. For example, CHWs may have authority to deliver antibiotics for neonatal sepsis in one region of a country but not in another; or may be compensated differently among regions, as is the case for example with India's ASHA Program.
- Involving a wide range of relevant stakeholders in CHW program policymaking may help to build consensus, consistency, and buy-in regarding these policies. This, in turn, may facilitate implementation of CHW policies. However, it may be difficult to achieve such consensus, and decision-making may, as a result, be very prolonged, or may fail to keep pace with changes encountered by the programs on the ground.

Questions that need to be considered in relation to stakeholder involvement include¹:

- Who are the key stakeholders for policies related to community health services?

In addition to the national Ministry or Department of Health, this may often include other ministries or departments, such as Finance, Education and Training, Employment, Public Works, etc.; provincial or regional ministries or departments of health; CSOs; professional organizations, such as doctors' or nurses' unions; regulatory authorities, such as bodies that register health care professionals; private sector organizations, such as private clinics; national and international NGOs, who may employ or manage CHWs or other elements of the health system; CHWs themselves; communities where CHWs are working; and donors, including bilateral and multi-lateral organizations and private foundations.

- *To what extent are these key stakeholders consulted and involved in policymaking for community health services? To what extent is there a consensus orientation, in which state authorities cooperate with other stakeholders in policy development?*

There may be a trade-off between involving a very wide range of stakeholders and involving a narrower group of stakeholders. The former may maximize input and buy-in to the policy but may result in no one stakeholder having overall responsibility for policy development, leading to delays and indecision. The latter approach may make the policy process more manageable, but may reduce buy-in or may result in policies that are not aligned with related policies in other governments departments or sectors.

- *How are inputs solicited from stakeholders?*

¹ Adapted in part from ²

There are a range of ways in which this may be done, including convening a national or regional policy dialogue,⁹⁻¹¹ requesting written inputs, and holding public consultations. Important challenges include:

- Having a leader or champion who has motivation, the necessary experience with CHW programs, and the credibility with stakeholders to take forward a consultation process. The leader also needs to have the authority to adapt the policy based on the inputs received.
 - Having resources for and commitment to a consultation process.
 - Having skills to synthesize inputs received in ways that advance the policy process.
- How are the varied objectives, motivations, and views of different stakeholders reconciled within the policy process?

Stakeholders may have very different views in relation to a particular policy question, based on their constituencies. For example, an international donor may lobby for a “vertical” CHW program for a particular health problem, such as providing treatment support for people living with HIV/AIDS. However, the national department of health may favor a more integrated model, in which CHWs are part of the PHC team in each primary care facility, as more useful and appropriate in the setting. At the same time, the nurses’ professional association may be concerned to limit the range of tasks that CHWs are permitted by policy to undertake because they want to protect their profession’s scope of practice.

Those leading and managing the policy process need to decide if the views of stakeholders will be made available publicly, the extent to which consensus is desirable or possible, and what mechanisms will be used to address the different views and objectives of different stakeholders. Mechanisms that may be used include involving key stakeholders in drafting a policy and facilitating dialogue on a draft policy.

Important Historical Legacies that May Shape CHW-Related Policymaking

In addition to being constrained by existing laws and regulations, policymaking for CHW programs may also be shaped by historical legacies. These legacies may include previous and current policies, experiences, and practices. For example, a CHW program may have been established with the specific purpose of improving equity of access to health care for historically marginalized groups, such as populations living in geographically remote areas of the country. The Brazilian Family Health Program, for instance, has its antecedents in a regional program, established to respond to a severe drought (see Table 3, row 3). The model developed in this setting has shaped the program across the country.

Programs may also be shaped by specific health system legacies: for instance, CHW policies may need to take into account an existing nurse auxiliary cadre or a program based on salaried CHWs, or may need to absorb an existing network of community health volunteers. Efforts to establish a national CHW policy framework in South Africa, for example, were influenced by the absence of a national CHW program and the presence of a large number of small-to-medium-sized programs, largely managed by NGOs, in which CHWs had different scopes of practice and levels of training (see Table 3, rows 2 and 3).

Historical legacies are important as they may determine stakeholders’ views of and reactions to policies. These legacies may also constrain what is possible; for instance, it may be difficult to make substantial changes to CHWs’ existing scopes of practices, such as introducing curative tasks to a program focusing on health promotion, or to the types of recipients targeted, for example, from women and children to everyone in the household or from rural to urban households.

Questions that need to be considered here include:

- Are there important health system legacies, in relation to governance, financial, or delivery arrangements², that may shape CHW-related policymaking?
 - It may be very challenging to establish community-led systems for governing CHW programs in a health system in which governance and financial management are highly centralized and in which there is little experience with more decentralized forms of governing. Similarly, it may be difficult to put in place policies to expand the roles of CHWs if these roles are likely to be seen to overlap with those of another cadre.
- *Are there important political system legacies, in relation to institutions, interests, or ideas³ that may shape CHW-related policymaking?*

Issues to be considered here include whether there is a constitutional mandate to decentralize the management of programs to district level; whether important funders of a CHW program, such as the Ministry of Finance or international donors, will support a policy change; and whether there is a body of research that may provide support for shifting the way in which a health service is delivered.

- *To what extent are these historical legacies in alignment with the planned policy? What scope is there for re-shaping the policy or bypassing these legacies?*

Decision makers involved in governing CHW programs need to consider how these historical legacies may impact a planned policy. A number of tools are available, such as a SWOT (strengths, weaknesses, opportunities, and threats) analysis, which may be useful in approaching this assessment in a systematic way.¹²⁻¹⁴

Wider Health and Political System Goals May Influence How CHW Programs Are Governed

How CHW programs are governed may be influenced by the particular goals or benefits (sometimes called governance outputs) that have been prioritized within a specific health or political system. CHW and other health policies may be assessed by decision-makers in relation to the extent to which they help to achieve these goals or outputs. Such goals may include improved equity, improved responsiveness to population needs, greater efficiency in the delivery of services, more decentralized services, increased employment, or greater involvement of the private sector in the delivery of services.

There are a number of ways in which wider health and political system goals may influence how CHW programs are governed. Firstly, it may be difficult to develop CHW program policies and governance processes where these do not align with wider goals. For instance, developing structures to allow CHWs to work more closely with private sector providers, such as drug dispensers, may not be feasible if such arrangements are not seen as legitimate or important within the wider health system. Similarly, the governance of CHW programs may be neglected if there is a shift in goals in the political system toward increasing the number of providers with

² Governance arrangements are concerned with political, economic, and administrative authority in the management of health systems, as noted above. Financial arrangements include funding and incentive systems, while delivery arrangements include human resources for health, as well as service delivery.

³ Drawing on political science theory, the term “institutions” is used here to refer to both the formal and informal structures and processes of policymaking (constitutional rules, structures through which decision are made, and features of the policy process, such as the level of transparency). The term “interests” concerns the stakeholders who shape a policy and their views on whether the policy will have benefits or drawbacks for them or others. The term “ideas” refers to the values and knowledge held by stakeholders, including those in government and civil society, and comprises information from both research and experience. ¹²⁻¹⁴

higher levels of training, such as nurses and doctors. In contrast, ways of governing CHW programs that align closely with political system goals, such as the decentralization of services, may be easier to develop and implement.

Secondly, health and political system goals may drive the development, or indeed the demise, of a CHW program. In many settings, programs have been developed or scaled up to help achieve the goal of improved equity in access to health services. In Ethiopia, the HEW program aims to improve access to care for rural populations particularly (see Table 3, row 3). In South Africa, efforts by the first democratic government to improve equity and quality in PHC prioritized nurses as the lead cadre and viewed CHWs as giving second-rate care. Consequently, funding and support for CHW programs declined and many programs ceased to function¹⁵ (see Table 3, row 3).

Questions that need to be considered in relation to health and political system goals include:

- What goals are emphasized currently within the health and political system in a particular context?
- To what extent will CHW-related policies help to achieve these goals, and how can this be demonstrated within the policy process?
- What changes need to be made to proposed CHW policies to better align them with relevant governance goals?
- Where CHW-related policies diverge from prioritized governance goals, how can this be justified and advocated for within the policy process?
- Are there role players with political influence who can advocate for CHW programs?

There are a number of ways, both formal and informal, in which these questions may be considered. Those governing CHW programs can reflect on the goals of the program, and those of the wider health and political system, and the extent to which CHW policies will help to achieve these wider goals. Wider consultations, such as deliberative dialogue processes,¹⁰ may be useful in identifying current and future health and political system goals, in considering how CHW policies align with these, and in assessing how the governing of CHW programs may need to shift in order to support important health and political system goals. A number of policy analysis tools are available that may be useful in this process.¹⁶⁻¹⁹

Additional Factors to Consider Regarding Who Implements Decisions and at What Levels of Government

After a policy decision has been made, the next key challenge is transforming this policy into practical actions. Policy implementation is challenging in most settings for a range of reasons, including the complexity of the health system. The process of implementing policy decisions may involve multiple levels of government, as well as other stakeholders, and the coordination and management of complex processes. Such complex processes may include: 1) limited financial resources or difficulties in disbursing resources to the levels where they are needed, 2) deficits of other resources, including human resources for health care delivery and management, 3) competing priorities within and beyond the health system, and 4) challenging physical environments, such as very remote communities. The implementation of decisions regarding CHW programs may, therefore, take place in an unsystematic way or be slowed by a range of obstacles. Careful and systematic planning is needed to ensure that CHW program policies are implemented as intended.

Questions that can be considered by policymakers when planning the implementation of policies for CHW programs include: ⁴

- What factors might affect the successful implementation of the policy? In what ways can potential barriers be overcome or minimized and facilitators harnessed?
- Is there a clear implementation plan for the policy that includes the objectives to be achieved, adequate resources, and a timeframe, and that addresses important barriers and facilitators? There are additional issues to be considered here:
 - What is the extent of decentralization for the implementation of CHW policies? Which stakeholder(s) will lead and which level(s) of government and other agencies need to be involved?
 - What strategies should be considered in planning implementation of the policy in order to facilitate the necessary changes among health care recipients, health care professionals, organizations, and the health system?
 - How will implementation of this policy affect the day-to-day running of ongoing CHW (and other) programs?
 - To what extent will communities and CSOs be involved, and how will this be operationalized? (See Box 3 below and Chapter 12 on relationships with communities.)
- How will implementation ensure that key governance goals, such as equity, participation, and accountability, are maximized?
- How will implementation of policies be monitored and evaluated to ensure that their objectives are met? (Also see Chapter 4 on planning for CHW programs.)

Box 3. Community involvement in CHW program implementation in Zimbabwe⁸

Studies analysing the implementation of the Village Health Worker (VHW) program in Zimbabwe provide in-depth analysis of why such local citizen bodies may have failed to stimulate meaningful community involvement. These studies suggest that the government, while attempting to redirect resources to the village level, developed an increasingly large bureaucracy that reinforced centralization of power, and local citizen bodies became extensions of the central government structures. People's representation was supposed to be mediated through village and district committees. However, these structures were regarded by communities as remote and as a part of civil service structures that were accountable to the government, and not to poor people within communities. Effective popular mobilization in the planning and development of the VHW program was seen to have declined inversely in relation to the bureaucratization of the program.

WHAT LAWS AND REGULATIONS ARE NEEDED TO SUPPORT THE PROGRAM?

The governing and implementation of CHW programs may be shaped or constrained by existing laws or regulations⁵ in relation to, for instance, the organization of health services, human resources, drugs, technologies, and financing. As noted above, these “policy legacies”²⁰ may include regulations regarding the kinds of health care providers who can prescribe and dispense

⁴ Adapted from ^{2,13}

⁵ A law can be defined as “a rule of conduct or action prescribed or formally recognized as binding or enforced by a controlling authority” (From: www.merriam-webster.com/dictionary/law Accessed 26 June 2013). A regulation can be described as “A law on some point of detail, supported by an enabling statute, and issued not by a legislative body but by an executive branch of government” (From: www.duhaime.org/LegalDictionary/R/Regulation.aspx, accessed 26 June 2013).

different types of medications. These legacies may also include laws regarding the disbursement of funds from health departments to community structures that may be responsible for supporting CHWs.

Further, CHW programs may experience challenges if laws and regulations that are needed to enable effective program functioning are not put in place in a timely manner or if existing laws and regulations are not amended as needed. For example, regulations in Brazil regarding the need to advertise civil service posts nationally were changed to help ensure that CHWs employed by the Family Health Program came from the community in which they were to work.²¹ In South Africa, it has been argued the functioning of CHW programs was hampered by poor regulation that limited the rights of CHWs and contributed to low pay levels.²²

Appropriate legal and regulatory frameworks are, therefore, needed for large-scale programs to function effectively.²³ These need to address issues related to CHWs, such as selection and remuneration, as well as issues related to the wider health system, such as governance structures for PHC. As such, those developing and scaling up CHW programs need to consider which existing laws and regulations need to be taken into account and whether changes to them are needed to ensure the effective governing of the program and its implementation as intended.

Questions that should be considered in relation to laws and regulations:

- Which laws and regulations are relevant to the governing and scale-up of CHW programs?
- How are these laws and regulations translated into rules and procedures that may affect program implementation in the field, and who has responsibility for this?
- Will any changes be required to these laws and regulations to allow the program to be scaled-up as intended? Will any new laws and regulations be needed?
- Where laws or regulations need to be promulgated or amended, which government bodies would be responsible for leading this process? Which other bodies would need to be involved in this process? Are there key laws or regulations that may act as critical barriers or bottlenecks to policy implementation and that should be priorities for promulgation or amendment?
- What is the likely timeframe for these legislative or regulatory processes?
- Can scale-up be implemented in parallel to changes in laws and regulations?

HOW SHOULD THE PROGRAM BE ADAPTED ACROSS DIFFERENT SETTINGS OR GROUPS WITHIN THE COUNTRY OR REGION?

For CHW programs operating at scale, there may be tension between, on one hand, adopting a fairly standard approach to the governing of programs and to their implementation and, on the other hand, trying to ensure that the program is tailored to the needs of different settings or groups. The former approach may allow for more rapid scale up and may require fewer resources. The latter approach, while more resource intensive and more difficult to implement, may help to ensure that the program is seen as useful by local communities and health services, may be more sustainable,^{24, 25} and may have a greater impact in the medium to long term.

There are a number of reasons why programs may need to be adaptable. Firstly, different population groups within a country may have very different health and therefore program needs. Secondly, programs may need to be adapted for particular local contexts, such as remote areas with poor physical access where operational challenges differ dramatically from more densely populated urban areas. Thirdly, CHW programs may need to be adapted to local or regional health system arrangements, such the availability of other health care providers in the

area, the presence of private drug sellers or other sources of drugs, or the extent of private sector health care provision.

Questions that need to be considered:

- Is the program targeted toward specific groups or settings in the country or region?
- Are there important differences across groups or settings in the country or region that may affect the roll-out of the program and that may require its adaptation?
- If the program is to be adapted:
 - What are the specific needs of these groups or settings; what barriers do these groups experience in accessing the program; and what challenges might be encountered in adapting the program to their needs or setting?
 - Which are the core elements of the program that should be retained across settings or groups and which elements can be adapted to address specific needs?
 - To what extent does adaptability need to be built into the program policy?
 - Which entities will have responsibility for adapting the program in response to local needs?
 - Will the adapted program need to be piloted before it is scaled up?

ADDITIONAL CONSIDERATIONS

Other issues that may be important to consider in relation to governing CHW programs at scale include the requirements that scale-up of the program might impose on the health system (including managers, health care providers, and users) and on other sectors. Factors affecting the sustainability of the program, and ways in which national, regional, and international stakeholders can be mobilized to support a national CHW program. These issues are discussed further in the chapters on relations with the health system (Chapter 11), on financing (Chapter 12), and on planning (Chapter 3).

CONCLUSIONS

Governing CHW programs can be complex because of the location of these programs between the formal health system and communities, and the involvement of a wide range of stakeholders at local, national, and international levels. CHW programs frequently fall outside of the governance structures of the formal health system or are poorly integrated with it.

The most appropriate and acceptable model(s) for governing CHW programs depends on the community, on local health systems, and on the political context of the program. Policymakers and other stakeholders in each setting need to consider what systems are currently in place and what might work in their context, and develop a locally tailored governance approach.

Where community or local participation is well-established, models of community governance and accountability may be appropriate and useful for CHW programs. Where local participation in governance is not well-established (e.g., because governance of the health and political systems are highly centralized) or is weak, stakeholders need to explore other mechanisms for accountability.

It is challenging to include a very local participatory structure for governing a CHW program within a large-scale program, and there are few sustained examples of this. For large-scale programs, formal local governance structures, such as elected local government councils, may

need to be relied on. Stakeholders need to consider how to organize CHW program governance in such contexts.

Ultimately, local participation in governing CHW programs is difficult to achieve at scale without substantial resources, adequate planning, and sustained attention to maintaining these local structures. Stakeholders must consider what resources are needed and how these can be made available.

Table 2: Governing CHW programs – key questions and sub-questions

KEY QUESTIONS	SUB-QUESTIONS
<p>How, and where within political structures, are policies made for CHW programs?</p>	<p><i>Where are policy decisions made?</i></p> <ul style="list-style-type: none"> ▪ Where are laws and regulations relevant to health initiated? Do laws need to be initiated by cabinet or parliament? Can other stakeholders initiate laws or regulations through other mechanisms? ▪ Who can initiate such laws and regulations? Do laws need to be initiated by a government minister or a ministerial permanent secretary? <p><i>Who are the stakeholders involved in defining and designing these policies (participation), and to what extent is this done in a collaborative manner (consensus orientation)?</i></p> <ul style="list-style-type: none"> ▪ Who are the key stakeholders for policies related to community health services? ▪ To what extent are these key stakeholders consulted and involved in policy making for community health services? To what extent is there a consensus orientation in which government authorities cooperate with other stakeholders in policy development? ▪ How are inputs solicited from stakeholders? ▪ How are the varied objectives, motivations and views of different stakeholders reconciled within the policy process? <p><i>Are there important historical legacies that may shape CHW-related policy making?</i></p> <ul style="list-style-type: none"> ▪ Are there important health system legacies in relation to governance, finance or service delivery that may shape CHW-related policy making? ▪ Are there important political system legacies in relation to institutions, interests or ideas that may shape CHW-related policy making? ▪ To what extent are these historical legacies in alignment with the planned policy? What scope is there for re-shaping the policy or bypassing these legacies? <p><i>How might wider health and political systems goals in a particular context influence how CHW programs are governed?</i></p> <ul style="list-style-type: none"> ▪ What goals are emphasized currently within the health and political system in a particular context? ▪ To what extent will CHW-related policies help to achieve these goals, and how can this be demonstrated within the policy process? ▪ What changes need to be made to proposed CHW policies to better align them with relevant governance goals? ▪ Where CHW-related policies diverge from prioritized governance goals, how can this be justified and advocated for within the policy process? ▪ Are there role players with political influence who can advocate for CHW programs?

KEY QUESTIONS	SUB-QUESTIONS
Who implements decisions regarding CHW programs, and at what levels of government?	<ul style="list-style-type: none"> ▪ What factors might affect the successful implementation of the policy? In what ways can potential barriers be overcome or minimized and facilitators harnessed? ▪ Is there a clear plan for implementation of policy decisions that includes the objectives to be achieved, adequate resources, and a timeframe, and that addresses important barriers and facilitators? ▪ How will implementation ensure that key governance goals, such as equity, participation and accountability, are maximized? ▪ How will implementation of policies be monitored and evaluated to ensure that their objectives are met?
What laws and regulations are needed to support the program?	<ul style="list-style-type: none"> ▪ Which laws and regulations are relevant to the governing and scale up of CHW programs? ▪ How are these laws and regulations translated into rules and procedures that may affect program implementation in the field, and who has responsibility for this? ▪ Will any changes be required to these laws and regulations to allow the program to be scaled up as intended? Will any new laws and regulations be needed? ▪ Where laws or regulations need to be promulgated or amended, which government bodies would be responsible for leading this process? Which other bodies would need to be involved in this process? Are there key laws or regulations that may act as critical barriers or bottlenecks to policy implementation and that should therefore be priorities for promulgation or amendment? ▪ What is the likely timeframe for these legislative or regulatory processes? ▪ Can scale-up be implemented in parallel to changes in laws and regulations?
How should the program be adapted across different settings or groups within the country or region?	<ul style="list-style-type: none"> ▪ Is the program targeted toward specific groups or settings in the country or region? ▪ Are there important differences across groups or settings in the country or region that may affect roll out of the program and that may require its adaptation? ▪ How will the program be adapted, if this is needed?

Table 3: Cross-country comparison of CHW program governance⁶

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Cadres	Is there one or are there several cadres?	Historical experiences, both negative and positive, may shape views and responses. Diversity and unclear boundaries can lead to conflict among cadres and/or gaps in provision	Community Health Agent (CHA)	Lady Health Worker (LHW)	Accredited Social Health Activist (ASHA)	Community Health Worker	Health Extension Workers (HEWs) Health Development Army (HDA, formerly called Community Health Promoters, or CHPs) Various other CHW cadres including Community-Based Reproductive Health Agents (CBRHAs) and HIV lay counselors
Size of the program	Is this a national or small-scale local program?	Size and scope of program impacts on the complexity of governing the program	236,000 working in 33,000 family health care teams	100,000	820,000 ASHAs have been selected (across 31 States and Union Territories)	Prior to project initiation there were around 72,000 CHWs, attached to various NGOs and programs	>34,000 HEWs; >100,000 CHPs in 15,000 kebeles (communities)

⁶ The information in this table is drawn from the case studies in the Appendix at the end of this guide.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Historical legacies	Are there important health system legacies in relation to how programs are governed, and in terms of key players and specific institutions, financial or delivery arrangements that may shape CHW policy-making? To what extent are these historical legacies in alignment with the planned policy? What scope is there for building on or re-shaping the policy or bypassing these legacies?	Historical legacies may define, constrain or facilitate CHW policies. Policy may be shaped by previous experience or existing practices. Legacies will determine what actors think of policy and how they will enact and react to it	The program has its antecedents in a regional program in Ceará State, where it emerged from an emergency response to a severe draught. ²⁶	In 1993 Pakistan established the Prime Minister's Program for Family Planning and Primary Health Care that employed CHWs to provide primary health care services in their communities. The program subsequently only employed female CHWs and the Lady Health Worker (LHW) program was developed in 1994.	ASHAs are the most recent incarnation of community health workers (CHWs) in a long history of national and state-level CHW programs in India. In many states, the ASHA program built upon pre-existing CHW programs. The Chhattisgarh Mitanin CHW program, launched in 2003 as a precursor to the ASHA program, has retained the name "Mitanin" for their health workers but has otherwise been encompassed by the ASHA program.	South Africa has never had a large-scale, national community health worker program, but has had numerous smaller and larger CHW projects since the 1980s. In the 1990s and early 2000s these CHWs often worked as volunteers and single-purpose workers, with insecure funding. The present emerging national program builds on this "stock" of CHWs and their experience.	In the 1997/8 fiscal year the Ethiopian Federal Ministry of Health launched the National Health Sector Development Program (HSDP). This program shifted the health system's focus from predominantly curative to more preventive and promotive care and prioritized the needs of the rural inhabitants who constitute 83% of the Ethiopian population. The "Accelerated Expansion of Primary Health Care Coverage" and the Health Extension Program (HEP) was launched in 2003.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Health system structure	How does CHW policy fit into wider health governance structures?	CHW programs in many settings remain peripheral to the rest of the health system. This undermines their legitimacy, hampers alignment of tasks and responsibilities, and may cut them off from mainstream funding sources.	There are three levels of health care provided in Brazil with strong emphasis on basic (primary) health care. This care is the entry point to more advanced care, but also has promotive and preventive components. Family Health Care Teams are the main service providers and are comprised of one doctor, one nurse, one auxiliary (assistant) nurse, and a minimum of four community health workers.	There are three tiers of governance in the Pakistani public health system: federal, provincial and district. Responsibility for health services rests with provinces, with the exception of a national Ministry of Regulation. The district level is responsible for allocation and supervision of LHWs. All tiers of government are involved in the LHW program, and LHWs are integral to service delivery of most community health initiatives in the country.	The rural public health system is designed from the village to the state level. In addition to an ASHA worker, each village should have an Anganwadi Worker (AWW). A multipurpose worker (MPW) and an auxiliary nurse midwife (ANM) are employed to conduct outreach to villages on a monthly basis. The MPW works out of the sub-center, a clinic that serves several villages. The ANM is based in the primary health center (PHC), a larger clinic that is to be open 24/7 and includes a doctor. Referrals can be made from there to the community health center (CHC) and district hospital.	South Africa introduced a district health system shortly after its first democratic election in 1994. The most recent health sector reforms, aiming at revitalizing PHC, have introduced community health services consisting of clinics, school health teams, specialist teams, and PHC outreach teams at community and household levels. First-level hospital care is rendered through district hospitals, and referrals take place from these to secondary and tertiary hospitals.	The Ethiopian health system is decentralized and has been reorganized into three tiers: (1) primary healthcare units comprised of a health center and five satellite health posts along with district/ <i>woreda</i> hospitals; (2) zonal/general hospitals; and (3) specialized/referral hospitals.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Structure of the program	How is the program integrated/aligned with the formal health system?	Signals how the program is located in the governance structures of health system.	CHAs operate as members of the family health care teams (<i>Equipo de Saúde Familiar</i>) that are managed by municipalities. These teams are based within the Family Health Program clinics and provide services to 600-1,000 families or a maximum of 4,500 people.	LHWs are attached to a local health facility, but they are primarily community-based, working from their homes. The homes of LHWs are named Health Houses, and emergency treatment and care are provided from these houses.	ASHAs are based in their villages but refer people to their local CHC and PHC. Village Health and Sanitation Committees (VHSCs), composed of village residents including the ASHA, also provide support for the ASHA's activities (see: Local Governance). Although service delivery varies by state, in general, ASHAs are expected to attend weekly meetings at their local PHC and make home visits in the community as needed. They work approximately 2 hours a day, four days per week.	The new system for the first time sees CHW as part of the system of service delivery. Similar to the Brazilian model, PHC outreach teams consist of 5-6 CHWs supervised by a nurse. They render services in households and communities, and refer patients to clinics as needed.	The aim of the HEP is to "provide equitable access to promotive, preventive and select curative health interventions through 30,000 government-salaried Health Extension Workers (HEWs), two per <i>kebele</i> (neighborhood), located at a health post. The HEWs, young local women with grade 10 education, are recruited by Kebele and Woreda Councils and given one year of training prior to employment with the Woreda Health Office.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Employment status of CHWs	<i>Are CHWs employees of the state and/or appointed by communities?</i>	<i>Signals who CHWs are accountable to, and how firmly embedded they are in structures of the health system.</i>	State employees	State employees	Considered volunteers but receive a government stipend.	Employed by NGOs who in turn have service contracts with state health services at district level.	State employees
Program financing	<i>How are CHW programs financed?</i>	<i>How CHW programs are financed reflects both national and local priorities and is also a key governance mechanism.</i>	The Family Health Program is co-funded by states and municipalities, but regulated by the national government. The CHW program is an integral part of Family Health Program and thus funded as part of it.	The Pakistani government is the largest funder of LHW services, although the program has been underfunded since its inception. The vast majority (around 70%) of the costs are comprised of LHW stipends, drugs and contraceptives. 4% of overall costs are for training.	In 2006, the MoHFW stipulated that the program would cost US\$185 per ASHA. This included the costs of selection, social mobilization, training, drug kits, identity cards and support for ASHAs through the PHCs and supervisors. It did not include the ASHAs' stipends, which were to come from the budgets of other MoHFW initiatives.	In the past, programs were largely funded from external grants. The new program will increasingly be funded through the health budget.	Financed by a mix of national and sub-national government entities, bilateral and multilateral donors, non-governmental organizations, private contributions, along with user fee revenues. At the local level, financing and planning are decentralized and the <i>woredas</i> receive block grants to cover HEP expenses.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Program scale-up	<i>Will the program be taken to scale and, if so, how will this occur?</i>	<i>CHW programs generally aim to improve access to and quality of health care for remote and poor communities.</i>	In 1990 there were 78,805 CHAs and there are now over 236,000 CHAs that provide services to 98 million people within 85% of Brazil's municipalities.	A 2000 evaluation estimated that 150,000 LHWs were needed to obtain optimal coverage in the country. Since then there has been a consistent scale-up, to 90,074 in 2008. This increased LHW coverage in more rural and poorer areas, but the program still does not reach the most disadvantaged areas...	Initially (2005-2008) the ASHA program was a component of the National Rural Health Mission only in 18 "High Focus States" and in the tribal districts of other states. In 2009 the program was extended to cover the entire country. The target number of ASHAs is 888,650; 94% have now been selected.	The intention is to roll the program out nationally. Numerous pilot sites are operational at this stage and are being carefully monitored and evaluated.	There have been four HSDPs since its inception in 1997. Rollout has occurred in a step-wise manner, in which the speed was influenced by available resources for health posts and presence of eligible women to become HEWs.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Local (community) governance	<i>How are communities involved in decision-making about CHW activities at local level? Are they involved in selection? Can they hold CHWs to account? Can they influence decision-making about funding, support, etc.?</i>	<i>Community acceptance and therefore community participation is considered central to any CHW program, but mechanisms of community participation in governing programs are often poorly developed and dysfunctional.</i>	Community governance functions through national, state and municipal health councils, over 5,500 municipal councils participating. Councils are comprised of 50% users, 25% health workers and 25% health managers and service providers. Health conferences are also held every four years to propose directives for health policies.	The selection committee for LHWs includes a person nominated by the local community, and potential LHWs are identified through local community structures were possible. Program planning, implementation and monitoring and evaluation also should include community participation. However, the extent to which this occurs varies.	ASHAs are to be selected by and accountable to the local village level government, called the Gram Panchayat, through a participatory process involving the whole village. After selection, ASHAs are to work closely with the Village Health and Sanitation Committee (VHSC). This committee is comprised of key stakeholders in the village.	All health districts have district health councils who have representation from civil society. Implementation is at an early stage and uneven throughout the country. Furthermore, community health committees are supposed to oversee the functioning of service delivery in communities and facilities.	There are active health committees involved in the selection and oversight of HEWs and they are involved in these activities with CHPs in some geographical areas. Additionally, the <i>kebele</i> council is supposed to be involved in every step of the HEP from program planning through to evaluation.

	KEY GOVERNANCE CONSIDERATIONS	RELEVANCE AND IMPORTANCE OF THE ISSUE	COUNTRY				
			BRAZIL FAMILY HEALTH PROGRAM	PAKISTAN LADY HEALTH WORKER PROGRAM	INDIA ASHA PROGRAM	SOUTH AFRICA WARD-BASED PRIMARY HEALTH CARE (PHC) OUTREACH TEAMS	ETHIOPIA HEALTH EXTENSION PROGRAM
Inception year (as a national program)			1994	1994	2005	2011	2003
Relationship with the formal health services	What are lines of reporting and accountability? What is the level of integration?	In many CHW programs, links with the formal health services are tentative and not well thought through. Professionals at the first formal level of service delivery (health centers, etc.) often resist engagement with and support for CHWs.	CHAs are managed by local nurses who spend half their time working in the local clinic. Thus, CHAs are closely integrated into formal health services. They also have strong referral systems in which they report any ill person within their catchment area to a nurse.	All LHWs are attached to a First Level Health Facility in the form of either a rural health center or a basic health unit. LHWs generally receive their supplies from these facilities, although there are challenges with insufficient staff and stock outs at local clinics.	Although ASHAs are supposed to be representatives of and accountable to the people, they receive their payments through the ANM at the PHC and are often treated as extensions of the health system.	CHWs are managed by nurses and structurally linked to the formal health services. Prior practices and experiences were very mixed and dependent on links between NGOs and health services. They were often dependent on personal relationships as well.	HEWs are full members of the formal health workforce. They staff health posts and are responsible for CHPs and model families. Many HEWs work in hard-to-reach and isolated areas, where supervision, supplies and referrals remain a challenge.

Table 4. Governance structures and mechanisms in relation to the definition, selection, training, support and remuneration of individual CHWs⁷

GOVERNANCE ISSUE	BRAZIL	PAKISTAN	INDIA	SOUTH AFRICA	ETHIOPIA
CHW Criteria	CHAs are adults who work in the community where they are from/ permanently reside. The only other selection criterion is completion of primary school.	LHWs are females who have a minimum of eight years of education. They also must be between 18 and 45-50 years old, reside in and be acceptable to/ recommended by their community, and preferably be married with children.	ASHAs are to have class eight education or higher and preferably be between the ages of 25 and 45. ASHAs are to be “daughter-in-law” of the village, i.e., married women (or widowed or divorced) so that they are likely to live in the village for the foreseeable future.	Criteria for selection vary, but in most cases, cadres who were active through NGOs prior to the introduction of a national program are being drawn on to continue rendering services.	HEWs are adult females who have completed 10 th grade. HEWs are supposed to work in or close to their native community/ permanent residence.
Selection Process	CHAs are hired by their municipalities based on their demonstrated abilities while addressing simulated community problems during the selection process.	LHW are selected using a clearly delineated process. LHW posts are advertised and applicants are then interviewed and selected based on pre-set criteria by a selection committee.	Local governance structures and the wider community should be involved in ASHA selection. However, these selection processes are not always adhered to.	Selection processes vary widely, depending on the NGOs who contract with the CHWs.	There are active health committees that are involved in the selection of HEWs from the local community. CHPs are nominated and elected by the community or selected by HEWs and approved by the community.
Scope of Work	One of the goals of the Family Health Program is to promote community engagement and to analyze the community’s needs. Thus, CHAs are expected to serve as the link between the Family Health Care Teams and the surrounding community. <i>Family Health Care Teams provide comprehensive care through promotive, preventive, recuperative, and rehabilitative services. Central services provided by CHAs include the promotion of</i>	LHWs are expected to link the community to formal health services and to be members of the community where they work. They also provide a range of community development services and participate in community meetings. The LHW program has evolved over time. LHWs’ scope of services has grown from an initial focus on mostly	The government of India describes the ASHA’s role as having three key components. First, ASHAs are to play an important role in achieving national health and population policy goals. Second, they are to act link rural people with the health system. Third, they are to serve as social change agents who will create awareness on health and its social determinants and mobilize the community towards	A PHC outreach team will initially be responsible for: <ul style="list-style-type: none"> ▪ Identifying and capturing details of people who live in the households in the catchment area and assessing those who are most at risk; ▪ Providing health promotion and prevention; 	HEWs are full-time employees who are supposed to split their time between health posts and the community. HEWs should spend at least 80% of their time in these community-based activities, although considerable anecdotal evidence suggests this is not the case. HEWs’ main role is in health promotion, disease prevention, and

⁷ The information in this table is drawn from the case studies developed for this series of chapters (see Appendix 1).

GOVERNANCE ISSUE	BRAZIL	PAKISTAN	INDIA	SOUTH AFRICA	ETHIOPIA
	<p><i>breastfeeding, the provision of prenatal, neonatal and child care, the provision of immunizations, and the clinical management of infectious diseases, including screening for and providing treatment for HIV/AIDs and tuberculosis. CHAs register the households in the areas where they work and are also expected to empower their communities and link them to the formal health system.</i></p>	<p>maternal and child health; it now also includes participation in large health campaigns, newborn care, community management of tuberculosis and health education on HIV/AIDS.</p>	<p>local health planning and increased utilization and accountability of the existing health services. Anganwadi Workers (AWWs) provide basic child health information, medicine and nutritional supplementation to children younger than 6 years of age, pregnant and lactating women, and adolescent girls.</p>	<ul style="list-style-type: none"> ▪ Testing for HIV and screening for TB; ▪ Checking immunization status of children; ▪ Facilitating use of antenatal care early in pregnancy and use of contraception; and ▪ Responding to the local burden of disease. 	<p>treatment of uncomplicated and non-severe cases of malaria, pneumonia, diarrhea, malnutrition and measles in the community. HEWs provide a range of services including: prevention/health promotion/health education role; support role for outreach work by health services; community-based distribution role that does not involve clinical judgment; clinical case-management role that involves exercising clinical judgment; ongoing care or support role to assist people with a chronic illness (e.g., HIV/AIDS); and participation or support role in campaign-type activities. They also provide immunizations, injectable contraceptives, basic first aid, as well as diagnosis and treatment of malaria, diarrhea and intestinal parasites.</p>
Training	<p>The national Ministry of Health – with Ministry of Education approval – is responsible for the training of CHAs in Brazil and trains them in regional health schools. CHAs receive eight weeks of</p>	<p>LHWs are trained for three months on PHC in classrooms and then have one year of on-the-job training. This should include one week of training per a month for</p>	<p>ASHAs are to receive 23 days of training over their first year, based on five training manuals. They are then to receive 12 additional days of training each year thereafter. Two</p>	<p>The training existing CHWs have received varies widely, and has been provided by a wide range of NGOs and training providers. The MOH</p>	<p>HEWs have more than one year of pre-service training conducted by trainers that were capacitated using a train-the-trainer approach. HEW training</p>

GOVERNANCE ISSUE	BRAZIL	PAKISTAN	INDIA	SOUTH AFRICA	ETHIOPIA
	<p>training from local nurses, followed by four weeks of supervised field work. This includes training on home visits, how to conduct a family census, and then on specific priority health care interventions. CHAs receive monthly and quarterly ongoing education training during meetings. CHAs are also trained by nurses and state health secretariat staff in their local clinics; these trainers undergo an 80-hour training module.</p>	<p>a period of 12 months and 15 days of refresher training each year, although there is substantial variation in training patterns across provinces. The Federal Project Implementation Unit is responsible for approval of all LHW training and, with the Ministry of Health, develops training curriculum, organizes training, and trains master trainers while Provincial and District Project Implementation Units are responsible for the local trainings.</p>	<p>additional training modules have just been added to the training regimen. ASHA training has in some states been outsourced to NGOs, and in other states is being conducted by health professionals within the public system. Training generally takes place in a cascading manner, by which state teams are trained and then pass on their training knowledge to district training teams. These district teams then pass on their training to block-level ASHA trainers. ASHAs are then to be trained at the block or sub-block level.</p>	<p>is now aiming to standardize training, although this process is still awaiting finalization.</p>	<p>is a collaboration of the Ministry of Health and the Ministry of Education and occurs at 40 Technical and Vocational Education Training Schools.</p> <p>CHPs have a brief initial training that is conducted by the HEWs that is less than 3 weeks in length.</p> <p>Women from model families are given 96 hours of training on prevention of communicable diseases, family health, environmental and household sanitation, and health education.</p>
<p>Feedback and Supervision</p>	<p>CHAs are supervised by nurses and physicians from the local health centers. Supervisory nurses spend 50% of their time in these supervisory roles and the rest of the time staffing the local health center, a factor that has been identified as a critical component to the program's success.</p>	<p>Supervision is highly organized and tiered in the Pakistani LHW program. LHWs are each attached to a public health clinic and are supervised on a monthly basis by a LHW supervisor (LHS). There are two layers of supervision above the LHS. LHWs should have community-based supervision at least once a month in which supervisors meet with clients and with the LHWs in the community where the LHW works, review the LHW's work,</p>	<p>According to national guidelines, there is to be one ASHA Facilitator for every 20 ASHAs. The Facilitator is to help with the selection of the ASHA, run monthly ASHA meetings, establish a system to respond to ASHA grievances, accompany ASHAs on home visits, maintain records of ASHA activities, attend Village Health and Nutrition Days with the ASHAs, and attend monthly Block PHC meetings. The ASHA facilitator is supervised at the Block level by the</p>	<p>Feedback and supervision is presently provided through NGOs but will in future be provided through the nurse supervisor attached to every outreach team.</p>	<p>HEW supervision appears to vary across the history of the program and geographical contexts. In 2005 HEWs had relatively high levels of supervision with an average of three supervisory visits over the course of nine months. There are supposed to be multiple levels of HEW supervision, including the <i>woreda</i> supervisory team that is comprised of a health officer, public health nurse, environmental/ hygiene</p>

GOVERNANCE ISSUE	BRAZIL	PAKISTAN	INDIA	SOUTH AFRICA	ETHIOPIA
		and jointly make a work plan for the next month.	Block Community Mobiliser, who is in turn supervised by the District Mobilization / Coordination Unit, which liaises with the state-level ASHA resource center.		expert, and a health education expert. HEWs supervise other cadres such as CHPs, traditional birth attendants, and Community-based Reproductive Health Agents.
Compensation/incentives	CHAs are salaried, full-time workers, but there is a large variation throughout the country in their salary. CHAs are supposed to earn at least the national minimum wage of ~US\$112 each month.	LHWs receive a salary of about \$343 per year and are not supposed to engage in any other paid activity, although some do. The LHW stipend is often the only source of family income and is a critical family support.	Although ASHAs are considered volunteers, they receive outcome-based remuneration for facilitating institutional deliveries, immunization, family planning (surgical sterilization) and toilet construction. More recently, an incentive of US\$4.60 (Rs.250) has been established for providing home-based newborn care. Facilitating institutional deliveries is the most common activity for which ASHAs receive payments. ASHAs are also compensated for training days, attending meetings, and additional health-related activities. The amounts vary from state to state.	In most provinces in South Africa, NGOs receive funding from the MOH to contract with and pay CHWs. More recently, at least one province has decided to contract with CHWs directly and put them onto the government payroll. Salaries are approximately at the national minimum wage.	HEWs are regular employees with a regular salary and benefits. A range of non-financial incentives have been effective with CHPs, including formal recognition, ongoing mentorship, certification, and community celebrations.
Career opportunities	No structured opportunities for career advancement for CHAs exists.	The LHW Program offers professional advancement opportunities for LHWs. LHWs can receive additional training to serve as a LHS, which is an incentive for good	Career advancement within the program for ASHAs is limited.	The issue of career development is not addressed in the new policy, but in several provinces pilots are underway to provide career paths into professions such as	HEWs who enroll in additional training can qualify as registered nurses.

GOVERNANCE ISSUE	BRAZIL	PAKISTAN	INDIA	SOUTH AFRICA	ETHIOPIA
		performance.		nursing and social work.	

Acknowledgments

Our thanks to Lauren Crigler, Steve Hodgins, Claire Glenton, Henry Perry, and Sharon Tsui for their thoughtful comments on earlier versions of this chapter.

References

1. Lewin S, Lavis JN, Oxman AD, et al. Supporting the delivery of cost-effective interventions in primary health-care systems in low-income and middle-income countries: an overview of systematic reviews. *Lancet* 2008; **372**(9642): 928-39.
2. Siddiqi S, Masud TI, Nishtar S, et al. Framework for assessing governance of the health system in developing countries: gateway to good governance. *Health Policy* 2009; **90**(1): 13-25.
3. Kooiman J, Bavinck M, Chuenpagdee R, Mahon R, Pullin R. Interactive governance and governability: an introduction *Journal of Transdisciplinary Environmental Studies* 2008; **7**(1): 1-11.
4. Mitchell SM, Shortell SM. The governance and management of effective community health partnerships: a typology for research, policy, and practice. *The Milbank quarterly* 2000; **78**(2): 241-89, 151.
5. Baez-Carmargo C, Jacobs E. A framework to assess governance of health systems in low income countries. Basel Institute on Governance 2011. http://www.baselgovernance.org/fileadmin/docs/publications/working_papers/Governance_of_Health_Systems.pdf
6. World Bank. Governance Matters 2008: Worldwide Governance indicators 1996-2007. Washington, DC: World Bank Institute, 2008
7. Lewis M, Pettersson G. Governance in Health Care Delivery: Raising Performance. Washington D.C.: The World Bank 2009. <https://openknowledge.worldbank.org/bitstream/handle/10986/4266/WPS5074.pdf?sequence=1>
8. Gopinathan U, Lewin S, Glenton C. Implementing large-scale programmes to optimise the health workforce: a multi-country case study synthesis.; 2013 (in preparation)
9. Culyer AJ, Lomas J. Deliberate processes and evidence-informed decision-making in health care: do they work and how might we know? *Evidence and Policy* 2006; **2**(3): 357-71.
10. Lavis JN, Boyko JA, Oxman AD, Lewin S, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP) 14: Organising and using policy dialogues to support evidence-informed policymaking. *Health research policy and systems / BioMed Central* 2009; **7 Suppl 1**: S14.
11. Nabudere H, Asiimwe D, Amandua J. Improving access to skilled attendance at delivery: a policy brief for Uganda. *Int J Technol Assess Health Care* 2013; **29**(2): 207-11.
12. Collins T. Health policy analysis: a simple tool for policy makers. *Public Health* 2005; **119**(3): 192-6.
13. Fretheim A, Munabi-Babigumira S, Oxman AD, Lavis JN, Lewin S. SUPPORT tools for evidence-informed policymaking in health 6: Using research evidence to address how an option will be implemented. *Health research policy and systems / BioMed Central* 2009; **7 Suppl 1**: S6.
14. Lavis JN, Wilson MG, Oxman AD, Grimshaw J, Lewin S, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP) 5: Using research evidence to frame options to address a problem. *Health research policy and systems / BioMed Central* 2009; **7 Suppl 1**: S5.
15. van Ginneken N, Lewin S, Berridge V. The emergence of community health worker programmes in the late apartheid era in South Africa: An historical analysis. *Soc Sci Med* 2010; **71**(6): 1110-8.

16. Brugha R, Varvasovszky Z. Stakeholder analysis: a review. *Health Policy Plan* 2000; **15**(3): 239-46.
17. Evans D. A stakeholder analysis of developments at the primary and secondary care interface. *The British journal of general practice : the journal of the Royal College of General Practitioners* 1996; **46**(412): 675-7.
18. Hyder A, Syed S, Puvanachandra P, et al. Stakeholder analysis for health research: case studies from low- and middle-income countries. *Public Health* 2010; **124**(3): 159-66.
19. Rachlis B, Ahmad F, van Lettow M, Muula AS, Semba M, Cole DC. Using concept mapping to explore why patients become lost to follow up from an antiretroviral therapy program in the Zomba District of Malawi. *BMC Health Serv Res* 2013; **13**: 210.
20. Lavis JN, Rottingen JA, Bosch-Capblanch X, et al. Guidance for evidence-informed policies about health systems: linking guidance development to policy development. *PLoS Med* 2012; **9**(3): e1001186.
21. Lehmann U, Sanders D. Community health workers: What do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers. Geneva: World Health Organization, 2007
22. Daniels K, Clarke M, Ringsberg KC. Developing lay health worker policy in South Africa: a qualitative study. *Health research policy and systems / BioMed Central* 2012; **10**: 8.
23. Hermann K, Van Damme W, Pariyo GW, et al. Community health workers for ART in sub-Saharan Africa: learning from experience--capitalizing on new opportunities. *Human resources for health* 2009; **7**: 31.
24. Pallas SW, Minhas D, Perez-Escamilla R, Taylor L, Curry L, Bradley EH. Community health workers in low- and middle-income countries: what do we know about scaling up and sustainability? *Am J Public Health* 2013; **103**(7): e74-82.
25. Rachlis B, Sodhi S, Burciul B, Orbinski J, Cheng AH, Cole D. A taxonomy for community-based care programs focused on HIV/AIDS prevention, treatment, and care in resource-poor settings. *Global health action* 2013; **6**: 1-21.
26. Victora CG, Aquino EM, do Carmo Leal M, Monteiro CA, Barros FC, Szwarcwald CL. Maternal and child health in Brazil: progress and challenges. *Lancet* 2011; **377**(9780): 1863-76.

Financing Large-Scale Community Health Worker Programs

Henry Perry, Francisco Sierra-Esteban, and Peter Berman

23 September 2013

Key Points

- Proper costing of a community health worker (CHW) program and assurance that those costs can be paid for on a sustainable basis are essential for an effective large-scale CHW program. Failure to do so has led to the demise of large-scale CHW programs in the 1980s.
- Direct and indirect costs of CHW programs need to be estimated, along with investment and recurring costs, in order to adequately plan for the sustainable financing of a CHW program.
- CHW program costs vary widely from country to country as a result of contextual factors, such as local labor costs, whether CHWs are paid or voluntary, and the degree to which the program is well-supervised with a strong logistics systems.
- Governments, local communities, and external donors are the main sources of financing for CHW programs.

INTRODUCTION

The first example of formally well-trained non-physicians to carry out duties that were normally given to physicians is Russia's Feldshers who, in the late 1800s, were trained as paramedics to assist physicians and to function in their stead in rural areas where physicians were not present. In contrast to the Barefoot Doctors in China and their forerunners at Ding Xian in the 1920s, Feldshers were literate and had three years of formal training. Large numbers of Feldshers also obtained training in midwifery.^{1, 2} Further, Feldshers were local people with limited training. Community health worker (CHW) and related programs have been promoted over the last half century as a principal means to extend basic health services to large populations of underserved people at low and sustainable cost. However, experiences with the last wave of major CHW development, during the 1980s, showed that the tendency to see CHWs as low-cost health care could be misleading. The relatively low cost of training and supplying individual CHWs—compared to more highly trained health workers—distracted attention from the large number of workers needed and the importance of financing a full range of costs that such programs might require to be successful. Insufficient funding was likely one reason why CHW programs in the 1980s were not sustained.

Financing mechanisms for CHW programs are more than just a means of generating resources. They can be means for incentivizing good performance, assuring sustainability, and fairly distributing the burden of health care costs. In low-income countries, governments have often under-invested in health, typically in the range of 5% of the national budget. Often, ministries of health have had little clout in the decisions of government finance. Political pressure from elite groups has emphasized support for curative care and urban hospitals. Political support for primary health care (PHC) has been limited, leading to limited political support for CHW programs. Often, financial resources for CHW programs are cut during time of budget shortfalls, thereby increasing pressures on these efforts.¹

Failure to Consider the Real Costs of CHW Programs

One of the lessons learned from the 1980s was that the planning of large-scale CHW programs failed to consider the real costs of the programs.² As one observer noted:

...in the decade following Alma-Ata, CHW programs had both low cost and low effectiveness. What the programs needed to improve was the combination of more adequate support, and that implied more resources.”³

The cost of supervision was an area frequently overlooked in those programs, and it was later determined that supervision costs can amount to as much as 40% of the salary cost of one CHW.⁴ Furthermore, costing a CHW program can be a complex exercise since, in contrast to vertical disease control programs that have distinct budgets from regular governmental operations, CHW programs are more horizontal, and costs are allocated to multiple budgeting authorities. Finally, it was often assumed at the outset that communities would pick up most of the costs of these programs, but this hope was never realized. The Bamako Initiative was an initiative to foster community contributions to support PHC services, including those of CHWs; yet, in spite of great initial enthusiasm, the initiatives were not financially sustainable.

Insufficient attention to the full resources needed for successful and sustained implementation is another reason why CHW programs from the 1980s faltered. The absence of fully defined costs and unrealistic plans exacerbated this problem. Particularly troublesome was the basic idea that once CHWs were trained, they could be sent back to their communities and the communities would somehow pay the costs required to support CHWs, with no additional budgetary commitment from government beyond the training. One expert panel convened by

the World Health Organization (WHO) reported in 1989 that “... experience now shows, however, that the costs of training, supervision, personnel, and transport can be very high, and that these require careful planning and make considerable demands on government expenditure.”⁵

Lehmann and Sanders, in their 2007 review of CHW programs for WHO, concluded that CHW programs are:

“... neither the panacea for weak health systems nor a cheap option to provide access to health care for underserved populations. Numerous programmes have failed in the past because of unrealistic expectations, poor planning, and an underestimation of the effort and input required to make them work. This has unnecessarily undermined and damaged the credibility of the CHW concept.”⁶

Although CHW programs are neither cheap nor easy to implement, the emerging consensus is that these programs are nonetheless a good investment to promote equity because as Lehmann and Sanders say, “... the alternative in reality is no care at all for the poor living in geographically peripheral areas.”⁶ Information in the public domain regarding the costs of CHW programs is scarce. In this chapter, we will attempt to share some of this information and link it to other information about financing and costing of health programs more generally.

Key questions to consider in financing large-scale CHW programs, which are discussed in detail below, are:

- What are the elements of CHW programs that need to be included in cost calculations?
- What are the full costs of CHW programs?
- What are the different options for the financing of CHW programs and the strengths and limitations of each option?
- What are some examples of how CHW programs have been financed?
- What guidance can be given to assure that financing becomes a sustainable positive element in CHW program development?

WHAT ARE THE ELEMENTS OF CHW PROGRAMS THAT NEED TO BE INCLUDED IN COST CALCULATIONS?

Total costing for any program activity can be complex. One has to consider all relevant costs, both investment and recurring costs, direct and indirect costs, and not only financial costs but social costs, as well. In making decisions about investments, one should compare the costs of alternative programs along with their relative efficiency and effectiveness. However, such a formal analysis is rarely possible because of its complexity.

A typical cost framework will distinguish between investment costs (i.e., those one-time costs needed for program start-up) and recurrent costs (i.e., the costs that must be met annually to sustain programs). Table 1 provides a typology of CHW program costs that need to be considered during the planning stage of a CHW program.

Table 1. A typology of costs for CHW programs

TYPE OF COST	INVESTMENT COSTS	RECURRING COSTS
DIRECT	Initial planning, management, and administration	Ongoing planning, management, and administration
	Establishing governance and stewardship (including certification, accreditation, and quality control)	Ongoing costs of governance and stewardship (including certification, accreditation, and quality control)
	Developing training institutions, and initial training of CHWs and supervisors	Costs of continuing education of CHWs and supervisors
	Initial recruitment and training of CHW and supervisors	Costs of recruitment and training of new CHW and supervisors
	Initial orientation of health staff	
	Initial community engagement, engagement with community leaders, and community mobilization (including publicity)	Ongoing costs of maintaining community engagement, engagement with community leaders, and community mobilization Salaries and benefits for CHWs and their supervisors; accessories for identification of CHWs (uniforms, badges, tec.) and other incentives (e.g., costs of community appreciation days)
	Initial purchase, materials, supplies and medicines, drug kits	Annual purchase of materials, supplies, medicines and drug kits including contracting and procurement costs as well as distribution costs
	Initial purchase of equipment, furniture, and vehicles	Maintenance or rent of vehicles, furniture, and equipment
	Costs of buying or building new operational facilities	Utility bills, maintenance and repairs
	Planning of monitoring and evaluation	Ongoing monitoring and evaluation
INDIRECT		Costs incurred by CHWs themselves (out-of-pocket expenses they have to make to carry out their work, opportunity costs) Costs to the health system of additional health care generated by CHW referrals Costs to patients and their families for services provided by CHWs Costs of high CHW turnover (disruption of services, low staff morale, poor quality, recruitment of replacements)

Costing of specific activities in large-scale CHW programs are shown in Table 1. **Investment costs** (including capital expenditures) involve, of course, planning at the outset, which requires budgeting for time and money. Then, there are important issues related to certification, accreditation, and quality control that need to be budgeted at the outset, as well as the development of training institutions for the CHWs and their supervisors. Orientation of health staff to the role of CHWs is an important activity to carry out up front before program implementation, as well as publicity, community engagement, and community mobilization. Other investment costs include the initial costs of vehicles, equipment, materials, supplies and medicines, and drug kits. Capital expenses for vehicles and equipment will need to be made on an ongoing basis, as well.

Recurrent costs are those costs required to fund the operational expenses year to year. Direct costs are those that are obvious and budgeted for, while indirect costs refer to the support provided to the CHW program from other parts of the health system through administration, training, supervision, and supplies. Indirect costs also include costs incurred by patients or their relatives in obtain services from CHWs.

Table 1 outlines the types of direct annual operational expenses that need to be budgeted for. These include the costs of recruitment and training, compensation, supervision, supplies and equipment, community engagement, and monitoring and evaluation (M&E). Even when CHWs work as volunteers, there are costs incurred by the CHW that need to be considered, whether they are opportunity costs (what a CHW could have earned if she had not been working as a CHW) or actual expenses that CHWs may incur in their work that they are not reimbursed for (such as paying for transport to attend meetings or pick up supplies when these are not reimbursed). The value of non-monetary compensation also needs to be considered. For examples, sometimes CHWs receive free health care from the government health system as a form of compensation. This would probably be considered an indirect expense. Salaries or incentives for supervisors need to be included, as well.

In contrast to holding training at the national level in a centralized location (e.g., in the capital), local training cuts down on the costs of transport, lodging, and per diem expenses needed for trainees, but it can also reduce standardization and control over quality of training. In Tanzania, the cost of local-level training was 20% of the cost of regional-level training.⁷ There are other costs to be considered. The length of training, of course, has a great impact on the cost of training. When supervisors need transport to visit CHWs at some distance, these costs can be significant. In addition to costs of recruitment and training are the costs (both financial and in terms of reduced health benefits) of CHW turnover, including disruption of services, poor quality of services, and low staff morale by being short-staffed as the remaining workers may have a greater workload.⁸

Maintaining a reliable supply chain for medicines, supplies, and equipment needed by CHWs may involve contracting and procurement costs, distribution costs, and monitoring and auditing costs. Accessories for identification of CHWs in the community (e.g., uniforms, T-shirts, dresses, badges, and so forth), as well as costs for recognition of good performance and so forth need to be taken into account. M&E activities require personnel, equipment, development, and utilization of health management information systems and evaluation surveys. Travel allowances are sometimes needed for CHWs and usually for supervisors.

If CHW programs work well, they will place additional demands on other routine services, which should be anticipated. For example, beneficiaries may demand additional health services because of improved access to PHC. The costs of providing these additional health care services will need to be considered.

WHAT ARE THE FULL COSTS OF CHW PROGRAMS?

CHW program costs can be considered from a variety of vantage points. This includes costs that need direct funding, as well as in-kind costs. These costs can be calculated as total program costs, costs per program beneficiary or cost per CHW. Cost per program beneficiary may not be the same as the cost per capita (of the total population) if the CHWs are serving a targeted population, such as mothers and children. Thus, it is important to be clear which cost definition is being used and why it is preferable.

Table 2 lists costs reported by the large-scale CHW programs described in detail in the Appendix. These costs are only roughly comparable because they have not been adjusted for the

same year, since the data have been obtained from reports prepared mostly during the past decade. Also, the purchasing value of a U.S. dollar varies substantially from country to country. Finally, the level of training provided, as well as the duties and time commitments of the CHW, vary substantially from one country to another. Further, monthly salaries vary from free local medical care for female community health volunteers (FCHVs) in Nepal to US\$25-50 in India and Pakistan to US\$84 in Ethiopia to US\$100–\$200 in Brazil. The annual cost per CHW is in the range of US\$170 in India (not including performance incentive payments) to US\$745 in Pakistan.

Berman⁹ was able to assemble some costs for several large-scale CHW programs in the 1980s. These costs were a small fraction of what is now being proposed for future CHWs in Africa. At that time, for large-scale CHW programs from India, Indonesia, Peru, and Thailand, where CHWs were working as volunteers (except in India, where they were receiving a modest honorarium), the cost per CHW (for training, supervision, supplies, and drugs) was in the range of US\$38 per year per CHW in Indonesia to US\$725 per year per CHW in Peru. The main expenditures required to support these programs were for training, supplies and equipment, drugs, and the time required for monitoring and supervision.

A very different approach to costing of CHWs was undertaken by McCord and colleagues, as part of their proposal to train one million CHWs for Africa.^{10, 11} They carried out a costing exercise to estimate the cost of a modern “professionalized” generalist multipurpose CHW in Africa. These “professionalized” CHWs would be able to: diagnose and treat childhood pneumonia, malaria, tuberculosis, and neglected tropical diseases; screen for childhood and maternal malnutrition. They would receive also one year of training (three months didactic and nine months of supervised field experience) and a monthly salary of US\$80. There would be one CHW manager for each 30 CHWs. Services provided would include screening for tuberculosis, deworming, and screening pregnant women for HIV infection. Ultimately, McCord et al. estimated that the total cost of training, equipping, and supporting such a CHW would be US\$3,750 per year.

Providing one generalist CHW for every 650 inhabitants and one childbirth specialist for every 3,500 inhabitants in rural Africa would cost US\$2.6 billion, or US\$6.86 per person covered by CHW services. These authors further suggest that a well-funded CHW program would cost only a small fraction of PHC services overall, which cost in a low-income country in the range of US\$50–55 per person.

Another approach to considering the costs of a CHW program is to include not only the cost to provide the program but also the cost to use it. For medical services, these costs include transport and opportunity costs for patients and their families, which for poor people in isolated rural areas, can be significant when obtaining care at distant facilities. As such, the cost savings provided by CHWs, when they can reduce costs for patients, is significant, particularly for those with the lowest incomes.⁷ This whole approach to costing—comparing the costs of the CHW program and the benefits it provides to the cost of providing the same services and benefits through facility-based services—is an important exercise, albeit one that can be resource-intensive. Notably, this approach can provide important leverage for justifying the cost of a CHW program to decision-makers.

Finally, program unit costs, as we alluded to earlier, may be affected by the scale of the program. There is some evidence that, in general, health program costs may increase as the program goes to scale, as the coverage of services increases, and as the density of the population served by the program decreases. In general, as health program coverage expands into remote areas, the marginal cost of reaching each additional person increases. In their paper, Johns and Torres¹² describe four mechanism that may explain this situation:

1. Geography and infrastructure: Costs of transporting, training, supplying, and monitoring may be higher in areas of difficult access and undeveloped infrastructure.
2. Human resources: Higher incentives may be required to locate health personnel in remote areas.
3. The extent of fixed costs: Increasing coverage can exceed the productivity function of some goods. For example, a vehicle may be needed to transport only one person or small number of vaccines to areas of remote access or low population density.
4. Managing the process of scale-up.

Table 2. Costs for Selected Large-Scale CHW Programs

COUNTRY/CHW	MONTHLY SALARY/COMPENSATION/ INCENTIVE FOR EACH CHW	ANNUAL COST PER CAPITA	ANNUAL COST PER CHW	SOURCE OF FUNDING
Brazil/ Community Health Agent (CHA)	\$100-200	US\$41-50 (for the entire primary health care team, including the CHAs). According to one estimate, CHA salaries constitute 22% of the primary health care team salaries, and the cost for a CHW to serve an individual is \$9-11 per year.		Mostly, the states and municipalities (states are required to allocate 12% of their total budgets to health, and municipalities are required to allocate 15%). Health Councils exist in some municipalities. These councils help to guide health spending at the local level and mobilize community engagement. However, there are some employer health insurance payments made.
Ethiopia/Health Extension Workers (HEWs) and Health Development Army Volunteers	For HEWs, regular monthly salary of \$84 with benefits For volunteers, formal recognition, certificates, and community celebration			National and sub-national entities, bilateral and multilateral donors, user fees; districts (<i>woredas</i>) receive grants to cover CHW program expenses.
India/Auxiliary Nurse-Midwives	Salaried government employees, those working at sub-centers, are given living accommodations.			From national government
India/Anganwadi Workers	Approximately \$25. They also qualify for a government life insurance scheme. The basic salary (paid with funds from the central government) is often supplemented with additional payments from the state government to additional activities beyond those expected by the central government.			90% from the national government and 10% from the state budget

COUNTRY/CHW	MONTHLY SALARY/COMPENSATION/ INCENTIVE FOR EACH CHW	ANNUAL COST PER CAPITA	ANNUAL COST PER CHW	SOURCE OF FUNDING
India/ASHA Workers	Outcome-based remuneration related to facilitation of institutional deliveries, provision of home-based neonatal care, immunizations, facilitation of family planning (sterilizations), and toilet construction. They are also compensated for attending trainings and meetings. They receive approximately \$10 for facilitating an institutional delivery and \$3 for each child they facilitate to attend an immunization session.		The program is supposed to cost approximately \$170 per AHSA worker per year for all expenses except the outcome-based incentives. This cost includes the selection process, social mobilization, training drug kits, identity cards, and supervision. But because of a lack of absorptive capacity, only half of the allocated budget was spent between 2005 and 2011.	
Nepal/Female Community Health Volunteers (FCHVs)	They receive a dress allowance, an incentive for timely retirement, and free local health services. They are also given a badge, an ID card and an annual day of honor recognizing their work. Local endowment funds exist that are controlled by Village Development Committees which FCHVs can draw from to support income-generation activities. The endowment fund is approximately \$500 per FCHV.			
Pakistan/Lady Health Workers (LHWs)	\$30 per month (paid directly into personal bank accounts). Payments are frequently delayed.	\$0.75 per person served per year	Approximately \$745 per year. This is mostly for salary, drugs and supervision. 4% was for training.	89% from the government and 11% from donors during the first 8 years (1995-2003)

Note: These are all CHW programs included in the Case Studies section of the Appendix. References can be located there. The dollar amounts cited here are not directly comparable since they year of the report varies as does the country of origin, so purchasing power parity has not been accounted for.

Box 1. Example of a Cost Analysis of a CHW Program in South Africa

In 1997, Bupendra Makan and Max Bachmann carried out an economic analysis of six NGO CHW programs in the Western Cape Province of South Africa.¹³ The categories of costs are similar to what we have described here. The analysis found that annualized capital (investment) costs ranged from 5–12% of total costs. It also found that there appeared to be economies of scale, with larger programs having smaller per capita expenses for training, supervision, and support. In addition, it found that programs that had been started more recently had higher costs than those that had been operating for some time.

WHAT ARE THE DIFFERENT OPTIONS FOR FINANCING CHW PROGRAMS AND THE STRENGTHS AND LIMITATIONS OF EACH OPTION?

As shown in Table 1, sources of funding range from the central national government to a combination of revenue from the central national government, state government, and local municipalities, to local contributions from communities (via user fees, volunteer donation of time by CHWs to general community contributions), to funding from international donors. When CHWs are volunteers, they are in fact a major source of the funding for the program. We will consider briefly some of the advantages and drawbacks of each of these sources of financing. Key considerations here are who bears the burden of financing, whether the financing mechanism has incentives for efficiency and quality and how sustainable it is, and what the risks to sustainability are.

The Government as Funder

Funding from government has important advantages, most notably job security for the individual CHW and stability (of a sort) for the program. It also helps the CHW program to achieve a higher degree of equity than would be possible with local community financing. General revenue tax financing is generally more equitable than user-financed services. Programs that rely primarily on community financing, such as fees for services, place greater burdens on poor communities and the sick.

The ASHA Program in India represents an interesting case in which the available government funding actually exceeded the amount spent by the program. Beginning in 2006, the government budgeted approximately US\$167 for each ASHA worker per year, but actual expenditures were substantially less than this, particularly in the poorest states such as Bihar. According to a program evaluation:

“The primary reason for this low expenditure is the inability or unwillingness to invest in management and support structures at state, district and block levels... Expenditure rates are also reflective of the quality of political and administrative support the programme as the willingness to put money where it matters.”¹⁴

One of the inherent problems with government funding, particularly from the central level, has been the vulnerability of CHW programs to cutbacks in funding when government shortfalls occur. Even though government funding has a certain degree of sustainability built into it, it has its own instability, as well. The lack of strong political support to continue funding levels for CHW programs in the face of competing demands has been a recurrent problem for large-scale public sector CHW programs.

The Community as the Funder

The concept of community financing is an attractive one, but unfortunately has proved to have serious limitations. Numerous examples exist of failures of sustainable community funding support for CHW activities.¹⁵ Frankel concludes that virtually no examples exist in which community financing led to consistent and regular payment of CHWs.¹⁶

It is not uncommon for communities to provide labor and pay for the construction of a community health post from which the CHW will work. Profits from revolving drug funds might be used to pay for maintenance of a health post, purchasing supplies, or providing payment to the CHW. Fee for service by CHWs is generally considered to be open to abuse (by placing the profit motive and private practice over the real needs of villagers) and for this reason is not recommended by UNICEF and WHO.¹⁶

The Chinese Barefoot Doctors were funded primarily through this approach initially. This was a unique experience since all community assets were controlled by the Communist Party and they could decide how to use them. Once the collective cooperative economy gave way to private ownership of land, this funding was no longer available and so the program began to be largely financed by fee for service, and the number of Barefoot Doctors gradually declined and now the program is virtually non-existent.

It is possible that too much reliance on community financing can exacerbate inequities since the poorest communities will likely have the greatest health problems but have also the least capacity to pay for services. However, in the case of BRAC Shasthya Shebikas, they earn most of their income by selling drugs and health-related products at a small markup. Since they are closely supervised, it does not appear that the sale of commodities is distorting their activities and the communities, even though they are quite poor, are capable of providing this financing. The incomes of Shasthya Shebikas is quite modest, usually only \$10–20 per months (see Box 1).

The CHW as a Volunteer (and therefore the “donor” of his/her time)

This form of community financing, although attractive on paper when making budgets, has serious limitations when a program is expecting a significant amount of work from the CHW. There is a general consensus that this approach can be unjust, inequitable, and unsustainable in the long term, although exceptions do exist. Frankel, in his landmark overview of CHW programs published in 1992, concluded that “there is little evidence that the mobilization of volunteers in national CHW programmes is an effective policy.”¹⁶ At the Yaoundé Conference, sponsored by WHO, the participants concluded that “it may be unreasonable, if not unfair, to expect individual CHWs themselves to contribute to the labour costs of the scheme.”¹³ This conclusion applied to situations in which CHWs have no other source of income and a significant portion of the day is needed to meet the job requirements.

Frankel goes on to say, however, “It is difficult to generalize on this issue, for there are clearly major differences in the time commitment of a CHW whose task it is to offer information on health issues to ten households, compared to the time required for a CHW to offer a curative and preventive service to a population of over one thousand.”¹⁶

Governments face formidable challenges by giving formal recognition and salaries to CHWs because of the inherent risk of CHWs unionizing and demanding higher salaries and more benefits. Even though individual salaries are low, the financial implications of these pressures are considerable given the large number of workers involved. Serving in a voluntary role can have certain benefits that are not commonly appreciated. In some settings, government workers are seen as unmotivated and unproductive or local hostility toward the government exists. In these settings, not linking CHWs to government salary support can be beneficial for a CHW program.

There are surprisingly positive experiences of NGOs recruiting and effectively using volunteer CHWs. One of these approaches involve Care Groups, in which a paid low-level promoter meets with a group of 10 or so volunteers for two hours every two weeks, and then the volunteer visits with women in 10 adjacent households to convey a key health message. Such engagement requires perhaps four to five hours per week. These experiences have been highly empowering and satisfying for the CHWs, and low rates of attrition have been experienced during the four to five year cycle of project funding.¹⁷⁻¹⁹ These programs still require training and supervision, support, incentives (such as T-shirts, skirts), annual community recognition days, and so forth.

One of the world's pioneer CHW programs, the Jamkhed Comprehensive Rural Health Project, has had a highly stable group of volunteer CHWs, with many serving in this capacity for 20 or even 30 years. This has been possible by giving the CHWs training in income-generating skills so they can earn funds on the side in addition to their activities as a CHW. But in general, volunteerism has been associated with a high attrition rate, leading to increased costs of recruitment and training.

External Donors

External donors are most likely to pay for certain start-up costs, such as planning, policy advocacy, technical support, initial training, and procuring an initial drug stock or an initial set of supplies and equipment. They are unlikely, however, to pay for long-term recurring expenses.

WHAT ARE SOME EXAMPLES OF HOW CHW PROGRAMS HAVE BEEN FINANCED?

Boxes 2 and 3 provide examples of very different forms of financing of two large-scale CHW programs: BRAC's Shasthya Shebika Program in Bangladesh and the Community Health Agent Program in Brazil.

Box 2. Financing of the BRAC CHW Program (Shasthya Shebikas)

The Shasthya Shebika CHW Program is of significance for multiple reasons: 1) its scale, with some 80,000 workers, 2) its innovative financing scheme, and 3) it is an example of an NGO working at large scale (serving 110 million people in Bangladesh). Shasthya Shebikas are first and foremost a member of a BRAC women's micro-credit savings group. They then qualify for training in one of a number of multi-sectoral programs, including health. After four weeks of initial training, they begin to function within the BRAC community health system that functions alongside the formal government health system and the system of informal providers (of which there are many in Bangladesh). Shasthya Shebikas receive their income from a variety of sources. First of all, they sell commodities such as drugs for minor illnesses, contraceptives, feminine hygiene supplies, iodized salt, oral rehydration solution, safe delivery kits, sanitary napkins, sanitary latrines, and vegetable seeds. These supplies are obtained from the local BRAC office. She procures these supplies there by paying a wholesale price (with an initial start-up loan) and then from the markup at the time of sale (according to a price fixed by BRAC), she is able to make a small profit. On average, the income from these sales amount to US\$10–20 per month. In addition, she receives a small performance-based incentive, such as for identifying a pregnant woman during her first trimester, completing the prescribed treatment of a TB patient, and so forth. The typical monthly income from these incentives is US\$8–10 per month. The Shasthya Shebika's role is much broader than the services for which she receives compensation, including health promotion and assistance with referrals for health services.^{20, 21}

BRAC supports the organizational and managerial system within which Shasthya Shebikas work, including the cost of the supervisor (one for every 10 Shasthya Shebikas) and the system for

providing the drugs and supplies that they use each month.

One of the great attractions of this approach is that through a primary community-based financing scheme, if successful and well-managed, as this one is, there can be a gradual and sustainable scale-up of program activities, with increasing speed. The number of Shasthya Shebikas has grown from a few hundred in 1990 to 15,000 in 2000 to 30,000 in 2004 to 100,000 at present.

Note: Akram Islam contributed to this information.

Box 3. Financing of the Brazil CHW program

The Brazil CHW program is an integral part of its PHC program, which has been growing in strength and stature for well over a half-century now. Its 236,000 CHWs, called Community Health Agents, are financed as an integral part of the PHC program. After serious political struggles, the country embraced in the 1980s a strong commitment to social protection, including health, through shared financing by different levels of government, strong community participation, and complementary participation by the private sector. Since CHWs are an integral part of a Family Health Care Team and formally recognized as part of the national health system, the financing for the entire team comes from the same sources. The central government requires that 12% of tax revenues raised by states and 15% of those raised by municipalities be devoted to health. Civic participation is made possible not only through democratic elections but through the formation of Councils at the federal, state and municipal levels which address health system issues, and health conferences are held periodically as well. There are over 5,500 municipal councils in Brazil, and 50% of the members are users of health services, 25% are health managers, and 25% are managers and service providers. They play a strong role in the allocation of financial resources for health. Every four years, health conferences are convened to propose a strategic direction for health services.

The cost of the CHW program is hard to determine because it is so integrated with Brazil's primary health care system. The member of the Family Health Care Team together take joint responsibility for 600–1,000 families (with 4–6 CHAs on each team along with one doctor, one nurse, one auxiliary nurse, and some dental staff).

Funding comes from a combination of sources: national, state and municipal governments, employer health insurance purchases, and out-of-pocket expenditures. The CHWs are employed by the municipality and paid a salary in the range of \$100–200 per month. The cost of the Family Health Care Team program is in the range of \$41–\$50 per individual covered per year, and the salary costs of the CHAs constitute, according to one study, 22% of the total Family Health Care Team salaries. Thus, an approximation of the cost of the CHA program is in the range of \$9–11 per person served per year.

The Brazil CHW program is an example of a program in which CHWs have become an essential and foundational member of the primary health care team and therefore the funding to support CHWs does not come as a separate package but as a part of the overall governmental and societal support for PHC.

Note: See the Brazil Case Study in the Appendix for further details and references.

WHAT GUIDANCE CAN BE GIVEN TO ASSURE THAT FINANCING BECOMES A SUSTAINABLE POSITIVE ELEMENT IN CHW PROGRAM DEVELOPMENT?

General principles regarding costing and financing include: first of all, careful planning which takes into account the full costs of the program is essential, and the establishment of a plan for adequate, fair, and sustainable financing must follow. Secondly, establishing a strong base of political support for long-term financing is critical if government funding is required. Early success can build long-term success—an ineffective program is hard to fund in the long term. Therefore, documenting early program quality and impact can generate political support that will be invaluable in securing governmental financial support. Strong evidence of effectiveness can help to secure political support for funding, and this can be achieved by having a strong monitoring and evaluation program.

Also, developing strong linkages to local sources of revenue can, in the long term, produce gradually increasing revenue since these sources of support are likely to grow more quickly than will funding from the central government. Finally, if CHWs are adequately remunerated (and have career advancement opportunities), attrition will be low, which can reduce the costs and poor quality associated with high rates of attrition.

CONCLUSIONS

Accumulating evidence on the effectiveness of CHWs in low-, middle-, and even in high-income countries provides strong indications that, for the foreseeable future, CHW programs are not merely a stopgap solution. Investments in these CHW programs are, in fact, investments in strengthening the health system. However, to reach their full potential, CHW programs need adequate financing just as do all essential programs. Whether emerging large-scale CHW programs can garner the financial resources they need to achieve their full potential is a question that is too early to answer at present.

Additional Resources

The *Joint UN Tool for Modeling the Cost and Impact Needed to Reach the Health-Related MDGs* was designed to support the costing and modeling of national strategies from a systems-wide or a program-specific intervention. Information about this can be obtained at:
http://www.who.int/pmnch/topics/economics/20090407_joint_UN_tool_ha.pdf.

Another useful resource for estimating costs is a questionnaire used in Brazil by its primary health care program, developed to estimate the potential costs of scaling-up the Program *Sauda e Familia* in Brazil. This is available (in Portuguese) at:
http://189.28.128.100/dab/docs/geral/determinacao_%20sintese.pdf.

References

1. Kahssay H, Taylor M, Berman P. Community Health Workers: The Way Forward. Geneva: World Health Organization, 1998.
2. Gilson L, Walt G, Heggenhougen K, et al. National community health worker programs: how can they be strengthened? *J Public Health Policy* 1989; **10**(4): 518-32.
3. Rifkin S. Community Health Workers. In: Kirch W, ed. *Encyclopedia of Public Health*. Berlin: Springer Reference; 2008: 773-81.
4. Berman P. Organization of ambulatory care provision: a critical determinant of health system performance in developing countries. *Bull World Health Organ* 2000; **78**(6): 791-802.
5. Johns B, Baltussen R, Hutubessy R. Programme costs in the economic evaluation of health interventions. *Cost effectiveness and resource allocation : C/E* 2003; **1**(1): 1.
6. Lehmann U, Sanders D. Community health workers: What do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers. Geneva: World Health Organization, 2007.
7. Starfield B. Basic concepts in population health and health care. *Journal of epidemiology and community health* 2001; **55**(7): 452-4.
8. Nkonki L, Cliff J, Sanders D. Lay health worker attrition: important but often ignored. *Bull World Health Organ* 2011; **89**(12): 919-23.
9. Berman PA, Gwatkin DR, Burger SE. Community-based health workers: head start or false start towards health for all? *Soc Sci Med* 1987; **25**(5): 443-59.
10. Earth Institute. One Million Community Health Workers: Task Force Report. New York: Columbia University; 2011.
11. Dawson BE. Interim Report on the Future Provision of Medical and Allied Services 1920 (Lord Dawson of Penn). London: Ministry of Health, Consultative Council of Medical and Allied Services, 1920.
12. Johns B, Torres TT, Who C. Costs of scaling up health interventions: a systematic review. *Health Policy Plan* 2005; **20**(1): 1-13.
13. Makan B, Bachmann MO. An economic analysis of community health worker programmes in the Western Cape Province. Durban, South Africa, 1997.
14. NHSRC. Which Way Forward? Evaluation of AHSA Programme. New Delhi, India: National Health Systems Resource Centre and the National Rural Health Mission, 2011.
15. Ofosu-Amaah V. National Experience in the Use of Community Health Workers: A Review of Current Issues and Problems (Offset Publication 71). Geneva: World Health Organization, 1983.
16. Frankel S. Overview. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 1-61.
17. Laughlin M. *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators*. Baltimore, MD: World Relief and the Child Survival Collaborations and Resources (CORE) Group; 2004.
18. Edward A, Ernst P, Taylor C, Becker S, Mazive E, Perry H. Examining the evidence of under-five mortality reduction in a community-based programme in Gaza, Mozambique. *Trans R Soc Trop Med Hyg* 2007; **101**(8): 814-22.
19. Davis TP, Wetzel C, Avilan EH, et al. Reducing child global undernutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. *Global Health: Science and Practice* 2013; **1**: 35-51.

20. Perry H. Health for All in Bangladesh: Lessons in Primary Health Care for the Twenty-First Century. Dhaka, Bangladesh: University Press Ltd; 2000.
21. Standing H, Chowdhury AM. Producing effective knowledge agents in a pluralistic environment: what future for community health workers? *Soc Sci Med* 2008; **66**(10): 2096-107.

SECTION 2: HUMAN RESOURCES

Community Health Worker Roles and Tasks

Claire Glenton and Dena Javadi

23 September 2013

Key Points

- A number of health care services exist that can make a significant difference to mother and child health in poor settings. Because community health workers (CHWs) are close to communities, both geographically and socially, they could potentially be responsible for a number of these services.
- When planning new CHW roles or expanding the roles of existing CHWs, program planners need to analyze current research evidence and evidence-based guidelines on the effectiveness and safety of relevant tasks performed by CHWs. Planners need to assess whether the recommended CHW roles and tasks are considered acceptable and appropriate by their target population, by the CHWs themselves and by those who support them. Finally, planners need to think about the practical and organizational implications of each task for their particular setting with regard to training requirements, health systems support, work location, workload, and program costs.
- This chapter provides a list of questions that may help program planners think about important issues when determining CHW roles and tasks.

INTRODUCTION

This chapter will focus on a number of considerations program planners need to make when determining the roles and tasks of CHWs. We will discuss the specific roles and tasks that CHWs could potentially have and present a list of questions that can help planners when making these choices.

What Kind of Roles and Tasks Do CHWs Have Already?

Although there are examples of CHWs having a wide range of roles, most CHW programs within the area of maternal and child health and primary health care tend to focus on a few main areas (see also Table 1):

- Promoter of health behavior and social welfare

Perhaps the most common role taken on by CHWs is that of health promoter, where the CHW primarily provides information and counseling with the aim of encouraging particular behaviors. CHWs in this role are typically used to promote breastfeeding and child nutrition, family planning, immunization, and other behaviors linked to mother and child health. In addition, CHWs are sometimes also used to promote awareness about social welfare issues, such as domestic violence or alcohol and drug abuse.

- Distributor of preventive health care

In a second role, the CHW distributes preventive health care services and commodities, such as bed nets, iron folate supplements and other micronutrients, condoms, contraceptives, and certain vaccines, for example, to all pregnant women or children of a certain age. Although this role usually includes promotional activities, the provision of commodities has logistical implications, as well as implications for how the CHW is perceived by the community, making this role different from that of health promoter.

- Provider of curative health care

A third role involves the delivery of curative health care. Tasks for this role commonly include the diagnosis and management of common childhood illnesses, such as malnutrition, diarrhea, and pneumonia, as well as the timely referral to health facilities, when needed.

- Provider of assistance during birth

In a fourth role, CHWs assist women during labor and birth. In some cases, this role may be limited to providing support to the mother in the presence of a skilled birth attendant. In other cases, CHWs are trained to manage uncomplicated labor and to detect high-risk pregnancies and labor complications so that timely referral can be made. This role is often taken on by traditional birth attendants (TBAs) who have received additional training and have been incorporated into a formal health care program.

- Community organizer

In a fifth role, CHWs act as community organizers, initiating activities, such as the digging of latrines, the identification of clean water sources, and the organization of nutrition and sanitation days.

Table 1. CHW Roles within Maternal and Child Health

ROLE	EXAMPLES OF TASKS AND ACTIVITIES	PROGRAM EXAMPLE
Promoter of Health Behavior and Social Welfare	Provision of information and counseling with the aim of encouraging particular health behaviors and use of health care, including promotion of breastfeeding, child nutrition patterns, family planning, HIV testing, and immunization. Provision of information about social welfare issues, such as domestic violence and alcohol and drug abuse.	In Malawi, local women are selected to work as peer counselors and to provide support to childbearing women in their community. The peer counselors identify pregnant women, make home visits, and provide health education regarding exclusive breastfeeding, infant care, immunizations, prevention of mother-to-child transmission of HIV infection, and family planning. They also provide support to women experiencing breastfeeding problems. The peer counselors receive five days of training, as well as annual refresher training. In addition to this intervention, other local women are also trained to facilitate women's groups, where group members are encouraged to identify and prioritize problems related to maternal and newborn health, and to identify, implement, and assess strategies to address these problems. ¹
Distributor of Preventive Health Care	Distribution of interventions, such as bed nets, micronutrients, condoms, contraceptives, and certain vaccines, through community-based distribution programs and social marketing programs.	In rural Kenya, a community-based delivery system operationalized by CHWs and vendors serves to distribute Sprinkles (fortified nutrients) to remote households. To be cost-effective, multiple services and products are distributed in one visit, increasing the acceptability of the products through previously established trust. The distribution system is run by the Safe Water and AIDS Project. It supports community vendor groups with distribution of health products including water storage and disinfectant products, bed nets, contraceptives, deworming tablets, and (as a trial during implementation of the Nyando Integrated Health and Education Project), Sprinkles nutritional products. The Safe Water and AIDS Project trains vendors and health workers so they will be qualified to distribute Sprinkles packets. Vendors purchase Sprinkles and distribute them according to the Safe Water and AIDS Project model. Social mobilization events are then organized to introduce vendors to community members. Promotional songs and peer-to-peer communication are used to promote use of Sprinkles and to establish trust. These events also allow for households to follow up with health workers and vendors should they have any questions or concerns regarding the products. Incentives, such as T-shirts and stickers, are given to providers, while incentives of extra free sachets or calendars are given to consumers to participate in the program. ²
Provider of Curative Health Care	Diagnosis and management of common childhood illnesses, for example, diagnosis of malnutrition, diarrhea, and pneumonia. Provision of timely referral when needed.	In Nepal, female community health volunteers (FCHVs) perform a number of tasks, including the detection and treatment of common childhood illnesses, provision of directly observed treatment short-course (DOTS) for TB, distribution of oral rehydration solution and zinc for diarrhea, and provision of pediatric cotrimoxazole tablets for children with symptoms of pneumonia. FCHVs are also trained to identify and resuscitate infants with birth asphyxia. They play an important role in maternal health as well with the provision of family planning supplies and medication for reduction of postpartum hemorrhage. ³⁻⁶

ROLE	EXAMPLES OF TASKS AND ACTIVITIES	PROGRAM EXAMPLE
Provider of Assistance during Birth	Provision of continuous support during labor. Management of uncomplicated labor. Detection of high-risk pregnancies and labor complications so that timely referral can be made.	In Ethiopia, TBAs are trained as home-based lifesaving skills (HBLSS) guides. Trainers use a combination of teaching methods, including discussion, demonstration/ drama, pictorial “Take Action Cards,” and practice to teach TBAs how to manage normal deliveries and how to recognize and deal with obstetric and newborn emergencies, including when to make referrals. TBAs also pass this knowledge on to mothers and members of the community during community meetings, women’s association meetings, antenatal outreach sessions, and when fetching water or firewood. ⁷
Community Organizer	Organization of community health events, such as the digging of latrines, identification of clean water sources, and organization of nutrition and sanitation days	In Rwanda, each village (i.e., <i>umudugudu</i>) has pairs of CHWs who are trained in community-based integrated management of childhood illness and are responsible for promoting the use of bed nets for malaria prevention, development of kitchen gardens to address widespread nutritional deficiencies, as well as providing messages in family planning and enrollment in a community health insurance scheme (<i>mutuelle de santé</i>). As part of their community mobilization role, the CHW pairs participate in monthly community work meetings (i.e., <i>umuganda</i>) and ask for a few minutes to discuss a health topic. During these discussions, the CHWs identify any serious health issues that require door-to-door to follow-up with community members. They also play a big role in health promotion during organized campaigns, such as the national maternal and child health (MCH) week where they help bring the maximum of people and provide some services as part of the campaign.

WHAT KEY QUESTIONS DO PROGRAM PLANNERS NEED TO CONSIDER WHEN SELECTING CHW ROLES AND TASKS?

When planning new CHW roles or expanding the roles of existing CHWs, program planners need to think about several key questions, including:

- How effective and safe will it be to use CHWs to perform a specific task?
- Are CHWs’ roles and tasks likely to be regarded as acceptable and appropriate by CHWs and their target population?
- How many tasks and activities should each CHW take on?
- When and where will each task be performed and how much workload will it require?
- What kinds of skills and training will the CHW require when performing specific tasks?
- What type of health system support will the CHW require when performing the task?
- How much will it cost to use CHWs to perform the task?

Each of these questions will be discussed in greater detail in this chapter.

HOW EFFECTIVE AND SAFE WILL IT BE TO USE CHWS TO PERFORM A SPECIFIC TASK?

Several health care interventions exist to have a positive impact on some of the most common causes of serious illness and death among mothers and children in low- and middle-income countries. Some of these interventions are already commonly provided by CHWs, such as breastfeeding support and certain childhood immunizations. Other services that are not frequently provided by CHWs but are also known to have an important impact on the health of mothers and children include kangaroo mother care, newborn resuscitation, and the provision of oxytocin and misoprostol for postpartum hemorrhage, magnesium sulfate for eclampsia, and antibiotics for neonatal sepsis. Although we know these interventions can save lives and improve health, how do we decide which services should be delivered by CHWs?

When making these decisions, program planners should explore what current research evidence and evidence-based guidelines says about the effectiveness and safety of tasks when performed by CHWs. The World Health Organization (WHO) has recently published guidance about the types of tasks for mother and newborn health that CHWs and other health worker cadres can perform.⁸ This guidance is based on a thorough examination of the available evidence regarding the effectiveness, acceptability, and feasibility of these options, and was created by a panel of global stakeholders. The WHO has also developed similar guidance concerning the use of CHWs and other health worker cadres for the care of people with HIV/AIDS.⁹

For maternal and newborn health programs, the WHO primarily recommends the use of CHWs for promotional tasks (Box 2). These recommendations are supported by a growing body of evidence that concludes that the promotion of certain health care behaviors and services by CHWs, such as the promotion and support of breastfeeding and childhood immunization, probably leads to significant improvements in mother and child health.¹⁰ Far fewer studies have, however, explored whether CHWs can effectively perform more curative or invasive tasks.¹⁰⁻¹² For this reason, the WHO has recommended that a number of tasks should be performed by CHWs only in the context of either monitoring and evaluation or rigorous research (Table 2). In other words, policymakers and program planners are encouraged to pilot the intervention and to conduct a rigorous assessment of its effectiveness, acceptability, and feasibility in their setting so that more evidence is available regarding the effectiveness, safety, and feasibility of CHWs performing these interventions.

Table 2. Current WHO Recommendations Concerning the Use of CHWs for Maternal and Newborn Health⁸

RECOMMENDED INTERVENTIONS TO BE PROVIDED BY CHWS FOR MATERNAL AND NEWBORN HEALTH:
<p>Promotion of the uptake of health-related behaviors and health care services for maternal, HIV, family planning and neonatal health, including:</p> <ul style="list-style-type: none"> ▪ Promotion of appropriate care-seeking behavior and antenatal care during pregnancy ▪ Promotion of companionship during labor ▪ Promotion of sleeping under insecticide-treated bed nets during pregnancy ▪ Promotion of birth preparedness ▪ Promotion of skilled care for childbirth ▪ Promotion of adequate nutrition and iron and folate supplements during pregnancy ▪ Promotion of reproductive health and family planning ▪ Promotion of HIV testing during pregnancy ▪ Promotion of exclusive breastfeeding ▪ Promotion of postpartum care ▪ Promotion of immunization according to national guidelines ▪ Promotion of kangaroo mother care for low birth weight infants ▪ Promotion of basic newborn care and care of low birth weight infants ▪ Administration of misoprostol to prevent postpartum hemorrhage ▪ Provision of continuous support for women during labor in the presence of a skilled birth attendant

RECOMMENDED INTERVENTIONS TO BE PROVIDED BY CHWS FOR MATERNAL AND NEWBORN HEALTH:

Intervention recommended only in the context of monitoring and evaluation:

- Distribution of oral supplements to pregnant women (e.g., calcium supplementation for women living in areas with known low levels of calcium intake; routine iron and folate supplementation; vitamin A supplementation for pregnant women living in areas where severe vitamin A deficiency is a serious public health problem)
- Intermittent presumptive therapy for malaria for pregnant women living in endemic areas

Interventions recommended only in the context of rigorous research:

- Oxytocin administration to prevent postpartum hemorrhage - standard syringe
- Oxytocin administration to treat postpartum hemorrhage - standard syringe
- Oxytocin administration to prevent postpartum hemorrhage – CPAD*
- Oxytocin administration to treat postpartum hemorrhage – CPAD*
- Misoprostol administration to treat postpartum hemorrhage
- Low-dose aspirin distribution to pregnant women at high-risk of pre-eclampsia/eclampsia
- Puerperal sepsis management with intramuscular antibiotics – standard syringe
- Puerperal sepsis management with oral antibiotics
- Puerperal sepsis management with intramuscular antibiotics – CPAD*
- Initiation of kangaroo mother care for low birth weight infants
- Maintenance of kangaroo mother care for low birth weight infants
- Injectable antibiotics for neonatal sepsis – standard syringe
- Antibiotics for neonatal sepsis –CPAD*
- Neonatal resuscitation
- Insertion and removal of contraceptive implants

The WHO does not recommend using CHWs for the insertion and removal of intrauterine devices.

*CPAD: compact, prefilled auto-disabled, injection device

ARE CHWS' ROLES AND TASKS LIKELY TO BE REGARDED AS ACCEPTABLE BY CHWS AND THEIR TARGET POPULATION?

Program planners also need to assess whether potential CHW roles and tasks are considered acceptable and appropriate by the CHWs, their target population, and the wider community, including community leaders, husbands, mothers-in-law, and other community members. Attempts to introduce roles and tasks that do not find support among these groups are likely to be unsuccessful. In instances where task shifting takes place, acceptance and support from the health system and its representatives, particularly health professionals working alongside the CHWs, are also important for program success, and is discussed later in the chapter.

Is the Community Satisfied with CHW Roles and Tasks?

Although all stakeholders may agree that issues targeted by the program are important, they may disagree about the chosen solutions. For example, community members may agree that maternal deaths are unacceptably high but may disagree with having CHWs who are instructed to accompany all women in labor to facilities. In other cases, problems can occur when CHWs are continuously confronted with issues that are considered more important than the issues that they have been trained to address. For example, in communities where members suffer from a number of health problems not addressed by the program and where they have poor access to other health care services, CHWs may frequently be approached about issues that are outside their scope of training. CHWs may also be confronted with non-health related problems, such as lack of housing, food insecurity, alcohol abuse, and social and domestic violence. This issue is a particular challenge for CHWs whose scope of practice is defined as health-related only. These sorts of problems are likely to influence recipient satisfaction and uptake of services (see Box 1).

Box 1. Recipients' views of CHW roles and tasks in a Brazilian program

In a CHW program in Brazil, CHW tasks included assessing children's nutritional status, enrolling malnourished children into a milk program, and sharing information about nutrition, immunization, hygiene, respiratory infections, breastfeeding, and prenatal care.¹³ According to study authors, the program emphasized education as the key to improving maternal and child health, and program administrators "[assumed that] once people learn how to correctly manage their environment and care for their children, health will improve." Community members disagreed with this assumption, arguing that they knew how to care for their children, but that their income and living conditions prevented them from doing so. Although they accepted those services they perceived to be of use, such as enrollment in the milk program, they regarded most of the services offered as ineffectual, patronizing, and intrusive. As a result, many CHWs who received "less than warm welcomes during home visits" became frustrated and eventually stopped performing their duties.

Are the CHWs Satisfied with their Roles and Tasks?

A mismatch between the needs and wishes of the community and the services CHWs have to offer can also lead to feelings of frustration and impotence among the CHWs themselves.¹⁴ Some CHWs may find it particularly frustrating to deliver promotional services only, and may want to offer "real health care," such as medicines and immunizations.¹⁴

Has the Community Been Involved In Determining CHW Tasks and Roles?

The involvement of community members and CHWs in program planning is critical to ensure that tasks are seen as relevant and useful (See Chapter X on relationship with communities). The delivery of services that are valued by the community and by the CHWs themselves can increase uptake of these services and the CHW's legitimacy and motivation.

Past experience suggests that community involvement can lead to an increase in the distribution of commodities or in the number of curative tasks that CHWs perform. In Nicaragua, the tasks of the CHW were extended to include curative health care, which led to an increase in CHW motivation and community respect and satisfaction.¹⁵ However, it is important to note that any transition from promotional to curative tasks can also represent a double-edged sword, as it could leave CHWs vulnerable to blame if things go wrong or if logistical support fails. CHWs offering services that can be perceived as harmful may be in particular need of visible support from community structures and health facilities (see Box 2).

Box 2. CHWs' concerns regarding social blame in Nepal and Papua New Guinea

In Nepal, a study of CHWs offering gentamicin, an antibiotic, through the Uniject™ device found that CHWs "were afraid that the injection would be given in the wrong location or would result in a wound or local infection; that the full treatment could not be given to the newborn because the birth did not occur at the home or the CHW was not available to provide the injection; that the baby's health would not improve after the first injection; that the family of the sick newborn would be unhappy or dissatisfied if the health of the newborn did not improve; or that giving seven injections would harm the newborn."¹⁶ CHWs were also concerned about their liability if the baby they were treating died. One CHW said: "I was worried because if something goes wrong, then what the community will say."¹⁶

In Papua New Guinea, CHWs' concerns about potential social blame when delivering Hepatitis B vaccines to newborns were met by providing them, and village leaders, with a copy of a letter of formal authorization from the National Department of Health.¹¹

Community involvement may also lead to a broader scope of practice for the CHW, with more attention given to activities that may be outside the health sector, such as awareness raising and prevention of domestic violence or the establishment of microcredit systems or gardening projects. This more holistic approach may be regarded as more satisfying and relevant to the CHW and the community, but may also require a more complex support system because of the needs for training, supervision, and supplies from sources outside the health sector.

Have the Right CHWs Been Selected?

The acceptability to the community of particular tasks performed by CHWs is also likely to be influenced by the type of CHW who performs them. In many societies, recipients may prefer to receive maternal and child health care from female CHWs. However, the age and life experience of the CHW may also be important. For example, some communities may promote the selection of young unmarried women to work with women of reproductive age, only to find that the young women need to be accompanied by older women as they do their home visits to provide credibility. In addition, the closeness of the CHW to recipients may increase or decrease recipients' acceptance. Recipients may prefer to receive services from people they know well and trust. On the other hand, they may not want to accept services from close neighbors if these services are regarded as particularly sensitive, such as the promotion of sexual and reproductive health. When selecting CHWs, program planners need to consider the nature of the tasks they will be expected to deliver. (See also chapter 7 on recruitment).

HOW MANY TASKS AND ACTIVITIES SHOULD EACH CHW HAVE?

Program planners will also need to think about the scope of the CHW's role, whether he or she should have a few but specific tasks and activities or have a broad repertoire of responsibilities. A related issue is whether each community should be offered different types of CHWs, each with his or her own specialty or whether they should have access to one "generalist" CHW.

Do Recipients and CHWs Prefer "Specialist" or "Generalist" Roles?

From the recipient's point of view, the "generalist" CHW may make more sense. Having a system in which community members have to relate to several CHWs, each with his or her own "specialty," can lead to confusion about who is offering which task. It can also lead to frustration when CHWs are only able to respond to very specific health issues, for example, when tasks are split between health care for the mother and health care for the newborn or the child. Communities may therefore prefer "generalist" CHWs who can offer a continuity of care, including basic health promotion, preventive care, and the management of common health problems. For maternal and child health, this care could include services tied to family planning, antenatal care, birth preparedness, labor companionship, and postnatal and routine newborn care. The generalist approach may also be more satisfying for the CHWs themselves as it may be perceived as more meaningful and allows them to achieve a better understanding of the recipient and his or her health and social circumstances.

Despite these advantages, CHWs may find it more manageable to split work between them and to focus on and become skilled at a small number of tasks or to have tasks introduced gradually. In some cases, it may also make more sense to split some tasks between male and female CHWs according to what is most appropriate from a gender perspective. The establishment of male-female pairs of CHWs may also be helpful in settings where it is not safe or socially acceptable for women to travel alone. This system is now being implemented in Rwanda.

Both CHWs and target populations need to be involved in these decisions. Community involvement in program planning may help ensure that the correct balance has been achieved (see Box 3).

Box 3. Community involvement in CHW roles and tasks

In a community-directed intervention strategy, the role of the community is to design an approach to implementing an intervention using the resources available in that community. The logistics, including who will be responsible for implementation, supervision, and monitoring, will also be decided by the community in a way that is perceived as fair and evenly distributed among health workers. This approach has been used for the delivery of ivermectin, an anti-parasitic used for treatment and prevention of onchocerciasis (river blindness), as CHWs and the selection of new CHWs when needed may make decisions more balanced and realistic.¹⁷

What Is Most Practical for the Health System?

In addition to the recipients' and CHWs' views about the breadth of tasks, program planners also need to consider the practical implications of this decision for the health system. For example, CHWs who are expected to deliver a wide range of tasks will require more training and supervision than CHWs with fewer tasks. This decision also has implications for CHW payment and other incentives, as more tasks may lead to longer working hours and CHWs can reasonably expect some form of acknowledgement for additional training and skills. In contrast, it may be more efficient to train, supervise, and support a fewer number of “generalist” CHWs than to have the same number of tasks delivered by a greater number of “specialist” CHWs. Decisions regarding the number of tasks a CHW should have are also closely related to decisions regarding when and where each task will be performed and the workload each task entails, as discussed below.

WHEN AND WHERE WILL EACH TASK BE PERFORMED AND HOW MUCH WORKLOAD WILL IT IMPLY?

Program planners also need to think about when and where each task can or should be delivered by the CHW and the amount of work anticipated for the CHWs and their supervisors. These factors will have important implications, including the amount of flexibility and influence a CHW has over his or her work day, the appropriate catchment area, suitable incentives, and the opportunity to keep skills up-to-date. Program planners will need to consider the need for transportation, safety measures, and the CHW's freedom of movement.

The level of influence and flexibility a CHW has regarding *when* and *where* a task is performed can vary considerably. Some tasks, such as certain promotional tasks, can often be done in between a CHW's other tasks, at his or her own convenience, and the CHW may also have a lot of flexibility regarding where the task can be done. For example, some CHWs may choose to use ad hoc opportunities and chance meetings, such as social or community events, to deliver certain promotional services. For other tasks, the CHW may have little influence on when and where they perform the task or how long it will take to complete the task. These include tasks such as continuous support during labor or other childbirth-related tasks. It may also be necessary or preferable to perform other tasks inside the recipient's home, while some tasks may need to be performed in clinics where CHWs can access supplies or need to be supervised by health professionals.

If the task requires the CHW to move around the catchment area, then the program planners will need to consider the need for transportation. In some settings, CHWs traveling around the community or making home visits may be exposed to violence, so safety issues need to be carefully considered. This may include an examination of whether it is appropriate for female CHWs to travel unaccompanied or to enter strangers' homes (see Box 4). Suggested solutions include being accompanied by another individual, working in pairs, and having access to mobile

phones. All of these considerations are particularly important if the task requires the CHW to travel at night or for long distances.

Box 4. Problems encountered when CHWs move around the community

A qualitative study of CHWs in South Africa¹⁸ graphically portrays the challenges of working in violence-prone communities:

As a reflection of the South African context in which the intervention was implemented, one of the tasks for supervisors was to ensure that their peer counselors remained safe. This issue was particularly important because peer counselors travelled on foot to visit mothers who lived in poor socio-economic areas prone to violence and drug abuse. One CHW reported the following:

The areas are not safe for peer supporters.... We had a peer supporter who went visiting the house and somebody was shot... in her presence.... When you live in the community there's no way we can separate these things. We live with this kind of life in townships and you just need to be very careful when you there.... I said maybe you should avoid that visit, phone her and ask if you can meet somewhere, or just avoid going there because if you get assaulted we will not be able to handle that, it might just be difficult for us.

A qualitative study of CHWs in Bangladesh speaks of the cultural barriers female CHWs face¹⁹:

Women volunteers are required to go on household visits against the norms of *pardah*. As a result, comments such as “How can *be-pardah* (immodest, shameless) women go house-to-house and roam around?” and “What work do these types of women do?” were commonly expressed by religious leaders and other elders in the village.”

When determining where tasks are delivered, it is also important to assess what the target population regards as appropriate. For example, the extent to which home visits are socially acceptable will vary across settings and tasks.

Different tasks also imply different *workloads* and *catchment areas*. Some tasks need to be performed frequently or to large numbers of people, therefore, the size of the CHW's catchment area may need to be relatively small. Some tasks occur infrequently, such as annual immunization campaigns, or they target health conditions that are relatively rare. In these situations, it may seem reasonable to give CHWs a larger catchment area. However, large catchment areas imply that the CHW will need to cover longer distances, which has implications for transportation needs. In addition, when catchment areas are too large, CHWs may spend too much time getting to the client or spending time on travel only to find that the client is absent²⁰. Another challenge for tasks targeting health conditions that are relatively rare is the issue of quality of care. Although it may seem sensible to train CHWs to deliver antibiotics to treat neonatal sepsis, because he or she may see relatively few cases each year, the CHW has little opportunity to keep his or her skills up-to-date and, therefore, may threaten the quality of care.

CHWs with large workloads are likely to need more incentives than CHWs with lighter workloads. Demands for incentives may also be influenced by the amount of influence the CHW has over his or her working day (see Box 5). Tasks that can be performed within ordinary working hours may require fewer incentives than tasks that need to be performed in response to

immediate needs, such as childbirth-related tasks. Tasks that can be done at a time of the CHW's choosing may be particularly appropriate for volunteer CHWs, as this flexibility makes it easier to combine with family and other responsibilities. (See chapter X on incentives.) From a program planner's point of view, however, it is reasonable to expect less from volunteers that work within the constraints of their own daily lives than from salaried CHWs.

Box 5. CHW opinions about the connection between incentives and the tasks delivered in a Nepalese program

In one qualitative study of FCHVs in Nepal,²¹ one FCHV stated the following:

I provide services to the community in my free time, and that's ok. But besides that there are specific days [like when] I need to collect all mothers or kids in my catchment area and [take them] to the health facility. And there are FCHV meetings on specific days at the health facility. So it's not in my free time. I am [tied] to working that day. So for these days, if an allowance is there, that would be good. Jobs like counseling mothers, informing them that tomorrow is immunization day, household visits to pregnant women and the recently delivered, counseling them about nutrition, iron intake, tetanus toxoid vaccinations, and deworming: for these activities remuneration is not needed because we are doing them in our spare time. For Vitamin A distribution, for misoprostol distribution, for all these activities, remuneration is not necessary. I am only saying that for FCHV meetings, for specified days, [and for] support to the outreach clinics, they need to provide (remuneration).

WHAT KINDS OF SKILLS AND TRAINING WILL THE CHW NEED TO PERFORM SPECIFIC TASKS?

Program planners also need to think about the type of skills and training that CHWs will need to perform these tasks. When assessing these issues, program planners may want to think about the following aspects:

- Is the task complex to perform?
- Does the CHW need to tailor the task to the needs and circumstances of the individual recipient and the local context?
- Does the CHW need to make a complex diagnosis before performing the task?
- Does the CHW need to know how to deal with adverse effects or complications?

If the answer is “yes” to any of these questions, the task is likely to require more skills and training. Some tasks, such as the routine distribution of iron folate supplements to pregnant women, are simple to perform, require little or no tailoring or diagnosis, and little knowledge about associated complications. Training may therefore be relatively short. Other tasks, such as training caregivers in the use of kangaroo mother care, are also relatively simple procedures to teach with few components. But, because in this case, CHWs also need to have the skills to detect which infants need additional care and referral, training may be longer. Having well-developed algorithms can, to a certain extent, ease the requirements made of the CHW by providing the CHW with an additional form of support during decision-making. (See chapter X on training).

Promotional tasks are often regarded as simpler to perform than curative tasks. However, in a number of studies, CHWs have particularly emphasized the importance of training in promotional and counseling skills and have viewed health care communication as a complex task for which they often feel unprepared.¹⁴ For example, when promoting family planning methods or HIV testing, CHWs may need to respond to a number of complex questions and concerns and may also experience socially challenging situations (See Box 6). The role of community organizer can also be a challenging one as it is likely to involve complex tasks that need high degrees of tailoring, including the ability to organize and mobilize groups of people and lead them in problem-solving activities. (See also Chapter X on training and chapter Y on community participation.)

Box 6. CHW opinions regarding training needs in a Pakistani program

A qualitative study of CHWs in Pakistan²² had the following finding:

The respondents suggested refresher training sessions that include role plays on common difficult scenarios as a way to improve communication skills of the workers. They proposed that appropriate information and skills to deal with people who were fixed on strong negative feelings, such as ‘we are poor, we can't do anything’ or ‘a woman's only role is to serve the husband, kids and the family’ or ‘the life or death of the mother or newborn is the will of God, in which the mortals cannot intervene’ would be really helpful. The workers also suggested that information, education, and communication (IEC) materials should be provided to them that could be carried to the households and used for talking about specific health issues.

WHAT TYPE OF HEALTH SYSTEM SUPPORT WILL THE CHW REQUIRE WHEN PERFORMING THE TASK?

Another practical implication that needs to be determined involves the level of health care system support required for each task. Some tasks can be performed by the CHW alone and with very little support from the rest of the health care system. For other tasks, however, successful delivery depends on a well-functioning and responsive health system.

Health system support may primarily involve supervision, typically from facility-based health workers. For example, Nepalese CHWs who identified infants with symptoms of severe bacterial infections were trained to administer gentamicin, but only if they were receiving regular supervision and observation from facility-based staff.¹⁶ For this to work, CHWs need efficient ways of communicating with other health workers, such as through access to transport or mobile phones (see Box 7). (See also Chapter X on supervision.)

Box 7. Use of mobile phone systems in Rwanda

In Rwanda, a text messaging system through mobile phones (Rapid SMS-MCH) was implemented to allow CHWs to communicate with the mother-infant pairs they followed in their communities.²³ Rapid SMS-MCH is a free, open-source software that can be customized to allow CHWs to connect to a national centralized database, the health facility, and an ambulance driver for emergencies. This system allows CHWs to keep better track of pregnancies and maternal and child health outcomes in limited resource settings. It also allows for faster response in case of emergencies and improved involvement of CHWs during the critical moments of their patients' pregnancies.

CHWs can also receive supervision through peer support, such as by working together in teams or in pairs. CHWs in some studies have called for the opportunity to meet regularly with other lay health workers to share experiences and give each other support¹⁴ (see Box 8). (See also Chapter X on supervision).

Box 8: CHWs working in primary health care teams in Brazil

In Brazil, primary health care is offered through teams of health workers. The *Equipo de Saúde Familiar* health worker teams provide services to 600-1000 families and have four to six CHWs on each team.²⁴ In addition to CHWs, doctors, and nurses, teams also sometimes include dentists, dental assistants, technicians, and social workers. The CHWs focus on promotional activities and particularly on family behaviors essential for child health through the community component of integrated management for childhood illness (IMCI). Although most CHWs feel that they have good communication and respect within their teams, some feel undermined by team physicians. Furthermore, CHWs have little opportunities for career advancement. The mutual support that CHWs are able to provide to each other as a result of their close interactions on a daily basis is important to them.²⁴

Health system support may be required to ensure a well-functioning referral chain. A number of tasks, particularly related to pregnancy and childbirth care, are given to CHWs on the condition that they are trained to recognize symptoms or danger signs and refer patients to the appropriate health facilities. Referral tasks require that the nearest health facility to be sufficiently staffed and equipped, that CHWs have practical ways of contacting facility staff (e.g., by mobile phone, a runner), that a trustful and collaborative relationship exists between the CHWs and the facility staff, and that the beneficiaries themselves are willing to travel to these facilities for health care and have the funds and the means of transport to do so. However, these factors are not always in place.¹⁴ Both CHWs and recipients may have poor relationships with facility staff or may lack the funds or practical means to contact them (see Box 9). In addition, facilities are often under-resourced and under-staffed, and facility staff may feel that CHW programs will increase their workload as a result of supervision requirements or an increase in referrals, or facility staff may fear a loss of authority.¹⁴ Health professionals may be more likely to accept CHW tasks if boundaries are clear and if they feel that the CHWs make sense in their setting (e.g., by easing some of their own busy workload). For these reasons, health professionals and their organizations need to be involved when deciding on the roles and tasks of the CHW.

Box 9. Problems facing CHW referral in a Zimbabwean program

The excerpt below is from a qualitative study of CHWs in Zimbabwe²⁵ that identified the following set of issues that highlights issues in the referral of sick patients:

Apart from the women's perceptions of arrogant and rude clinic staff, mistrust, and fear of cesarean delivery, women themselves were said to use strategies, for example, coming or calling for the TBA when labor was too advanced to be referred, especially also given the prevailing logistical constraints in the villages. The TBAs do not have any means of transport for such emergency cases nor access to a telephone to call for an ambulance. One TBA explained,

There are some women who come to you or call you to their homes when they are already in labor. So what do you do? I do not have an ambulance to take them to the clinic. The woman is in advanced labor. How do I walk with her to the clinic? You cannot run away from a woman and leave her groaning; you just have to assist.

Health system support may also involve access to supplies. Unreliable access to necessary supplies can threaten the implementation of relatively simple interventions and lead to loss of respect in the community for the CHW and the health system (see Box 10).²⁰ Important considerations include the extent to which certain supplies, such as condoms, can be stored over long periods of time and whether supplies, such as vaccines, require specific storage conditions.

Box 10. Problems facing CHWs in Bangladesh and Pakistan due to a lack of supplies

A study of CHWs in Bangladesh²⁵ and another study from Pakistan²⁶ identified problems in obtaining needed medicines. The Bangladesh study reported the following: “While the worker is capable of identifying a most basic medical need – iron for anemia – she must rely on hospital referral, not because she is incompetent, but because there is currently no provision for field distribution of iron tablets or any other medical supplies in the government program.” In Pakistan, lady health workers were expected to provide drugs and contraceptives. However, due to poor supply, they faced a lot of embarrassments and accusations by the community of selling drugs and contraceptives in the market.²⁶

Finally, health system support may be of a regulatory nature. Regulations may need to be changed to reflect CHWs’ scope of practice to allow CHWs to perform certain tasks and to receive legal protection should interventions cause harm. A recent study on task shifting among nurses and midwives in 13 African countries suggested that many of the countries had not revised their national regulations to incorporate additional professional roles and responsibilities that negatively impacted the long-term sustainability of their roles.²⁷ Similarly, a lack of regulatory support may impede institutionalization of changes, which may also be an issue for CHW programs.

HOW MUCH WILL IT COST TO USE CHWS TO PERFORM THE TASK?

Finally, program planners need to consider how much it will cost for CHWs to perform specific tasks. There may be an assumption that the use of CHWs is cheaper than the use of other health worker cadres, but this is not necessarily true. For instance, some interventions require well-functioning supply chains, referral systems, and supervision. If these supportive elements do not exist, they will have to be developed (which requires start-up costs) so the CHW will be able to perform the task on an ongoing basis. (See also Chapter X on relationship with the health system.) Program planners need to consider a number of potential costs, including the costs of:

- **Training:** These costs include both initial and refresher training and can include the costs of trainer salaries, training materials, and travel and refreshments for both trainers and participants.
- **Supervision:** These costs can include salaries for supervisors and the cost of transport and refreshments for supervisors making field visits. If health workers are being moved from other tasks to provide supervision, then program planners will also need to calculate any costs associated with replacing these health workers.
- **Transport:** These costs can include the cost of travel and refreshments for CHWs visiting clients, accompanying clients to health facilities, and traveling to health facilities to receive supervision and deliver reports.
- **Wages and other incentives:** The type of incentives that CHWs receive varies across programs, but should reflect the type of tasks that CHWs are asked to deliver and the amount of time they spend performing their duties (see also Chapter X on incentives). Costs can include salaries and other monetary incentives, such as lunch money, health insurance, and educational

stipends. Many programs also make use of non-monetary incentives, such as bicycles and T-shirts. Formal recognition from the community and the health system may also be an important incentive to the CHW and may incur costs. For example, the Nepal government has attempted to incentivize volunteer CHWs through the production of CHW stamps and postcards, an annual CHW celebration, and the production of a TV drama about the valuable contributions of CHWs.

- **Equipment and supplies:** These costs can include medical supplies and promotional materials, and also bicycles, uniforms, telephones, bags, and signboards. These may not all be necessary items for the provision of specific tasks, but may serve as important motivating incentives to the CHW and may increase their social status and visibility in the community.
- **Referral systems:** These costs include any additional costs to the health system to enable CHW referral, including transportation systems, communication systems, and staffing of facilities. Deployment of CHWs may increase the number of referrals arising from communities, which also will have cost implications. (See Chapter X on relationship with health systems.)

CONCLUSIONS

Decisions regarding CHW roles and tasks are complex, and each decision has implications for the effectiveness, acceptability, feasibility, and costs of a CHW program. Decision makers should draw from global guidance and research evidence, but they also need to engage with and understand the experiences, needs, and concerns of local communities and health workers.

Key Resources

CORE Group. 2010. *Community Case Management Essentials: Treating Common Childhood Illnesses in the Community. A Guide for Program Managers*. CORE Group, Save the Children, BASICS and MCHIP: Washington, DC. Available online at: <http://www.coregroup.org/storage/documents/CCM/CCMbook-internet2.pdf>.

Crigler L, Hill K, Furth R, and Bjerregaard D. 2011. *Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services*. Initiatives, Inc. and University Research Co., LLC with support from USAID: Washington, DC. Available online at: http://www.hciproject.org/sites/default/files/CHW%20AIM%20Toolkit_March2011.pdf.

World Health Organization (WHO). 2012. *Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting (OPTIMIZE MNH)*. Available online at: http://apps.who.int/iris/bitstream/10665/77764/1/9789241504843_eng.pdf.

WHO. 2008. *Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines*. Available online at: <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>.

WHO. 2006. *Treat, Train, Retain: The AIDS and Health Workforce Plan. Report on the Consultation on AIDS and Human Resources for Health, WHO, Geneva, 11-12 May, 2006*. World Health Organization: Geneva. Available online at: <http://www.who.int/hiv/pub/meetingreports/TTRmeetingreport2.pdf>.

Acknowledgments

We would like to thank Henry Perry, Lauren Crigler, Rose Zulliger, Karen LeBan, Steve Hodgins, and Simon Lewin for their comments on earlier drafts of this chapter.

References

1. Lewycka S et al. 2013. Effect of women's groups and volunteer peer counselling on rates of mortality, morbidity, and health behaviours in mothers and children in rural Malawi (MaiMwana): a factorial, cluster-randomised controlled trial. *Lancet* 381(9879): 1721-1735.
2. Suchdev PS et al. 2010. Monitoring the marketing, distribution, and use of Sprinkles micronutrient powders in rural western Kenya. *Food Nutr Bull* 31(2 Suppl): S168-S178.
3. Fiedler JL. 2000. The Nepal National Vitamin A Program: prototype to emulate or donor enclave? *Health Policy Plan* 15(2): 145-156.
4. Curtale F et al. 1995. Improving skills and utilization of community health volunteers in Nepal. *Soc Sci Med* 40(8): 1117-1125.
5. Gottlieb J. 2007. Reducing child mortality with vitamin A in Nepal. In: Levine R, ed. *Case Studies in Global Health: Millions Saved*. Center for Global Development: Washington, DC. 25-31.
6. Nepal Ministry of Health and Population. 2010. *Nepal Health Sector Programme - Implementation Plan II (NHSP -IP 2) 2010 – 2015*.
7. Sibley L, Buffington ST, Tedessa L, Sr., McNatt K. 2006. Home-Based Life Saving Skills in Ethiopia: an update on the second phase of field testing. *J Midwifery Womens Health* 51(4): 284-291.
8. World Health Organization (WHO). 2012. *Optimizing health worker roles to improve access to key maternal and newborn health interventions through task shifting (OPTIMIZE MNH)*. WHO: Geneva. Accessed online at: http://apps.who.int/iris/bitstream/10665/77764/1/9789241504843_eng.pdf.
9. WHO. 2008. *Task shifting: rational redistribution of tasks among health workforce teams: global recommendations and guidelines*. WHO: Geneva. Accessed online at: <http://www.who.int/healthsystems/TTR-TaskShifting.pdf>.
10. Lewin S et al. 2010. Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database of Syst Rev* 17(3): CD004015.
11. Glenton C, Morgan C, Nilsen ES. 2013. The effects, safety and acceptability of compact, prefilled, autodisable injection devices when delivered by lay health workers. *Trop Med Int Health*. In Press.
12. Sibley LM, Sipe TA, Barry D. 2012. Traditional birth attendant training for improving health behaviours and pregnancy outcomes. *Cochrane Database Syst Rev* 8: CD005460.
13. Wayland C. 2002. Acceptable and appropriate: program priorities vs. felt needs in a CHW program. *Critical Public Health* 12(4): 335-350.
14. Glenton C et al. 2013. Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis. *Cochrane Database of Syst Rev* 2013; Submitted for publication.
15. George A et al. 2009. Community case management of childhood illness in Nicaragua: transforming health systems in underserved rural areas. *J Health Care Poor Underserved* 20(4 Suppl): 99-115.
16. Sharma J et al. 2010. *Design-Stage Trial of Gentamicin in the Uniject® Device: A Feasibility Study, Morang District Nepal*. Nepal Family Health Program II and PATH/ HealthTech: Kathmandu.

17. Kisinza WN et al. 2008. Community directed interventions for malaria, tuberculosis and vitamin A in onchocerciasis endemic districts of Tanzania. *Tanzan J Health Res* 10(4): 232-239.
18. Daniels K et al. 2010. Supervision of community peer counsellors for infant feeding in South Africa: an exploratory qualitative study. *Hum Resour Health* 8: 6.
19. Rashid SF, Hadi A, Afsana K, Begum SA. 2001. Acute respiratory infections in rural Bangladesh: cultural understandings, practices and the role of mothers and community health volunteers. *Trop Med Int Health* 6(4): 249-255.
20. Jaskiewicz W, Tulenko K. 2012. Increasing community health worker productivity and effectiveness: a review of the influence of the work environment. *Hum Resour Health* 10(1): 38.
21. Glenton C et al. 2010. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. *Soc Sci Med* 70(12): 1920-1927.
22. Haq Z, Hafeez A. 2009. Knowledge and communication needs assessment of community health workers in a developing country: a qualitative study. *Hum Resour Health* 7: 59.
23. Ngabo F et al. 2012. Designing and Implementing an Innovative SMS-based alert system (RapidSMS-MCH) to monitor pregnancy and reduce maternal and child deaths in Rwanda. *Pan Afr Med J* 13: 31.
24. Traverso-Yepez M, Bernardino J, Gomes L. 2006. [People do not know what the PSF Family Health Program is. Clashes in communication between professionals and the Family Health Program's clients]. 11th World Congress on Public Health and 8th Brazilian Congress on Collective Health. Brazilian Association of Collective Health: Rio de Janeiro. [Portuguese.]
25. Mathole T, Lindmark G, Ahlberg BM. 2005. Competing knowledge claims in the provision of antenatal care: a qualitative study of traditional birth attendants in rural Zimbabwe. *Health Care Women Int* 26(10): 937-956.
26. Afsar HA, Younus M. 2005. Recommendations to strengthen the role of lady health workers in the national program for family planning and primary health care in Pakistan: the health workers perspective. *J Ayub Med Coll Abbottabad* 17(1): 48-53.
27. McCarthy CF et al. 2013. Nursing and midwifery regulatory reform in east, central, and southern Africa: a survey of key stakeholders. *Hum Resour Health* 11(1): 29.

Recruitment of Community Health Workers

Wanda Jaskiewicz and Rachel Deussom

23 September 2013

Key Points

- Developing appropriate recruitment policies and processes is a critical feature of an effective large-scale community health worker (CHW) program.
- Community engagement in recruitment is highly desirable, but managing this in a way that is productive requires careful planning and adaptation.
- An effective recruitment program can help reduce attrition, which is a major challenge for many large-scale CHW programs.

INTRODUCTION

Recruiting and selecting the most appropriate individual to fill the role of a CHW is among the most essential elements that contribute to a well-functioning community health strategy. Recruitment is defined as “how and from where a CHW is identified, selected and assigned to a community, including selection criteria and processes.”¹ As suggested in the Toolkit’s CHW Program Functionality Matrix, a best practice for recruitment is to recruit a CHW from within the community through community participation, meeting all selection criteria when possible. In special cases where a CHW may need to be recruited from outside the community, a second best practice is to ensure not only that the community participates in and agrees with the recruitment process, but is also consulted on the final selection of the CHWs.

Ensuring a “citizen voice” through the meaningful participation of civil society groups and communities has contributed to greater accountability for service delivery and improved program quality, as the program can be better tailored to local needs with community input.^{2, 3} In addition, community participation in CHW recruitment and selection is more likely to use existing social structures, ensure that CHWs understand local issues, and ensure that they deliver community health messages in a linguistically and culturally appropriate manner.^{4, 5} Effective CHW recruitment and selection are key to ensuring CHW retention.⁶ Although there are many factors that contribute to CHW attrition, careful attention to CHW recruitment and ensuring the “right” person is selected for the job will go a long way to ensuring low turnover, protecting investments, and obtaining results in CHW programs.

This chapter will help readers to consider key questions, recommendations, and challenges for CHW recruitment planning and implementation, including selection, resource availability, and addressing CHW retention.

KEY QUESTIONS PROGRAM PLANNERS NEED TO CONSIDER WHEN RECRUITING CHWS

Following a systematic approach for CHW recruitment through development and implementation of a recruitment strategy with clear recruitment guidelines will help structure the process and ensure that program planners, managers, community members, and health worker teams are familiar with their respective roles in the recruitment process. To develop an effective and actionable recruitment strategy, stakeholders should consider the following questions and issues:

- What are the specific recruitment needs for the CHW program?
- What are the CHW selection criteria?
- What is the CHW recruitment process?
- How do available resources influence CHW recruitment?
- How can CHW retention be ensured?

WHAT ARE THE SPECIFIC RECRUITMENT NEEDS FOR THE CHW PROGRAM?

The scope and intention of the health program as well as the needs of the community should always drive the recruitment process.⁷ Before initiating the recruitment phase of any program, it is essential to understand the specific needs and context of the CHW program in which the CHWs will work. In particular, this process relates to having a clear description of the roles, responsibilities, and tasks the CHW will undertake, the catchment area population in terms of

the number of households to be served, as well as the geographic distance they will need to cover. (See Chapter X on Roles & Tasks for more details). This information will enable program designers to define the selection criteria, qualifications, and requirements that specifically correspond to the job that the CHWs will undertake. It also provides a clear scope of work for the CHW so that CHW candidates can determine if they are the right fit for the job.

CHWs that are from the communities that they serve are more likely to be invested in their catchment population's health outcomes and generally more likely to stay. Many CHWs also thrive in positions where there is opportunity for employment promotion. For example, a CHW may initially be recruited and trained, and after some good performance feedback, decide to train as an auxiliary nurse and be promoted. However, it is also important to recruit and select CHW candidates that understand what the job will entail, including the expected performance, conditions, management support, and remuneration (if any). The clear communication and agreement about CHW recruitment, including a defined scope of work, remuneration, and selection based on a transparent process, should drive CHW recruitment strategy and will help improve CHW retention in the long term.

Box 1. The Community's Role in Transparency

Ideally, CHWs are chosen by the community. Yet, the persons selected have an influence on the acceptability and sustainability of the CHW program within the local context. In some cases, CHWs are chosen by chiefs or appointed by government officials who award CHW positions to friends and relatives, or use the appointments as favors, for which they can go back and ask for something in return. The inappropriate selection of CHWs within communities was identified as a disincentive for CHWs. An evaluation survey of CHWs performed by UNICEF in 1989 reported that 45% of the CHWs surveyed were related by blood to their village chief or the sub-chief.⁸ In Swaziland, an evaluation found that local chiefs preferred to select CHWs based on their own interests rather than the candidates' qualifications.⁸

Extensive experience and long-standing relationships with communities has helped many nongovernmental organizations (NGOs) and other international organizations to find ways to ensure that the selection process for CHWs is based on each candidate's interest and qualifications.

A more complete list of the factors that must be carefully considered before undertaking CHW recruitment is provided below. Many of these CHW program needs are covered in detail in other chapters of this manual.

- How many CHWs in total need to be recruited? Is recruiting managed at the national, regional, provincial, district or other lower level? Which level or organization will provide the resources for recruitment? What is the timeline for recruitment? (See Chapters X and X on Governance and Financing.)
- What primary care services are included in the CHW strategy? What specific tasks are CHWs expected to carry out? What will be their workload? Are CHWs clear on their role, their responsibilities, and other job expectations? This may include meeting coverage or service delivery targets and reporting on the achievement of program objectives, tasks or activity outputs. (See Chapter X on Role and Tasks.)
- How many days per month or hours per week are CHWs expected to dedicate to completing the tasks? Is their commitment full-time or part-time?

- What is the catchment population and geographic area for which CHWs are responsible? Will they receive transport support to reach their assigned catchment populations (e.g., bicycles, motorcycles, bus vouchers)?
- Are the CHWs compensated or are they working on a volunteer basis? Is compensation a salary, an hourly wage, or a stipend? What types of incentives, whether financial or non-financial, will be provided? If the CHW has been performing similar types of tasks previously, how were they remunerated, if at all? (See Chapter X on Incentives.)
- What training will the CHWs receive to ensure their ability to complete assigned tasks (e.g., pre-service training or in-service training)? Are there criteria for certification or other qualification criteria related to CHW training that must be met for CHWs to work? (See Chapter X on Training.)
- What supervisory and other management support, including resources (e.g., medicines, supplies, job aids, communication stipends) will they receive to enable them to perform well? (See Chapter X on Supervision.)

WHAT ARE THE CRITERIA OF SELECTION OF CHWS?

Before recruiting CHWs for a community-based program, the criteria or qualifications that each individual CHW should meet to be considered for the program should be pre-defined. The selection criteria may include demographic elements, such as gender, age, marital status, and usual place of residence, as well as education level and ability to successfully complete training on standard competencies, which will be heavily dependent on the specific community-based health strategy that the CHWs will support, as well as the roles and responsibilities they will undertake. Residency is more often an important criterion in the selection of CHWs; recruiting CHWs from within the communities that they serve is considered a best practice⁹ although this can cause challenges for large-scale programs that need to systematize the recruitment process. Nonetheless, even for large-scale programs, communities are often involved in the selection process and are consulted on the final selection of the CHW, as she or he needs to be welcomed to serve in their community.

Several persons with knowledge about and experience with large-scale CHW programs interviewed informally for this paper emphasized the importance of community trust and acceptance over other criteria, such as literacy and gender. More than the level of education, it is far more important that the person selected is engaged with his or her work, responsive, accountable, respected, and trusted by the community. These attributes are often associated with age and children. CHWs do not necessarily need high qualifications, but they must be able to and open to learn.

Table 1 presents the main criteria for CHWs in several countries with well-established community-based programs. Each program develops criteria taking into account the service content, cultural attitudes towards married or single women, and the requirements of basic literacy. For example, females should be required for family planning counseling, and, in countries, such as Afghanistan, where women cannot travel alone, females and males are selected to form pairs. Successful examples of programs using illiterate or low-literacy CHWs do exist, such as the Female Community Health Volunteers in Nepal, but in these cases, supervision, training, and appropriate forms using pictorial diagrams are adapted to the situation.

Table 1. Selection Criteria for CHWs in Selected Countries¹⁰⁻¹⁵

INDIA: ACCREDITED SOCIAL HEALTH ACTIVISTS (ASHAS)	BRAZIL: COMMUNITY HEALTH AGENTS (CHAS)	PAKISTAN: LADY HEALTH WORKERS (LHWS)	ETHIOPIA: HEALTH EXTENSION WORKERS (HEWS)
<ul style="list-style-type: none"> ▪ Female ▪ ≥ 8th grade education ▪ 25-45 years of age ▪ Married (or widowed or divorced) 	<ul style="list-style-type: none"> ▪ Adult ▪ Work in community where they are from/ permanently reside there ▪ Be literate 	<ul style="list-style-type: none"> ▪ Female ▪ ≥ 8th grade education ▪ 18-50 years of age ▪ Reside in community/be recommended by their community ▪ Married with children ▪ Experience in community development preferred 	<ul style="list-style-type: none"> ▪ Female ▪ ≥ 10th grade education ▪ ≥ 18 years of age ▪ Reside in community

Another important selection criterion for CHW selection is language skills.¹⁶ Although it can be assumed that originating or residing in the community for which a CHW serves would ensure that s/he thus speaks the local language, the linguistic diversity of the catchment population could be such that multiple languages are spoken. Language differences may distinguish socioeconomic or ethnic groups, and efforts should be made whenever possible to recruit CHWs that can communicate with as many subgroups of the catchment population. Alternatively, recruiting several CHWs with complementary language skills to serve the same catchment population is a recommended option.

Selection criteria for CHWs may also be influenced by cultural, gender-based, and social norms that could determine CHWs' effectiveness. For example, if a community health program objective is to increase male involvement in reproductive health and maternal health, then it may be important that the CHWs be recruited as married couples or at least that some of the CHWs in a specific catchment area be male. However, in India, Pakistan, and Ethiopia, where the community health programs focus on family planning, maternal and child health services and requires the CHW to enter the home or compound of a mother, it was determined that the CHW would be required to be female because it would not be culturally acceptable for a mother to allow an unknown man into the home.

If there were only male CHWs in these contexts, then the programs would be rendered much less effective. Likewise, if it is known that Pakistani LHWs are married with children, then the community members that they reach with family planning messages will be more trusting and receptive to their messages because the LHWs are exemplifying the family values that the communities espouse. When a more advanced level of preventive and curative care is required, the selection criteria may include higher-level qualifications or a stricter age range. In India, for example, auxiliary nurse midwives (ANMs) must have finished 12 years of schooling and be between 17 and 35 years of age to be granted admission to the 18-month ANM training programs in nursing schools.¹⁷

Determining which stakeholders are the decision-makers for setting the criteria for CHW recruitment and selection is another important aspect to consider. In some community-based programs, ministries of health establish the criteria, whether from the central, provincial, or district level. In some countries' CHW programs, the selection criteria are standardized, and all CHWs are recruited against the same list of requirements, regardless of where they will serve. For example, in Mozambique, the *agente polyvalente elementar*, or CHW, has been nationally recognized as a health worker cadre, for which training, qualifications, and selection criteria have been standardized nationally as well.¹⁸ Further, it is recommended that any selection criteria concerning CHW competencies should be standardized if there is a common training.¹⁹

In other contexts, selection criteria may be localized to account for regional or other context-specific variations. Communities may independently determine the type and qualifications of the CHWs that they recruit through community health committees or other local entities. In decentralized health systems, such as Mali's *Associations de Santé Communautaire* determine the criteria, including remuneration, for CHWs that are to serve their catchment populations and subsequently fund and supervise their CHWs, often with municipal support.²⁰ In India, different states have defined their own criteria for the selection, training, and incentives, according to context. The way that community health needs and cultural context are reflected in a health program in Rajasthan state differ from West Bengal state, for example.²¹

Once CHW selection criteria are defined, the extent to which they are fully met is also variable. For example, in very rural communities where the general level of education is low, it may be difficult to meet defined education criteria. The functionality and governance mechanisms of decision-making entities that ensure that CHW selection criteria are met are also variable, as was noted in India and Ethiopia by Gopinathan et al.²²

WHAT IS THE CHW RECRUITMENT PROCESS?

The ideal CHW recruitment process entails: establishing criteria, communicating CHW opportunities to identify candidates, interviewing and selecting CHWs from candidates, and hiring selected CHWs.¹⁶ Although in the real world of program implementation many of these steps are full of challenges, we define these ideal steps so that countries can modify them where and when they require.

Developing CHW Recruitment Criteria

Policymakers and program planners at the central level often make decisions regarding the basic criteria for CHW selection. These decisions draw from an analysis in which many factors are considered, including the maturity of the program and its needs, the health and social needs of communities and clients, the size and health service scope of the program, and the organizational and financial capability of regional, district, and local management systems. Where it is feasible, various actors are involved in implementing the process: district health managers, the health facility team to which the CHW may report, other local authorities (including municipalities or traditional chiefs), and communities within the catchment population (whether through village health committees or other civil society representation). The pros and cons of various levels of stakeholder involvement and of the importance of community participation are further discussed later in this chapter.

Communicate CHW Position Opportunities and Selection Criteria

Once the selection criteria have been defined and a job description has been developed, the process of communicating the CHW job position(s) to communities and possible candidates can occur in a variety of ways depending on context and resources. Some methods that have been tried in the United States include:

- Announcing positions at community meetings, churches, and other social group gatherings;
- Conducting face-to-face or internal recruitment;
- Obtaining ideas from well-established and well-connected community-based organizations to help identify applicants;
- Receiving referrals from current CHWs;
- Posting fliers at shared community spaces, local recreational centers, municipalities, and health facilities;

- Placing newspaper advertisements; and
- Announcing positions on the radio.^{7, 16}

During the CHW recruitment process, if there is not a clear understanding and acceptance of the proposed tasks for the CHW and how the work will be compensated, then community health programs may fail to deliver. For example, in Dhaka, Bangladesh, CHW performance decreased because the expectations regarding workload and remuneration were not fully met.²³ In addition, the stakeholders involved in recruitment should encourage transparency when possible. For example, if the village health committee selects the chief's son due to social pressure from the chief, this could discourage other, more qualified candidates from applying. Even for the chief's son, his recruitment should be discussed openly in the community so that his credibility is not undermined. Transparency is not always readily achieved, but programs should be aware that not communicating clearly might present problems in the long run. Often, local leaders or mother groups are the most qualified to negotiate these types of issues.

Identify, Review, and Select CHWs Based On Agreed-Upon Criteria and Decision-Making Responsibility

How the recruitment process will continue toward selection of CHWs will in part depend on who is driving the recruitment: the community, the health facility, the village health committee, or some combination. In some countries in which the CHW program has reached a mature state, the selection process may include observations of the CHW in a simulated home visit or dealing with a common issue that would be encountered in the field. Also, in rare instances, CHWs may be selected on a trial basis to give the CHW, the community, and the program managers or supervising health facility staff the opportunity to determine if the CHW is right for the job. CHAs in Brazil are hired by their municipalities based on their “aptitude, posture, and attitudes, during simulated community problems” during the selection process.^{24, 25}

As stated earlier, it is most ideal when the community can participate in the process of CHW selection and/or approval. Although this process may cause challenges in large-scale programs, it is nonetheless important to engage the community in the process to help ensure that their needs are taken into account. In Eastern and Southern Africa, community participation in health program planning improved program outcomes because facility-centered decision-making did not always favor underserved populations due to the differences in socioeconomic status between more elite, educated mid- and high-level health workers and the rural communities that they served.²⁶

In a health center-driven recruitment process, CHWs may be selected with little or no input by community members. In Partners for Health CHW programs in Africa and Haiti, the clinical team interviews CHW candidates to determine if they meet the established selection criteria.²⁷ Clinical team members include doctors, nurses, social workers, or program managers to ensure that the CHW candidate has the capacity to acquire the clinical competencies expected for the CHW role. Depending on the complexity of tasks that the CHW is expected to perform, community members may not have the knowledge and skills to make this assessment.

Given the skill level for most CHWs in community health programs, recruitment should remain as local as possible. However, in many cases where CHWs require higher-level skills or skills that cannot be found within the community, then external recruitment may need to take place for this underserved area. In India, ANMs, who are very highly trained CHWs, are posted to sub-centers and primary health centers with no input from the communities in which they work.²⁸ In many cases, the ANM is not from the community. However, once in place, ANMs are expected to serve on the local village health committee so that they can better integrate with the community and participate in community decision-making.²⁹ Trained CHWs should have

already had exposure to the health issues faced by the community to which they are assigned or by similar communities.³⁰

Another important consideration of CHW qualifications during recruitment are the expressed interest and motivation of the candidates. Are they “natural helpers”? Do they have a genuine investment in the health of their community? Do they treat all people with care and respect? Do they demonstrate problem-solving and leadership skills? Directly asking candidates why they are interested in working as a CHW is recommended.¹⁶ A study among rural health workers in Papua New Guinea indicated that social factors and the community play an important role in health worker motivation.³¹ Motivational factors will be further discussed in the section on CHW turnover.

Box 2. Examples of various processes for selecting CHWs

ASHAs in India are selected by and accountable to the local village level government through a participatory process that involves the whole village.³² In Ethiopia, active health committees are involved in the selection of HEWs from the local community. The voluntary CHWs (Health Development Army) who work with the HEWs are nominated and elected by the community or the HEWs, but the community must approve.³³ In Nepal, women’s groups and local village development committees (VDCs) are involved in the selection and oversight of female community health volunteers (FCHVs). In Mali, village health committees not only provide oversight for the recruitment process, but additionally compensate and supervise the volunteers working in the villages of that catchment area.

In Pakistan, a community member serves on each of the LHW selection committees, as well as on each of the lady health supervisor selection committees.²⁵ LHWs are recruited and selected using a clearly delineated process. LHW posts are advertised and applicants are then interviewed and selected based on specific criteria by a selection committee. The committee is comprised of a medical officer-in-charge, who is the chairman, a female medical officer, a lady health visitor/female medical technician, a male health technician/dispenser, and a community member. Selected LHW candidates are verified through documentation, and then formally appointed by the appropriate local health official (Office of the Executive District Officer of Health or the district health officer).³⁴ They also must be recommended by the councilor, who is a local elected official.³⁵

In Table 2, the CHW Program Functionality Matrix from the CHW AIM Toolkit³⁶ can aid in determining how to assess and strengthen a recruitment process. The CHW AIM proposes 15 programmatic components that have been found to contribute to an effective CHW program; recruitment is considered to be a key component of the tool.

Table 2. Grading of Functionality of Recruitment Processes for CHWs³⁶

0 = NON-FUNCTIONAL	1 = PARTIALLY FUNCTIONAL	2 = FUNCTIONAL	3 = HIGHLY FUNCTIONAL (BEST PRACTICE)
<p>CHW not from community, and the community plays no role in recruitment.</p> <p>No or only a few selection criteria exist and are not well known or commonly applied.</p>	<p>CHW is not recruited from the community, and the community is not involved in the recruitment process but approves of final selection.</p> <p>Some selection criteria</p>	<p>CHW is recruited from the community, and the community is consulted on the final selection.</p> <p>If, because of special circumstances, the CHW must be recruited from outside the community, the community is</p>	<p>CHW is recruited from the community with community participation.</p> <p>If, because of special circumstances, the CHW is recruited from outside the community, the community participates</p>

	exist and are well known and applied, but are general and/or do not address specific issues such as gender and marital status.	consulted on the final selection. Some selection criteria exist and are specific about literacy levels, but do not address gender, marital status, or whether the CHW should come from the local community or not.	in and agrees with the recruitment process and is consulted on the final selection. All selection criteria – literacy, gender, marital status, local residence – are met when possible.
--	--------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Hiring Preferred CHW Candidates

Once stakeholders agree on their preferred candidates, CHWs should be hired and integrated into the community health program. If a standard training is a requirement for deployment, the hired CHW should be enrolled in the appropriate orientation or training program (see Chapter X on CHW Training).

The next section will discuss the availability of resources and how it can influence the CHW recruitment process and further the general availability of resources for retaining CHWs over time.

HOW DO AVAILABLE RESOURCES INFLUENCE CHW RECRUITMENT?

Resource availability for CHW recruitment can have an important effect on how the process is handled. Since the Alma Ata Declaration, many decision-makers not familiar with programming realities on the ground have historically and incorrectly considered community-based health programs to be a low-cost approach to primary health care delivery. As such, the sustainability of adequate financing for CHW programs is too often imperiled by competing priorities in health or other sectors.^{37, 38} According to several key stakeholders interviewed for this manual, the number one cause of failure of CHW programs is that decision-makers do not factor in the high cost associated with the support functions required for CHW programs to function effectively. There is a mistaken idea that once CHWs are trained, it is a free program.

The resources allocated for the management and support of this cadre, whether volunteer or compensated, may be further limited or sporadic. Recruitment costs, although often considered only as an initial cost in setting up a program, can become considerable, especially when programs have high turnover of CHWs. This section will discuss resource-related considerations for CHW recruitment: who controls and who contributes toward resources and how additional or existing resources could be used.

It should be noted that how community-based health programs are financed will affect how recruitment takes place and who participates in the process. For example, *mutuelle* health committees, community- and employment-based groupings for resource mobilization, throughout West and Central Africa (Benin, Côte d'Ivoire, Ghana, Mali, Nigeria and Senegal) are tasked with mobilizing local funds for human resources within the health sector.³⁹ However, in Zimbabwe, the limited local control over available financial resources made it challenging for local health center committees to influence the way that community health programs were run.³

What are the resource requirements for successful CHW recruitment? They may include, but are not limited to:

- Time and effort to convene stakeholders to develop and standardize criteria (e.g., developing the recruitment process; CHW selection criteria, tasks, and responsibilities; and other aspects of the community health program as relates to human resources management);

- Costs related to communicating the availability of CHW positions (e.g., printing fliers, paying for newspaper or radio advertisements, and investigating CHW candidates within communities); and,
- Costs related to reviewing and selecting CHW candidates (e.g., obtaining a venue for conducting interviews, reimbursing of any transport or other expenses incurred by the CHW candidate, and announcement of selected CHWs via traditional communication channels).

Consideration of resources should be discussed by the stakeholders involved in CHW recruitment. For a given community health program and any CHW cohorts that are recruited during its implementation, resource investments should be generally standardized. One exception to this may be in a preliminary or pilot phase of program implementation, when modifications may be made prior to scale-up. Ideally, all stakeholders involved in CHW recruitment should make some resource contribution to the process, whether monetary or in-kind. For example, a village health committee could contribute the use of their meeting space. A district health office could provide in-kind transport to CHW candidates using their own vehicle. (See Chapters X and X on Governance and Finance.)

Ensuring effective recruitment and retention of CHWs through the adequate mobilization of resources should be guided by the World Health Organization’s (WHO) global policy recommendations for increasing access to rural health workers. These recommendations call for rural health workers (including CHWs) to be provided with an adequate combination of financial and/or non-financial incentives to remain motivated to stay there.³⁰ The quality of logistical support and supervision provided to CHWs, including promotion of their safety and well-being, will ensure greater CHW motivation and performance.⁴⁰

The following section will further discuss key investments to ensure recruitment of high-quality CHW candidates and their retention.

HOW CAN CHW RETENTION BE FOSTERED?

After attention and care is spent to recruit and select CHWs that meet the job criteria, it is hoped that they will continue to serve their communities for as long as they are able. However, high CHW turnover is not only a common challenge for community health programs but also a red flag pointing to problems of design or execution. Carefully planning and executing a realistic and appropriate CHW recruitment strategy can help to reduce high turnover.¹⁶

Because many CHWs are recruited from their villages, the challenge of retaining them is not so much one of retaining them geographically at a post, although in some cases, CHWs may move out of their community. In fact, particularly when young, unmarried women are chosen to become CHWs, moving away is actually a common contributor to attrition. However, in most cases, the challenge is rather to ensure that CHWs continue to perform their tasks actively and effectively. Particularly when a community health program has limited resources to supervise CHWs, and CHWs are working on a volunteer basis, strategies for motivating CHWs are essential. For this reason, issues of CHW turnover and retention should be considered as part of the CHW recruitment process within community health programs. This section will discuss issues and make suggestions for CHWs who move away or retire and those who become inactive due to decreased motivation.

There are important issues related to selection criteria and process that can influence attrition, and the consequences of the various choices should be considered. Usually, CHWs are recruited whenever there is a vacancy, and then trained when there is an opportunity. If there is already high CHW turnover, then a concern about the phased recruitment approach could be that CHW posts remain vacant for longer periods of time, until the next recruitment phase commences. If

there is greater control over CHW recruitment at a decentralized level, then recruitment may be ongoing so as to be more directly responsive to community needs. Recruitment may also be contingent on available resources and the preferences of stakeholders. If decision-makers in CHW recruitment are not active or do not have the resources or motivation to recruit, select, and support a new CHW, then the role may not be filled.

Managers of community health programs should review past experiences with CHWs who are leaving their roles and should try to estimate future levels of turnover by answering the following questions:

- How many CHWs are needed?
- How many CHWs are leaving their roles within a given time period (i.e., what is the estimate annual rate of attrition)?
- Why are the CHWs leaving? Are they moving away from the geographic area? Are they aging out of the profession? Are they becoming inactive (i.e., are they losing interest)?
- What is the program's approach for evaluating the recruitment strategy?

If it is determined that there is high CHW turnover (e.g., more than 15% per year), then stakeholders should consider reviewing the community health program to address issues that may affect CHW performance and motivation. High turnover could be a concern because of the additional effort and resources that are required to recruit and train new CHWs and the potential for communities to be without a CHW during the repeated recruitment, selection, and training processes.

To address the retention of CHWs who may move out of their community, it would be important to understand why they are moving. Is it because they are seeking other opportunities for which there are greater incentives? Are they advancing their careers within the health care system or increasing their qualifications to become part of a higher-level health worker cadre? Are there any career path opportunities presented to CHWs to motivate them to advance within the system? If it seems that CHWs are leaving rural and remote areas and heading to more urban areas, it would be important to consider how a revised recruitment strategy might alleviate this problem. Again, the more experience the CHW has in a rural area, especially if they originate from that area, the more likely they will be to stay.^{1, 30} A common pitfall is to set the bar fairly high on level of education and not to make married status a requirement. Thus the result is such that young, unmarried CHWs are recruited who are much more likely to move away – to get married, follow a spouse, or get a job in town.

It is recommended that community health program planners consider recruiting CHWs in an age range. Younger CHWs may have more energy to complete their tasks, but without further career and educational opportunities as a CHW, they may be more likely to leave their role to seek other opportunities. Older CHWs may be more likely to remain in their communities, but there is also the issue of older CHWs phasing out and retiring from their work. Also, older CHWs may not be able to cover their assigned geographical area as effectively as younger ones. In addition, they may require new training and skills acquisition. On the contrary, if the program values CHWs who are effective local opinion leaders, an older, more established person is likely to have more credibility than a 20-year old.

Depending on the governance mechanism for CHWs, then older CHWs could be assessed and phased out as needed. Although many of the FCHVs in Nepal are aging, they are not retiring. Older FCHVs in Nepal may be somewhat less “active” in the sense of going out and about and providing services. However, older FCHVs may be considerably more effective than younger ones in the sense that they are often well-respected and, therefore, can be very effective local

champions for recommended health practices and service utilization. Women's groups are technically also able to remove FCHVs.⁴¹

Maintaining CHW effectiveness requires ensuring their motivation to remain active and, thus, productive at their tasks. Supportive supervision is recognized in the literature as a key approach for maintaining CHW motivation, although experience has taught that this is very difficult to achieve in large-scale public sector CHW programs. (See Chapter X on Supervision.) Supportive supervision should include: regular monitoring of CHWs at their tasks, obtaining feedback from CHWs to consider potential program improvements, and ensuring the safety and wellbeing of CHWs at their work.⁴²⁻⁴⁴ Unfortunately, it is common for few resources to be allocated for CHW supervision, even for paid, full-time CHWs. This shortfall may be because CHWs are widely dispersed from their respective referral primary health care facilities, thus transportation and communication challenges can be common. A top-down supervisory approach – where the CHW supervisor would be responsible for visiting each CHW and for initiating communication – may not be as feasible or effective as a participatory supervision model where CHWs and their communities are provided with the resources and autonomy to seek out the support that they need to perform well and stay motivated. In Thailand, participatory supervision (in which supervisors collaborated with facility-based health staff members and with communities) helped CHWs to be more effective, and the program was better tailored to meet the communities' needs.⁴⁵

Reimbursing CHW transport, for example, to attend regular meetings among CHWs in a district or given geographic area at a referral health center can promote problem-solving and knowledge sharing, encourage peer-to-peer support, and increase CHW accountability and motivation.^{40, 46} Or, paying for air time or mobile phone cards could encourage CHWs to communicate more frequently with referral health centers, which improves feedback mechanisms with other health professionals and can also improve the quality of care.⁴⁷ Still another example concerns promoting CHW occupational safety and health, a significant contributor to CHW motivation.⁴⁰ Indeed, “working conditions, part of the broader human resources management system, are important in terms of creating the conditions for effective and efficient work, boosting morale, and reducing turnover and attrition.”^{15, 48} Investments in CHW occupational safety and health have the potential to present “win-win” situations, where both the CHWs and their communities benefit.⁴⁰

CONCLUSIONS

CHW recruitment is an important part of any community health program because the process of selecting and deploying appropriate and well-qualified CHWs will lay the foundation for the program. Ensuring community participation in the planning and execution of the recruitment, selection, and supervision process is considered a best practice as it can improve program outcomes. Convening stakeholders, defining standards, and allocating sustainable resources for CHW recruitment has the potential to further improve the program. Once CHWs have been selected and are working, it is important to consider what kinds of incentives, whether financial or non-financial, will support CHWs to perform well and remain motivated on their jobs.

Key Resources

Karabi Bhattacharyya, Peter Winch, Karen LeBan, and Marie Tien. 2001. *Community Health Worker Incentives and Disincentives: How They Affect Motivation, Retention, and Sustainability*. Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development: Arlington, Virginia. Available online at: http://pdf.usaid.gov/pdf_docs/PNACQ722.pdf

Centers for Disease Control and Prevention (CDC). 2013. *Handbook for Enhancing Community Health Worker Programs: Guidance for the National Breast and Cervical Cancer Early Detection Program (Part 1)*. Available online at: <http://www.cdc.gov/cancer/nbccedp/training/community.htm>.

Paraprofessional Healthcare Institute (PHI). 2008. *12 Steps for Creating a Culture of Retention: A Workbook for Home and Community-Based Long-Term Care Providers*. PHI National: Bronx, New York. Available online at: <http://phinational.org/sites/phinational.org/files/clearinghouse/PHI12StepWorkbook.pdf>

World Health Organization (WHO). 2010. *Increasing access to health workers in remote and rural areas through improved retention: Global policy recommendations*. WHO: Geneva, Switzerland. Available online at: http://apps.who.int/iris/bitstream/10665/44369/1/9789241564014_eng.pdf.

References

1. Crigler L, Hill K, Furth R, Bjerregaard D. Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services Bethesda, MD: USAID Health Care Improvement Project
University Research Co., LLC (URC),
2011.<http://www.who.int/workforcealliance/knowledge/toolkit/50.pdf>
2. Goetz AM, Gaventa J. Bringing citizen voice and client focus into service delivery. IDS Working Paper 138. Brighton, Sussex: Institute of Development Studies
2001.<http://www.sasnet.org/documents/Curriculum/ConceptualFramework/Bringing%20citizen%20voice%20into%20focus%20in%20service%20delivery.pdf>
3. Loewenson R, Rusike I, Zulu M. Assessing the impact of Health Care Committees on health system performance and health resource allocation - final report, EQUINET discussion paper 18. Harare, Zimbabwe: EQUINET,
2004.<http://www.equinet africa.org/bibl/docs/DIS18%20res.pdf>
4. Shakir FK. Community Health Worker Programs: A Review of Recent Literature. Washington, D.C.: University Research Co., LLC,
2010.http://www.hciproject.org/sites/default/files/CHW%20literature%20review_Jan2010_0.pdf
5. Anderson LM, Scrimshaw SC, Fullilove MT, Fielding JE, Normand J, Task Force on Community Preventive S. Culturally competent healthcare systems. A systematic review. *American journal of preventive medicine* 2003; **24**(3 Suppl): 68-79.
6. Paraprofessional Healthcare Institute. 12 Steps for Creating a Culture of Retention: A Workbook for Home and Community-Based Long-Term Care Providers. Bronx, NY: Paraprofessional Healthcare Institute
2008.<http://phinational.org/sites/phinational.org/files/clearinghouse/12-Step%20Workbook.pdf>
7. Rural Assistance Center. Module 4: Program Implementation Rural Assistance Center,
2011.<http://www.raonline.org/communityhealth/chw/module4/>
8. Green E. Indigenous Healers and the African State: Policy Issues Concerning African Indigenous Healers in Mozambique and Southern Africa. New York: PACT Publications;
1996.
9. Lehmann U, Sanders D. Community health workers: what do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers. Geneva, Switzerland: World Health Organization
2007.http://www.who.int/hrh/documents/community_health_workers.pdf
10. Bajpai N, Sachs JD, Dholakia RH. Improving access, service delivery and efficiency of the public health system in rural India. CSGD Working Paper No. 37. New York City, NY: The Earth Institute at Columbia University,
2009.http://globalcenters.columbia.edu/mumbai/files/globalcenters_mumbai/F.%20FINAL_N_RHM_Report%202009.pdf
11. Aquino R, de Oliveira NF, Barreto ML. Impact of the family health program on infant mortality in Brazilian municipalities. *Am J Public Health* 2009; **99**(1): 87-93.
12. Prado TN, Wada N, Guidoni LM, Golub JE, Dietze R, Maciel EL. Cost-effectiveness of community health worker versus home-based guardians for directly observed treatment of tuberculosis in Vitoria, Espirito Santo State, Brazil. *Cad Saude Publica* 2011; **27**(5): 944-52.
13. Khan A. Lady Health Workers and Social Change in Pakistan. *Economic & Political Weekly* 2011; **XLVI**(30): 28-31.

14. Oxford Policy Management. External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Management Review.: Canadian International Development Agency
2009.http://www.opml.co.uk/sites/opml/files/LHW_%20Management%20Review_1.pdf
15. Teklehaimanot A, Kitaw Y, G/Yohannes A, et al. Study of the Working Conditions of Health Extension Workers in Ethiopia. *Ethiopian Journal of Health Development* 2007; **21**(3): 246-59.
16. Cancer NTCftPaEDo. A Handbook for Enhancing Community Health Worker Programs: Guidance From the National Breast and Cervical Cancer Early Detectin Program: Part 1. Rockville, Maryland: R.O.W. Sciences, Inc.,
1998.<http://www.cdc.gov/cancer/nbccedp/pdf/trainpdfs/hb-introduction.pdf>
17. Nursing Education in India. 2011.
http://currentnursing.com/nursing_education/nursing_education_in_india.html.
18. GHI. The United States Global Health Initiative. Mozambique Strategy 2011. 2011.
<http://www.ghi.gov/documents/organization/175133.pdf>
19. George A, Young M, Nefdt R, et al. Community health workers providing government community case management for child survival in sub-saharan Africa: who are they and what are they expected to do? *Am J Trop Med Hyg* 2012; **87**(5 Suppl): 85-91.
20. Konate MK, Kante B, Djenepo F. Politique de santé communautaire et viabilité économique et sociale des centres de santé communautaires au Mali: Etude de cas en milieu urbain et rural (preliminary document). Geneva, Switzerland: UNRISD,
2003.[http://www.unrisd.org/80256B3C005BCCF9/httpNetITFramePDF?ReadForm&parentunid=F4478C9C2C2D0794C1256E200039D082&parentdoctype=paper&netitpath=80256B3C005BCCF9/\(httpAuxPages\)/F4478C9C2C2D0794C1256E200039D082/\\$file/konate.pdf](http://www.unrisd.org/80256B3C005BCCF9/httpNetITFramePDF?ReadForm&parentunid=F4478C9C2C2D0794C1256E200039D082&parentdoctype=paper&netitpath=80256B3C005BCCF9/(httpAuxPages)/F4478C9C2C2D0794C1256E200039D082/$file/konate.pdf)
21. National Health Systems Resource Centre. ASHA Which way forward...? Evaluation of ASHA Programme. New Delhi, India: National Rural Health Mission
National Health Systems Resource Centre,
2011.http://nhsrindia.org/download.php?downloadname=pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/ASHA_Which_way_forward_-_Evalaution_of_ASHA_Programme_Report_NHSRC_417.pdf
22. Gopinathan U, Lewin S, Glenton C. An analysis of large-scale programmes for scaling up human resources for health in low- and middle-income countries. Geneva, Switzerland World Health Organization 2012.
23. Alam K, Tasneem S, Oliveras E. Performance of female volunteer community health workers in Dhaka urban slums. *Soc Sci Med* 2012; **75**(3): 511-5.
24. Celletti F, Wright A, Palen J, et al. Can the deployment of community health workers for the delivery of HIV services represent an effective and sustainable response to health workforce shortages? Results of a multicountry study. *AIDS* 2010; **24 Suppl 1**: S45-57.
25. Bhutta ZA, Lassi ZS, Pariyo GW, Huicho L. Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems. In: WHO & global health workforce alliance, editor. Geneva; 2010
26. Baez C, Barron P. Community voice and role in district health systems in east and southern Africa: a literature review., 2006.www.equinet africa.org/bibl/docs/DIS39GOVbaez.pdf
27. Partners in Health. Community Health Workers Recruitment 2010.
http://model.pih.org/community_health_workers/chw_recruitment (accessed July 22, 2013 2013).

28. Mavalankar D, Vora K. The Changing Role of Auxiliary Nurse Midwife (ANM) in India: Implications for Maternal and Child Health (MCH) Ahmedabad: Indian Institute of Management Ahmedabad, 2008
29. Singh CM, Jain PK, Nair KS, Kumar P, Dhar N, Nandan D. Assessment of utilization of untied fund provided under the national rural health mission in Uttar Pradesh. *Indian journal of public health* 2009; **53**(3): 137-42.
30. World Health Organization. Increasing access to health workers in remote and rural areas through improved retention: global policy recommendations. Geneva, Switzerland: World Health Organization 2010. http://whqlibdoc.who.int/publications/2010/9789241564014_eng.pdf
31. Razee H, Whittaker M, Jayasuriya R, Yap L, Brentnall L. Listening to the rural health workers in Papua New Guinea - the social factors that influence their motivation to work. *Soc Sci Med* 2012; **75**(5): 828-35.
32. MoHFW. Update on the ASHA Programme. 2011. http://nhsrindia.org/pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/Update%20on%20ASHA%20Programme%20_449.pdf (accessed Nov 15 2012).
33. Amare Y. Study of Implementation of Non-Financial Incentives for Voluntary Community Health Workers. JSI Research & Training Institute, Inc.; 2010
34. Oxford Policy Management. Lady Health Worker Programme: External Evaluation of the National Programme for Family Planning and Primary Health Care- Systems Review, 2009. <http://www.opml.co.uk/projects/lady-health-worker-programme-third-party-evaluation-performance>
35. CHW Technical Task Force. One Million Community Health Workers: Technical Task Force Report. New York: The Earth Institute, 2011
36. Crigler L, K. H, Furth R, Bjerregaard D. Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services. Washington, DC: Health Care Improvement Project, University Research Corporation, and USAID, 2011. http://www.hciproject.org/sites/default/files/CHW%20AIM%20Toolkit_March2011.pdf
37. Berman PA, Gwatkin DR, Burger SE. Community-based health workers: head start or false start towards health for all? *Social science & medicine* (1982) 1987; **25**(5): 443-59.
38. Standing H, Chowdhury AM. Producing effective knowledge agents in a pluralistic environment: what future for community health workers? *Soc Sci Med* 2008; **66**(10): 2096-107.
39. Atim C. Contribution of Mutual Health Organizations to Financing, Delivery, and Access to Health Care. Synthesis of Research in Nine West and Central African Countries. Technical Report No. 18. Bethesda, Maryland: Partnerships for Health Reform Project, Abt Associates Inc., 1998. http://pdf.usaid.gov/pdf_docs/PNACH273.pdf
40. Jaskiewicz W, Tulenko K. Increasing community health worker productivity and effectiveness: a review of the influence of the work environment. *Human resources for health* 2012; **10**(1): 38.
41. Pradhan S. Personal communication. 2012
42. Haines A, Sanders D, Lehmann U, et al. Achieving child survival goals: potential contribution of community health workers. *Lancet* 2007; **369**(9579): 2121-31.
43. Lehmann U, Friedman I, Sanders D. Review of the Utilisation and Effectiveness of Community-based Health Workers in Africa. South Africa: University of Western Cape, South Africa SEED Trust, South Africa, 2004. <http://hrh.uwc.ac.za/index.php?module=hrhlibrary&action=downloadfile&fileid=111930420852115>

44. Ojofeitimi EO, Jinadu MK, Elegbe I. Increasing the productivity of community health workers in rural Nigeria through supervision *Socio-Economic Planning Sciences* 1988; **22**(1): 29-37.
45. Sennun P, Suwannapong N, Howteerakul N, Pacheun O. Participatory supervision model: building health promotion capacity among health officers and the community. *Rural and remote health* 2006; **6**(2): 440.
46. Deussom R, Jaskiewicz W, Dwyer S, Tulenko K. Holding Health Workers Accountable: Governance Approaches to Reducing Absenteeism. Wasington, D.C.: IntraHealth International, Inc., 2012.<http://www.intrahealth.org/files/media/holding-health-workers-accountable-governance-approaches-to-reducing-absenteeism/holding-health-workers-accountable-governance-approaches-reducing-absenteeism.pdf>
47. Deussom R, Mitchell M, Ruben J. Using mobile technology to address the 'three delays' to reduce maternal mortality in Zanzibar.: *International Journal of User-Driven Healthcare*; 2013.http://cugh.conferencespot.org/CS35_Mitchell/12
48. Buchan J. What difference does ("good") HRM make? *Human resources for health* 2004; **2**(1): 6.

Training Community Health Workers for Large-Scale Community-Based Health Care Programs

Iain Aitken

24 September 2013

Key Points

- CHW training needs to be carefully adapted to the needs of the trainees, the job, and the tasks they are expected to perform and the context in which they will be working.
- Current training approaches and techniques that are effective for training CHWs should be employed.
- Examples of training programs and their structures from a variety of CHW programs are provided.

INTRODUCTION

There is growing evidence that well-designed community-based programs using well-trained community health workers (CHWs) can be effective in the context of a wide variety of health programs. However, it needs to be acknowledged that CHWs currently face more competition for their services from other formal and informal providers than was the case when CHWs were first deployed in health programs in the 1970s and 1980s.¹ Communities in low-income settings throughout the world now have ready access not only to traditional healers, but also to a variety of ‘village doctors’, drug sellers, private doctors, and other health workers. There are also now many more voices in the community providing health information. In addition to these healers, there are other opinion leaders and a much greater reach and impact by the media such as radio, television, mobile phones, and Internet. To survive and improve community health in this evolving environment, a CHW has to be both competent in technical and communication skills and confident in using those skills. This expectation is the challenge for those who will design and implement training programs for CHWs.

In the implementation of a community-based health care (CBHC) program, some new health workers, such as CHWs and their supervisors, will need the full complement of skills, knowledge, and attitude training to enable them to fulfill the tasks and responsibilities defined in the program. The chapters on Roles and Tasks of CHWs and Supervision address the roles and tasks that need to be carefully defined for these cadres. Some of the health professionals that are already employed in the health system, such as health facility-based staff, may need training for new skills to perform their expanded role in part-time support and supervision of the CHWs. Others, such as facility and district health managers, will not need new skills, but will need an orientation to the new CBHC program and need to know why it has been developed to effectively apply existing skills in the implementation and management of the new program. All of these people will also need to be motivated to support the new program, part of which requires providing appropriate time allocations to fulfill their managerial and supervisory responsibilities for the CBHC program. Identifying the training or orientation needs of all such staff involved in the management of the community-based program is addressed in the Planning and Scaling Up chapters.

Effective training will emphasize the development of specific competencies and skills required for high-quality job performance. Effective learning and performance of these competencies will require the trainee to acquire a critical body of knowledge and develop appropriate attitudes. This chapter discusses how these competencies can best be achieved and the ways training can be organized.

Key Questions for Planners and Trainers

The key questions to be addressed in this chapter are:

- What sort of CHW and training program is being planned?
- How should the training program be organized?
- Who should be responsible for the governance and management of the training program?
- How can optimal performance be achieved through training?

WHAT SORT OF CHW TRAINING PROGRAM IS BEING PLANNED?

As explained in the introductory chapter, there are two levels of CHWs that are being considered, and within each level, there are two types of CHWs. In Level 1, there are community health volunteers-ongoing and community health volunteers-intermittent (although their names actually vary from country to country and program to program). In Level 2, there

are auxiliary health workers and health extension workers (again, their names may vary). As their roles and responsibilities differ, their training needs also differ. The general differences between these two levels of workers are summarized in Table 1.

Table 1. Typical Training Programs for Different Levels of CHWs

Level 1 CHWs (Intermittent and Ongoing Community Health Volunteers)	Level 2 CHWs (Auxiliary Health Workers and Health Extension Workers)
<ul style="list-style-type: none"> ▪ Job description usually not extensive. ▪ A large total number to be trained. ▪ Small numbers trained at one time. ▪ Non-residential training. ▪ Training sessions only a few days at a time, but may be several sessions. ▪ Training close to the community. ▪ Literacy may not be necessary. ▪ Needs little or no special equipment. ▪ Uses community setting for practice and a local health facility for clinical practice. ▪ No certification usually provided. ▪ Trained by those who are less highly skilled. 	<ul style="list-style-type: none"> ▪ Job description more extensive. ▪ Variable numbers to be trained. ▪ Variable numbers in one course. ▪ Residential training. ▪ Training lasts 6-18 months. ▪ Training may be far from community. ▪ Usually requires a minimum of 6 years of school. ▪ Needs special equipment, practice labs with models, and a clinical training facility. ▪ Certification required for employment. ▪ Trained by those who are more highly skilled.

CHWs in Level 2 generally have a job description with a broad scope, but many CHWs work for a specific disease control program or in the area of either child health or reproductive health programs. Typically, these individuals are required to have some secondary education and are prepared for their careers with a longer, full-time, residential training program. This type of training program is akin to a conventional professional training as it contains a lot more knowledge content than a Level 1 CHW training program would have. The next section reviews the differences between the training programs for these main groups of community workers.

HOW SHOULD THE TRAINING PROGRAM BE ORGANIZED?

Table 2 summarizes the nature of several different types of national CHW programs and the training programs that have been developed for them. There are a variety of issues that determine the nature of the training program that we will consider in this section, illustrated by these programs.

What Is the Scope of the Roles and Tasks of the CHW?

Multipurpose CHWs have become a familiar feature of many country health systems. The desire to bring essential health services closer to families in their communities means that the range of services provided by CHWs complements those provided by health professionals in primary health care facilities. These services generally include maternal, newborn and child health, family planning, nutrition, and disease control. In Ethiopia, health extension workers (HEWs) have the most extensive job description of all the examples, including skilled pregnancy and childbirth care, which are generally not included among the tasks of other CHWs. The HEW's one-year training is significantly longer than most other multipurpose CHWs, whose training generally lasts for three to six months. In Brazil, community health agents (CHAs) are tasked with less provision of clinical care, but have an extensive health promotion and supportive care role that also includes elder care, mental health care, and the prevention and management of non-communicable diseases.

In contrast, there are many CHWs with much narrower scopes of work, and the duration of their training may be only one to two weeks. For example, at the Community Health Care Site in the Democratic Republic of Congo, the CHWs who provide integrated community case

management (iCCM) for childhood illnesses have a typical training of six days. Other CHWs working on malaria control or in single or combined programs for TB and HIV have similar lengths of training.

Will This Be a Completely New Program or an Adaptation or Expansion of an Existing One?

Among the examples in Table 2, the Ethiopian HEWs, the lady health workers of Pakistan, and the CHWs of Afghanistan have been established as new programs during the last two decades. The current female community health volunteers (FCHVs) of Nepal and the health surveillance assistants (HSAs) of Malawi are much older cadres, but their roles have expanded more recently. The distinction between these types of cadres is not absolute, and even “new” programs begin to add additional tasks quite quickly after the program begins to function (also called “diversification” in Chapter X on Scaling Up). Evidence from recent years on the competence and effectiveness of CHWs in delivering newborn care and providing injectable contraceptives, for example, means that such tasks are frequently added to CHW roles and tasks even for more recently established cadres.

The important point is that if there is already a CHW cadre established in communities, there may be a considerable advantage to expanding the scope of work of that CHW rather than creating a new cadre. This expansion will likely also involve adjusting the incentives for the CHW as well. (This process is discussed in greater detail in the Planning chapter.) In a number of African and Asian countries, iCCM is now being delivered by CHWs that previously were only involved in malaria or diarrhea control programs.^{2, 3} Similarly, successful integration of TB and HIV programs has been achieved by retraining community workers previously working for only one program.⁴ For the Nepali FCHV, there was a direct link between the MCH and family planning promotion work in the original scope and the gradual addition of iCCM, newborn care, and the provision of contraceptives. For the Malawi HSA, the addition of iCCM and family planning was a change in focus from the earlier disease control role, but it appears to have worked. Nevertheless, the enthusiasm to add more tasks to the job description of the HSAs is creating work pressure for many HSAs and problems for the health system in keeping up with the training needs of new HSAs.^{5, 6}

What Educational Level Should Be Required for Entry to the Program?

The usual response is “the highest educational level possible.” Indeed, educational level is often assumed to be a way of identifying the most capable people for the job. This requirement may be relevant where educational opportunities are equitable and widespread, but less so if opportunities are restricted. Education should be considered along with other important factors, such as gender. Nepal, Afghanistan, and Pakistan all want women recruited from their communities for the CHWs because in their cultures it is only appropriate for women to be cared for by women. (This topic is discussed further in the Selection chapter.) In Nepal and Afghanistan, 65% to 70% of the women selected are illiterate. In Pakistan, they required eight years of schooling. In Ethiopia, the entry level for HEW training is 10 years of school. However, among the pastoralist population, there are very few women with that educational level, so women and some men with a grade six to eight educational level were accepted into a shorter training program.

How important is educational level as an entry requirement into a CHW training program? Broadly speaking, a primary school education provides many skills and experiences unavailable to an illiterate person.⁷ However, surveys conducted in Nepal have found little difference in job performance between literate and illiterate FCHVs.⁸ Likewise, a secondary school education usually provides an introduction to scientific concepts that make understanding of the biological and medical concepts much easier. However, the correlation with problem-solving skills is less

clear. (See also section 4.c below.) Many countries have found that a higher educational level for CHWs also brings disadvantages, including the social barrier it may create between the CHW and less-educated people in the community and a preference for living and working in urban areas.

How Long Should the Training Be, Where Should It Be, and How Should It Be Scheduled?

The only programs in Table 2 that include residential training are the Brazil CHAs and the Ethiopian HEWs. The Ethiopian program makes use of existing Ministry of Education training facilities. The other training programs all occur in a health facility or other suitable space close to where the CHWs live to not only avoid the expense of residential training, but also keep the trainees in a familiar situation and allow them to stay at home, in keeping with family or cultural requirements. Familial, agricultural, and cultural issues may also mean that certain times of the year are best avoided for training programs for volunteer CHWs.

The overall length of the training will reflect the size of the curriculum. The Brazil, Pakistan, and Ethiopian programs all have a longer classroom phase than the others, reflecting the greater amount of theory included and the requirement of a secondary level of education. All these programs also have considerable amounts of practical training: 50% for the LHWs, and 70% for the HEWs. Training programs for iCCM generally include clinic sessions on four of the five training days. Both the Nepali FCHVs and Afghan CHWs have programs with two to three integrated classroom and practical sessions lasting two to three weeks separated by two to three months. This schedule intends to focus on learning and practicing one set of skills before moving on to other and perhaps more complex skills.

How Should Trainers Be Prepared?

The establishment and maintenance of a high-quality training program for CHWs is a challenge, especially when so many regular health staff members are tasked to conduct the training. As explained previously, a competency-based training is essential for CHWs to learn the skills they require. Yet, obtaining and making the most of practical experiences is difficult for the trainers. The competency-based approach is often very different from the more traditional training experienced by trainers. There is a need for a core group of master trainers who can train and mentor provincial- or district-level trainers in competency-based approaches and be responsible for maintaining a high quality of training. Trainers in almost all of the programs listed in Table 2 are taught training facilitation/teaching skills and the CHW curriculum. In some instances, training of trainers is done in a cascade fashion, meaning trainers at the local training health facility are supported in the training and monitored by master trainers from the region or district.

When training is being provided in specific training institutions in several locations in different regions of the country by different organizations (as in Afghanistan), the quality of training can be maintained through a process of accreditation of the training schools. Accreditation can be organized directly by the government or by an independent body, but usually the process functions best when all the key stakeholders are represented and have distinct and significant roles in school assessments and accreditation program oversight. A standards-based approach, using a survey instrument with measurable indicators to assess training facilities, clinical practical facilities, the staff and the school's organization is a rigorous approach. Afghanistan developed such an accreditation program for its community midwifery schools with success.⁹

Table 2: Training programs for different types of community health workers^a

PROGRAM	ROLES AND TASKS	TRAINING
FULL-TIME, SALARIED, MULTIPURPOSE CHWS		
Brazil		
<p>Family Health Program (1989).</p> <ul style="list-style-type: none"> ▪ Family health team in the basic health unit serving 3,000 to 4,500 people includes 1 doctor, 1 nurse, 1 assistant nurse and about 6 CHAs. Each CHA cares for about 150 households. ▪ CHAs are recruited from their communities and need 8 years of schooling. ▪ State employees, on salary. ▪ Now about 236,000 CHAs. 	<ul style="list-style-type: none"> ▪ Annual household registration and assessment of risk status. ▪ Promotion and monitoring of skilled care at the clinic for: <ul style="list-style-type: none"> – Maternal, newborn, and child health; – Family planning and female cancers; and – Environmental health, adolescent health, elder care, mental illness. ▪ Infectious disease surveillance and support for management of TB, HIV, and chronic non-communicable diseases. 	<ul style="list-style-type: none"> ▪ Curriculum developed by Ministry of Health (MOH) with Ministry of Education approval. Municipalities may adapt it to local priorities. ▪ An 8-week residential course is followed by 4 weeks of supervised fieldwork. ▪ Refresher training is monthly. ▪ Training done by nurses, supported by staff from state health secretariat. ▪ Nurses do an 80-hour teacher training module. State specialists do 540 hours at technical school to become a specialist in professional health education.
Pakistan.		
<p>LHW Program (1994).</p> <ul style="list-style-type: none"> ▪ LHWs are community-based, caring for 100-200 households and are supervised by the health facility. ▪ Recruited from the community, preferably a married woman with 8 or more years of schooling. ▪ Now about 100,000 LHWs. ▪ Full-time salaried workers. 	<ul style="list-style-type: none"> ▪ Register families and do 5-7 home visits each day to promote facility care for pregnancies and childbirth and immunizations. ▪ Growth monitoring, nutrition education, and distribution of micronutrients. ▪ Provide condoms, contraceptive pills, and injections. ▪ Community case management of childhood illnesses and essential newborn care. ▪ Supervise directly observed treatment short-course (DOTS) for TB. ▪ Education on hygiene, sanitation, and prevention of HIV infection. 	<ul style="list-style-type: none"> ▪ Federal Project Implementation Unit of the MOH approves the curriculum and trains master trainers. ▪ LHWs have 3 months classroom training, followed by 1 week of practical training each month in the health facility for a year. ▪ Refresher training is for at least 1 day each month (15 days each year). ▪ Health facility staff members do the training after 9 days of teacher training and 3 days assessment in a health facility. They receive an additional 20% salary for the 15 months of the training. ▪ District trainers support them.

^a Most of the data in Table 2 are taken from World Health Organization and Global Health Workforce Alliance. 2010. *Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration in National Health Systems*. WHO and Global Health Workforce Alliance: Geneva, Switzerland.

PROGRAM	ROLES AND TASKS	TRAINING
Ethiopia.		
<p>Health Extension Program (2004).</p> <ul style="list-style-type: none"> ▪ Primary Health Care Unit includes 1 health center (for ~25,000 people) with 5 satellite health posts (~5,000 people). ▪ Each health post has 2 HEWs and 20 community health promoters. <p>HEWs are recruited from their communities and should be women with 10 years of schooling. More than 34,000 HEWs. Salaried civil servants.</p>	<ul style="list-style-type: none"> ▪ Hygiene and environmental sanitation. ▪ Pregnancy, childbirth, and postnatal/newborn care. ▪ Case management of childhood illnesses; provision of immunizations. ▪ Counseling and provision of contraceptive pills, injections, and condoms. ▪ Nutrition; adolescent health. ▪ Disease control for TB, HIV, and malaria. ▪ Health education and training and support of CHPs. 	<ul style="list-style-type: none"> ▪ Curriculum designed by the MOH, but training is provided at 40 technical and vocational training schools belonging to the Ministry of Education. ▪ 1-year training program. ▪ 30% in classroom, 70% practical, including attachments to health centers and 3 months in a community. ▪ Trainers are nurses and environmental workers. They receive 3 months training by MOH instructors.
Malawi.		
<p>Health Surveillance Assistants (1980).</p> <ul style="list-style-type: none"> ▪ Originally community environmental health and disease control workers serving about 1,000 people. ▪ Requires 10 years of schooling (recently increased to 12 years). ▪ Now about 11,000 HSAs. 60% are male. ▪ Since 2008, some HSAs have been selected to provide 3,500 village health clinics to villages more than 5-8 kilometers from a health facility. ▪ Salaried civil servants. 	<p>All HSAs:</p> <ul style="list-style-type: none"> ▪ Immunizations; ▪ Growth monitoring; ▪ Disease outbreak investigation; and ▪ Water and sanitation and health education. <p>Some HSAs:</p> <ul style="list-style-type: none"> ▪ iCCM of childhood illnesses (since 2008); ▪ Essential newborn care; ▪ Family planning; and ▪ Disease control for HIV and TB. 	<ul style="list-style-type: none"> ▪ Basic curriculum for 12-week training is from the Environmental Health Unit of MOH. ▪ Training is supposed to be provided by district environmental health staff. ▪ The iCCM curriculum for the 6-day training is from the Integrated Management of Childhood Illnesses Unit of the MOH. ▪ Training for iCCM has been supported by bilaterally-funded projects and implemented by special training teams.
VOLUNTEER, PART-TIME MULTIPURPOSE CHWS		
Nepal		
<p>Female Community Health Volunteer Program (1988).</p> <ul style="list-style-type: none"> ▪ At least 9 FCHVs attached to a health facility, each caring for about 1,000 people. ▪ Work about 5 hours each week. Some material incentives. ▪ Recruited from community. ▪ About 60% are literate. ▪ About 50,000 FCHVs. 	<ul style="list-style-type: none"> ▪ Basic job is to promote use of MCH and family planning services; home and personal hygiene and management of diarrhea; and HIV prevention through home visits and working with mothers' groups. ▪ All now do iCCM of childhood diseases and distribute condoms and contraceptive pills. ▪ Some are now distributing misoprostol for home births and doing newborn care and resuscitation. 	<ul style="list-style-type: none"> ▪ The Family Health Division of the Department of Health Services sets the training curriculum. ▪ Basic training consists of 2 9-day training sessions 2 months apart. ▪ Most FCHVs receive about 3 1 to 2-day refresher sessions each year. ▪ Training of trainers is a snowball process managed by the National Health Training Institute. ▪ Training is done by government and NGO staff.

PROGRAM	ROLES AND TASKS	TRAINING
Afghanistan		
<p>Community Health Worker Program (2004).</p> <ul style="list-style-type: none"> ▪ 1 male and 1 female CHW for 100-150 households (about 1,000 people). ▪ Selected from community. Literacy not required. 70% of females and 20% of males are illiterate. ▪ Part-time volunteers. ▪ About 25,500 CHWs. 	<ul style="list-style-type: none"> ▪ Promotion of home and personal hygiene and sanitation. ▪ Promotion of skilled MCH care at the facility. Promotion and provision of birth spacing methods, including injectables. ▪ Provision of iCCM of childhood diseases. Growth monitoring and essential newborn care. ▪ DOTS care for TB. ▪ Lead and train women's care group (Family Health Action Group) for health promotion. 	<ul style="list-style-type: none"> ▪ Curriculum is managed by the community-based health care section of the MOH. ▪ Basic training is 3 3-week training courses at 3 monthly intervals. ▪ Refresher training courses have included: <ul style="list-style-type: none"> – Eight-day course on postpartum family planning and injectables; – Two 5-day courses on iCCM; and – Five-day training and implementation of community growth monitoring. ▪ Training done by full-time provincial CHW trainers after 5 days of training on teaching methods and separate training on modules.
VOLUNTEER, PART-TIME CHWS FOR COMMUNITY CASE MANAGEMENT OF CHILDHOOD ILLNESSES		
Democratic Republic of Congo		
<p>Up to three community health care sites selected in catchment area of health clinic for villages with poor access.</p> <p>Two part-time male volunteers at each site.</p> <p>Recruited from the community.</p> <p>Should be literate in French.</p> <p>Preference given to previous health promoters.</p>	<p>Management of fever, diarrhea and ARI;</p> <p>Growth monitoring;</p> <p>Distribution of iron and deworming tablets;</p> <p>Distribution of condoms;</p> <p>Promotion of immunizations; and</p> <p>Health education on above topics.</p>	<p>The iCCM curriculum set by the MOH.</p> <p>Five days of training on health topics and 1 day on site management.</p> <p>Three monthly 1-day follow-up sessions at the health clinic.</p> <p>Trainers are from health clinics and the district health office and receive 3 days of training. A ratio of 1 trainer to 2 CHWs is required.</p>

WHO SHOULD BE RESPONSIBLE FOR THE GOVERNANCE AND MANAGEMENT OF THE TRAINING PROGRAM?

When a CHW program is part of a vertical program in a MOH, the oversight of the training program is usually implemented by the same group. For the HEWs and the general purpose CHWs, options and practice vary. Oversight of the training for the overall CHW program is usually the responsibility of a unit within the MOH. The CHW program and the CBHC unit are frequently part of a health services or primary health care division. Management of the training implementation may come from that unit or may be delegated to a national training institute that is responsible for training programs for the MOH. The Nepal National Health Training Institute is a good example of this arrangement. Involvement of the Ministry of Education is unusual for this type of program, but the Brazil CHAs' curriculum had to be approved by that Ministry of Education, and the HEW training program in Ethiopia made use of Ministry of Education vocational training facilities.

When a new program is being planned and designed, it is helpful to have both a steering committee and an *ad hoc* or formal technical advisory committee(s). The steering committee should have a broad membership of all the stakeholders of the program to guide and approve the design of the training. The technical groups will usually represent the key stakeholders and will ensure that the CHW program and its training program involve the best practices that are appropriately adapted and applied to the country situation or its different regions. The Malawi HSA program has long been organized by the environmental health section of the MOH. With additional roles and tasks being added to the job description, other sections of the MOH are becoming engaged, such as the section concerned with the Integrated Management of Childhood Illness. (See the Planning chapter for more detail.)

HOW CAN OPTIMAL PERFORMANCE BE ACHIEVED THROUGH TRAINING?

The first thing to recognize is that the performance of CHWs depends upon the impact of many factors other than training. Evidence suggests that knowledge of correct actions is not sufficient to ensure that the right thing will be done. Box 1 lists some of the common individual factors and environments that frequently affect CHW practices. The quality of training and the regularity of refresher training are important determinants of performance, but the recognition of other significant factors can lead to the development of appropriate strategies to address them.

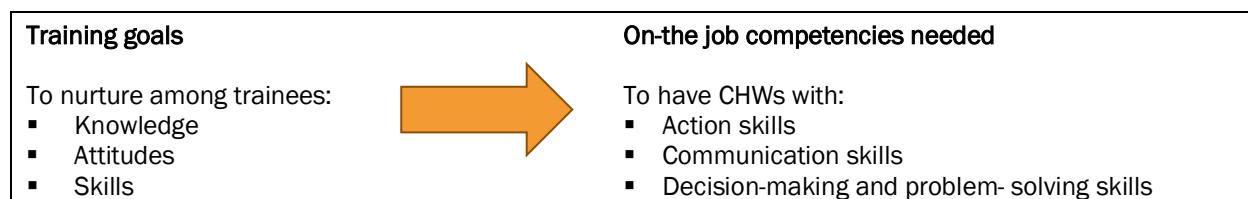
Foremost, proper performance of the required activities and tasks of a CHW requires competence in the skills to perform those tasks. This is why more emphasis is now being placed on competency-based training rather than the traditional knowledge-based training. Figure 1 shows the main types of competencies required of a CHW, and it also emphasizes the supportive role of both knowledge and appropriate attitudes in addition to skills. A detailed description of activities and tasks, discussed in the CHW Roles and Tasks chapter, is required to then do a detailed task analysis for preparing performance protocols and the training curriculum. This analysis involves examining each task to be performed by the CHW, identifying any sub-tasks, and then describing the skills that are required for satisfactory performance. Any particular task may involve any combination of psychomotor, communication, and decision skills.

Each of these three types of competencies or skills is different and requires different types of learning experiences. The factor common among all of them is the requirement of active participation in the learning experience by the trainee CHW to achieve competency.

Box 1: Factors influencing CHWs' performance¹⁰

- CHW factors: Knowledge, skills, motivation, and job-satisfaction; confidence in work guidelines and own skills; fear of bad outcomes; perceptions of patients' demands; and fear of losing clients to other healers.
- Patient factors: Severity of illness; patient's demands; patient's age; sex; and social status.
- Work: Complexity of the work, presence, and clarity of the work guidelines and frequency with which guidelines are changed.
- Sociocultural environment: Traditions and values of communities.
- Work conditions: Amount of work, access to and quality of support and supervision, availability of supplies and equipment.
- Educational support: Opportunities for refresher or in-service training.
- Incentives: Existence and regularity of financial and non-financial incentives.
- Economic environment: Cost of living, alternate job opportunities, economic conditions of country and health system.

Figure 1. A conceptual framework for training of Community Health Workers



Actions: Psychomotor skills

Psychomotor skills are a wide range of skills that include making observations and doing things. Table 3 illustrates the range of action skills that might be required of a CHW, depending upon the roles that he or she is required to play.

Table 3: Action/psychomotor skills

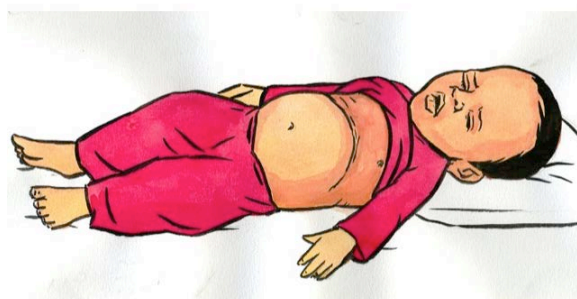
TYPE OF ACTION	EXAMPLES
Observation	Count breathing rate using a timer or watch, detect rib in-drawing, skin- pinch test for dehydration, listen for stridor.
Performance of medical procedure	Give different types of injection, administer eye ointment, apply chlorhexidine or gentian violet to a baby's umbilical cord. Deliver a baby, tie, and cut a baby's umbilical cord.
Use of supplies and equipment	Take blood, and use a malaria rapid diagnostic tool. Weigh a baby or measure the mid-upper arm circumference. Package medicines for a sick child; prepare and give oral rehydration solution.
Recording and reporting	Complete a patient record or a monthly report.
Construction	Construct a stand for a domestic hand washing basin. Construct a safe pit latrine.

There are three stages in the learning process for action skills: demonstration, simulation, and supervised practice in the work place. Verbal or written descriptions alone have little value for learning. Demonstrations can be done in the work setting, but often suffer from poor visibility when there is a large group of students. Videos of procedures have the advantage of being designed to maximize visualization of the key points with a clear commentary and repetitions of

key points. They can also be viewed anywhere, at any time, and as often as desired. Videos on laptops are used to demonstrate clinical signs to CHWs in the Democratic Republic of Congo.²

Pictures or photographs can be useful for many clinical signs that can be demonstrated without video. Some more complex tasks may require the development of a job aid that provides a checklist for all the steps. Packaged instructions for equipment, such as malaria rapid diagnostic tests, may need to be supplemented with a more clearly understood version.¹⁰ In Afghanistan, a pictorial version of the algorithms for community case management of sick children was developed for literate and illiterate CHWs. Full-page versions of the pictures of selected key clinical signs were prepared as flip charts for demonstrations. (See example in Figure 2.) However, all the pictures and symbols were first submitted to a thorough process of pretesting and modification with both literate and illiterate CHWs.

**Figure 2. Demonstration Picture
Chest Indrawing**



Simulations provide an opportunity for the students to practice actions in a supervised “classroom” setting. Students can count each others’ breathing rates.³ Simply made models can be used for many procedures and for practicing use of equipment, such as weighing and recording the weight of a model child, resuscitation of a newborn using a doll, or giving an injection. The more that students have practiced by simulation, the more confident they will be when faced with the real-

life action in the work place. Therefore, whenever possible, time should be made available during periods when the students are in a clinic or field site for practice to ensure that these basic action skills are learned before attempting any more complex communication or decision skills that involve those actions.

Communication Skills

Interpersonal communication and counseling skills have received more attention and programmatic emphasis in recent years. Contraceptive failures and discontinuation of contraceptive use often highlight communication failures in family planning services. For counseling in child case management, observation studies have been more helpful than exit interviews at identifying problems.^{11, 12} Observations of CHWs in their community work setting are much more difficult to arrange than in a clinic, but awareness of difficulties and/or deficiencies in counseling should prompt attention to strengthen the communication skills of CHWs.

An important point of clarification with health program managers is to agree on the objectives of CHW communications, in particular, which specific behavioral changes will be sought in the community. This will have implications for selecting the range of skills for communicating with both individuals and with groups. Table 4 shows both an illustrative list of communication tasks of CHWs and the types of communication they represent. The importance of considering the

² Very good examples of professionally made videos on newborn care and other topics are available from the Global Health Media Project online at <http://www.globalhealthmedia.org>.

³ One of the consistently weaker skills of CHWs is accurately counting breathing rates. Use of minute timers (separate or on a mobile phone) is clearly more effective than using a watch second hand. However, rather than trying to count breaths, less literate and numerate individuals may be more effective comparing the child’s breathing rate with a string and weight pendulum swing. A 35 cm pendulum swings at 50 per minute, the cutoff point for the rate of breathing that indicates pneumonia in a child younger than one year of age.

type of communication objective is to distinguish what can be accomplished through one-to-one peer counseling and what needs to be addressed through a group approach. With appropriate training in interpersonal communication and counseling skills, CHWs are successful in one-on-one exchange of information, such as teaching home management of sick children or the use of a contraceptive, as well as persuading women to use preventive care services.^{13, 14} An approach that improves both the effectiveness and the efficiency of health promotion is the care group.¹⁵ In this approach, the CHW (as in Afghanistan) or another facilitator recruits 10 to 15 respected women (the care group) who will be trained on a regular basis in a health message or skill and then share that information with the women in about 10 of her neighboring households.¹⁶

Table 4. CHW communication skills

SELECTED CHW COMMUNICATION TASKS	TYPES OF COMMUNICATION BY OBJECTIVE
<ul style="list-style-type: none"> ▪ Asking a mother about her child’s sickness ▪ Counseling a couple on choices of contraceptive ▪ Explaining how to treat the sick child at home and when to return ▪ Persuading a women to go to the clinic for antenatal care ▪ Advising a couple on the advantages of using a long-acting contraceptive ▪ Persuading an expectant mother to breastfeed early and to defer washing the newborn ▪ Changing childbirth management practices at home births 	<ul style="list-style-type: none"> ▪ Collect information ▪ Provide information ▪ Teach how to do well what the person already wants to do ▪ Encourage someone to do what is acceptable, but not most convenient or affordable ▪ Address local fears and myths ▪ Change social norms of behavior

There are those health-related behaviors that seem to have been particularly resistant to health education efforts over the years, particularly those concerning pregnancy, home delivery, and newborn care. The global movement to improve maternal health by training traditional birth attendants (TBAs) failed because trained TBAs were unable to change these practices. After being trained, TBAs were sent back to communities where any effort to change birthing practices was usually met with community resistance. Community beliefs and norms of practice are socially shared; these were the community’s “authoritative knowledge.”¹⁷ Differences in the cultures of home and facility deliveries also explain the reluctance of many women to go to facilities for care.^{18, 19} It has been found, therefore, that where social norms need changing, community-oriented rather than individual-oriented approaches are needed. In particular, women’s groups that have practiced participatory learning and action have resulted in significant improvements in maternal and newborn health.²⁰ However, the “participatory learning and action” approach requires more sophisticated group facilitation skills than interpersonal communication and counseling.

Practical learning experiences are essential for the development of communication skills. Where audiovisual aids are available to assist in communicating messages, these must be available for practice use during the training. Using these aids is often the easiest way for the student to learn, understand, and be able to explain the messages. Especially useful is the application of role play in the training to ensure that the student learns to respond to the questions or objections of her/his audience. Discussions among the students may bring to light the common beliefs, practices, and any misunderstandings about scientific health practices. Sometimes, it is better to conduct formative research to identify the issues that the CHW needs to be prepared to address when talking with individuals or groups and develop model answers.

Decision-Making Skills

Decision-making in a health care setting follows one of three strategies: pattern-recognition, the application of rules or algorithms, and hypothetico-deductive reasoning.²¹ The latter, which is

used for complex diagnostic problems and requires detailed understanding of clinical science to propose and then test for alternative diagnoses does not apply to CHWs. Rather, CHW programs are designed so that almost all the common situations that a CHW may encounter can be readily recognized and managed.

For example, as with most of the cases of malaria, pneumonia, or diarrhea that a CHW will manage, each condition in its moderate and severe forms has a pattern of symptoms and signs that is usually not difficult to recognize. Because of this ease, many CHWs do not routinely continue to use the iCCM algorithm charts, and they do so without impact on the quality of their care.²² The iCCM charts are useful in learning the patterns and should be used more closely in situations when there is little information provided in the caregiver's story of the illness. In Afghanistan, the pictorial version of the iCCM charts was produced with all necessary information on the classification, management, and follow-up conveyed by field-tested pictures and symbols. It proved as popular with the literate CHWs as with the illiterate. (See sample chart in Figure 3 at the end of this chapter.)

The work of all health workers is increasingly designed to incorporate evidence-based best practices. For this reason, guidelines and protocols for most aspects of a CHW's practice are being developed and applied. The protocols are incorporated into job aids or patient reporting forms. (See Figure 4 at the end of this chapter for an example of a CHW report form.) For example, home-based newborn care programs all involve a series of home visits provided by CHWs at critical times during the antenatal and postnatal periods, each with a particular set of tasks designed to prevent or identify early any neonatal health problems.²³

The learning approach to decision skills again follows the sequence of demonstration, simulation, and supervised practice. Simulation involves the use of case-based learning, including case studies and case-based questions. Most importantly, at each step in the sequence, trainees must understand and then become more confident in the use of the charts or other job aids.

The Place of Knowledge and Attitudes

Although the emphasis of CHW training is on the development of skills, there is a need for a certain level of knowledge and explanation to support the skills. Moreover, attitudes and motivations are well recognized as key elements in the quality of care that is provided.

Assessing the appropriate amount of knowledge and the types of explanations to provide to CHWs is not easy. Distinctions from “must know” to “helpful to know” to “nice to know” are important. The temptation is almost always to provide too much information because it is interesting to both teacher and student. Increasing amounts of knowledge in proportion to the level of background education is usually appropriate in response both to their desire for explanations and to their ability to grasp different concepts. Model curricula tested in similar settings in other countries may provide useful guidance. The best approach may be to have some experienced trainers research the amount of information required to assure competence and motivation in one or two pilot training courses.

Attitudes conveyed by CHWs are important in their relationships with patients of all social status and ethnic groups, the community and its leaders, and other health workers. Attitudes are also very much involved with the CHW's motivation and job satisfaction. The development of appropriate attitudes, such as concern, respect, and responsibility, should be consciously and explicitly part of all aspects and stages of the training program. A general discussion of the role of attitudes and motivations is essential in an introduction to the principles of interpersonal communication. However, the most effective way for students to learn appropriate attitudes is to repeatedly ask about the feelings and needs of patients and community members in all the

various learning situations. One of the chief values of a role play is that it gives an opportunity for the group watching the role play to observe and discuss the attitudes being conveyed by each of the participants and discuss how the CHW might have improved his/her performance. Most importantly, the trainers will be constantly modeling good and bad attitudes in all that they do; therefore, the issue of good attitude development needs to be an essential part of the selection and preparation of the trainers.

Evaluation of Student Competencies

Assessment of the CHW student's ability to perform the activities and tasks required to conform to an acceptable standard is necessary for all training programs. It is certainly essential for programs that provide certification at the end of the training. However, because the whole focus of the program is the development of a range of specific skills or competencies, acquisition of each skill and competency needs to be explicitly evaluated. Written or oral examinations that test the student's knowledge about what needs to be done will not suffice. A valid and relevant assessment of competency requires **observation of the performance** of that task and checking its quality against a checklist of essential components.

Mastery of a skill requires repeated practice, first in simulations and then in the real-life setting. Supervised learning means that the teacher monitors the student's performance with a performance check list to identify those aspects that were done well and those that need improving. Such a process is referred to as "formative evaluation." "Summative evaluation" is the application of the same technique toward the end of the training program to ensure that the student has reached and maintained a satisfactory standard. One of the simplest and most widely applied approaches to the development and evaluation of skills is the use of a procedures logbook. For each student, the logbook specifies the critical skills to be learned and the number of simulation and real-life experiences to be had and provides space for the instructor to add a performance score and sign off when the learning exercise has been completed. This book provides structure and standards to the training program and can be applied to all training schools.

What Should Be the Role of Follow-Up Monitoring and In-Service Training in the Overall Training Program?

One of the findings that has emerged from experimentation with different approaches and lengths of training of health professionals in Integrated Management of Childhood Illness is that the length of initial training is less critical than assuring follow-up monitoring of performance and in-service training.²⁴ The same principle almost certainly applies to CHWs. Because CHWs generally receive less hands-on practice of skills in their initial training, regular supervision of practice and in-service training is most desirable. The training of CHWs in the Democratic Republic of Congo includes a schedule of three full days of in-service training every month at the health center after completion of initial training. The purpose of these monthly trainings is to observe and correct the practices of CHWs and build their levels of confidence with newly learned skills. Similarly, the monthly week-long practical training sessions at the health center for the Pakistan LHWs fulfill the same goal.

Many CHW programs recommend that supervisors arrange for a regular refresher training each month when the CHWs bring their reports and restock supplies. Frequently, this training does not happen, for many reasons, especially if CHW supervision has been an add-on to the clinic health workers' otherwise full-time job. A more effective approach may be more regular but less frequent in-service training days at the clinic, but separate from the administration days. A provincial or district training team could organize these sessions rather than relying on the existing clinic staff. Such an approach needs to be formally adopted and then budgeted if it is to work.

What Is the Place of mHealth Applications?

Evidence on the effectiveness of mHealth applications is still scarce.²⁵ The most common applications are one-way text messaging and phone reminders for appointments and healthy behaviors and for data gathering and reporting. Innovative applications with mobile phones for CHWs include job aids for procedures or health education, clinical algorithm tools, and tools for data gathering and reporting.²⁶ In a few cases, these may be combined. In Tanzania, an iCCM application on a hand-held device proved much easier and quicker to use than the paper iCCM charts, thereby encouraging more regular use.²⁷ One example of the value of mobile phones for learning and refresher learning is the use of multimedia applications on the mobile phone, providing easy access whenever and wherever the information is required. For example, the newborn care series produced by the Global Health Media Project, which was previously mentioned, is available for download on mobile phones.

FITTING THE TRAINING TO THE SITUATION

Too often, when there is a problem with a health program, it seems to be assumed that the solution is “more training.” Training is a necessary, but not sufficient, basis for successful CHW programs. Initially, the design of the program is more important: how the roles and tasks of the CHWs will fit with and complement the roles and tasks of the health staff of the supervising health facility; how well they cooperatively meet the health needs of the community and its socio-cultural setting; and whether the CHWs understand exactly what they should do and have the time, job-aids, tools, and other resources to do it.

Getting the design right is one of the main tasks of those responsible for the governance and management of the CHW program and its training program. (These are discussed further in the Planning and Governance chapters, Chapter XX and XX.) Membership both on the oversight/steering committee and on the technical committees should include representatives of all the relevant stakeholders to ensure that serious considerations do not get overlooked.

The type of CHW training to be adopted will depend upon several factors:

- First, the scope of the roles and tasks to be performed by the CHW. Will it be a multipurpose worker to extend primary care to populations without access to facilities or will it be a narrower scope to support a vertical program such as HIV/AIDS or child health?
- Is this training for a new CHW program or will it build on and expand an existing type of CHW?
- Will the CHW be a full-time salaried worker or a part-time volunteer? This factor will depend very much on the numbers required and the resources to pay for their training and salaries.
- What level of education will be required for entry to the program? This requirement will depend on:
 - The current general levels of education among either the men or women in the communities from which they are to be selected,
 - Whether the CHW is a full-time salaried worker or part-time volunteer.

The characteristics of an effective training program for CHWs are summarized in Table 5.

Table 5: Different training approaches and their effectiveness

	TRAINING APPROACHES	DESCRIPTION	EVALUATION OF BENEFIT FOR LEARNING
Educational techniques	Interactive techniques	Active educational experience that allows dialogue and interaction that includes simulations, role plays and case-based learning in preparation for supervised real-life experiences.	Interactive techniques that encourage the learner to process and apply the information have been found to be much more effective than didactic techniques for knowledge and skills acquisition.
	Didactic techniques	Passive educational experience that includes lectures and reading.	
Timing	One time	All the material is presented only once, at one time.	Information or learning experiences that are spaced or repeated over time produce better learning outcomes than single training interventions.
	Spaced and repeated	Information or learning experiences are spaced apart and/or repeated several times.	
Location	At work site	Trainees receive training at the facility or in the community where they will work (or in a similar community).	Most effective skill acquisition and performance takes place in an environment as similar to the work situation as possible.
	Away from work site	Training is in a classroom or other site remote from the CHW's community.	
Teaching/learning media	Print	Manuals and handouts	Manuals may be good guides of content for the trainers, but are poor methods of learning for students. Appropriate for some job aids for fully literate CHWs.
	Pictures	Pictures, cartoons, or photos. Can be on paper or on electronic devices.	Much more effective than words. Can be compiled into charts of algorithms and protocols for job aids. Still useful as health education aids.
	Multimedia	Audio and/or video content on computers, mobile and smart phones, DVDs, and radio.	Can be used interactively, repeatedly, and almost anywhere. More effective than either print or still pictures for learning.

*Adapted from ²⁸

Because most CHWs lack much formal education, it is very important that the training program is very explicitly competency-based rather than the more traditional knowledge-based approach. Learning needs to be active and interactive; didactic methods do not work. For the same reason, print manuals are not useful to the CHWs, although they may be appropriate as trainers' guides. Pictorial and multimedia materials are more useful for demonstrating what needs to be known. Most important is constant practice in the use of pictorial job aids that describe activity protocols or provide audiovisual support to health promotion. Evaluation of the CHWs in training should emphasize a process of "formative evaluation" that checks on progress in performance all the way through the training rather than just at the end.

Furthermore, the learning setting needs to be as similar and close to the work setting as possible. Clinic settings for practicing clinical skills are not the same as a village home, but they do ensure that sufficient cases may be available and help the CHW to become comfortable with the clinic and how things are done there. The lack of formal education and the need to consolidate competencies also means that there is great advantage in dividing the training into a series of modules separated by a period of practice in the community. (See examples from

Brazil, Ethiopia, and Pakistan in Table 2.) Dividing the training allows the CHW to implement and become confident in some skills before going back to learn new ones. Ideally, this process then continues through the process of supervision and the process of in-service and refresher training after initial training is completed.

CONCLUSION

All sub-systems in CHW programs are important, and training is one of them. Careful planning and utilization of appropriate approaches to the training of CHWs is essential for effective program functioning. Adapting training to fit the needs and capabilities of trainees with limited education is one of the great challenges facing CHW programs, but experience and capabilities in this area are growing rapidly.

Figure 3. Example of pictorial iCCM Chart from Afghanistan

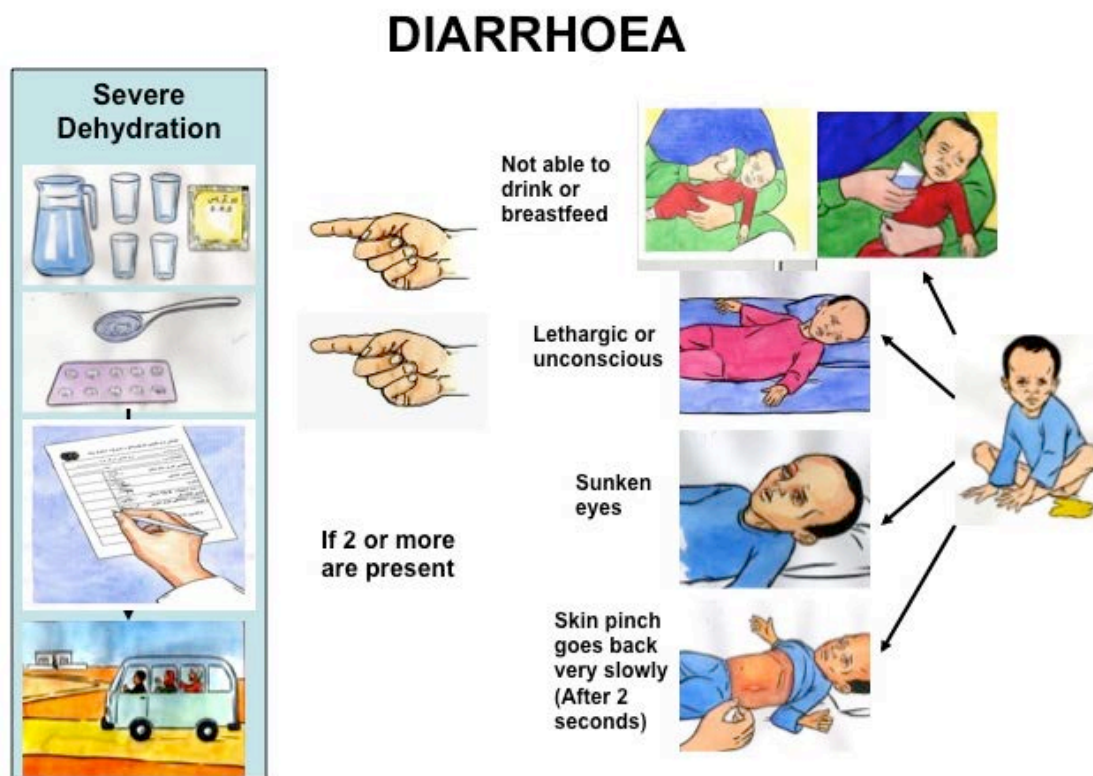


Figure 4. Patient form incorporating the iCCM Algorithm used by CHWs in Democratic Republic of Congo

DEMOCRATIC REPUBLIC OF CONGO / MINISTRY OF HEALTH

CHILD PATIENT FORM Form N°

DATE:/...../..... NAME OF THE SITE CHW (*Relais*).....

HEALTH ZONE: HEALTH CENTER: SITE:

1. IDENTIFICATION

Names: Mother's Name: Address:

Gender M F Age Weight Kg Child's Nutritional status Green Yellow Red

2. COMPLAINTS (Tick NO or YES) For how many days Treatment received at home

	NO	YES	For how many days	Treatment received at home
Fever	<input type="checkbox"/>	<input type="checkbox"/>days
Diarrhea.....	<input type="checkbox"/>	<input type="checkbox"/>days
Cough or cold.....	<input type="checkbox"/>	<input type="checkbox"/>days

SPECIFY other complaints.....

3. LOOK FOR DANGER OR WARNING SIGNS (REFER IF YES)

ASK, SEARCH	Tick	NO	YES	ASK, SEARCH	Tick	NO	YES
Infant from 1 week to 2 months brought to the SITE	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Palmar pallor or anemia	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Nutritional status of the child, RED	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Difficulty breathing or wheezing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the child able to drink or breastfeed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Any disease that lasts 15 days or more	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Does the child vomit all that he consumes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The child is often sick	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Did the child have convulsions or is convulsing now?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The child is very weak	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The child is unconscious or not responding to external stimuli	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	The child becomes sicker despite adequate home care	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4 FEVER (= Hot to the touch or history of fever within the 2 days) (Tick) NO YES

REFER IF:	- Fever which continues after 2 days of home treatment with Artesunate + Amodiaquine and Paracetamol, (or SP + paracetamol in the absence of Art + AQ)	<input type="checkbox"/>	<input type="checkbox"/>	FEVER case to be REFERRED
	- Fever with generalized rash	<input type="checkbox"/>	<input type="checkbox"/>	
FEVER case to be treated at the site	All the problems above are absent,	<input type="checkbox"/>	<input type="checkbox"/>	MALARIA

5 DIARRHEA (= Loose stool 3 times per day or more) NO YES (Tick)

REFER if:	- Signs of dehydration (sunken eyes, thirst, skin pinch goes back slowly, agitated child), or	<input type="checkbox"/>	<input type="checkbox"/>	DIARRHEA case to be REFERRED
	- Blood in the stool, or	<input type="checkbox"/>	<input type="checkbox"/>	
	- Liquid diarrhea (like water)	<input type="checkbox"/>	<input type="checkbox"/>	
DIARRHEA case to be treated at the site	All the problems above are absent	<input type="checkbox"/>	<input type="checkbox"/>	Simple DIARRHEA

6 COUGH or COLD NO YES (Tick)

Respiratory mvts= Nber	per Minute (Write)		
BREATHING IS FAST	- 50 respiratory movements (or more) in a child aged < 1 year	<input type="checkbox"/>	<input type="checkbox"/>	PNEUMONIA
	- 40 respiratory movements (or more) in a child aged > year	<input type="checkbox"/>	<input type="checkbox"/>	
BREATHING IS NORMAL	- less than 50 respiratory movements in a child aged < 1 year	<input type="checkbox"/>	<input type="checkbox"/>	COUGH or COLD
	- less than 40 respiratory movements in a child aged > 1 year	<input type="checkbox"/>	<input type="checkbox"/>	

7 MALNUTRITION (we have to search for point 7, 8, and 9 in every child)

SEVERE MALNUTRIT ^o to be referred	- Visible and severe Thinning	<input type="checkbox"/>	<input type="checkbox"/>	Severe MALNUTRIT ^o
	- or swollen lower limbs	<input type="checkbox"/>	<input type="checkbox"/>	
Slight MALNUTRITION or Children at risk	Low weight for age:	<input type="checkbox"/>	<input type="checkbox"/>	SLIGHT MALNUTRITION or Child at risk
	- In the YELLOW stripe, or	<input type="checkbox"/>	<input type="checkbox"/>	
	- Stationary weight or decrease after 3 successive weightings	<input type="checkbox"/>	<input type="checkbox"/>	
NO MALNUTRITION	- Normal weight (GREEN Zone),	<input type="checkbox"/>	<input type="checkbox"/>	NO MALNUTRITION
	- No signs of malnutrition	<input type="checkbox"/>	<input type="checkbox"/>	

8. VACCINATION STATUS, CPS and Vitamin A CPS CARD SEEN. NO YES (Tick)

- Did the child attend to weighing sessions?	<input type="checkbox"/>	<input type="checkbox"/>	Catching up	<input type="checkbox"/>	<input type="checkbox"/>
- Is the child immunized?	<input type="checkbox"/>	<input type="checkbox"/>	Catching up	<input type="checkbox"/>	<input type="checkbox"/>
- Did he receive Vitamin A?	<input type="checkbox"/>	<input type="checkbox"/>	Catching up	<input type="checkbox"/>	<input type="checkbox"/>

9 OTHER PROBLEM ANY OTHER PROBLEM (refer) NO YES OTHER: Refer

10. REFERRED CASES NO YES

<ul style="list-style-type: none"> If the child can breastfeed or drink; continue to breastfeed on the way (or give expressed milk in a cup) or give sugar water in case of a weaned child INFANT of 1 week to 2 months: keep the child warm 	<p style="text-align: center; color: red; font-weight: bold;">ADVICE FOR CASES REFERRED TO THE INTEGRATED HC</p> <ul style="list-style-type: none"> IF FEVER: Paracetamol (1/2 Tab for child < 3 years old, 3/4 Tab for child between 3-5 years old) + Bath in plain water or wrap the head wet in case of high fever. IF DIARRHEA: give frequently sips of ORS with a cup, (even in case of exclusive breastfeeding) <p style="text-align: center; font-weight: bold;">NOTE: FILL OUT THE REFERENCE FORM AND REFER</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

11. TREATMENT

<p>TREATMENT OF FEVER/MALARIA</p> <p>1) Drugs</p> <p>A) ANTI MALARIA drugs:</p> <ul style="list-style-type: none"> Child 2-6 month: QUININE drops 20%(1 drop/kg of weight, 3 times per day, for 7 days) Child 7-11 months: Art ½ Tab + AQ ½ Tab, for 3 days (TOTAL 1½ Tab Art + 1½ Tab AQ) Child 12-59 months: Art 1 Tab + AQ 1 Tab, for 3 days <p>Note: In case of lack of ART+AQ, give the SP according to the following dosage:</p> <ul style="list-style-type: none"> Child 2-11 months: SP ½ Tab single-dose, only for 1 day Child of 1-2 years: SP ¼ Tab single-dose, only for 1 day Child of 3-5 years: SP 1 single-dose Tab, only for 1 day <p>B) Paracetamol 500 Mg Tab: (4 times per day).</p> <ul style="list-style-type: none"> Child less than 3 years old: ½ Tab, for 2 days (TOTAL 4 Tab) Child above 3 years old: ¾ Tab, for 2 days (TOTAL 6 tab) <p>2) Advice: See CHART 1</p> <p>3) Appointment after 2 days</p>	<p>TREATMENT OF DIARHEA</p> <p>1) Drugs:</p> <p>a) ORS (at least 2 bags) or other recommended liquids:</p> <ul style="list-style-type: none"> ½ glass of ORS after each stool: Child < 2 years 1 glass of ORS after each stool: Child 2 years and above <p>(If Vomiting: Wait 10 min. then give again)</p> <p>b) Mebendazole: 100 mg Tab 2 times per day for 3 days (TOTAL 6 Tabs) (or 1 Tab of 500 mg single-dose from one year of age)</p> <p>c) Zinc Tab for 10 days with the following dosage:</p> <ul style="list-style-type: none"> ½ 20 Mg tab, child of less than 6 months (TOTAL : 5 Tabs) 20 mg tab, child 6 months and above (TOTAL: 10 Tabs) <p>2) Advice: See CHART 2</p> <p>3) Appointment after 2 days</p>
<p>TREATMENT OF PNEUMONIA AND COUGH/COLD</p> <p>1) PNEUMONIA :</p> <p>a) COTRIMOXAZOLE</p> <ul style="list-style-type: none"> Child 2 - 6 months: ¼ Tab 2 times per day for 5 days (TOTAL 2½) Child 6 months - 3 years: ½ Tab 2 times per day for 5 days (TOTAL 5 Tab) Child 3 years - 5 years: 1 Tab 2 times per day for 5 days (TOTAL 10 Tab) <p>b) Remedy against cough: Lemon juice (diluted) or honey</p> <p>c) If fever: See Treatment for malaria.</p> <p>2) SIMPLE COUGH OR COLD:</p> <p>a) Remedy against cough (Lemon juice or diluted honey)</p> <p>b) If fever: See treatment for malaria.</p> <p>3) Advice: See CHART 3</p> <p>4) Appointment after 2 Days</p>	<p>MANAGEMENT OF SLIGHT MALNUTRITION</p> <p>1) Drugs</p> <p>a) Mebendazole : 100 mg Tab 2 times a day for 3 days (TOT 6 Tabs) (or 500 mg Tab single dose from one year of age)</p> <p>b) Ferrous sulfate 1 tablet per day for 1 month (TOT 30 Tabs)</p> <p>2) Advice : See CHART 4</p> <p>3) Appointment after 2 days to verify whether the advice given was followed, Then appointment after 7 days</p>

12. CATCHING UP (See Vaccination status, CPS & Vit. A, and advice for catching up if necessary)

In all cases, encourage the mother to continue child weighing sessions, immunization and Vitamin A supplementation at the HC

13 FOLLOW UP VISIT CARRIED OUT? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>		INSTRUCTIONS FOR FOLLOW UP APPOINTMENT.																																														
A POSSIBILITY n°1:		POSSIBILITY n°2:																																														
The child's mother returned <input type="checkbox"/>		The child's mother did not return <input type="checkbox"/>																																														
Tick if:		Tick why she did not return:																																														
a. Returned according to the given appointment <input type="checkbox"/>		a. Consultation by a traditional practitioner or traditional treatment <input type="checkbox"/>																																														
b. Returned immediately due to child worsening health <input type="checkbox"/>		b. Lack of money <input type="checkbox"/>																																														
		c. Child got better <input type="checkbox"/>																																														
		d. Mother's activities: Seller, field, work, illness in the family... <input type="checkbox"/>																																														
		e. Death <input type="checkbox"/>																																														
		f. Other causes: <input type="checkbox"/>																																														
B IS THE CHILD'S STATE AGGRAVATED? (Ask the mother) NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> (Tick) IF YES, REFER																																																
C DOES THE CHILD HAVE A NEW COMPLAINT? NO <input type="checkbox"/> YES <input type="checkbox"/> IF YES, TAKE A NEW FORM																																																
D LOOK FOR WARNING AND DANGER SIGNS REFER IN CASE A SINGLE SIGN IS PRESENT																																																
<table border="1"> <thead> <tr> <th></th> <th>NO</th> <th>YES</th> </tr> </thead> <tbody> <tr> <td>• The child is unable to drink or breastfeed</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• The child vomits all that he consumes</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Had convulsions or convulsing now</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Unconscious or very weakened</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Difficult breathing (pulling or wheezing)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Palmar paleness (anemia)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• The child becomes sicker</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>			NO	YES	• The child is unable to drink or breastfeed	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• The child vomits all that he consumes	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Had convulsions or convulsing now	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Unconscious or very weakened	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Difficult breathing (pulling or wheezing)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Palmar paleness (anemia)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• The child becomes sicker	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<table border="1"> <thead> <tr> <th></th> <th>NO</th> <th>YES</th> </tr> </thead> <tbody> <tr> <td>• Fever that persists despite treatment</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Appearance of rash and/or pruritus</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Dehydration signs</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Blood in the stool,</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• Very liquid diarrhea (like water)</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td>• or another abnormal phenomenon</td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>			NO	YES	• Fever that persists despite treatment	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Appearance of rash and/or pruritus	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Dehydration signs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Blood in the stool,	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• Very liquid diarrhea (like water)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	• or another abnormal phenomenon	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	NO	YES																																														
• The child is unable to drink or breastfeed	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• The child vomits all that he consumes	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Had convulsions or convulsing now	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Unconscious or very weakened	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Difficult breathing (pulling or wheezing)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Palmar paleness (anemia)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• The child becomes sicker	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
	NO	YES																																														
• Fever that persists despite treatment	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Appearance of rash and/or pruritus	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Dehydration signs	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Blood in the stool,	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• Very liquid diarrhea (like water)	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
• or another abnormal phenomenon	<input type="checkbox"/>	<input checked="" type="checkbox"/>																																														
E IF THE CHILD HAD COUGH OR COLD, Nber of respiratory mvts/minute <input type="checkbox"/> Fast Respiration? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> REFER IF YES																																																
F VERIFY IF THE CHILD RECEIVED HIS DRUGS AS PRESCRIBED. Did he receive his dose? NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>																																																
• Verify the remaining quantity of drugs in the mother's bag.																																																
G ADVISE TO CONTINUE CHILD TREATMENT																																																
• Ask the mother to recall how she administered the drugs (review the «3 HOWS »)																																																
• If the mother administered well the drugs, CONGRATULATE AND ENCOURAGE HER TO CONTINUE THIS WAY																																																
• If the mother has administered the drugs inappropriately, make a demonstration on drug dispensation (review the « 3 HOWS ») then ask her to repeat and administer a dose in your presence. Verify her understanding.																																																

Additional Resources

Many training materials and resources are available on the Internet. Many are very good, but it is important to check the intended audience. Materials that have been prepared especially for CHWs are not easily found. The following suggestions of Web sites are not complete, but may lead to some good quality materials.

GENERAL SOURCES

Teaching Aids at Low Cost/TALC: a unique charity dedicated to providing free and low cost books, DVDs, and other educational materials for health care workers in a variety of languages. Community health materials include child and newborn health, environmental health, communicable diseases, including HIV and TB, nutrition and food security, management of disabilities, and community mobilization. (www.talcuk.org)

The World Health Organization Web site (www.who.int) is an essential site to check on agreed international standards on management protocols, including iCCM, HIV, TB, family planning, etc. In addition, there are training manuals and/or job aids for CHWs on some topics, such as iCCM, newborn care, and family planning.

TRAINING METHODS

Abbatt FR. 1992. *Teaching for Better Learning: A Guide for Teachers of Primary Health Care Staff*. WHO. Available from TALC (www.talcuk.org).

Werner D and Bower B. *Helping Health Workers Learn*. Hesperian Foundation. Available from TALC (www.talcuk.org).

ReproLine plus (reprolineplus.org), a resource of Jhpiego, has several publications on competency-based learning and teaching methods.

CHILD HEALTH AND NUTRITION

The USAID BASICS project (www.basics.org) has published a set of nine components of the Toolkit for Community Case Management of Childhood Illnesses. This toolkit was developed in the Democratic Republic of Congo and is available in French and English.

Training guide for Community-Based Management of Acute Malnutrition (CMAM). 2008. Guide for trainers and participant handouts. Available from Family Health International. CD-ROM can be obtained by emailing a request to fantamail@fhi360.org.

REPRODUCTIVE HEALTH

Home-Based Life Saving Skills. A four-book set manual and other teaching-learning materials can be bought from the American College of Nurse-Midwives. Life Saving Skills is a more advanced training course. See at www.midwife.org

The Global Health Media Project (www.globalhealthmedia.org) has prepared an excellent series of videos on newborn care in English, Swahili, and Spanish. These videos are available for free download. A second series on the management of labor and delivery is in preparation.

ReproLine plus (reprolineplus.org), a resource of Jhpiego, has several publications on community-based family planning and other aspects of reproductive health.

Family Health International (www.fhi360) has training materials on family planning and HIV.

The K4Health Project (USAID) has a Web site on toolkits (www.k4health.org/toolkits) that has several useful training resources on family planning and HIV.

Acknowledgments

The author is grateful for so many learning experiences with colleagues, students, and CHWs from many countries, but especially from Papua New Guinea and Afghanistan.

References

1. Standing H, Chowdhury AM. 2008. Producing effective knowledge agents in a pluralistic environment: what future for community health workers? *Soc Sci Med* 66(10): 2096-107.
2. George A et al. 2012. *Community Case Management of Diarrhea, Malaria and Pneumonia: Tracking Science to Policy and Practice in Sub-Saharan Africa*. UNICEF: New York.
3. Yasuoka J et al. 2012. Scale-up of community-based malaria control can be achieved without degrading community health workers' service quality: the Village Malaria Worker project in Cambodia. *Malar J* 11: 4.
4. Uwimana J, Zarowsky C, Hausler H, Jackson D. 2012. Training community care workers to provide comprehensive TB/HIV/PMTCT integrated care in KwaZulu-Natal: lessons learnt. *Trop Med Int Health* 17(4): 488-96.
5. Kok MC, Muula AS. 2013. Motivation and job satisfaction of Health Surveillance Assistants in Mwanza, Malawi: an explorative study. *Malawi Med J* 25(1): 5-11.
6. Kadzandira JM, Chilowa WR. 2001. *The Role of Health Surveillance Assistants (HSAs) in the Delivery of Health Services and Immunisation in Malawi*. University of Malawi Centre for Social Research: Lilongwe, Malawi. Available online at: http://www.unicef.org/evaldatabase/files/MLW_01-04.pdf.
7. Levine R et al. 2012. *Literacy and Mothering: How Women's Schooling Changes the Lives of the World's Children (Child Development in Cultural Context)*. Oxford University Press: USA.
8. New ERA Study Team. 2002. *An Analytical Report on National Survey of Female Community Health Volunteers of Nepal*. ORC Macro International, USAID/ Nepal: Calverton, Maryland. Available online at: http://www.measuredhs.com/pubs/pdf/FR181/FCHV_Nepal2007.pdf
9. Smith JM, Currie S, Azfar P, Rahmanzai AJ. 2008. Establishment of an accreditation system for midwifery education in Afghanistan: maintaining quality during national expansion. *Public Health* 122(6): 558-67.
10. Harvey SA et al. 2008. Improving community health worker use of malaria rapid diagnostic tests in Zambia: package instructions, job aid and job aid-plus-training. *Malar J* 7: 160.
11. Gilroy K et al. 2004. Impact of IMCI training and language used by provider on quality of counseling provided to parents of sick children in Bougouni District, Mali. *Patient Educ Couns* 54(1): 35-44.
12. Onishi J, Gupta S, Peters DH. 2011. Comparative analysis of exit interviews and direct clinical observations in pediatric ambulatory care services in Afghanistan. *Int J Qual Health Care* 23(1): 76-82.
13. Winch PJ et al. 2003. Increases in correct administration of chloroquine in the home and referral of sick children to health facilities through a community-based intervention in Bougouni District, Mali. *Trans R Soc Trop Med Hyg* 97(5): 481-90.
14. Kim YM et al. 1992. Improving the quality of service delivery in Nigeria. *Stud Fam Plann* 23(2): 118-27.
15. Davis TP et al. 2013. Reducing child global undernutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communicate health messages to mothers. *Global Health: Science and Practice* 1: 35-51.
16. Laughlin M. 2004. *The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators*. World Relief and the Child Survival Collaborations and Resources (CORE) Group: Baltimore, MD.

17. Jordan B. 1997. *Authoritative Knowledge and its Construction*. University of California Press: Berkeley, CA.
18. Medhanyie A et al. 2012. The role of health extension workers in improving utilization of maternal health services in rural areas in Ethiopia: a cross sectional study. *BMC Health Serv Res* 12: 352.
19. Afsana K. 2005. *Disciplining birth. Power, knowledge and childbirth practices in Bangladesh*. The University Press: Dhaka, Bangladesh.
20. Prost A et al. 2013. Women's groups practising participatory learning and action to improve maternal and newborn health in low-resource settings: a systematic review and meta-analysis. *Lancet* 381(9879): 1736-46.
21. Schwarz E. 2007. Making clinical decisions. *Emergency Physicians Monthly*, September. Available online at: <http://www.epmonthly.com/archives/letters/making-clinical-decisions/>.
22. Rowe SY et al. 2007. Effect of multiple interventions on community health workers' adherence to clinical guidelines in Siaya district, Kenya. *Trans R Soc Trop Med Hyg* 101(2): 188-202.
23. Gogia S, Sachdev HS. 2010. Home visits by community health workers to prevent neonatal deaths in developing countries: a systematic review. *Bull World Health Organ* 88(9): 658-66B.
24. Rowe AK et al. 2008. *Does shortening the training on Integrated Management of Childhood Illness guidelines reduce effectiveness? Results of a systematic review. Final Report*. World Health Organization: Geneva, Switzerland. Available online at: http://whqlibdoc.who.int/publications/2008/9789241597210_eng.pdf.
25. Kallander K et al. 2013. Mobile health (mHealth) approaches and lessons for increased performance and retention of community health workers in low- and middle-income countries: a review. *J Med Internet Res* 15(1): e17.
26. Derenzi B et al. 2011. Mobile phone tools for field-based health care workers in low-income countries. *Mt Sinai J Med* 78(3): 406-18.
27. Derenzi B et al. 2008. "e-IMCI: Improving Pediatric Health Care in Low-Income Countries." Paper presented at the SIGCHI Conference on Human Factors in Computing Systems, Florence, Italy, April 5-10, 2008. p. 753-62. Available online at: <http://homes.cs.washington.edu/~bderenzi/Papers/chi1104-bderenzi.pdf>.
28. Jhpiego. 2012. *In-service training techniques, timing, setting and media: Findings from a literature review*. Jhpiego: Baltimore, MD.

Supervision of Community Health Workers

Lauren Crigler, Jessica Gergen, and Henry Perry

24 September 2013

Key Points

- Supervision for community health workers (CHWs) is one of the most challenging program elements to implement; yet, it is considered one of the most important elements to successful programs.
- Supervisory responsibilities have changed over time from providing administrative and clinical oversight to the inclusion of psychosocial support to frontline CHWs who face a wide range of challenges on their own.
- Supervision is generally considered to be oversight from a health worker at a peripheral facility; however, this model is costly and difficult to implement. Alternative approaches might include group supervision, peer supervision, and community supervision to distribute the supervision tasks and increase support to CHWs in some contexts.

INTRODUCTION

Supportive supervision is a process of guiding, monitoring, and coaching workers to promote compliance with standards of practice and assure the delivery of quality care service. The supervisory process permits supervisors and supervisees the opportunity to work as a team to meet common goals and objectives.

Supervision is frequently thought of as the main link between CHWs and the health system. Facility-based supervisors, whether from the nearest primary care center or the district health office are important because they have the ability to monitor the quality of services, provide technical support and refresher training, and collect information, forms, and other data from the periphery to feed into the national health information system.

The concept of supervision has evolved over the last two decades. Traditionally, supervisors visited workers to audit performance, their supervisory activities were primarily administrative, and their attitudes were often punitive and critical of those they supervised. More recently, the role of the supervisor has become “facilitative or supportive.” Supervisors often help solve problems and try to create a more supportive environment for the CHW by helping them to solve problems, coaching them on skills, and becoming more involved in their activities. In this new role, supervisors enhance the credibility of CHWs within their communities by clarifying their roles, ensuring they have the supplies they need to perform their work, and addressing problems community members might have. Supervisors can offer psychosocial support to CHWs who are isolated and often deal with very challenging situations such as mental illness, family-based violence, and infectious and chronic diseases.

Published literature about supervision is replete with statements about how important supervision is to successful CHW programs. For example, one recent review of community-based health programs made the following statement:

It is important to note that well-functioning local health facilities are important for the success of community-based interventions. These facilities are usually the source of supplies, provide a point of referral for patients with severe or uncommon illnesses that cannot be satisfactorily managed at the community level, and a base of operations for field supervisors who provide ongoing motivation, training and supervision of CHWs. This supportive supervision is essential in order to maintain the quality of community-based interventions, including health promotion, which CHWs provide.”¹

In a recent review of literature on CHW productivity, the authors suggested that productivity was based on a combination of three elements: (1) knowledge and skills, (2) motivation, and (3) the work environment. The work environment encompassed workload, supervision, supplies and equipment, and level of respect that other health workers had for the CHWs. In their review, the authors maintained that supportive supervision was a critical factor in creating and maintaining an enabling work environment.² In another recent study, the majority of participants stated that supervision was one of the most important factors for maintaining a functional cadre of motivated CHWs because supervisors serve as a link between CHWs and the health system. The support that supervisors can provide CHWs helps them to feel valued and feel like an important part of a larger organization.³

However, the reality is that most of the time in CHW programs, supervision is virtually non-existent or of questionable value even when it does occur. According to a recent review of studies of the effectiveness of supervision of CHW programs, some supervision interventions

demonstrated only a small positive effect on health worker practices and knowledge, while other studies showed no benefit or were inconclusive.^{4, 5}

WHAT ARE THE CHALLENGES IN IMPLEMENTING SUPERVISION?

Although very few program managers would take the position that supervision is not important, many programs fail to design and implement a supervision system that is both functional and beneficial. In large-scale CHW programs, supervision is rarely implemented successfully. Providing effective supervision is not easy, and it is expensive. Unless programs have budgeted and planned appropriately, the likelihood is that it will not be implemented well. Poor supervision has been shown to be as ineffective as no supervision at all.

Box 1. Country examples of ineffective supervision

Although a review of recently published supervision studies and policy briefs describe a conceptual shift to the supportive supervision approach, which requires the supervisor to actively problem solve, field reports of actual practices tell a different story.⁶ In-depth interviews with health workers in both Kenya and Benin found that half perceived supervision as an act of control and criticism. These health workers also reported that supervision was infrequent, irregular, and lacking in feedback.⁷

In a recent study from Zambia, it was clear that supervision is not always perceived as helpful by CHWs. Following introduction of CHWs into Zambia's primary health care system, 78% of the CHWs interviewed reported regular (monthly) supervision, but 48% mentioned that supervision did not have any benefit to them. In this example, the supervisor was provided by a rural health center staff member who did not utilize a standardized method or checklists when conducting supervisory visits.⁸

Box 2. Key challenges to supervision

- Travel expense and logistics
 - Supervisors are really not “supervisors”
 - Supervisors do not have appropriate tools and support to conduct supervision
 - Supervision is not a priority
 - Supervisors don't understand the CHW's role or the context in which they operate
 - Gender issues complicate the supervisory process because often supervisors are men and CHWs are women
-

The cost and logistics associated with traveling to visit CHWs is perhaps the greatest challenge. Most supervision systems require that supervisors travel from a peripheral health facility to the village where the CHW works. The distance requires the use of motorized transportation (motorbike or vehicle), and one of the following conditions is often present: (a) there is no vehicle or motorbike assigned to the facility, (b) the source of transport is not in working order, (c) there is no money to buy fuel, (d) the vehicle is being used for some other purpose. Per diems (a fee paid when employees such as supervisors carry out some special activity, such as traveling out into the field for some purpose) often become the real motive for supervisory visits rather than to provide the support CHWs need. Although visits should happen with relative frequency, such as at least once every 3 months, in reality, they occur rarely. Furthermore, frequently different

supervisors conduct supervision visits to the same CHW and may be unfamiliar with both the CHW and the CHW’s context, thus, detracting greatly from the value of the visit.

The task of CHW supervision is most often handed to the lowest level provider in the primary care system – generally a nurse or midwife in a rural health center. Sometimes, someone from the district or regional health office will also conduct supervision visits to CHWs. However, in both cases, these “supervisors” already have a full-time job, and the task of supervision is rarely included in their job description. As a consequence, CHW supervision becomes relegated as a very limited and intermittent activity. Supervision is often the activity that is deferred as other tasks and crises demand attention from health workers in peripheral primary health care facilities or in district management offices.

Supervisors are rarely prepared to be supervisors. Whether the CHW supervisors are district health officers or primary care nurses, they are usually not trained in supervision and, therefore, they are not prepared to provide the kinds of support CHWs need. Supervisors need skills in counseling, problem solving, and quality improvement. Supervision tools and checklists, when they exist, are often overly complex and long, and not practical aids for supervisors or for CHWs.

Supervisors usually have more years of higher education and come from different social environments – either from a different geographical area or from a more urbanized setting. Most commonly, supervisors have never tried to function in the work environment of a CHW, thus, they lack an inherent understanding of the CHW’s role and the challenges CHWs face in performing their work.

Not uncommonly, CHWs are women, and their supervisors are men. This gender difference creates certain barriers that can be difficult to overcome, particularly for the aspects of the CHWs’ work that involves maternal and child health.

WHAT KEY QUESTIONS DO PROGRAM PLANNERS NEED TO CONSIDER WHEN DEVELOPING A SUPERVISION SYSTEM?

To design and implement an effective supervision strategy, it is important for decision-makers to clarify their aims and objectives from the outset. Different countries present different challenges in supervision, and it is advisable to become aware of what potential pitfalls, as well as the advantages, that might be present. A basic situation analysis that includes a review of policies, guidelines, and supervision logs, as well as stakeholder interviews and field visits using the questions shown in Table 1 can help to determine the strengths and weaknesses of the current supervisory system.

Table 1. Questions to guide a rapid assessment to inform the design/redesign of the CHW Supervision System

Policy	<ul style="list-style-type: none"> ▪ What are the objectives of CHW supervision? ▪ Is there a functioning primary health care (PHC) supervision system and can it be adapted/expanded to include CHWs? ▪ What services are CHWs asked to provide? ▪ Are there supervision standards and guidelines for CHW performance? ▪ Do the financial resources exist to sustain a CHW supervision system?
---------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Management	<ul style="list-style-type: none"> ▪ Are management tasks and clinical tasks clear? ▪ Are supervisory roles clear and integrated into job descriptions? ▪ How many supervisors have been trained in supervision? ▪ Is there a supportive context for supervision (e.g., distances to travel for supervision that are manageable, suitable transportation that is available)? ▪ Are there non-governmental organizations (NGOs) and civil society organizations that are currently conducting supervision? ▪ How are supervisors supervised? ▪ How are health facilities involved in the delivery of community health services? ▪ Are supervisors selected with a gender-focus in mind? Are men asked to supervise young women? Are female supervisors safe and accepted in communities?
Quality assurance	<ul style="list-style-type: none"> ▪ Is there a management information system? ▪ How do supervisors observe and monitor CHW performance? ▪ How do supervisors use data for decision-making and supporting CHWs? ▪ Has the quality of supervision provided been evaluated? ▪ What mechanisms exist for feedback from the community regarding the services provided by CHWs or other health system issues?
Community involvement	<ul style="list-style-type: none"> ▪ Do supervisors make visits to communities? ▪ What other volunteer or paid workers are in the community? Are they supervised? ▪ Do supervisors (or should they) make household visits with CHWs? ▪ Do community members provide feedback to the supervisor about their CHW? ▪ How involved are community groups and leaders in health and other community issues?

Once the situation analysis is complete, policymakers can make better decisions about what supervision policies and guidelines are appropriate in their context by asking the following questions. Some questions, as noted, are also addressed in other chapters of this manual.

1. What are the objectives of CHW supervision?
2. What working strategies should shape the supervision approach?
3. What standards and guidelines are needed to guide CHW performance? (See CHW Tasks)
4. Who will perform the supervision? Who will supervise the supervisors?
5. How often should supervision be done?
6. How can you ensure that supervision visits are planned, implemented, and tracked? (See Planning Chapter)
7. How will information be used to improve performance? (See Health System Linkages chapter)

WHAT ARE THE OBJECTIVES OF A SUPERVISORY SYSTEM?

Supervisors generally are asked to address three different areas in their supervisory capacity: (1) quality assurance, (2) communication and information, and (3) a supportive environment (Figure 1). However, policymakers and program planners will need to define priorities and develop indicators in each category that will be important to track.

Figure 1. Objectives of supervision



Quality of Services

In many cases, the supervisor is the only consistent link that the CHW has with the formal health system and is expected to make sure that the CHW understands his/her tasks and can perform them to an acceptable standard. When new tasks are assigned, the supervisor should train, or reinforce (if refresher training is offered), the CHW in these tasks. An involved supervisor will perform household visits with the CHW and use this opportunity to seek feedback from clients, coach the CHW as s/he performs her tasks, and provide feedback to both the CHW and the household. This level of involvement by a supervisor is best demonstrated by the Building Resources Across Communities (BRAC) *shasthya kormis*, supervisors who visit clients with the CHWs they supervise (*shasthya shebikas*). They meet with women's groups to discuss health issues. The supervisor is also expected to supply the CHW with whatever drugs and other items required to complete her tasks.

Communication and Information

The supervisor also needs to communicate, gather, and share information with the CHW. The supervisor gathers data from the CHW to learn where she has gone, how many clients she has seen, what services she has provided, and other statistics on the overall health and well-being of her catchment area. Sometimes, if the CHW is not very literate, the supervisor can help her complete forms and show her how to draw or select pictures to communicate what is happening within a community. The supervisor also provides the CHW with updates on new guidelines and other information regarding the health status of a community, a planned event such as a vaccination campaign, and other key information from the Ministry of Health.

Supportive Environment

The third area of consequence is that of providing support to the CHW. The supervisor coaches and helps the CHW solve problems s/he might encounter. Also, as the CHW is often isolated and asked to provide support and counsel to patients with difficult conditions, s/he sometimes needs counseling and support herself. A supervisor also often can help the CHW develop or maintain a respectful relationship with his/her community by positioning himself/herself as an important and valued member of the health team, and by clarifying and reaffirming to the community the importance and the details of the specific expectations the CHW is trained and expected to meet.

Supervision is one of the 15 key components addressed in the CHW Assessment and Improvement Matrix (AIM) tool that enables CHW programs to assess the functionality of a program and to make improvements according to specific criteria ⁹. For supervision, the CHW AIM tool suggests the following: “Supervision of CHWs should be carried out regularly to provide feedback, coaching, problem solving, skill development, and data review. According to the CHW AIM tool, the indicators for ideal supervision include:

- Encounters every 1–3 months between the supervisor and the CHW that include reviewing reports and monitoring data collected by the CHW;
- Training of supervisors in supportive supervision and in the technical skills that CHWs need to have so that they can use supervisory tools (checklists) during encounters (and hopefully during observation of CHWs at work) to aid their supervisees appropriately;
- Use of locally acquired data for problem-solving and coaching during supervision meetings; and,
- Visitation of CHWs in their communities, carrying out home visits with CHWs, and providing skills coaching to CHWs.

WHAT WORKING STRATEGIES SHOULD SHAPE THE SUPERVISION APPROACH?

It is advisable for strategies to be agreed upon by key policymakers, stakeholders, and program managers that will guide the design of a supervision approach. For example, the following principles might be considered:

Build upon what exists: Understanding what is already functioning and building upon it is important. Do not create parallel systems.

Use a bottom-up approach: Engaging CHWs and communities in the design and process of supervision will encourage participation.

Focus on planning and monitoring the implementation: Plans to supervise are frequently made but not carried out, and the implementation process itself is not monitored. Therefore, supervision becomes the lowest priority to program implementers.

Engage all levels for accountability: Supervisors alone (regardless of who is supervising) should not bear all of the responsibility. Supervisors of supervisors, CHWs, communities, and even clients can share in both the process and making each other accountable for its completion.

Develop capacity at all levels in data management, teamwork, and problem-solving: Basic data use, teamwork, and problem identification, prioritization, and resolution are skills that everyone, including community members and engaged clients, can use to solve problems.

WHAT STANDARDS AND GUIDELINES ARE NEEDED?

It is advisable to develop a set of standards and guidelines that clearly state to all stakeholders, including CHWs, community members, supervisors, health workers, and ministry officials, what are the objectives, responsibilities, results, and outcomes of the supervisory system. This document should include a detailed description of the tasks that supervisors are asked to perform, as well as the tasks and performance standards for CHWs: what supplies and equipment CHWs should have, the content of the supervision visit, its frequency, and the optimal profile and set of skills needed by supervisors. It should also describe who and how supervisors themselves are supervised and how to monitor the quality of supervision itself.

Standards and guidelines generally form the basis for supervisor training curricula and are used in the development of monitoring forms, checklists, and user-friendly tools that can help supervisors and CHWs prepare for and meet performance expectations. (See the Appendix for examples of forms and checklists for supervisors.)

The process to develop the standards and guidelines should involve a wide range of stakeholders, including Ministry of Health officials, regional authorities, community groups, facility managers, nursing associations (if, in fact, a nurse will supervise), and of course, CHWs themselves.

WHO WILL PERFORM THE SUPERVISION? WHO WILL SUPERVISE THE SUPERVISORS?

Although it is most common to see a nurse or other health worker from a peripheral facility tasked with the supervision of CHWs, it is not necessarily the only option. Alternative supervision approaches are presented in the next section, but can include group supervision (in which multiple CHWs gather to meet with the facility health worker in either the health center or a village); peer supervision (in which peers take on some of the supervision role through peer-to-peer learning, support, and problem-solving); and community supervision (community groups, members, or associations take on some of the monitoring and feedback role in supervision).

HOW OFTEN SHOULD SUPERVISION BE DONE?

As mentioned above, regular encounters between the supervisor and the CHW are recommended. Monthly visits are best, as regular reinforcement of skills and frequent communication is important for CHW motivation and performance. However, quarterly visits are more practical for most programs, and even they may be difficult and costly to maintain. Other CHWs, community organizations, and peer groups can offer coaching, emotional support, and feedback to CHWs and should be considered as alternatives, or additions, to the support that CHWs can receive. Also, mobile technology can provide support to CHWs between visits, provide answers to immediate questions, and be used by supervisors and facility staff for distance coaching and skills updates. These approaches are described in more detail in the following section.

HOW CAN YOU ENSURE THAT SUPERVISION VISITS ARE PLANNED, IMPLEMENTED, AND TRACKED?

Although yearly planning takes place in ministries of health at the central, regional, and district levels, and even community levels, plans are not always followed. They frequently focus on the achievement of coverage or health indicators, while management processes (such as supervision) are overlooked. Because supervision is not made a priority, it can be superseded by other events that are viewed as more critical. A planning process is only as good as its implementation; and action plans require implementation, monitoring, and evaluation. Tracking and reporting mechanisms should be put in place that help regional, district, and local officials adhere to their plans, monitor their own implementation, and report not only on indicators alone, but also on the processes that are needed to achieve target indicators.

HOW WILL INFORMATION BE USED TO IMPROVE PERFORMANCE?

Program planners and managers need information gathered from the community level on a wide range of indicators: coverage, mortality, morbidity, logistics, numbers of households reached, numbers of clients served, and so on. However, because CHWs are the closest link to

communities, they are often asked to collect more data than is actually used. Moreover, the information flow is usually upward with little information flowing back down to the community so that CHWs understand how to use the data to solve problems. Supervisors can play a critical role in this process by monitoring the quality of data that is collected and working with CHWs and local leaders to share the collected data with the CHWs and communities for problem-solving at the community level.

Box 3. Supervision from the health center in the Pakistan Lady Health Worker Program

There is a highly organized and tiered supervision strategy in the Pakistani Lady Health Worker (LHW) Program. Each LHW is attached to a health clinic and is supervised on a monthly basis by a LHW supervisor.¹⁰ These supervisors are then regularly supervised by a LHW program District Coordinator and/or an Assistant District Coordinator. Each LHW should have supervision in her village at least once a month, at which time the supervisor should meet with clients and with the LHW, review the LHW's work, and collaboratively prepare a work plan for the subsequent month.¹¹

The 2008 review of the LHW program found that 80% of LHWs participated in a supervision meeting in the previous month. Astonishingly, 90% of supervision meetings occurred in the village, and 59% of these included meetings of the supervisor with the LHWs' clients. Additionally, 91% of LHWs had meetings in the health facility within the previous 30 days, and 98% had produced a work plan for the previous month. Supervisors frequently used checklists during the meetings and scored LHW performance, although LHWs were generally not told their score. On average, LHW supervisors supervised 23 LHWs and 60% had full-time access to a vehicle, although not all received their allowance for fuel and related expenses.¹¹

APPROACHES TO CHW SUPERVISION

This section describes the most common approach to CHW supervision and some alternative approaches that CHW program managers can consider. Each approach has strengths and limitations, and some are more tried and tested than others. Still, given the generally poor quality of supervision that has existed in most programs to date, broadening the approach of who provides supervisory support and how supervisory support is offered might allow for more practical, less costly supervision that is more effective.

External Supervision from Health Center or District Health Office

In some countries, such as Pakistan, CHW supervision is part of a national supervision strategy that is already functioning. This model generally assumes that a nurse or midwife from a peripheral health facility has the responsibility to supervise CHWs, or that district or sub-district officers make supervision visits to CHWs. In some CHW programs (such as in Ethiopia), CHWs work at health posts but conduct home visits and supervise volunteers out in the communities. Supervisory visits are planned quarterly, although some programs attempt this supervision on a monthly basis depending on the distances, the availability of health staff to supervise, and the numbers of CHWs to be supervised.

These supervisory visits link the CHW services to the formal health system, provide an opportunity to collect data on a range of issues such as the numbers of patients seen, home visits made, or pregnant women in the catchment area. Supervisors also distribute drugs or supplies, sometimes observe CHWs performing services, reinforce important messages, such as timely and appropriate referral and emergency transport arrangements, and provide coaching to help CHW address issues faced by the CHW in performing his/her work. This approach, if funded appropriately and performed consistently, can have the benefits of strong clinical oversight, coaching, and mentoring of CHWs; integration of new protocols and procedures into

CHW work; and more attention to health system issues that affect the CHW, such as a lack of drugs or supplies. This approach is also potentially scalable, assuming that it is built onto a health system with supervisors who are health workers at a peripheral health facility, who are themselves supervised, and have available time and capacity to carry out the supervision.

Box 4. Supervision in the Ethiopia Health Extension Workers Program (HEP)

The Ethiopian Health Extension Program has been described by the Ministry of Health as “our flagship program, the pillar of our health system.”¹² The Health Extension Program was launched in 2003 by the Government of Ethiopia, and at present there are 38,000 health extension workers (HEWs), including 4,000 working in urban areas. HEWs are full-time employees who receive one year of training. They divide their time between caring for patients at their health post and outreach services into the community.

HEW supervision appears to vary across the history of the program and geographical contexts, but in 2005, HEWs had relatively high levels of supervision, with an average of three supervisory visits over the course of nine months.¹³ There are multiple levels of HEW supervision, including the *woreda* (district) supervisory team that is comprised of a health officer, public health nurse, environmental/hygiene expert, and a health education expert.¹⁴

HEWs themselves supervise lower community-level workers, such as volunteers of the Health Development Army (who are each responsible for five households), community-based reproductive health agents, and traditional birth attendants.¹⁵ One of the important features of the HEW Program is that career advancement opportunities are present, so the HEWs can advance to become HEW Supervisors and eventually nurses, an important feature that is rarely present in other CHW programs. This feature has major significance for overcoming some of the important limitations to CHW supervision that exist in many programs, not to mention providing long-term motivation to CHWs.

A modified approach to health center or district health office supervision is used in Ethiopia where there are multiple levels of HEW supervision, as well as supervision of the community volunteers (Health Development Army). In Ethiopia, the district supervisory team supervises the HEWs, who are a paid cadre and part of the formal system. The HEWs then supervise the community volunteers. This tiered approach has advantages in that it is potentially more scalable than asking facility-based health workers to supervise individual CHWs, and HEWs have the potential to advance in their career path through this supervisory responsibility.

Group Supervision of CHWs

Group supervision involves a group of CHWs meeting together with a supervisor. Meetings usually include regular supervisory activities (collecting data, discussing problems, and continuing education) in a group rather than in an individual context. It has been implemented in many ways.

In Mozambique, the international NGO World Relief pioneered the care group model as part of its Vurhonga Child Survival Project in Mozambique (1995-2003). A care group consists of 10 to 15 community-based health volunteers who regularly meet with a supervisor once or twice a month for training, supervision, and support. Care group volunteers, who visit with 10 to 15 of their neighbors every 2 to 4 weeks, provide peer support, develop a strong commitment to health activities, and find creative solutions to challenges by working together as a group. Care groups are the core element in an emerging model for organizing, training, supervising, and motivating volunteers in a cost-effective, sustainable manner. Care groups achieve broad, deep, and lasting community change.¹⁶⁻¹⁹ The Care group model highlights the motivational benefits of working in a team and its efficiency in terms of time and logistics. Groups are reported as a

useful arena for problem solving, allowing for both peer support and technical guidance from a supervisor.³

Box 5. Supervision in the Nepal Female Community Health Volunteer (FCHV) Program

The Nepal FCHV Program has been in existence since 1988. The number of FCHVs and their scope of work have gradually increased over this period after gaining global recognition for their outstanding contribution to achieving high levels of coverage of childhood vitamin A supplementation throughout the country. Community organizations, such as women's groups, support CHWs in identifying pregnant women, alerting FCHVs to problems, and delivering key health messages to their villages.

FCHVs meet as a group once per month with their supervisors at the nearest facility; they bring monitoring reports, discuss problems, and support each other's work. In interviews conducted during the development of the CHW AIM tool, FCHVs were generally happy with this system.

Womens' groups and local village development committees are highly involved in the selection and oversight of FCHVs. Mothers' groups are also expected to discuss family planning and to provide information to other mothers. There have been challenges with disempowered womens' groups, however, so a guideline was developed on how to strengthen mothers' groups. Following the development of the guidelines, national government stakeholders developed and evaluated a pilot program to determine the programmatic impact on health indicators and mothers' group functioning. Mothers' groups' functioning improved, and they were more supportive of FCHVs. They also were more aware of their authority to remove FCHVs.

Community Supervision of CHWs

Innovative approaches to supervision include engaging the community and having community organizations play a greater role in providing feedback and guidance to CHWs and their supervisors. The role that communities can play in the supervisory process differs by context and community, but can often involve community members helping to set and clarify expectations of what kinds of services the CHW will provide, agreeing on how the CHW will respond to issues within the community, and deciding how the community can support and help the CHW by participating in the management and care process. A community action cycle, wherein the community works together to identify and prioritize problems, plan and implement solutions, and evaluate progress can contribute to the creation of demand for services: "The key to the success of community empowerment was the moment when the community engaged with the problem-posing, problem-solving process and recognized that they could collectively change their circumstances."²⁰ Although this action cycle might not be considered part of traditional supervision, these inputs and support mechanisms contribute to the improved supervision of workers more generally. (See also Chapter XX on Relations with the Community Relation Chapter.)

Box 6. Community supervision with public health care providers in Uganda

A randomized field experiment on community-based monitoring and evaluating of public primary health care providers found that providers who were monitored and supported by the community tried harder to serve their clients, resulting in increased utilization and improved health outcomes for community members.²¹ The experiment focused on the accountability relationship between the citizen-clients, and their ability to hold providers accountable for quality service provision. To test whether community-based monitoring works, local NGOs facilitated village and staff meetings in which members of the community discussed the baseline status of health service delivery. These committees also discussed how the primary health care providers working in the

ministry of health system compared to other providers, and how the public providers could improve health service provision. The purpose of this open-dialogue discussion was to initiate a process of community-based monitoring that was then sustained by the community.

This community-based approach successfully increased both quality and quantity of primary care provision at government health centers. Utilization increased by 20%. Waiting time and staff absenteeism also improved significantly.

Such an approach could be used to monitor the work of CHWs as well.

The Community-Directed Interventions (CDI) Program in multiple countries in Africa uses an approach in which communities are given important responsibilities for the planning and implementation of highly targeted interventions aimed at priority diseases.²² The approach encourages communities to take ownership of the clinical intervention process, defining who, when, and where the intervention will be implemented, how it will be monitored, and what financial incentives or other support will be provided to CHWs, who are selected by the community.

An evaluation of the CDI program conducted in 35 health districts in Cameroon, Nigeria, and Uganda, revealed that community participatory processes were important, and CHWs were deeply committed to the CDI process. By engaging and empowering communities, the CDI program has prompted an eagerness on the part of communities to participate in the provision of multiple interventions, leading to cost savings for the health system, as well as increased health system impact.²³ This experience indicates that communities can become strong and active partners in CHW programs. Communities can select, motivate, and supervise CHWs if a linkage is provided to health programs for training, technical support, and technical supervision.

The effectiveness of supervision by communities depends on the degree to which the community is able to obtain appropriate information on CHW functioning and access to resources that can motivate CHWs for outstanding performance and sanction them for sub-standard performance. This approach is most feasible when community groups, such as community health committees or mothers' groups, are already active in other areas of community management, such as income generation schemes or water and sanitation management. This approach can strengthen existing community systems, but may not be appropriate when there are weak social connections, such as in urban settings where the population may be transient.

Peer Supervision of CHWs

Using peers, such as other CHWs, to aid in supervision is another model that is being tested and implemented in a growing number of countries. Peer supervision is focused on CHWs helping other CHWs learn new skills and assessing the quality of work performed by fellow CHWs. Examples of this approach are the following:

- Peers observing CHWs performing consultations and providing feedback
- Peers supporting less-experienced colleagues (e.g., through on-the-job training)
- High-performing peers mentoring others who are having more difficulty
- Peers discussing issues and problem-solving with CHWs
- Peers being promoted to a more formal supervisory role

The Rwanda Ministry of Health has established a robust community health structure, in which each district has a community health supervisor and each health facility in the district has an in-charge of community health. In each village, there are now four CHWs (but plans call for expanding this to six): two “binomes” (one male and one female CHW) who address community Integrated Management of Childhood Illness (IMCI), one CHW for maternal health, and one social affairs officer. Concern Worldwide implemented a program from 2007 to 2011 in six districts in Rwanda in which CHW cooperatives, consisting of 150 to 300 CHWs, each managed by a cell coordinator, met on a quarterly basis in a health facility. Within each cooperative, peer groups of 15 to 20 CHWs were formed into groups and met at least monthly for peer support and learning opportunities. A 2011 evaluation of this approach by Concern Worldwide reached the following conclusions:

CHWs found the model to be a motivating factor in their work. Compared to CHWs working independently, CHWs working as a group provided greater peer support, developed a stronger commitment to implementing health activities, and found more creative solutions to problems.²⁴

Table 2. Summary of four approaches to supervision according to the six key questions

SUPERVISION MODEL	EXTERNAL SUPERVISION: Health worker from health center or supervisor from district health office.	GROUP SUPERVISION: Health worker supervises group of CHWs (at facility or in community).	COMMUNITY SUPERVISION: Community plays a role in defining expectations, providing feedback, tracking CHW activity.	PEER SUPERVISION: Peers play a major role in supervising each other.
Objectives	Provides (1) a direct link between CHWs and the health system (protocols, guidelines, monitoring of quality), (2) supplies, drugs, and equipment, (3) collection of information, and (4) one-to-one support for the CHW.	Provides (1) a direct link between CHWs and the health system (protocols, guidelines, monitoring of quality), (2) supplies, drugs, and equipment, (3) collection of information, and (4) group support for the CHWs.	Community helps define and manage quality. Community plays a role in providing incentives for good performance, and sanctions for poor performance.	Emphasis is on joint problem-solving, skills development, and peer support arising from understanding what the other is experiencing.
Prerequisites	A functioning health center within a reasonable distance from the community. Travel resources (vehicle, fuel, per diem). Adequate numbers of supervisors. Supervision tools.	A functioning health center within a reasonable distance from the community. Travel resources (means, fuel, per diem). Supervision tools.	A culture of community involvement. Agreement on the role of the CHW. Strong community leaders (or community health committee). Training in supervision, data use, problem solving.	Multiple cadres of CHWs or villages that are near each other. Oversight from the health system for supplies, skills, and training. Travel resources (means, fuel, per diem). Meeting resources for CHWs.

SUPERVISION MODEL	EXTERNAL SUPERVISION: Health worker from health center or supervisor from district health office.	GROUP SUPERVISION: Health worker supervises group of CHWs (at facility or in community).	COMMUNITY SUPERVISION: Community plays a role in defining expectations, providing feedback, tracking CHW activity.	PEER SUPERVISION: Peers play a major role in supervising each other.
Optimal Frequency	Monthly to quarterly	Monthly to quarterly	Monthly meetings	Quarterly meetings, in between if possible
Key Implementation Considerations	Strength of formal health system (ability of health center staff to supervise, time, training, and materials). Travel resources (means, fuel, per diem). Proximity of clinics. Method to measure success; evaluate supervisors and system.	Easiest model to implement. PHC staff time to plan meetings, meet CHWs. Proximity of communities. Method to support and measure success of individual CHWs.	Challenges in measuring success or impact. Community-based training, resources, materials. Strong community-based organizations.	Types and numbers of CHWs in proximity. Peer-based training and materials. Facilitation skills.
Key Scale-Up Considerations	Success at district or regional level.	Success at district or regional level.	Community by community; difficult to scale quickly.	Success at district or regional level.

A recent review of peer-reviewed published literature related to supervision of peripheral health workers (including CHWs) in low-income countries tried to identify effective forms of supervision and innovative approaches to supervision.²⁵ Although supportive supervision makes intuitive and practical sense, only a few well-documented examples of the beneficial effects of supervisory support on health worker performance exist in the literature. The review of the evidence identified three general innovative approaches to supervision:

- Use of peer assessments, group assessments, self-assessments, community-assessments, and combinations of these;
- Use of checklists; and
- Focus on problem-solving at the supervisor, provider, or community levels.

The authors identified the most promising specific innovations in supervision to be the following:

- Group supervision focused on goal setting and problem-solving;
- Engaging stronger peers to support weaker peers through on-the-job training and mentoring;
- Community monitoring of health worker performance; and
- In addition to onsite visits from supervisors, include periodic self-assessments (which might be recorded and shared with a supervisor) and regular phone calls from a supervisor.

Finally, of particular note, the authors concluded that overarching themes among innovative approaches to supervision included incorporating a review of data into the supervisory process, focusing on problem-solving, and targeting supervisory efforts to high-priority locations and high-priority health workers.

THE EMERGING ROLE OF MHEALTH IN SUPERVISION OF CHWS

As mentioned in the opening section, mHealth (the practice of medicine and public health supported by mobile devices) can provide support to CHWs between visits by providing answers to immediate questions they may have. It may also be used by supervisors and facility staff to provide coaching and skills updates for CHWs from afar. The use of mHealth is gaining increased attention as it provides opportunities to rapidly connect people, thereby reducing delays in patient care, managerial, and supervisory decisions required for day-to-day health system functioning. With the continuous growth of mobile network coverage and unprecedented spread of mobile devices in the developing world, many mHealth initiatives are now being implemented in developing countries.

In Uganda, the Rakai Health Sciences Program piloted the use of mobile phones to monitor patients in a rural HIV/AIDS treatment program in Rakai, Uganda.²⁶ CHWs were given mobile phones to send real-time text messages containing clinical and drug adherence data to higher-trained providers for review and triage. Results showed that most clinical workers agreed that the quality of care had improved, while the overall cost of such a program remained very low.

In Ghana and Zambia, ministries of health are using cell technology for data collection and monitoring of supplies for stock outs of rapid diagnostic tests for malaria and to supplement other information gathering and verification at facilities. In Rwanda, an innovative short message service (SMS)-based technology developed by UNICEF establishes a communication and alert system, supports documentation of pregnancies in the community, and promotes contact between pregnant patients and health facilities to promote antenatal care utilization and institutional deliveries. It is used by CHWs to register new pregnancies in their communities and to monitor the pregnancies through delivery and postpartum. It is especially useful when danger signs during pregnancy occur and helps to facilitate referrals; it has an emergency alert-system and provides immediate feedback to the CHW advising on immediate actions and requesting an ambulance to ensure the timely transfer of the mother and (if delivery has occurred) her newborn for emergency obstetric and neonatal care.²⁴

Box 7. Supportive supervision and quality improvement using Mobile Technology

Abt Associates, Jhpiego, and Marie Stopes International collaborated on a mobile learning and performance support pilot called Mobile for Quality Improvement (m4QI) conducted in Uganda from September 2010 to August 2011.²⁷ The objectives of m4QI were to develop and test a technology-supported approach to performance improvement, including processes for identifying performance gaps in adherence to protocols, managing the delivery of text message reminders, and improving the effectiveness of supportive supervision and follow-up. Thirty-four family planning outreach health workers received SMS text messages with daily instructions, tips, and quizzes related to standards, guidelines, and advice for working with clients. This pilot produced a process and software tool that can be replicated in resource-poor settings to assess delivery and make data-driven programmatic decisions for supportive supervision and follow-up training.

Another example is from Nigeria, where mHealth was used to strengthen supportive supervision for detection of patients with TB.²⁸ Supportive supervision visits are performed monthly or quarterly at TB facilities to provide monitoring of clinical, laboratory, and commodity functions. Using a mobile smartphone for data entry instead of paper forms has decreased both human

error in data entry and lag time of forms to get to policymakers and managers. To date, more than 50 supervisors have been trained and use the new smartphones and checklists to perform supervisory activities. The National TB Program is considering using the software platform on the smartphone that will link the TB supervision data into the District Health Information System throughout Nigeria. The potential of such systems for supervising CHWs is obvious.

CONCLUSION

Although supervision is one of the most challenging areas to implement in a CHW program, it is also an area ripe for innovation. By looking at the objectives of supervision as described in this chapter, it is possible to divide the responsibilities among multiple parties. For example, CHWs are commonly supervised by health workers based at health facilities who are overcommitted and not able to perform the role adequately. Designing a program in which groups of CHWs visit a facility on a quarterly basis to meet with their supervisor might be supplemented by a peer support structure in which other CHWs receive training in how to support each other between visits. If community groups are involved in monitoring the CHWs' activities and in understanding what indicators are important to look at, they might become more involved in the care process overall. Cell phone technology could aid both the CHW and the community in communicating service needs and supply stock outs in advance, thus preparing the CHW's supervisor in the facility what supplies that should be on hand before the CHWs make their group visit. Cell phones can also be used by supervisors to provide on-the-job skills coaching for CHWs and by CHWs among themselves to enable them to support each other and ask questions when they encounter difficulties.

The development of an effective supportive supervision system takes time (at least two years) and significant financial resources. It is not a quick fix. Decision-making authority must be decentralized to frontline supervisors. CHW program implementers should first select which of the range of supportive supervision mechanisms and tools are appropriate for the context, then adapt and test them, and then use this experience to gradually strengthen the program of supervision.

Key Resources

See the Appendix to Chapter 9.

Ministry of Health and Population (Malawi): Integrated Supervision Checklist. Available online at:

http://gametlibrary.worldbank.org/FILES/595_Guidelines%20for%20Routine%20MOH%20Supervision%20-%20Malawi.pdf.

Appendix: Examples of Forms and Checklists for Supervisors

ENGENDER'S COPE CLIENT-PROVIDER FLOW CHART¹

(Developed for clinics, but could be adapted for CHWs seeing clients in the community)

Site: Sunshine Clinic

Date: September 10th, 2004

Session: Morning

CLIENT NUMBER	TIME IN-OUT	TOTAL TIME	CONTACT TIME (in minutes)	WAITING TIME (in minutes)	SERVICE TYPE (primary)	SERVICE TYPE (secondary)	VISIT TIMING	COMMENTS
01	8:00-8:50	50	40	10	B	C	2	
02	8:10-9:20	70	11	59	C	-	2	
03	8:15-9:23	68	14	54	C	-	2	
04	8:15-9:25	70	6	64	G	-	2	
05	8:15- 9:50	95	17	78	A	D	2	
06	8:15-11:00	165	57	108	F	D	1	
07	8:20-1:30	310	74	236	A	D	2	
08	8:20-11:00	160	17	143	F	-	1	
09	8:20-10:22	122	8	114	C	-	2	
10	8:28-12:55	267	193	74	E	D	2	
	Total							

Codes: Service Type

A—Antenatal care

B—Postpartum and newborn care

C—Family Planning

D—Reproductive Tract infections (RTIs)

Includes sexually transmitted infections (STIs)

E—HIV

F—Gynecological services

G—Men's reproductive health services

H—Infertility

I—Other (Please Describe)

Codes: Visit Timing

1—First visit

2—Follow-up visit

¹ Adapted from: EngenderHealth. 2003. *COPE Handbook: A Process for Improving Quality in Health Services*. EngenderHealth.

SUPERVISOR CHECKLIST FOR IMMUNIZATION PROGRAM AT HEALTH CENTER LEVEL²

(Developed for health centers, but could be adapted for CHWs working with immunization outreach sites in the community)

Name of Supervisor _____

Province/Municipality: _____ Operational District: _____

Health Center: _____

Date of Supervision:...../...../.....

Date of Previous Supervision:/...../.....

General Situation:

Number of staff: _____ Villages covered _____ Total Population: _____

Target children (< 1 year of age) _____

I. Questioning to Health Staff and Reports Checking

1. Is the number of immunization days implemented equal with the number planned? *Yes / No

2. Has the graphic of the following up the coverage rate of the vaccination been appropriately done every month? *Yes / No

3. Has the rate of wastage been checked?

TYPE OF VACCINE	IMPLEMENTATION	ANNUAL PLAN
BCG%%
DTC 3%%
Polio 3%%
Measles%%
TT2+%% (for pregnant women)
TT2+%% (for others)

4. Check the immunization's result in the reports and count the number in the immunization log sheet in the previous month.

TYPE OF VACCINE	IN THE REPORTS	IN THE IMMUNIZATION LOG SHEET	CORRECTION
BCG			Yes / No
Measles			Yes / No
DTC 3			Yes / No
TT2+ (Pregnant Women)			Yes / No

5. Are there any appropriate refrigerators to keep the vaccines? Yes / No

6. Has the graphic of monitoring the cold chain been correctly and regularly drawn every month? Yes / No

² Children's Vaccine Program at PATH. 2003. *Guidelines for Implementing Supportive Supervision: A Step-by-Step Guide with Tools to Support Immunization*. PATH: Seattle.

EXAMPLE OF A SUPERVISORY TRANSPORT BUDGET SHEET

This is a sample tool for planning and calculating the cost of supervision visits. Distances, per diem rates, and fuel and maintenance costs are normally found in district/regional micro-plans or in national/district budgets.

Table A: Transportation costs per supervision visit

A	B	C	D	E	F	G
DISTRICT	TOTAL KMS	COST OF FUEL PER KM	MAINTENANCE PER KM	TRANSPORTATION COST OF SUPERVISION VISIT = (C+D) X A	NUMBER OF SUPERVISION VISITS PER YEAR	TOTAL TRANSPORTATION COSTS PER YEAR = E X F
District 1	4,460	49 CFA	60 CFA	486,140 CFA	3	1,458,420 CFA
District 2	4,200	49 CFA	60 CFA	457,800 CFA	4	1,831,200 CFA
District 3	22,512	49 CFA	60 CFA	2,453,808 CFA	3	7,361,424 CFA
District 4	4,200	49 CFA	60 CFA	457,800 CFA	3	1,373,400 CFA
District 5	4,620	49 CFA	60 CFA	503,580 CFA	4	2,014,320 CFA

Table B: Per diem cost per supervision visit

A	B	C	D	E	F
DISTRICT	PER DIEM RATE	NUMBER OF PER DIEM DAYS PER VISIT	NUMBER OF SUPERVISORS PER VISIT	NUMBER OF SUPERVISORS PER YEAR	TOTAL PER DIEM COSTS PER YEAR = B X C X D X E
District 1	5000 CFA	2	1	3	30,000 CFA
District 2	5000 CFA	2	1	4	40,000 CFA
District 3	5000 CFA	4	2	3	120,000 CFA
District 4	5000 CFA	2	1	3	30,000 CFA
District 5	5000 CFA	2	2	4	80,000 CFA

Table C: Total supervision costs per year

A	B	C	D
DISTRICT	TOTAL TRANSPORTATION COST PER YEAR (TABLE A, COLUMN G)	TOTAL PER DIEM COSTS PER YEAR (TABLE B, COLUMN F)	TOTAL SUPERVISION COST PER YEAR = B+C
District 1	1,458,420 CFA	30,000 CFA	1,488,420 CFA
District 2	1,831,200 CFA	40,000 CFA	1,871,200 CFA
District 3	7,361,424 CFA	120,000 CFA	7,481,424 CFA
District 4	1,373,400 CFA	30,000 CFA	1,403,400 CFA
District 5	2,014,320 CFA	80,000 CFA	2,094,320 CFA

DIRECT OBSERVATION SUPERVISION CHECKLIST FOR A REPRODUCTIVE HEALTH PROGRAM³

Community Reproductive Health (RH) Project
Counseling for RH Services- Supervision Checklists

Name of CHW: _____

Date and Location: _____

ASPECT TO BE ASSESSED	NOT DONE	POORLY DONE	WELL DONE
1. Greeted/welcome client			
2. Introduced her/himself			
3. Explained the purpose of visit			
4. Asked client about his/her RH problems/needs			
5. Asked client what he/she knew about family planning (FP)/sexually transmitted diseases (STDs)			
6. Displayed available FP methods			
7. Used relevant information/education/communication (IEC) materials			
8. Helped client select a method/plan of action			
9. If pill is chosen, did CRW use checklist to screen?			
10. If injectable contraceptive is chosen, did CRW use checklist to screen?			
11. Explained to the client how to use method			
12. Demonstrated to client how to use method			
13. Explained possible side effects			
14. Emphasized the importance of condoms for STS/HIV prevention			
15. Responded correctly to client's questions			
16. Gave follow-up appointment			
17. Thanked client			
18. Demonstrated sensitivity to client's gender			

Overall positive comments:

Suggestions for improvement:

Any follow-up required:

³ K4Health. Supervision Checklist (www.k4health.org/.../Directly-observed%20Supervision%20Checklists)

Acknowledgments

The authors would like to thank Claire Glenton, Simon Lewin, Karen LeBan, and Steve Hodgins for their ideas, collaboration, and feedback during the development of this chapter.

References

1. Freeman P, Perry HB, Gupta SK, Rassekh B. Accelerating progress in achieving the millennium development goal for children through community-based approaches. *Glob Public Health* 2009; 1-20.
2. Jaskiewicz W, Tulenko K. Increasing community health worker productivity and effectiveness: a review of the influence of the work environment. *Human resources for health* 2012; **10**(1): 38.
3. Strachan DL, Kallander K, Ten Asbroek AH, et al. Interventions to Improve Motivation and Retention of Community Health Workers Delivering Integrated Community Case Management (iCCM): Stakeholder Perceptions and Priorities. *Am J Trop Med Hyg* 2012; **87**(5 Suppl): 111-9.
4. Freeman PB. An optometric Christmas Carol. *Optometry (St Louis, Mo)* 2009; **80**(12): 671-2.
5. Bosch-Capblanch X, Liaqat S, Garner P. Managerial supervision to improve primary health care in low- and middle-income countries. *Cochrane database of systematic reviews*, 2011. <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006413.pub2/abstract> (accessed.<http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD006413.pub2/abstract>)
6. Bosch-Capblanch X, Garner P. Primary health care supervision in developing countries. *Trop Med Int Health* 2008; **13**(3): 369-83.
7. Mathauer I, Imhoff I. Health worker motivation in Africa: the role of non-financial incentives and human resource management tools. *Human resources for health* 2006; **4**: 24.
8. Stekelenburg J, Kyanamina SS, Wolffers I. Poor performance of community health workers in Kalabo District, Zambia. *Health Policy* 2003; **65**(2): 109-18.
9. Crigler L HK, Furth R, Bjerregaard D. . Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving Community Health Worker Programs and Services. Bethesda, MD: University Research Co., LLC, 2011
10. GHWA Task Force & WHO. Pakistan's Lady Health Worker Programme. World Health Organization & Global Health Workforce Alliance; 2008
11. Oxford Policy Management. Lady Health Worker Programme: Fourth External Evaluation for the National Programme for Family Planning and Primary Health Care- Quantitative Survey Report, 2009.<http://www.opml.co.uk/projects/lady-health-worker-programme-third-party-evaluation-performance>
12. Admasu K.2012. The Ethiopian Health Extension Program. Lecture at Johns Hopkins Bloomberg School of Public Health. Baltimore, MD. 8 February 2012
13. Teklehaimanot A, Kitaw Y, Yohannes AM, et al. Study of the Working Conditions of Health Extension Workers in Ethiopia. *Ethiopian Journal of Health Development* 2007; **21**(3): 246-59.
14. Health Extension and Education Center. Health Extension Program in Ethiopia. In: Federal Ministry of Health, editor.; 2007.<http://www.moh.gov.et/english/Resources/Documents/HEW%20profile%20Final%2008%2007.pdf>
15. Creanga AA, Bradley HM, Kidanu A, Melkamu Y, Tsui AO. Does the delivery of integrated family planning and HIV/AIDS services influence community-based workers' client loads in Ethiopia? *Health Policy Plan* 2007; **22**(6): 404-14.
16. Laughlin M. The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators. Baltimore, MD: World Relief and the Child Survival Collaborations and Resources (CORE) Group; 2004.

17. Perry H, Sivan O, Bowman G, et al. Averting childhood deaths in resource-constrained settings through engagement with the community: an example from Cambodia. In: Gofin J, Gofin R, eds. *Essentials of Community Health*. Sudbury, MA: Jones and Bartlett.; 2010: 169-74.
18. Edward A, Ernst P, Taylor C, Becker S, Mazive E, Perry H. Examining the evidence of under-five mortality reduction in a community-based programme in Gaza, Mozambique. *Trans R Soc Trop Med Hyg* 2007; **101**(8): 814-22.
19. Davis T, Wetzel C, Hernandez Avilan E, et al. Reducing child global undernutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communication health messages to mothers. *Global Health: Science and Practice* 2013; **1**(1): 35-51.
20. Rosato M, Laverack G, Grabman LH, et al. Community participation: lessons for maternal, newborn, and child health. *Lancet* 2008; **372**(9642): 962-71.
21. Bjorkman M, Svensson J. Power to the people: evidence from a randomized field experiment on community-based monitoring in Uganda. *Quarterly Journal of Economics* 2009; **124**(2): 735-69.
22. CDI Study Group. Community-directed interventions for priority health problems in Africa: results of a multicountry study. *Bulletin of the World Health Organization* 2010; **88**(7): 509-18.
23. Mutalemwa P, Kisinza WN, Kisoka WJ, et al. Community directed approach beyond ivermectin in Tanzania: a promising mechanism for the delivery of complex health interventions. *Tanzania journal of health research* 2009; **11**(3): 116-25.
24. Ngabo F, Nguimfack J, Nwaigwe F, et al. Designing and Implementing an Innovative SMS-based alert system (RapidSMS-MCH) to monitor pregnancy and reduce maternal and child deaths in Rwanda. *The Pan African medical journal* 2012; **13**: 31.
25. Hill A, Benton L. Supervision: A Review: Innovations at Scale for Community Access and Lasting Effects (inSCALE), 2010.<http://www.malariaconsortium.org/inscale/downloads/lit-review-supervision-zelee-hill-and-lorna-benton.pdf>
26. Chang LW, Kagaayi J, Arem H, et al. Impact of a mHealth intervention for peer health workers on AIDS care in rural Uganda: a mixed methods evaluation of a cluster-randomized trial. *AIDS and behavior* 2011; **15**(8): 1776-84.
27. Riley P, Bon Tempo J. *Mobiles for Quality Improvement Project in Uganda*. Bethesda, MD: Strengthening Health Outcomes through the Private Sector Project. Abt Associates, Inc., 2011
28. Dieng A. *Using Technology for Supportive Supervision in Nigeria*. Bethesda, MD: Health Systems 20/20, Abt Associates, Inc., 2011

What Motivates Community Health Workers? Designing Programs that Incentivize Community Health Worker Performance and Retention

Christopher J. Colvin

24 September 2013

Key Points

- Financial compensation is one – but only one – of many influences on the motivations of community health workers (CHWs) to perform their responsibilities.
- Non-material incentives need to be given careful consideration along with financial incentives.
- Indirect non-material incentives, such as the degree to which the environment is supportive of CHWs and the degree to which the health system functions effectively are also motivating influences for CHWs.
- Lack of appropriate incentives, with resulting high rates of turnover, are common in large-scale CHW program and costly in terms of actual cost to replace CHWs and also in terms of the performance of the CHW program.

INTRODUCTION

A perennial challenge in CHW programs is the question of how to motivate community members to engage in community health work as CHWs, to remain in these positions once trained, and to perform their work effectively over time. Motivation is a complex phenomenon that is the product of a range of psychological, interpersonal, and contextual factors. Thus, there is no one right or best way to motivate CHWs in their work, but there are some lessons that can be gleaned from the experiences of other CHW programs. This chapter reviews the question of CHW motivation and identifies a range of issues that policymakers and program managers would need to grapple with as they consider how best to motivate CHWs in their own context.

The most common approach to developing and sustaining motivation in CHW programs revolves around the use of discrete “incentives.” These incentives are often understood in a fairly narrow fashion, as specific forms of reward—like payments, promotions, or awards—to motivate CHWs to perform specific tasks or achieve a certain level of performance. It is in this sense that many policymakers, program managers, and CHWs themselves understand the term “incentive.”

However, one can also define CHW incentives as any factor that increases motivation to engage and perform well in CHW work. In Bhattacharyya’s (2001) seminal review on this issue, the authors used the concept of “incentives” (and “disincentives”) in just such a broad fashion.¹ The value of this more expansive idea of incentives is the insight that the factors that serve as incentives for CHWs to perform well are far more numerous and complex than just the explicit financial or non-financial incentives (in the narrow sense) offered by programs to reward particular behaviors. Decent salaries and opportunities for advancement may motivate CHWs, but so too can supportive colleagues, a safe working environment, and the recognition of the community.

This chapter shares this broad view of incentives and discusses a wide range of factors that can support or inhibit a CHW’s motivations to engage in CHW programs and perform well in their tasks. It examines how CHW programs can produce and sustain CHW motivation by paying attention to the many different factors that act as incentives for their work.

KEY QUESTIONS

- What forms of incentives are there?
- What are decisions related to incentives that must be made?

WHAT FORMS OF INCENTIVES ARE THERE?

Although there are many ways to define and categorize incentives, some common and useful distinctions can be made. Table 1 presents some illustrative examples of these common categories of incentives.

Table 1. Common categories and examples of CHW incentives

	FINANCIAL INCENTIVES	NON-FINANCIAL INCENTIVES
DIRECT INCENTIVES	<i>Terms and conditions of employment:</i> salary/stipend, pension, insurance, allowances, leave	<i>Job satisfaction/work environment:</i> autonomy, role clarity, supportive/facilitative supervision, manageable workload
	<i>Performance payments:</i> performance-linked bonuses or incentives	<i>Preferential access to services:</i> health care, housing, education

	Other financial support: reimbursement of costs (travel, airtime), fellowships, loans, ad hoc	Professional development: continuing training, effective supervision, study leave, career path that enables promotion and moving into new roles
		Formal recognition: by colleagues, health system, community, wider society
		Informal recognition: T-shirts, name tags, access to supplies/equipment, bicycles, etc.
INDIRECT INCENTIVES	HEALTH SYSTEM	COMMUNITY-LEVEL
	Well-functioning health systems: effective management, consistent M&E, prompt monthly payments, safe environment, adequate supplies, and working equipment	Community involvement in CHW selection and training
	Sustainable health systems: sustainable financing, job security	Community organizations that support CHWs
	Responsive health systems: trust, transparency, fairness, consistency	CHWs witnessing visible improvements in health of community members
COMPLEMENTARY/ DEMAND-SIDE INCENTIVES	HEALTH SYSTEM	COMMUNITY-LEVEL
	Health care workers witnessing and grateful for visible improvements in health of community members	Community members witnessing and grateful for visible improvements in health of its members
	Policies and legislation that support CHWs	Successful referrals to health facilities
	Funding for CHW activities from state or communities	CHW associations

CHW incentives are most commonly divided into financial and non-financial incentives. Both of these kinds of incentives might be referred to as “direct” since they are specific incentives offered directly to individual CHWs as part of a CHW program. Most programs offer some form of financial incentive. In larger government-run programs, these might be modest but full-time salaries. In non-governmental organization (NGO)-run or community-supported programs, these incentives might be small stipends and reimbursements for travel or airtime. Rwanda and India, for example, have developed performance-based incentive programs that reward CHWs for better job performance. India also offers a life insurance program to some of its government CHWs, and some NGO programs in South Africa offer scholarships for further training. Common non-financial incentives found globally include formal uniforms, T-shirts, and name tags; access to bicycles and medical supplies; and preferential access to health or housing resources. See the first set of rows in Table 1 above for common categories and examples of direct incentives.

The second set of rows in Table 1 lists what can be called “indirect incentives.” Dambisya et al.² define indirect incentives as incentives “not specific to individuals or groups, but to the system as a whole.” Dambisya focuses on health systems-related indirect incentives, such as good management, sustainable financing, fairness, and transparency. In many settings, indirect incentives have been identified by CHWs and program managers alike as critical success factors for effective CHW programs.

Bhattacharyya et al.¹ also describe “community-level factors that motivate individual CHWs.” These include community involvement in CHW training and selection, and community support for the work of CHWs. These forms of community involvement are not intended to directly incentivize CHWs, but promoting a positive and effective working relationship with the communities they serve can be a powerful motivating force for CHWs. Therefore, these kinds of incentives can be considered as community-based forms of indirect incentives and are placed

alongside the health system-related ones in the second set of rows in Table 1. (Also see Chapter X, Community Relations for more detail.)

Finally, incentives, whether direct or indirect, are generally defined by their impact on the motivation of individual CHWs. Bhattacharyya et al.¹, however, make an useful distinction between factors that motivate individual CHWs and factors that motivate others to support and sustain CHWs in general. Here, we have called these “complementary incentives” because they complement efforts to incentivize CHWs themselves. One example might be the greater support for CHWs and their work that can emerge when health care workers or community members witness tangible changes in health outcomes that are the result of CHW initiatives. As with the indirect incentives, we have divided complementary incentives into health systems and community-specific ones (see the third set of rows in Table 1).

Because we have taken a broad view of incentives, as all those factors that affect the motivation of CHWs, many of the incentives we discuss below will overlap with issues raised in the other chapters in this book (for example, supervision, financing, training, and governance). To try to reduce duplication, we will consider them here only with respect to their impact on CHW motivation and performance.

Case study: incentivizing CHW cadres in India

CHW program designers and managers often do not fully understand the complex set of motivations that lead CHWs to engage in the difficult work that they do. Many programs rely on a vague notion of altruism to explain why CHWs take on this work and offer small “stipends” and ad hoc incentives, such as T-shirts, to keep CHWs engaged. Altruism is indeed, for most CHWs, paid or not, an important source of intrinsic motivation.

Creating and sustaining CHW motivation over time, however, is much more complicated than relying on altruistic motives or the occasional symbolic or material incentive. To illustrate how challenging it can be to produce and maintain CHW motivation over time, we present here a brief case study of three linked CHW cadres in India and the various, and contrasting, ways in which they have been incentivized in their work.

Auxiliary nurse midwives (ANMs) were established in the 1960s as part of the Indian government’s effort to offer maternal and child health (MCH) services at a lower level than its primary health care (PHC) centers. ANMs are paraprofessional, village-level midwives with several years of MCH and midwifery training, but are not considered fully-qualified health professionals. Over time, their scope of tasks has expanded considerably beyond midwifery to a range of preventive and curative services, including family planning and immunizations. They are not selected by the community and are transferred regularly to different communities. They are full-time salaried employees and also receive some housing benefits.

The anganwadi worker (AWW) cadre was created in 1975 as the centerpiece of the government’s Integrated Child Development Service program. The initial focus on children from birth to six years of age has expanded to include nutritional support and health education for adolescent girls and lactating women, and in some states, even curative services. They receive 2 to 3 months of training, and are responsible for a wide range of preventive and promotive services. They are supposed to be selected and managed by the community, and as ‘honorary workers,’ are paid a monthly stipend, which functions as a salary for most AWWs. They work closely with ANMs and accredited social health activist (ASHA) Workers (see below).

The ASHA initiative began in 2005 as part of the Indian government’s restructuring of its rural primary healthcare system. ASHA Workers (often called simply ASHAs) live in the communities where they work and are supposed to raise community awareness around health and the social

determinants of health. They should also work to enable communities to plan, access, and hold accountable their local health services. They are selected and managed by the community and receive one month of training. They are considered unpaid volunteers, but receive outcome-based payments from some of the activities that fall within their scope of work, including promoting immunizations, facility deliveries, family planning, and latrine construction. They are also compensated for time spent in trainings and meetings.

There are some common health system-related challenges shared by all three of these cadres that affect CHW motivation and performance. Poor training and supervision are frequent complaints. Also, their overall workloads and their scopes of work seem to increase continuously. Finally, poor quality health services affect their relationships to the communities they are supposed to serve and represent.

There are also motivational challenges specific to each type of worker. ANMs struggle with frequent transfers within the health system that can separate them from their families and weaken ties to the communities where they work. AWWs also suffer weak links to many communities in practice, even though they are supposed to be selected and managed by communities. In reality, the AWW program has been too top-down and inflexible in its approach, and this has affected program responsiveness and AWW morale. AWWs' monthly stipend, and their long-standing presence in communities, however, does bolster their status and provides many a sense of superiority over the ASHAs with whom they work.

The issues of motivation and incentive are probably most complicated for the ASHAs. Though classed as volunteers, the outcomes-based payment scheme incentivizes work that produces income. Therefore, ASHAs often neglect tasks that do not generate funding. ASHAs also receive their funding from ANMs at the PHC centers, and this funding has led them to be perceived by many as part of the health system rather than as community-level activists. Nonetheless, ASHAs are increasingly dissatisfied with the funding they do receive and have lobbied for more remuneration. States have begun to introduce a range of additional financial and non-financial incentives, such as cash awards for the best performing ASHAs, newsletter and radio programs, bicycles, and nursing scholarships.

Although ANMs, AWWs, and ASHAs represent different points on the spectrum between paid and unpaid CHWs, they are impacted by many of the same health system-wide challenges that affect motivation. The specific ways in which they are incentivized also have their own unique impacts, both positive and negative, on their motivation. Well-intentioned attempts to incentivize the work of the ostensibly volunteer ASHAs toward priority health outcomes, such as immunizations and facility births, have resulted in several unintended consequences. These consequences present ongoing challenges to ASHA program managers as they try to strike a balance between promoting a wide-ranging social health activist role for ASHAs and financially incentivizing priority health activities.

WHAT ARE DECISIONS RELATED TO INCENTIVES THAT MUST BE MADE?

Designing effective incentives to increase motivation and performance is clearly a complex task and requires careful attention to a range of interconnected factors. Like any other aspect of the health system, incentives need to be 1) properly designed through review of the evidence and consultation with stakeholders, 2) implemented, managed, and monitored on an ongoing basis, and finally, 3) evaluated to assess their effectiveness and plan for changes. These three steps outline the stages of a generic program “planning cycle” that is commonly used to manage programs over time.

The decision questions discussed below are designed to help policymakers, program managers and implementing staff at all levels to think through how various elements of a CHW program work (or do not work) together to increase CHW motivation and improve recruitment, retention, and performance. The first decision question explores the issue of how to design direct incentives, the second examines the design of indirect and complementary incentives, and the third reviews issues related to sustaining, managing, and evaluating incentives over time.

DECISION 1: WHAT KIND OF DIRECT FINANCIAL AND/OR NON-FINANCIAL INCENTIVES SHOULD CHWS RECEIVE?

Background

Policymakers and CHW program managers wrestle with this question most directly. It is often framed as a choice between “paid” and “volunteer” models, but the options and the challenges involved are actually much more complicated. In fact, there is a spectrum of possible approaches, from volunteers who cover their own costs and determine their own hours of work on one end, to salaried CHWs on the other end who have contracts, supervisors, and benefits similar to the other health care professionals with whom they work. Every program, however, that we have reviewed provides some kind of direct incentive for participation.

In practice, most CHW programs fall somewhere in the middle and incentivize their CHWs with some combination of salary or stipends (depending on whether they are considered to be employed by the government or acting as volunteers from the community) and a range of non-financial incentives such as uniforms, T-shirts, training opportunities, or community recognition. CHW salaries are typically less than those of nurses, but are still a substantial means of support for most CHWs. Stipends for volunteers, by contrast, are often framed as mere “honoraria” or “token” payments to volunteers, meant to reimburse them for the cost of their travel or their food during the day.

In most of the economically marginalized communities where one finds CHWs, however, these stipends and other non-financial incentives can still represent a significant financial or material benefit. Non-financial incentives, such as training opportunities, preferred access to healthcare services, or access to uniforms and bicycles can also have substantial material benefit. Even stipends that are well below the minimum or average wage in a community are often meaningful enough to keep CHWs, who might otherwise be completely unemployed, engaged in this work.

Whether or not these stipends can be justified ethically or whether they are legal with respect to local labor law is a separate but important concern. When CHWs are employed full-time as members of the formal health system, they typically enjoy many of the same legal protections and financial benefits as other employees. When framed as volunteers, however, they can sometimes be paid very little, despite the fact that the services they perform can require considerable time and energy and look very similar to the work of other paid healthcare staff.

Many of the non-financial incentives can also be quite powerful motivators of CHWs. These motivations include not only altruism rooted in religious or cultural norms of self-sacrifice for others, but also the desire for social recognition and status. Being identified as a valued member of the community and/or a trained member of the health system can be an important source of social standing and affirmation for CHWs. Successful CHW programs typically offer a mix of financial and non-financial incentives. There is no general rule for how many of these incentives should be offered or at what level, but successful incentive strategies do reflect the local contexts and concerns of the CHWs. This includes not only the country’s cultural or religious context but also its economic, political, and social contexts.

Key Issues to Consider

Programs need to consider local precedents and expectations with respect to CHW incentives (see 1.1 in Table 2 below). Past or present CHW programs, operated either by the state or by NGOs, may have offered incentive packages that then become the basis for the expectations around new CHW programs. Local cultural and religious norms also shape the expectations of CHWs (see 1.2 in the Table 2 below). Religious norms can support the altruistic impulse behind CHW work, and, in some cases, financial incentives may be perceived as a direct threat to religious norms of service. Some have argued that this is the case, for example, among the Female Community Health Volunteers (FCHVs) in Nepal, whose participation in CHW work is often framed explicitly as part of a religious duty to serve. In other cases, however, social values may instead highlight the importance for fair and equitable levels of financial incentive.

Program designers and managers should also try to understand the personal motives and triggers of CHW involvement (see 1.3 in Table 2 below). Some CHWs are motivated to do this work because of personal experience with a specific health problem. Many of the CHWs in Southern Africa who work on HIV/AIDS programs, for example, have direct experience themselves or in the families with the disease. For others, the involvement of people in their social network can trigger their engagement. No matter how personal these motivations and triggers for involvement might be, however, they can and should be reinforced through social recognition of the value of CHWs (see 1.4 in Table 2 below). Programs can support the intrinsic motivations of CHWs by recognizing them for their contributions and encouraging community affirmation of their importance and impact. For example, Afghanistan holds an annual “CHW Day.” Nepal too has a national day of recognition for its FCHVs and also provides them with ID cards to identify them as representatives of the health system.

Often, CHWs judge the value of incentives in terms of how equitably they are distributed, how consistently they are provided, and how they relate to the local labor market and economic contexts. The fairness of incentives matters because incentives are generally perceived to signal something about how the health system or community values CHWs (see 1.5 in Table 2 below). Incentives do not have to be *equal* across all sub-categories of CHWs, but when they are seen to be inconsistently or *inequitably* distributed, CHWs express frustration and resentment at both the implied message this sends, as well as the domino effect it can have on a family’s welfare and access to resources.

Similarly, the sustainability of incentives is critical, and incentives that are distributed at inconsistent intervals, or run out at unexpected times can communicate lack of regard for CHWs as well (see 1.6 in Table 2 below). FCHVs in Nepal, for example, had their small stipends discontinued when the financing proved unsustainable. CHWs in Pakistan and South Africa often suffer demotivating delays in their monthly payments.

The messages that these delays and inequities can send about the value of a CHW’s time and effort are also interpreted against the backdrop of the local labor market and economic contexts (see 1.7 in Table 2 below). If alternative employment opportunities are relatively plentiful, CHWs may have higher expectations of how their time is recognized and compensated. On the other hand, if work is scarce, CHWs may accept lower levels of incentive, both because there are few alternatives and because CHW training experience can provide a “stepping stone” to hard-to-reach employment opportunities.

To help policymakers and program managers think about the impact of local context on the particular mix of incentives that might be most effective, Table 2 reviews each of these issues and offers some questions to consider when designing incentives for CHWs.

Table 2. Questions to consider regarding direct incentives

1.1 Local precedents and expectations	Are there (or have there been) other CHW programs in the area? What have they offered as incentives? Do CHWs in your program expect the same? How will they interpret something less or something different? Are you in “competition” with these other programs? If so, how will you motivate CHWs to join and remain in your program, even if your incentives are different?
1.2 Local cultural and religious norms	What are the cultural or religious values that sustain altruism among CHWs? Does the work they do speak to those values? Is there a potential conflict between the material benefits offered (such as stipends) and these values about the virtue of self-sacrifice? Are there ways to manage this tension? How widely shared are values in actual practice or is there diversity in the value systems that motivate CHWs?
1.3 Personal motives and triggers of CHW involvement	How many of the CHWs in your program have some personal connection to the health problems addressed? What was their trigger for getting involved? How do the incentives offered relate to (promote or hinder) these personal motives and triggers for CHW involvement?
1.4 Social recognition of the value of CHWs	How are CHWs made visible in the health system and the community? How is their identity, their status and the value communicated? In what ways are CHWs formally recognized by the health system and the community?
1.5 Fairness of incentives	Are the incentives in your setting distributed fairly among different types of CHWs? If some CHWs are offered more or different incentives, is there a good justification for this and do the CHWs involved understand this justification? Are there inequities with respect to gender, age, type of work, length of service, religious or ethnic affiliation, or geographic region?
1.6 Sustainability of financing	How sustainable is the incentive package you are offering? Does it rely on overseas or special project funding from the MOH? Are alternative funding sources available? What do the CHWs understand about the longer-term sustainability of this financing?
1.7 Local labor market and economic context	How bad is poverty or unemployment in the area and how does this shape the meaning of the incentives offered? What are the other job opportunities available to CHWs, if any? Do CHWs see their training and experience as a CHW as a “stepping stone” to other job opportunities?

The seven key issues raised in Table 2 are not exhaustive, but they cover some of the most frequent kinds of questions that arise when trying to design and implement effective CHW incentives. Every local context will answer these questions differently, but if they can be answered well, there is a good chance that the particular mix of incentives offered to CHWs will be effective and sustainable.

DECISION 2: HOW CAN THE HEALTH SYSTEM AND THE COMMUNITY CONTRIBUTE TO INDIRECT AND COMPLEMENTARY INCENTIVES FOR CHWS?

Background

Although most of the attention paid to CHW incentives revolves around direct financial and non-financial incentives, it is also important to consider indirect and complementary incentives. Indirect and complementary incentives are those features of the health system and community context that either support or inhibit CHW motivation for their work (see Table 1 above). We have outlined a series of questions regarding these kinds of incentives in both the health system and the community in Table 3 below.

It should not be surprising that a well-functioning health system is motivating for CHWs and health care professionals alike. A well-functioning health system that also promotes recruitment, retention, and performance of CHWs includes: good training and supervision, clear roles and responsibilities, adequate supplies and equipment, up-to-date health information, effective referral relationships, and fair and transparent forms of accountability.

Key Issues to Consider

CHW programs operate in contexts where health systems are struggling. Although strengthening these health systems is a necessary long-term endeavor, there are some small improvements that can be made in the short-term that have a big impact on CHW motivation. CHWs can be motivated, for example, by having clear roles and responsibilities and the opportunity for feedback to and from both their peers and managers (see 2.1 in Table 3 below). The supervision chapter in this volume (Chapter X) highlights some practical ideas for how managers can help CHWs, and those with whom they work, be clear about what CHWs can be expected to do and, as importantly, what CHWs should not be expected to do. Strong nurse supervision of community health agents (CHAs) in Brazil has been identified, for example, as a critical factor in that program's success.³

CHWs also express a desire for the opportunity for personal growth and professional development (see 2.2 in Table 3 below), which involves not only the development of personal and professional skills required to do one's work, but also opportunities for developing new skills and promotion. The lack of longer-term planning for a career path is often identified as a critical reason CHW programs struggle with high turnover and dissatisfaction. Providing CHWs opportunities to take leadership roles among their peers, as is done in Rwanda and Pakistan, can have important benefits for motivation.

The day-to-day working relationships among CHWs and between CHWs and other health care professionals can also have a powerful effect on motivation (see 2.3 in the Table 3 below). When CHWs feel valued by nurses, doctors, and other healthcare staff, their motivation can be greatly increased. On the other hand, indifference and hostility from these staff can put a serious drain on the job satisfaction CHWs may be getting from other parts of their work.

The community context also plays an important part in producing and sustaining CHW motivation. Clear lines of accountability and recognition across the health system and the community are important, especially if CHWs are seen to represent and work for both the health system and the community (see 2.4 in Table 3 below). It is important for CHWs to know whom they are "reporting" to, both for recognition of a job well done and also to manage poor performance or work conflict. The relationship between CHW, community, and health system can be complicated, however, as we saw in the India case study presented above, and what happens in practice is often not what is intended in policy.

In smaller CHW programs, supporting CHW "champions" in the community can also help to sustain CHW recruitment, retention, and performance (see 2.5 in Table 3 below). Many programs are started by dedicated local founders and/or sustained by the devotion of the time and resources of a few or key community champions of CHWs. Many of the NGOs that run CHW programs in South Africa are sustained by these kinds of champions. Even as programs scale up, making a place for the involvement of local champions in the community or the health system can be useful.

Similarly, working effectively with civil society partners is a critical element of a strong CHW program (see 2.6 in Table 3 below). In some contexts, civil society partners such as NGOs take direct responsibility for managing and delivering CHW services. In settings where CHW

services are state run, however, the participation and buy-in of civil society organization can still provide a valuable source of community energy and legitimacy for CHW programs.

Finally, the relationship between the community and the health system is an important part of the context as well (see 2.7 in Table 3 below). How CHWs see their work and are valued by their community and depends on the history of this relationship. In some places, where state-run health services and/or the state more generally, are perceived with suspicion and even antagonism, CHWs may need to downplay their relationship to the health system. In others, where the state is trusted or biomedicine is seen as a source of prestige, CHWs may value opportunities to be seen as a representative of the health system. (See Chapters X and X for ideas on how to improve the links between CHWs, health systems, and communities.

Table 3 below reviews each of these issues and offers some questions to consider when designing incentives for CHWs.

Table 3: Questions to consider regarding indirect and complementary incentives

2.1 Clear roles, responsibilities, and feedback	<ul style="list-style-type: none"> ▪ Do CHWs have clear job descriptions and distinct roles? ▪ Are the other health care workers aware of these roles? Are there areas of ambiguity or overlap? ▪ Do CHWs have the chance to get and give feedback from other staff or managers on a regular basis?
2.2 Personal growth and professional development	<ul style="list-style-type: none"> ▪ What elements of the CHW role promote personal growth (e.g., social, emotional, psychological, intellectual skills, and development)? ▪ How can these elements be strengthened in the program? ▪ What elements of the CHW role promote basic professional development (e.g., computer, administrative, financial, or logistical skills)? How can these elements be strengthened in the program?
2.3 Day-to-day working relationships	<ul style="list-style-type: none"> ▪ Do CHWs ever get the chance to work with each other in their daily work? ▪ Are there CHW associations or networks? ▪ How do CHWs and healthcare professionals relate to each other? How does the work environment affect these relationships? ▪ How are conflicts between CHWs and other health care workers addressed?
2.4 Accountability in the health system and community	<ul style="list-style-type: none"> ▪ Are there multiple or confusing lines of accountability for CHWs (e.g., do they report to both the health system and the community or civil society managers)? ▪ How are conflicts or issues of poor performance among CHWs handled and by whom? ▪ How can overlapping or confusing lines of accountability be clarified or reconciled?
2.5 CHW “champions”	<ul style="list-style-type: none"> ▪ Are there “champions” behind the CHW programs in your context, whether from the community, the health system, or civil society? ▪ How do they contribute to the program and what risks does their participation involve? ▪ Is the policy environment flexible enough to allow champions to emerge and contribute to CHW programs in a positive way?
2.6 Role of civil society partners	<ul style="list-style-type: none"> ▪ What is the character of civil society (e.g., NGOs, community-based organizations, faith-based organizations and other forms of community organization) and how does civil society engage with CHWs? ▪ Who runs these organizations and do they represent broader community interests and perspectives? ▪ How does the relationship between civil society and the health system affect CHW motivation? To what extent does the CHW program’s success rely on civil society?

2.7 Community's relationship to the health system and government	<ul style="list-style-type: none"> ▪ What is the historical relationship between the local community and the health system/government? ▪ If one of antagonism and mistrust, how does this impair CHW motivation? ▪ If one of solidarity and confidence, how does this promote CHW motivation?
-------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Again, many of the issues raised in Table 3 above involve broader issues in the health system (and are dealt with in other chapters), the community, and civil society. They are often not easily modifiable by CHW policymakers and program managers. However, these issues can often be understood and their effects anticipated and mitigated by CHW programs. Thinking about the troubled history of the relationship between a community and its health system might lead a policymaker, for example, to offer non-financial incentives that highlight the CHW's community identity (through NGO-led community appreciation days) rather than their relationship to the health system (through uniforms or name tags). Knowing that difficult relationships in a clinic between CHWs and nurses impact CHW motivation might lead a program manager, for example, to find ways of promoting better working relationships through shared training opportunities or joint staff meetings.

DECISION 3: HOW WILL CHW INCENTIVES BE DESIGNED, NEGOTIATED, MONITORED, EVALUATED, AND RE-ADJUSTED OVER TIME?

Background

Once programs have addressed some of the issues raised in Decisions 1 and 2 above, and have developed an effective mix of direct, indirect, and complementary incentives, the next challenge for both program designers and managers is maintaining the impact of these incentives over time. As one of our key informants put it:

The number two issue [leading to the failure of CHW programs] is related to lack of long-term perspectives with regard to CHW careers [career trajectory] and long-term issues that CHW programs face.

As part of the preparation for this volume, we have reviewed the available evidence on incentive programs and asked individual program managers about their experiences of running CHW programs. We found that there is much more attention paid and evidence available with respect to the initial design of incentive packages, and much less is known about how to effectively manage and adjust these packages over time. In many cases, it appears that once instituted, incentive packages either do not change or they change due to external circumstance (e.g., loss of funding) rather than a planned process.

Maintaining the motivation of CHWs through the appropriate incentives is critical for program effectiveness, regardless of where they fall on the spectrum between volunteers and paid employees. Therefore, it is important to see incentives not as a static problem with a straightforward answer, but as a dynamic process over time that requires attention.

Key Issues to Consider

The first step in thinking about how to use and manage incentives over time is to ensure an inclusive design process from the beginning that meaningfully incorporates the perspectives, needs, and expectations of the CHWs themselves (see 3.1 in Table 4 below). Proper consultation early on can be vital in ensuring that incentives are seen as legitimate and appropriate on an ongoing basis, even if the incentive package does not meet many of the expectations of CHWs. Early consultation also lays the foundation for an easier process at a later stage of reviewing and adjusting incentives. Just as with the initial design process, the process of evaluating and

reflecting on incentives and making changes to incentives packages should be similarly inclusive.

Once an incentive package has been designed and implemented, ongoing management is required for a number of reasons. For example, workloads for CHWs can change over time. The case study from India highlighted the fact that the tasks allocated to CHWs also often change and can present new technical challenges for individual CHWs who may have less capacity or experience. Feeling that the workload and technical requirements of the job are “do-able” is an important incentive for CHWs, especially given that their scope of work is often poorly defined and supervision weak (see 3.2 in Table 4 below).

CHW incentives can also lose their effect and can interact in unexpected ways over time (see 3.3 in Table 4 below). The case study of the ASHAs in India above illustrated several unintended consequences of the outcomes-based incentive scheme in that program. These included an over-emphasis on those health tasks that could generate income and an association of ASHAs with the health system, even though they were supposed to function as community-based activists. Similarly, FCHVs in Nepal are increasingly dissatisfied with the small stipends they have received. Rather than seeing payments as contrary to religious imperatives, they are starting to lobby for full salaries. Managing these kinds of issues that emerge over time requires ongoing attention.

Finally, CHWs themselves change over time as do the social, economic, and political contexts in which they work (see 3.4 and 3.5 in Table 4 below). The longer a CHW remains in a program, the more likely they are to have (more) children or pursue further training and education. Their interests may shift over time, and their motivation for engaging in CHW work may wax or wane. Although programs cannot attend to the changing circumstances of every CHW, ongoing supervision would provide an opportunity to identify and respond to some of these changes as they emerge. Similarly, changes in the social and community contexts, in the economic situation, or in the political circumstances of the country can also impact, positively or negatively, on the ongoing effectiveness of CHW incentives.

Table 4 below reviews each of these issues and offers some questions to consider when designing and managing incentives for CHWs.

Table 4: Questions to consider regarding the ongoing management and evaluation of CHW incentives

<p>3.1 The importance of feedback and participation in the policy/program cycles</p>	<ul style="list-style-type: none"> ▪ What kind of planning and consultation went into the design of incentives at the beginning of your CHW program? Were CHWs consulted? If so, how? If not, why not? ▪ What do CHWs feel about the current, formal incentive package? ▪ Are there opportunities for soliciting their feedback and feeding it into ongoing policy and program design cycles? ▪ Do CHWs perceive this consultation process to be fair and responsive?
<p>3.2 Ensuring the “do-ability” of CHW work</p>	<ul style="list-style-type: none"> ▪ How is the CHW’s set of responsibilities decided on and how do managers ensure CHWs have the capacity to fulfill these responsibilities? ▪ Will managers know if the workload or the job requirements are exceeding the capacities of individual CHWs? ▪ Do CHWs have the opportunity to speak out about issues of workload or technical capacity? ▪ Are CHWs or program managers able to re-organize tasks to improve the “do-ability” of the role?

3.3 Sustaining the effect of CHW incentives and managing their unintended consequences	<ul style="list-style-type: none"> ▪ How do CHWs understand and prioritize the various incentives (of all kinds) offered by the program? ▪ What increased or alternative incentives do they say would help sustain their motivation? ▪ Are incentives sustainably and equitably distributed? ▪ Have there been unintended consequences of a particular mix of incentives in a program? ▪ Does policy afford program managers flexibility in adjusting the mix of incentives?
3.4 Change over time as motivations, needs, and capacities of individual CHWs change	<ul style="list-style-type: none"> ▪ Have the incentives offered to CHWs remained the same over a long period of time? ▪ If so, do they still motivate CHWs? ▪ If not, should the incentive be increased or complemented with another kind of incentive? ▪ As CHWs get older and have families, do they report that previous incentives are less relevant and alternative incentives potentially more effective?
3.5 Changes in social, cultural, political, economic, health systems, and demographic contexts	<ul style="list-style-type: none"> ▪ Since the initial design of a CHW program and its incentives, what has changed in the broader context that might impact on these incentives? ▪ Have there been changes in the priority diseases, disease-related stigma, demographics of the local setting, political or social conflicts, economic opportunities, or structure of the health system? ▪ If so, do any of these changes affect the incentives offered to CHWs?

As with the indirect and complementary incentives outlined in Decision 2 above, the challenges of managing CHW incentives over time are often outside the control of program designers and managers. Some of these challenges can be anticipated and planned for, but many cannot. The key question, therefore, to ask in these circumstances is not what kinds of incentives will last the longest over time, but what kind of local process for designing, managing, and re-evaluating incentives will be most effective at responding to these changes over time.

CONCLUSION

This chapter has highlighted the fact that there is no easy, one-to-one relationship between incentives, motivation, and practice. Local relationships, contexts, histories, beliefs, and expectations can each have a dramatic effect on how and why a particular mix of program features may or may not work to incentivize CHWs in a particular place and time.

Many of the factors described above are features of the broader health system or social and economic context (see especially Decisions 2 and 3). We have argued above that although programs cannot change or predict many of these factors, they can anticipate and manage them, which is especially important because the “stick” factors – the factors that keep one in a job – are generally much weaker for CHWs than they are for health care professionals.⁴ Thus, it is critical to pay careful attention to all the factors that motivate CHWs to engage, remain in, and perform their best in this important work.

Key Resources

A good in-depth case study related to CHW incentives: Glenton C et al. 2010. The female community health volunteer programme in Nepal: decision makers' perceptions of volunteerism, payment and other incentives. *Soc Sci Med* 70(12): 1920-7.

National Rural Health Mission of India. 2011. *ASHA [Accredited Social Health Activist]: Which way forward? Evaluation of ASHA Program*.

A good overview on incentives: Strachan D et al. 2012. Interventions to improve motivation and retention of community health workers delivering integrated community case management (iCCM): Stakeholder perceptions and priorities. *Am J Trop Med Hyg* 87(5 Suppl): 111.

Amare Y. 2009. *Non-Financial Incentives for Voluntary Community Health Workers: A Qualitative Study*.

JSI. 2007. *Community Health Workers: Volunteerism as a Sustainability Model. Policy Brief*.

Dambisya, Y. 2007. *EQUINET: A Review of non-financial incentives for health worker retention in east southern Africa*.

Shoo R and Ali M. 2011. *Training of Community Health Worker Cadre in Tanzania: Final Report*.

Acknowledgments

Some of the material in this chapter is derived from a realistic review of CHW incentives that was funded by the WHO Tropical Disease Research (TDR) Programme and the European Union. We are grateful for their support.

References

1. Bhattacharyya K, Winch P, LeBan K and Tien M. 2001. *Community Health Worker Incentives and Disincentives: How They Affect Motivation, Retention, and Sustainability*. Basic Support for Institutionalizing Child Survival Project (BASICS II) for the United States Agency for International Development: Arlington, VA.
2. Dambisya Y. 2007. A review of non-financial incentives for health worker retention in east and southern Africa. Equinet Discussion Papers; 2007: Regional Network for Equity in Health in East and Southern Africa.
3. Liu A et al. 2011. Community health workers in global health: scale and scalability. *Mt Sinai J Med* 78(3): 419-35.
4. Ipinge S et al. 2009. *Incentives for health worker retention in east and southern Africa: Learning from country research*. Regional Network for Equity in Health in East and Southern Africa.

SECTION 3: CHW PROGRAMS IN CONTEXT

Community Health Worker Relationships with Other Parts of the Health System

Henry Perry, Steve Hodgins, Lauren Crigler, and Karen LeBan

28 September 2013

Key Points

- Well-designed, functional support and interaction between CHWs and health systems are essential for effective community health services.
- Large-scale community health services often are delivered by health systems that are inherently weak, posing considerable design challenges. In general, for community health services to function well, adequately strong support systems are needed.
- Community-based health services should be seen as the foundational first tier of the health system.

INTRODUCTION

The stronger the health system, the more likely it is that any existing community health worker (CHW) program is in fact indistinguishable from the rest of the health system. However, when health systems are weak and resources are scarce, CHW programs are often created as add-ons intended to increase coverage or address unmet health needs and are inadequately integrated with the broader health system. In this chapter, we discuss the interface between CHW-delivered services and the broader health system. We offer a set of considerations regarding these linkages for policymakers and program planners as they decide to either launch a national CHW program or, if one currently exists, how to strengthen or scale up services currently offered.

The term “health system” in this chapter refers to both governmental/ministry of health (MOH) services, as well as private and nongovernmental organization (NGO) health programs, unless otherwise noted. The World Health Organization (WHO) defines a health system as “all the activities whose primary purpose is to promote, restore, or maintain health.”¹ As the 2000 World Health Report goes on to say:

This ... does not imply any particular degree of integration, nor that anyone is in overall charge of the activities that compose it. In this sense, every country has a health system, however fragmented it may be among different organizations or however unsystematically it may seem to operate. Integration and oversight do not determine the system, but they may greatly influence how well it performs.

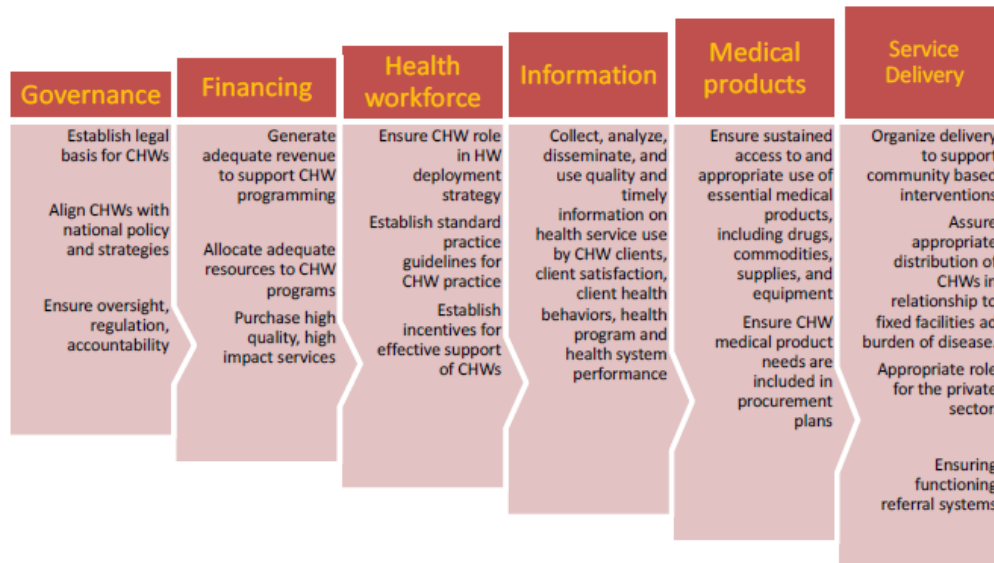
A health system is interconnected, dynamic (i.e., changing over time), self-organizing, and nonlinear. Programs that are to be integrated with this complex system should be designed with the dynamic and adaptive nature of the system in mind. That is, unintended consequences and feedbacks within the system as a result of a CHW program, for example, should be important considerations at the planning stage. “Systems Thinking” can serve as a tool for this kind of exploration.

To facilitate this, the WHO building blocks—although they simplify the health system—can be used to identify how the different interconnected parts of the system will be affected and how they will affect each other. The WHO building blocks² are shown in Figure 1, along with their potential points of intersection with CHW programs. In a recent evidence synthesis process, the reviewers concluded, after a deep and wide review of existing evidence, that:

The need for a clear relationship between the CHW and the formal health system is [a] ... consistent theme. In part, this serves to legitimize and give needed status to the CHW within the community to be served. Clearly defined linkages also serve to clarify the responsibilities of the CHW to her community, as well as to other health providers; to establish supervisory and support relationships and define modalities for in-service training; and to create referral mechanisms and establish pathways for supply of essential commodities. There are, however, different visions of this relationship, and programs in different countries may reflect this. On the one hand, CHWs may be generally considered to be part of the formal health system, extending services into the community. On the other hand, CHWs may be generally considered to be primarily community members managing the interface with the formal health system [I]n practice, they can be combined to varying degrees. There is no conclusive evidence supporting any specific view, but clarity, in any case, is desirable.³

The question of the CHW's role either as the lowest rung in the ladder of a service delivery team or as a community leader advancing social change arises frequently in the CHW literature. It has been described in various terms, such as Werner's and Sander's famous phrase referring to a CHW as a "lackey or liberator."⁴ On the one hand, CHWs can mobilize and empower communities to improve their health with little in the way of outside support or resources. On the other hand, CHWs are extension agents of a vast formal health system and provide needed messages and commodities on behalf of the health system. In practice, over the past decade, large-scale public sector CHW programs have seen CHWs first and foremost as peripheral-level service providers/ promoters within government health services.

Figure 1. Points of intersection between CHW programs and health systems³



One recent review of CHW programs concluded that CHWs are not a “panacea for weak health systems” and they require well-structured support from the formal support systems with which the CHWs are linked.⁵ The support needed includes: a clear role definition with defined tasks, adequate incentives/remuneration, appropriate training, and effective supervision. While active involvement of the community is an ideal goal (discussed further in the chapter on community participation, Chapter 12), there are many examples in which CHW programs work effectively even when communities play mostly a passive role. For instance, some CHW programs utilize full-time, paid health extension workers (HEWs) or health auxiliaries who effectively discharge their functions by manning mobile immunization outreach clinics in communities with no health facilities. Even in this case, however, community involvement is needed, at least in the sense that community members need to know when the immunization team is coming, and they need to be aware of the importance of immunizations and have confidence in the quality of services provided by the immunization team.

One of the main considerations for policymakers, program planners, and implementers in planning a new large-scale CHW program or in strengthening an existing program is the establishment of a functional relationship between the new services and the existing system, so that support and gradual improvements in both the facility-based health system and the community health services can be achieved. Large-scale CHW program experiences from the 1980s (described in the introductory chapter, Chapter 1) have demonstrated that, too often, rapid program scale-up without adequately addressing systems requirements (discussed further

in the chapter on planning, Chapter 3) can result in the CHW program collapsing and can further weaken an already weak health system.

A review of various large-scale CHW programs, established in the 1980s, highlighted another important observation:

... CHW programs were conceived and developed as “vertical” programs, with little reference to existing health systems. Unlike other vertical programs, however, they had little extra funding. The programs were grafted onto, rather than integrated into, existing health systems. They were largely imposed from the center as a national response to an international emphasis on primary health care.⁶

There are a number of critical questions to answer in this regard: How mature is the health system in general? Is the primary health care (PHC) system a priority? For example, are PHC facilities accessible? Are they staffed with trained and committed health care workers who are equipped to do their jobs? Or are they far away from most of the population, minimally staffed (with frequent staff absences), and poorly equipped? How does the health system vary from one area to another, and what are the implications for CHW program planning? While it is not possible to address each contextual variation and its implications in this document, we will offer some guiding principles that can help in decision-making.

The following questions can help drive sound decisions for CHW programming. Each question should be considered given the country’s context, economic reality, and social norms:

1. What is the rationale for establishing, strengthening, or expanding a CHW program?
2. How will the CHW program fit into the health system?
3. How should CHWs relate to and be supported by the rest of the health system to adequately fulfill their tasks and to enable the health system to achieve its goals?
4. What governance and management structures are needed to adequately support CHWs?
5. What challenges do CHWs face in interacting with the rest of the health system?
6. What arrangements for linkages between CHWs and the rest of the health system are likely to be most functional?

WHAT IS THE RATIONALE FOR ESTABLISHING, STRENGTHENING, OR EXPANDING A COMMUNITY HEALTH WORKER PROGRAM?

A current global health challenge is extending a basic package of high-quality essential health services to everyone. This universal health care goal challenges governmental and NGO programs to reach underserved mothers, children, and families. In many settings, it may be appropriate to create new CHW programs, scale up existing programs, expand the responsibilities of currently functioning CHWs, or create a new level of CHW worker to ensure an adequate ratio of households per CHW. Notable examples of CHW cadres that have been established over the past decade include the Accredited Social Health Activist (ASHA) worker in India (established in 2005) and the health extension worker (HEW) in Ethiopia (established in 2003), although there are many others. South Africa is now in the process of establishing a new CHW program. Rwanda is expanding its CHW program, so that there will be six CHWs in every village. Female community health volunteers (FCHVs) in Nepal have been gradually assuming an expanding role over the past two decades, from distribution of vitamin A capsules initially to provision of many aspects of maternal and child health, including diagnosis and treatment of childhood pneumonia and home-based neonatal care. Ethiopia is now in the process of adding a

lower tier of community health volunteers (CHVs) who will each be responsible for 10–20 households and will support the work of the HEW, who is responsible for 500 households.

However, an important first step in considering a CHW program is to review the leading causes of preventable or treatable conditions in a country's population, the extent to which these conditions are being addressed by the current health system, whether there are services that CHWs can effectively provide that meet these needs, and whether CHWs are the most effective and efficient strategy for narrowing this gap. For example, in settings where access to the most peripheral-level health facilities is a problem for a significant proportion of the population, provision of services, such as immunization, on an outreach basis can increase coverage. Likewise, in settings with high under-five mortality and high maternal mortality, CHWs can expand access to antibiotic treatment of pneumonia or distribute an oral medication that women can take after childbirth at home to reduce the risk of postpartum hemorrhage (e.g., misoprostol). CHWs can also help the family prepare for essential newborn care, counsel on recognition of danger signs, and provide chlorhexidine for umbilical cord care where allowed. Further, CHWs can offer a range of key services, such as support for immunization, distribution of vitamin A capsules to children, and the promotion of nutritional practices for children (e.g., exclusive breastfeeding during the first six months of life and appropriate complementary feeding after six months of age). If these services are not reaching the population or the prevalence of optimal behaviors is low, then these may be appropriate elements of the CHW role.

Other possible roles that CHWs can play under certain conditions include selected PHC services, such as treatment for other life-threatening conditions such as malaria and diarrhea, minor illnesses, first aid for injuries, and provision of family planning (FP) services. If coverage of key interventions is low, if currently available facility-based health care resources are limited, or if funds are not available for building, operating, and staffing new peripheral health facilities, then in principle, CHWs could expand the reach of the health system and improve its effectiveness.

However, as we emphasize throughout this guide, the costs of operating an effective CHW program are, in fact, much greater than often anticipated, and normally functional services delivered by CHWs require a functional PHC system. (See Chapter 4 on financing.) Further, the costs associated with introducing a large-scale CHW program may require external donor support, at least initially. In Nepal, with external donor support, FCHVs were established as a government program in the late 1980s, but because of inadequate funding, the program became relatively inactive. This inactive cadre was stirred back to life with the introduction of the vitamin A supplementation program, which was run on a fairly vertical basis with significant external support. As this program achieved high levels of coverage, it was possible to expand the FCHV role and integrate them more closely with the government health system.⁷

Notably, CHWs can provide a link for reaching the population with health-promoting messages (e.g., nutritional practices, hand washing, latrine use, cleanliness, use of clean water, and FP) and with preventive health services (e.g., vitamin A supplementation, growth monitoring, and promoting immunizations). Evidence concerning the effectiveness of CHWs in achieving health gains in low-income countries with a high disease burden has been summarized recently.⁸ CHWs can also inform community members on what health services are available, when, and at what cost (such as for an upcoming visit of an outreach team to immunize mothers and children), refer patients to health facilities in the event of a life-threatening emergency, and publicize the existence of a voucher or fee waiver program to which beneficiaries are entitled. Finally, there is a growing recognition that CHWs can perform surveillance and vital events reporting functions.^{9, 10}

While there are many roles that a CHW cadre can potentially play, how appropriate these may be and whether or not they can be adequately supported in any given setting will depend on the characteristics of the existing health system. For example, if CHW functions entail dispensing commodities, a functional supply chain is required. CHWs require training and supervision, as well. This supervision is often assigned to current health staff members who may be unfamiliar with the daily tasks of CHWs, who may already be already over-worked, and who may have had no prior training or experience with supervision. All too often, actual provisions for support are inadequate.

HOW WILL THE COMMUNITY HEALTH WORKER FIT INTO THE HEALTH SYSTEM?

In most cases, CHWs receive training authorized and delivered by a national health system or one of its sub-units. Most CHW functions relate, in one way or another, with the rest of the peripheral health system, such as by creating demand for services provided in health facilities, receiving training and supervision by health professionals, and receiving supplies, educational materials, drugs, and equipment. How the relationship between CHWs and the health system is seen can be important for their legitimacy, as perceived by the community and by the CHWs themselves. If CHWs refer patients to a health facility, but those patients find that the health facility cannot provide the service, the effectiveness and credibility of the overall CHW program and of individual CHWs is compromised. And if CHWs are trained to provide an important service, such as community-based case management of childhood pneumonia or malaria, and the logistics system cannot reliably provide commodities required for these services, the program effort will be ineffective and the credibility of the CHW and the health services will be undermined.

Depending on the particular role of CHWs, the health system can provide the following support critical to the functioning of CHWs:

- Motivation and vocational support
- Information about what is going on elsewhere in the health system
- Supplies, medicines, and equipment
- Knowledge about who the higher-level providers are, what services they provide, and how to handle referrals

This interaction between CHWs and the health system provides higher-level health providers with an understanding of who CHWs are and what they are doing.

When CHWs are able to effectively link patients who need help with higher levels in the health system, the community recognizes the CHW as a respected source of information about the referral process, which ultimately provides the community with an important resource for accessing the health system. For example, a CHW could provide information to a patient with symptoms of tuberculosis (TB) on screening services at a health facility. In an increasing number of programs, CHWs collect sputum samples from such patients, have them tested at a government facility, and then provide directly observed therapy (DOTS) to patients testing positive for TB.

In other programs, CHWs assess for danger signs among sick children and pregnant women and facilitate care-seeking at facilities. Even when CHWs are trained to perform a very narrowly defined set of tasks, community members often come to CHWs for advice on other health conditions. Therefore, the CHW's ability and confidence to guide patients appropriately can help

improve effectiveness of the health system and serve as a point of entry to this system. Similarly, when facility-based health workers can confidently refer patients back to the CHW for follow-up, the health system functions better and quality of care can improve. In many programs, HEWs or health auxiliaries divide their time between peripheral health facilities and the community.

HOW SHOULD COMMUNITY HEALTH WORKERS RELATE TO AND BE SUPPORTED BY THE REST OF THE HEALTH SYSTEM TO ADEQUATELY FULFILL THEIR TASKS AND TO ENABLE THE HEALTH SYSTEM TO ACHIEVE ITS GOALS?

A CHW might begin her work each day at a PHC center and check in briefly with other members of the health staff before heading out into the community. In this scenario, the CHW is part of a PHC team that includes higher-level staff, all of whom are responsible for a defined population of people. She can replenish the supplies she needs while at the health center. Additionally, she is in close regular contact with her supervisor when any issues or problems arise since her supervisor is a member of her PHC team. She is also in close and frequent contact with other CHWs who work on her team. Notably, she and other CHWs have monthly meetings of the PHC team and regular opportunities to continue their education. In such an instance, she can submit a monthly report, and her health care team knows she is working effectively or not. An example from Brazil is presented in Box 1. In a more resource-constrained or rural setting where the beneficiary population is dispersed and transport between the community and the peripheral health facility is limited, CHWs may have much less contact with the peripheral health facility, coming in only once or twice a month for supervision, training, and replenishment of supplies. A relevant example from Nepal is presented in Box 2.

Box 1. The Brazilian CHW Program—points of contact with the health system

There are now approximately 240,000 community health agents (CHAs) who provide services to almost 100 million people in 85% of Brazil's municipalities.¹¹ They receive eight weeks of initial training and four weeks of field supervision. They are salaried by the government's *Programa Saúde da Família* (PSF, or Family Health Program), and they spend most of their time visiting households, focusing on maternal and child health, as well as on hypertension, diabetes, the health needs of bed-restricted persons, and other local community health priorities. They work as part of a local health team (called an *Equipe da Estratégia Saúde da Família*, or Family Health Care Team), comprising a doctor, a nurse, an auxiliary (assistant) nurse, and a minimum of four CHAs.¹¹⁻¹³ More recently, many teams now also include a dentist, a dental hygienist, and a dental hygiene technician.^{14, 15} These teams are based at PSF clinics and provide services to 600–1,000 families or a maximum of 4,500 people. With 4–6 CHAs on each team, each is responsible for 150 families.¹¹ They operate primarily outside of the health facility, providing health education and health promotion.¹² There are no structured opportunities for career advancement for CHAs.¹⁵ They are hired through special contracts which give no job security or benefits.¹⁶ Their salaries are minimum wage (about US\$500 per month), but they are paid regularly and on time in most cases.

The Family Health Care Team provides comprehensive care through promotive, preventive, recuperative, and rehabilitative services. CHAs provide such services as the promotion of breastfeeding; the provision of prenatal, neonatal and child care; the provision of immunizations; and depending on the context, the clinical management of infectious diseases, including screening for and providing treatment for HIV/AIDs and TB.^{17, 18} CHAs also register the households in the areas where they work¹⁵ and are expected to empower their communities and link them to the formal health system. Although CHAs were trained to provide community case

management of childhood pneumonia and give injections, these practices have more recently been stopped because of pressure from medical and nursing associations.¹⁶

CHAs are overseen by nurses who spend 50% of their time in this supervisory role and the rest of the time in a clinical role. This supervisory support has been identified as critical to the program's success.^{19, 20} These CHAs are closely integrated with formal health services.²¹ They have strong referral systems in which they report any ill person within their catchment area to a nurse. The CHA may, at times, escort the person to the local health facility. Upon discharge, the CHA is expected to follow up with the patient.²²

Normally, CHAs spend four to six hours a day visiting homes. The other two to three hours each day are spent at the health facility, working on family registers, discussing issues with the supervisor, and participating in training activities. The Family Health Care Team meets weekly for two hours or so.²³

Note: See further details in the Case Study on Brazil CHWs. Camila Giugliani provided additional information.

Box 2. The Nepal CHW experience—points of contact with the health system

Nepal has three cadres of CHWs: FCHVs, and two paid cadres of HEW, namely, maternal and child health workers (MCHWs) and village health workers (VHWs). The most peripheral health facility is called a sub-health post, which serves a population of 5,000–10,000 people. It is headed by an auxiliary health worker (AHW). The MCHW, who is female, and the VHW, who is usually male, are also based out of the sub-health post, although VHWs and MCHWs spend a significant proportion of their time seeing patients at outreach sites. The AHW supervises the MCHW and the VHW. These three workers are all paid by the government.

FCHVs are by far the most numerous group. Nationwide there are 49,000 FCHVs (compared to 2,500 MCHWs and 3,000 VHWs). Each sub-health post typically has one AHW, one VHW, one MCHW (although in recent years some additional staff members have been added, in at least some sub-health posts) and at least nine FCHVs.¹⁹ These cadres work closely together, supporting one another's work. For example, FCHVs mobilize communities for immunization provided by VHWs while FCHVs distribute vitamin A and provide other services to groups of women and to households with logistical support from the other cadres.¹⁹

FCHVs work an average of five to eight hours a week providing services either at their own homes or elsewhere in the community. They receive some financial compensation for certain functions (e.g., for attending training or supporting certain program activities, such as polio or measles campaigns), but most of their work is uncompensated.²⁴ MCHWs and VHWs are paid, full-time government employees; although, similar to FCHVs, they are recruited from and resident in the communities they serve, and they work under non-transferable contracts.

FCHVs provide a range of services. They mobilize the community for immunization campaigns. They provide DOTS for patients with TB. In addition, they promote healthy behaviors through motivation and health education.²⁵ They also provide basic health services, such as detection and treatment of common childhood illnesses, including the diagnosis and treatment of childhood pneumonia and the treatment of diarrhea with oral rehydration fluid and zinc.²⁵⁻²⁸ They are now beginning to provide home-based neonatal care. They also dispense medications, such as misoprostol (for prevention of postpartum hemorrhage to women who deliver at home), chlorhexidine for newborn umbilical cord care, and FP supplies.²⁹

MCHWs are full-time workers whose services include the provision of antenatal care, FP, and

clinical case management for childhood illnesses at outreach sites, some health education/promotion, and participation in immunization and vitamin A campaigns. They also facilitate referrals and are responsible for the supervision of FCHVs.²⁹

VHWs are also full-time workers whose services are similar to those offered by MCHWs.¹⁹ Their functions include a special focus on provision of immunizations and supervision of FCHVs.²⁹ FCHVs are supposed to meet every month at the sub-health post. Usually, the FCHVs collect their supplies during this monthly meeting. FCHVs also generally have contact monthly with the VHW, when he is doing immunization outreach activities in her area. This provides an opportunity for submitting reports and restocking supplies. The sub-health post gets its supplies from the district headquarters.

Note: See further details in the Case Study on Nepal CHWs. Ram Shrestha provided additional information for this.

Boxes 3 and 4 describe points of contact for two large-scale CHW programs, one in Peru and the other in Bangladesh. Box 5 describes how two volunteer CHW programs guided by organizations that are not part of the government's regular PHC program interface with the government's PHC program. One of the volunteer CHW programs is led by NGOs and the other one is led by vertical disease programs in the MOH.

Box 3. The Peru CHW Program—points of contact with the health system

In Peru, the most common type of peripheral rural health facility in the national MOH system is the health post, where a nurse or midwife is based along with 1–3 health technicians, although some posts have a physician. The responsibility for supervision of the community health work is shared among all the members of the health staff, who are each given responsibility for certain communities in the health post catchment area and for the CHWs working there. In addition to their primary responsibilities for patient care in the health post, the health staff members visit these communities once or twice a month and support the work of the CHWs while they are there. The supervisory staff members often visit villages as part of a team that provides curative care in one-day community clinics. One of the duties of CHWs is to advise the community of the day the health team is coming. CHWs also come to the health center every month or so for meetings, supervision, and continued training. Unfortunately, it is not uncommon for the health staff to make their community visits on an irregular basis, thereby undermining the effectiveness of the program.

Note: Laura Altobelli provided information for this.

Box 4. The Building Resources across Communities (BRAC) CHW Program—points of contact of an NGO CHW program with the health system

BRAC now has approximately 100,000 CHWs called Shasthya Shebikas who work several hours a day visiting homes to provide a broad array of promotive and curative services. As CHWs reporting to an NGO program, they have their own system of supervision within BRAC (described in Chapter 9 on supervision). But they also link into the formal MOH system in important ways. They mobilize women and children in the catchment areas to attend satellite clinic sessions when a mobile government team comes to give immunizations and provide FP services, usually once a month. They also mobilize their clientele to participate in national government health campaigns and usually serve as outreach workers for special campaigns, such as vitamin A distribution and deworming. In addition, Shasthya Shebikas identify patients with symptoms suggestive of TB and, on selected days, collect sputum specimens from them. A second-level supervisor (i.e., the

Program Organizer) takes these specimens to the government district health facility, where they are tested. Then, those who tested positive are given DOTS by the Shasthya Shebika under authorization from the MOH.

Note: Akram Islam provided information for this. Other sources of information: ^{30, 31}

Box 5. Two examples of linkages between community health volunteer programs and the health system—care group volunteers and community health volunteers working with the community-directed intervention programs

Here, we provide two examples of community health volunteer (CHV) programs where the interaction between the volunteer CHW and the government health program is quite limited. One example, called the Care Group Model, is an approach that is increasingly being used by NGOs to improve maternal and child health in high-mortality settings. The other example, the Community-Directed Intervention (CDI) Model, involves vertical disease control programs that have developed an approach to engaging CHVs.

Care Group Volunteers

The Care Group approach employs a paid promoter to travel from village to village to meet with Care Groups, which consist of 10 Care Group Volunteers (CGVs), each of whom is responsible for approximately 10 households. The Care Groups meet once or twice a month for two hours or so. At each meeting, they learn a new message to convey to their 10 households. The messages are usually related to key maternal and child health practices or when to seek care at a facility. This approach has been used by more than 10 NGOs in 30 different projects around the world and is now being applied within an MOH program in one country (Burundi). Generally speaking, the CGVs do not have any formal direct interaction with the government health system except when they accompany patients to a health facility for treatment or when they mobilize community members to participate in government-sponsored outreach services (e.g., immunization sessions) or campaigns (e.g., child health days or vitamin A distribution). The NGO project itself maintains an ongoing relationship with the government health system. In that, the NGO informs the formal health system about what the CGVs are doing and also about the health problems the CGVs are encountering. In most Care Group projects, the CGVs also collect information about births and deaths, which is shared with the government health program, usually at the district level.^{9, 32-34}

Although there are not yet examples of large-scale public sector CHW programs built around the Care Group model, in principle, such a program could be developed—either directly by the MOH or through MOH contracts with NGOs. An early experience with direct application of the Care Group model is currently underway in Burundi. This experience should yield helpful learning on what conditions need to be created and sustained for effectiveness at scale, and how that can be achieved.³⁵

CHVs Providing Targeted Vertical Interventions

In programs using the CDI approach, communities are given important responsibilities for the planning and implementation of highly targeted interventions, typically aimed at high-priority infectious diseases.³⁶ CDI was first adopted by the African Program for Onchocerciasis Control (APOC) in the mid-1990s to help ensure and sustain the provision of ivermectin treatment for more than 75 million Africans, many of whom live in remote locations. APOC has worked with communities to take ownership of the process of distribution and the responsibility for defining by whom, when, and where the intervention will be implemented. The community also decides on how implementation will be monitored, and what financial incentives or other support will be provided to the implementers. The community then selects implementers to be trained by APOC, and directs the implementation process.³⁷

This approach has been adopted for several other vertical disease control programs and has been used in programs focusing on distributing vitamin A supplementation and insecticide-treated bed nets, as well as on providing home management of malaria and short-course directly-observed treatment of TB. By guiding communities in the process and providing training, supplies, and medications to CHVs, high coverage of key interventions can be achieved at scale—and at low cost.³⁸

Note: William Brieger contributed to the description of the CDI program.

WHAT GOVERNANCE AND MANAGEMENT STRUCTURES ARE NEEDED TO ADEQUATELY SUPPORT COMMUNITY HEALTH WORKERS?

Programs making use of CHWs differ considerably in their provisions for oversight from the health system itself and from the community. Where support and accountability are in effect absent, performance will tend to be poor. In many settings, formal structures exist that, in principle, have the potential to provide this function. For example, there may be village health committees or development committees. Or there may be formal committees or boards overseeing the work of the local peripheral health facility. Or health and other social services may fall under the responsibility of local municipal government. But how active such bodies are and how effectively engaged they are with regard to community health services can vary greatly across settings. There is no one answer on how best to ensure support and accountability, but those involved in developing community health services need to give serious attention to ensuring that this function is operating effectively. (Other requirements for a functional supervision system are discussed in Chapter 9.)

WHAT CHALLENGES DO COMMUNITY HEALTH WORKERS FACE IN INTERACTING WITH THE REST OF THE HEALTH SYSTEM?

There is a notable lack of published studies and reports on how CHWs in large-scale programs function. Nevertheless, a review of published literature and discussions with informed individuals who are knowledgeable about these large-scale CHW programs reveal, as described below, common challenges CHWs face.

Lack of Respect of CHWs at the Interpersonal Level

Many CHWs have reported feeling a lack of respect in their interactions with health professionals and in the way these health workers talk about CHWs to patients. Health professionals, and physicians in particular, have a long history of a lack of respect for lower-level health staff, but this problem also results from a lack of understanding of the role CHWs play in the health system. There may be minimal interaction between CHWs and higher-level staff beyond the CHW's immediate supervisor. Higher-level staff may be in disagreement with decisions on task-shifting, as CHWs take on functions that in the past were performed only by them. New roles for CHWs and the rationale for such changes need to be made clear to other cadres of health workers in the system.

CHWs may also experience disrespect from health professionals due to gender, socio-economic, and educational differences, which arise from paternalistic and hierarchical attitudes. Some health professionals at peripheral health facilities have resisted the integration of independently functioning CHWs with the health system and instead have sought to co-opt them to become assistants for their own work within the facility. These types of challenges should be anticipated and addressed proactively.^{5, 39}

Lack of Respect for CHWs by Health Professionals Who Provide Curative Care

Health systems have tended to prioritize facility-based provision of care of patients with acute illnesses. Health professionals, particularly physicians providing curative care at higher levels in the health system, are often unaware or worse, dismissive, of the potential of CHWs to promote care-seeking for preventive services and improved health practices in the community.

There may be other indications of a lack of support in the health system for the CHW program at higher levels in the system, for example, funding cutbacks or actual cessation of the program. To reduce this likelihood, CHW programs need champions in high levels—both high in the leadership and administration of health systems and high in the political system more broadly—who can advocate for CHWs and their importance to effective health system functioning, and to improvement of population health.

Management of Acute Illnesses and Referral

In many settings where access to health services is limited, especially in isolated rural areas, patients and their families seek advice or care from CHWs when an illness arises (both minor and serious), regardless of what training the CHW may or may not have had. To ensure that community members receive the care needed, CHWs, community members, and other members of the health system need orientation on health system referral. In many programs, health systems provide special incentives and rewards for both patients and CHWs when CHWs help and support the referral process. When CHWs have received training about what kinds of conditions require referral (such as mothers and children with danger signs of serious illness) and which ones do not (such as cough and cold in children without signs of rapid/difficulty breathing or chest in-drawing), then better outcomes can result. Having formal referral provisions can help make this work more effectively. Widespread use of mobile phones opens up new opportunities for linking patients with higher-level care.

Inability to Obtain Needed Medicines and Supplies

A common problem encountered by CHWs in large-scale programs has been the inability to resupply medicines and other commodities when they are needed. It is counterproductive to mobilize CHWs if medicines and supplies are not going to be available.⁴⁰ Some supplies are absolutely critical, such as the proper drug for management of childhood pneumonia or malaria, or condoms for HIV prevention programs, or TB medicines for CHWs who treat TB patients. To cite but one of many examples, lady health workers (LHWs) in Pakistan who were lacking drugs and contraceptives were accused by the local population of selling them even though they had in fact never received them.⁴¹ When CHWs have to travel some distance to replenish their supplies, the cost of transport incurred by the CHW can be a barrier. If this money is not reimbursed, CHWs may find it too much of a financial burden for them to obtain supplies, even if they are available at a distant depot. In addition, it is not uncommon for facility staff to hold on to supplies that are intended for use by CHWs when they are concerned about running out of basic supplies themselves; or, if medicines and supplies are a source of income generation, they prefer to sell them for a slight profit rather than give them to the CHWs.

A poorly functioning supply system creates many serious problems, not the least of which is the CHW's inability to carry out the tasks expected of her. But the message this conveys to the community is equally important—that the CHW is not important enough to obtain the supplies she needs to serve her community. Her inability to meet the community's expectations leads to discouragement and a loss of confidence in the program. Frankel concluded in 1990 that, "A strong case could therefore be made for precedence being given to the design and support of the

supply system as one component of relations between the centre and the periphery, before the wide deployment of CHWs is contemplated.”⁴²

The problem of supply systems may be endemic throughout the whole health system, and higher-level staff members at peripheral health facilities may face similar problems resulting from some combination of lack of adequate financing, “leakage,” and poor management. Appropriate supply chain management requires a strong commitment from the health system at all levels, and addressing supply chain problems often requires a variety of system changes. Issues to address early on are the following:

- Should CHWs carry out tasks requiring resupply of medicines and other commodities?
- Which medicines and supplies can feasibly be provided?
- Should CHWs be provisioned through the existing supply system or should a separate supply system be developed for the medicines and supplies dispensed by CHWs?

There is no one correct answer to such questions. Answers will depend on the setting and on the particular role assumed by the CHW. An example of a CHW program that encountered various challenges, including drug stock-outs, as its CHWs took on expanded duties, is detailed in Box 6.

Box 6. Health system support issues for CHWs whose role was expanded to include community case management of childhood illness: an example from Malawi

In Malawi, health surveillance assistants (HSAs) were first established in the 1950s to give immunizations. In the 1960s and 1970s, they participated in smallpox eradication. Later, their role expanded to include health education, promotion of sanitation, distribution and administration of contraception, treatment of TB, voluntary counseling and testing for HIV (VCT), and home visitation.⁴³ More recently, the size of the cadre was doubled to 10,000 HSAs, each serving approximately 1,000 people, and their role was expanded to include integrated community case management (iCCM) of pneumonia, malaria, and diarrhea. HSAs also restock medicines and supplies at health centers.

Prior to iCCM being added to the HSA role, district managers gave orientation in many communities explaining the new HSA responsibilities. A qualitative study found that HSAs were generally happy to be taking on the role of treating sick young children, but they were often pressured by community members to treat older children and adults, for which they had no training. This led to anger from some community members, though in general there was a strong appreciation from the community for this new service. The HSAs complained about the quality of supervision they received for their new duties, about their increased workload, and about the need to pay out-of-pocket for transport to collect drugs and for lamp oils and candles required to attend to sick children at night.⁴⁴ They also reported occasional resistance from the medical assistants who staff the peripheral health facilities, sometimes refusing to provide HSAs with drugs even when they were in stock. In addition, stock-outs of drugs were a problem. Normally, HSAs spend one week each month at the health center to which they are attached. These HSAs are an example of a CHW cadre in which the CHW is not necessarily a long-term resident of the community that he or she serves.

WHAT ARRANGEMENTS FOR LINKAGES BETWEEN COMMUNITY HEALTH WORKERS AND THE REST OF THE HEALTH SYSTEM ARE LIKELY TO BE MOST FUNCTIONAL?

Here, we offer some guidelines and suggestions for how a CHW program can develop functional linkages with the health system. We also provide guidance on early steps that can be made in the planning of CHW program implementation or expansion that can foster good working relationships between CHWs and the rest of the health system.

Strategies for Integration with an Already Weak Health System

What can be considered optimal linkages between CHWs and the broader system will depend on the complexity of the tasks being carried out by the CHW and the degree to which the CHW needs supplies, equipment, and remuneration. In Madagascar, CHVs were trained solely for health promotion and required virtually no supervision; a high rate of attrition was built into the program design. In this case, the only linkage required with the health system was the initial training. But for CHWs with more comprehensive functions, the recent global review of CHW programs (sponsored by WHO and the Global Health Workforce Alliance) concluded that generally there is a need for strong integration of the CHW program within the wider health system.⁴⁵ How, then, can policymakers, program planners, and implementers increase engagement between community health services and other aspects of the local health system, promoting a sense of ownership and responsibility for these services?

If we revisit our examples from full integration to much more limited integration, a CHW program in which paid CHWs are teaching CHVs to provide health education through home visits does not really need interaction with the health system beyond the supervision and training given to these CHVs. But CHWs with broader functions, for example, involving dispensing of commodities, will have heavier requirements with regard to linkages with support systems. If the system is weak in infrastructure support, supervision, supplies, and referral capacity, then the CHW program will be unable to draw adequate supervision and supplies from the system unless the CHW program operates relatively independently from the health system. In some countries, the supply chain has been improved by linking CHWs to supplies available in local shops and drug vendors operating independently from the formal health system.

It is possible for CHWs to reduce the demands on peripheral PHC facilities. One recent report from Malawi, where HSAs were trained in integrated community case management (iCCM) to treat serious childhood illness (e.g., pneumonia, malaria, diarrhea) in addition to their other traditional roles, indicates that introduction of community case management led to lower case loads at peripheral health facilities.

The engagement of the private sector to support CHW programs is another strategy that countries are using. This can take a variety of forms. There are an increasing number of examples of countries with weak health systems that outsource the management of district health systems to private contractors, most notably NGOs. Cambodia is a case in point. With a stronger district management system and a more favorable attitude toward the contributions that CHWs can make, a more effective approach for incorporating CHWs can be established. In Afghanistan, the government has contracted NGOs to recruit, train, and support CHWs, lessening the burdens on an already weak health system.

Strategies to Define and Clearly Communicate CHW Role

Clear perceptions about roles of CHWs and the needed competence to perform the duties of that role are critical for CHW program effectiveness. If higher-level health care staff do not have a clear understanding of the CHW's role, and if they believe CHWs to be inadequately selected,

trained, and supervised (and therefore not suitably competent or motivated to carry out their tasks), they are likely to be unsupportive.

Each CHW program should make explicit how they expect community health services to contribute national health goals. This requires that program managers understand why mothers and children die (or about the causes of other major disease burdens that can be addressed by CHWs), which behaviors—if changed—would yield the greatest impact, what major interventions can avert death and morbidities, and which of these can be delivered as close to the community as possible, especially in locations with limited access to health facilities. Starting with a clear understanding that is effectively communicated to the health system and ensuring that CHWs receive proper selection, training, and support/supervision ultimately lays the groundwork for an effective program. As the program is implemented, managers then need to modify the approach over time on the basis of weaknesses identified to ensure continued effectiveness, as we emphasize in Chapter 14 on measurement and data use).

Strategies for Promoting Aligned and Harmonized Support

In certain settings, multi-stakeholder coordination at the national level that includes the government, NGOs, faith-based organizations, and other actors in the private sector providing health services can be important for developing and implementing effective community health services. Holding regular meetings through a national coordination mechanism and establishing clear guidelines for community health services can facilitate program learning and sharing. Incipient management problems can be discussed while plans are harmonized that provide space for decisions appropriate to the current context.

Strategies for Clarifying Long-Term Vision, Including CHW Role in the Health System

Policymakers and program planners need to be thinking decades into the future as they consider plans for CHW programs. How might demographic, epidemiologic, and economic trends affect such programs in the long-term? Thinking about the longer-term dynamics of health system strengthening and how a program might fit into this are essential. For instance, with changing demographics and disease burden, looking ahead, one might envision CHWs as a key resource for disease surveillance, chronic disease screening and management, care for the elderly, and/or provision of medications to patients with HIV infection.

Strategies for Nurturing Champions

Community health services need to be a valued part of the health system, and they need continued strong support from political leaders, government leaders, MOH leaders, external development partners, and community leaders. There are examples of very strong programs that have been fundamentally undermined as a new generation of health sector leaders came and withdrew their support because of a belief that only services involving physicians and other higher-level professionals working at health facilities are worth supporting. Effective champions are needed who can advocate for and secure the continued support needed for community-based health services and CHW programs. With high rates of turnover in government positions, continued vigilance is required; current champions need always to be on the lookout to recruit and mentor those who will be future champions.

CONCLUSIONS

A recent review of global experience of CHW programs led by WHO and the Global Health Workforce Alliance concluded that CHW programs need to be a part of the overall strategic

planning for human resources for health for that country and that they should be coherently located in the wider health system.⁴⁵ Planning for appropriate recruitment and training of CHWs and ensuring that supervisory systems and supply systems are appropriate are critical for the long-term success of large-scale CHW programs. Learning from the experiences of large-scale CHW programs, anticipating common challenges faced by these programs, and applying these lessons within the appropriate national and sub-national context will be essential if the failures of large-scale CHW programs in the 1980s are not to be repeated.

Key Resources

- See the Case Studies in the Appendix.
- Frankel S, editor. 1992. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press.
- Walt G, editor. 1990. *Community Health Workers in National Programmes: Just Another Pair of Hands?* Milton Keynes, UK: The Open University Press.
- Earth Institute. 2011. *One Million Community Health Workers: Task Force Report*. New York: Columbia University.
- Program Management Guide. Chapter 7. Improving Outcomes with Community Health Workers. Boston: Partners in Health. Available at: <http://www.pih.org/library/pih-program-management-guide/unit-7-improving-outcomes-with-community-health-workers>.

References

1. WHO. The World Health Report 2000: Health Systems: Improving Performance. Geneva: World Health Organization, 2000
2. WHO. Everybody's Business: Strengthening Health Systems to Improve Health Outcomes. WHO's Framework for Action. Geneva: World Health Organization; 2007.http://www.who.int/healthsystems/strategy/everybodys_business.pdf
3. Expert Review Team. 2012. Final Report of Evidence Review Team 2: Which Health System Support Activities Improve the Performance of Community Health Workers? Washington, DC. May 31 - June 1, 2012
4. Werner D. The village health worker: lackey or liberator? . *World Health Forum* 1981; **2**(1): 46-68.
5. Haines A, Sanders D, Lehmann U, et al. Achieving child survival goals: potential contribution of community health workers. *Lancet* 2007; **369**(9579): 2121-31.
6. Gilson L, Walt G, Heggenhougen K, et al. National community health worker programs: how can they be strengthened? *J Public Health Policy* 1989; **10**(4): 518-32.
7. Shrestha R. Personal communication. 2012.
8. Perry HB, Zulliger R. How Effective Are Community Health Workers? An Overview of Current Evidence with Recommendations for Strengthening Community Health Worker Programs to Accelerate Progress in Achieving the Health-Related Millennium Goals 2012. http://www.coregroup.org/storage/Program_Learning/Community_Health_Workers/review%20of%20ch%20effectiveness%20for%20mdgs-sept2012.pdf (accessed 9 January 2013).
9. Edward A, Ernst P, Taylor C, Becker S, Mazive E, Perry H. Examining the evidence of under-five mortality reduction in a community-based programme in Gaza, Mozambique. *Trans R Soc Trop Med Hyg* 2007; **101**(8): 814-22.
10. Bang AT, Bang RA, Reddy HM, Deshmukh MD. Methods and the baseline situation in the field trial of home-based neonatal care in Gadchiroli, India. *J Perinatol* 2005; **25** **Suppl 1**: S11-7.
11. Starfield B. Primary Care: Concept, Evaluation, and Policy. New York: Oxford University Press; 1992.
12. Macinko J, Guanais FC, de Fatima M, de Souza M. Evaluation of the impact of the Family Health Program on infant mortality in Brazil, 1990-2002. *Journal of epidemiology and community health* 2006; **60**(1): 13-9.
13. Macinko J, Marinho de Souza Mde F, Guanais FC, da Silva Simoes CC. Going to scale with community-based primary care: an analysis of the family health program and infant mortality in Brazil, 1999-2004. *Soc Sci Med* 2007; **65**(10): 2070-80.
14. UNICEF. State of the World's Children 2009. Maternal and Newborn Health. New York: UNICEF; 2009.
15. Bhutta ZA, Lassi ZS, Pariyo GW, Huicho L. Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems. In: WHO & global health workforce alliance, editor. Geneva; 2010
16. Victora CG, Barreto ML, do Carmo Leal M, et al. Health conditions and health-policy innovations in Brazil: the way forward. *Lancet* 2011; **377**(9782): 2042-53.
17. Prado TN, Wada N, Guidoni LM, Golub JE, Dietze R, Maciel EL. Cost-effectiveness of community health worker versus home-based guardians for directly observed treatment of tuberculosis in Vitoria, Espirito Santo State, Brazil. *Cad Saude Publica* 2011; **27**(5): 944-52.

18. Aquino R, de Oliveira NF, Barreto ML. Impact of the family health program on infant mortality in Brazilian municipalities. *Am J Public Health* 2009; **99**(1): 87-93.
19. CHW Technical Task Force. One Million Community Health Workers: Technical Task Force Report. New York: The Earth Institute, 2011
20. Liu A, Sullivan S, Khan M, Sachs S, Singh P. Community Health Workers in Global Health: Scale and Scalability. *Mount Sinai Journal of Medicine* 2011; **78**: 419–35.
21. Svitone EC, Garfield R, Vasconcelos MI, Craveiro VA. Primary health care lessons from the Northeast of Brazil: the Agentes de Saúde Program. *Rev Panam Salud Publica* 2000; **7**(5): 293-302.
22. Dawson BE. Interim Report on the Future Provision of Medical and Allied Services 1920 (Lord Dawson of Penn). London: Ministry of Health, Consultative Council of Medical and Allied Services, 1920.<http://www.sochealth.co.uk/healthcare-generally/history-of-healthcare/interim-report-on-the-future-provision-of-medical-and-allied-services-1920-lord-dawson-of-penn/>
23. Johns B, Torres TT, Who C. Costs of scaling up health interventions: a systematic review. *Health Policy Plan* 2005; **20**(1): 1-13.
24. Shresta A. 2012. The Female Community Health Volunteers of Nepal. Washington, DC. 31 May 2012
25. Ministry of Health and Population. Nepal Health Sector Programme - Implementation Plan II (NHSP -IP 2) 2010 – 2015. In: Government of Nepal, editor.; 2010
26. Fiedler JL. The Nepal National Vitamin A Program: prototype to emulate or donor enclave? *Health Policy Plan* 2000; **15**(2): 145-56.
27. Curtale F, Siwakoti B, Lagrosa C, LaRaja M, Guerra R. Improving skills and utilization of community health volunteers in Nepal. *Soc Sci Med* 1995; **40**(8): 1117-25.
28. Gottlieb J. Reducing child mortality with vitamin A in Nepal. In: Levine R, ed. Case Studies in Global Health: Millions Saved. Washington, DC: Center for Global Development; 2007: 25-31.
29. Pratap N. 2012. Community Health Workers Meeting. Amsterdam.
30. Perry H. Health for All in Bangladesh: Lessons in Primary Health Care for the Twenty-First Century. Dhaka, Bangladesh: University Press Ltd; 2000.
31. Standing H, Chowdhury AM. Producing effective knowledge agents in a pluralistic environment: what future for community health workers? *Soc Sci Med* 2008; **66**(10): 2096-107.
32. Laughlin M. The Care Group Difference: A Guide to Mobilizing Community-Based Volunteer Health Educators. Baltimore, MD: World Relief and the Child Survival Collaborations and Resources (CORE) Group; 2004.
33. Perry H, Sivan O, Bowman G, et al. Averting childhood deaths in resource-constrained settings through engagement with the community: an example from Cambodia. In: Gofin J, Gofin R, eds. Essentials of Community Health. Sudbury, MA: Jones and Bartlett.; 2010: 169-74.
34. Davis T, Wetzel C, Hernandez Avilan E, et al. Reducing child global undernutrition at scale in Sofala Province, Mozambique, using Care Group Volunteers to communication health messages to mothers. *Global Health: Science and Practice* 2013; **1**(1): 35-51.
35. Worldwide C. Operational Research Update: Testing the Integrated Group Model in Burundi. 2013.
http://www.concernusa.org/media/pdf/2012/10/Burundi_Operational_Research_FINAL.pdf.

36. CDI Study Group. Community-directed interventions for priority health problems in Africa: results of a multicountry study. *Bulletin of the World Health Organization* 2010; **88**(7): 509-18.
37. Katararwa M, Habomugisha P, Eyamba A, Agunyo S, Mentou C. Monitoring ivermectin distributors involved in integrated health care services through community-directed interventions--a comparison of Cameroon and Uganda experiences over a period of three years (2004-2006). *Trop Med Int Health* 2010; **15**(2): 216-23.
38. Mutalemwa P, Kisinza WN, Kisoka WJ, et al. Community directed approach beyond ivermectin in Tanzania: a promising mechanism for the delivery of complex health interventions. *Tanzania journal of health research* 2009; **11**(3): 116-25.
39. Walt G, editor. *Community Health Workers in National Programmes: Just Another Pair of Hands?* . Milton Keynes, UK: The Open University Press; 1990.
40. Frankel S, editor. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992.
41. Jaskiewicz W, Tulenko K. Increasing community health worker productivity. 2012
42. Frankel S. Overview. In: Frankel S, ed. *The Community Health Worker: Effective Programmes for Developing Countries*. Oxford, England: Oxford University Press; 1992: 1-61.
43. Johns B, Baltussen R, Hutubessy R. Programme costs in the economic evaluation of health interventions. *Cost effectiveness and resource allocation : C/E* 2003; **1**(1): 1.
44. Tollman S, Doherty J, Mulligan J. General Primary Care. In: Jamison D, Breman J, Measham A, et al., eds. *Disease Control Priorities in Developing Countries*. New York: World Bank and Oxford University Press; 2006: 1193-209.
45. Bhutta ZA, Lassi ZS, Pariyo G, Huicho L. *Global Experience of Community Health Workers for Delivery of Health Related Millennium Development Goals: A Systematic Review, Country Case Studies, and Recommendation for Integration into National Health Systems*. Geneva: World Health Organization and the Global Health Workforce Alliance; 2010.http://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf

Community Participation in Large-Scale Community Health Worker Programs

Karen LeBan, Henry Perry, Lauren Crigler, and Chris Colvin

28 September 2013

Key Points

- Balancing the inherent tensions of a large-scale community health worker (CHW) program, where the CHW is the lowest tier worker of a national health system while also acting on behalf of the always changing local world of a community, will be an ongoing challenge requiring decentralized flexibility in program policy, design, and implementation.
- A successful CHW program requires the support and ownership of the community, as well as a supportive social and policy environment for community participation at national, district and local levels.
- The development and support of community networks, linkages, partners, and coordination is necessary to enable a comprehensive community participation approach for better health.
- Village health committees and other local governance structures can be effective mechanisms to ensure local leadership, legitimacy, participation, and governance, but these committees require continued training and investment.

INTRODUCTION

The Alma-Ata Declaration of 1978 affirmed that health is a fundamental human right and encouraged the active participation of recipients of health services and communities in the planning, organization, operation, and management of health care systems.¹ The right to health can be viewed as a right to health care and a right to conditions that promote good health. Community participation provides an opportunity for citizens to have a voice in ensuring the state meets their needs and to contribute to life-affecting processes, while building or re-building trust between the public and the health system.² Health care is also experienced in a highly complex personal and community context where:

- People are more likely to use and respond positively to health services if they have been involved in decisions about how these services are delivered.
- People have individual and collective resources (time, money, materials and energy) to contribute toward their individual and collective health goals.
- People are more likely to change health behaviors when they are involved in deciding how that change might take place.
- People gain information, skills, and experience in community involvement that helps them take control of their own lives and challenge social systems.³

Community health worker (CHW) programs thrive in communities that have been mobilized as part of a larger political process for promoting better public health (i.e., in China and Brazil), but generally struggle where CHWs themselves are given the responsibility of galvanizing and mobilizing communities. Even when CHWs have support from community-based, faith-based, or nongovernmental organizations (NGOs), they can struggle when asked to take the lead in mobilizing communities, rather than working with the support of already active communities.

A CHW, by definition, is either embedded in, drawn from, or at least related to the community in some way; and aims to tailor health promotion and service delivery strategies that reflect the political, environmental, social, and cultural dynamics and realities of the community. The CHW provides health care services in communities that are dynamic, evolving, and often unpredictable. The provision of such services requires that the CHW be known and trusted by the community. This important relationship with the community presents a challenge to national health programs. In that, how can a national health program develop standardized health system tools, clinical guidance, and performance targets based on medical evidence that are critical for scale-up, while at the same time empowering CHWs to respond appropriately to the specific needs and realities of local communities? The CHW stands at the intersection of these seemingly highly divergent needs.

In Part One, this chapter will review key questions related to community participation strategies, including:

- Why is community participation important to CHW programs and what does it look like?
- How can community participation be used to shape the design and management of CHW programs?
- How do you locally tailor community participation?
- What are key barriers and enablers to community participation?
- Is a community participation policy a necessary part of a CHW program?
- What are various components of a functioning community participation strategy?

- How can governments maximize support of nongovernmental and faith-based sectors in CHW programs?

Part Two will review community management structures in supporting CHW programs and answer the following key questions:

- What are common issues and good practices with community management structures?
- What are key questions to consider when designing a strategy for community management structures?

PART ONE: COMMUNITY PARTICIPATION AND COMMUNITY HEALTH WORKER PROGRAMS

Why Is Community Participation Important to Community Health Worker Programs and What Does It Look Like?

The ultimate responsibility of the CHW is to support equitable improvements in the health of the community he or she serves by both improving access to health services as well as building the capacity of individual, families, and communities to protect their own health. Therefore, efforts to strengthen CHW services should seek community participation in planning, supporting, and monitoring service implementation to ensure that services are appropriate, the coverage of quality services is high, and that benefits accrue to those in greatest need.⁴

CHW programs often struggle to be successful when not part of a broader community engagement process. Such community engagement should be seen as an integral component of an effective CHW program. Community engagement refers to the process of getting a community involved in decisions that affect them, including the planning, development, management, and evaluation of health services, as well as activities, which aim to improve health or reduce health inequalities⁵. Its effectiveness is likely to depend on having explicit methods for involving individuals and communities, clearly defined roles and responsibilities, training for policymakers and clients, and adequate funding.

Community engagement includes a variety of community participation approaches and runs along a continuum, from passive to transformative, and from informing, consulting, co-producing, and delegating power, through to more direct community control.⁶ A 2011 review of CHWs⁷ suggested that when managed effectively, a CHW program that is integrated with a well-functioning primary health care (PHC) system can provide a crucial link between community members and the PHC system itself, thereby providing a means for a continuum of care across multiple points of service. An earlier review⁸ warned that CHWs often do not achieve their potential at scale due to social, cultural, and management factors, which are inextricably linked with the CHW's sometimes ambiguous position between the health sector and the community. Fostering the development of interpersonal, institutional, and community trust is therefore critical for effective CHW programs. A good CHW program can serve as a catalyst or platform for community participation.

Communities with high levels of community capacity—defined as the individual and aggregate strength of members to overcome barriers and cultivate opportunities to improve the overall well-being of a community and its individuals—are associated with improved health behaviors and ongoing collective action for health.⁹ Community participation is important for communities and their health and enables CHW program success. Community ownership in the African Community-Directed Treatment Program, as defined by community leadership, selection of volunteers, and planning for the distribution of the drug ivermectin (to prevent river blindness), has been correlated with project sustainability.¹⁰ CHWs can support community participation

by sensitizing and educating the community on the benefits of health programs, supporting women’s groups and other community-based organizations (CBOs) to participate in health activities, and providing an opportunity for communities to engage more directly with the health system.

In order for CHWs to effectively carry out their duties, a level of trust between the CHW and the community is needed to enable relationships that will produce positive health outcomes. Trust is one of several critical factors, along with respect and partnership, that are easily overlooked when a CHW program is put into place.³ CHWs can be from highly divided communities, within which they face a great deal of conflict. Class, caste, and other divisions can affect their own positions and loyalties. The organization responsible for the CHW, generally the state, a nongovernment organization (NGO) or a faith-based organization (FBO) may influence the success of the CHW in working with the community. When employed by the government, CHWs may feel more responsible to their employer than to the community, limiting their success in motivating behavior change. Government-employed CHWs may also spend more time supporting health center services due to the shortage of other qualified personnel and have minimal time to administer services within their community.

Box 1. Country Examples of Community Engagement

In Brazil, the Family Health Care Team includes a CHW who is directly tasked with promoting the organization of the community and acting as a link among different sectors, enabling the community to address barriers to health by taking collective action. Uganda employs a Village Health Team strategy with nine different types of community workers, including the CHW, a community medicine distributor, hygiene extension workers, peer educators, and traditional birth attendants (TBAs) to mobilize the community. In Ethiopia, communities support the Health Extension Agents in communication activities using traditional and indigenous community associations, such as women’s groups, youth groups and religious institutions.

An effective community engagement strategy will draw on community resources that can support CHWs to most effectively accomplish their health goals and tasks. We know that CHW programs change in both predictable and unpredictable ways as community and health systems evolve. Feedback from and the active involvement of all parties are needed to adapt effectively to these changes. CHW programs also need to learn how to meaningfully tap into the community’s reservoir of good will, volunteerism, self-interest, and desire to help others in the community. Table 1 illustrates some roles communities can play to support CHWs and the health system.

Table 1. Illustrative roles communities can play to support CHWs and health systems, using the World Health Organization (WHO) health system building blocks framework

HEALTH SYSTEM BUILDING BLOCKS	ILLUSTRATIVE COMMUNITY ROLES TO SUPPORT CHWS		
Service delivery	<ul style="list-style-type: none"> ▪ Participate in multiple levels of CHW programming, including identification of objectives, formulation of action steps, support of health outreach activities, selection of CHWs, supportive supervision, and evaluation of CHW performance. ▪ Increase demand for and use 		

HEALTH SYSTEM BUILDING BLOCKS	ILLUSTRATIVE COMMUNITY ROLES TO SUPPORT CHWS		
	<p>of CHW health services.</p> <ul style="list-style-type: none"> ▪ Determine fair and just distribution of CHW community activities and program benefits. ▪ Provide support and incentives for CHW to perform interpersonal counseling, especially for home care, preventive and promotive practices and referral. ▪ Develop and support collective systems for emergency transport and other referrals. ▪ Participate in planning meetings with the CHW helping her to problem solve when issues, such as alcohol abuse, violence, and other health problems, surface. ▪ Utilize new information technologies, such as mHealth (or mobile health), to support the CHW with health information sharing. ▪ Take collective action based on CHW information whether it is advocacy, behavior change, or participation in service delivery. ▪ Advocate for quality of care provided by CHWs and health centers. 		
Health workforce	<ul style="list-style-type: none"> ▪ Utilize health innovations brought by the CHW and share them with peers. ▪ Ensure that the CHW-recommended appropriate action is extended to the disadvantaged groups in their community. ▪ Extend the reach of CHW health services by organizing peer groups for women, mothers, men, grandmothers, youth, or other people living with illness. 		

HEALTH SYSTEM BUILDING BLOCKS	ILLUSTRATIVE COMMUNITY ROLES TO SUPPORT CHWS		
Health information system	<ul style="list-style-type: none"> ▪ Support CHWs to collect vital events information, and identify and prioritize health problems based on accessible local data. ▪ Utilize local communication channels to diffuse health information brought by CHWs and make it public. 		
Essential medical products, vaccines and technologies	<ul style="list-style-type: none"> ▪ Support CHWs by holding government accountable for the delivery of authorized health products, medications, and technologies at accessible locations. 		
Health financing	<ul style="list-style-type: none"> ▪ Contribute labor, land, produce, cash, and other resources to support CHWs, locally appropriate health services, and disadvantaged populations. ▪ Support CHWs to access and leverage government and other resources to address local health priorities. ▪ Establish or contribute to community insurance schemes. ▪ Participate in events and promote products recommended by CHWs and health centers. 		
Leadership and governance	<ul style="list-style-type: none"> ▪ Organize representatives of local leadership and governance structures to support CHWs. ▪ Ensure that health services provided by CHWs and local health facilities meet and are accountable to community needs. ▪ Ensure that health services provided by CHWs and local health facilities provide quality care. ▪ Work through CHW connections to focus political attention on government resource allocation decisions, prioritization of basic health services, and prevention of disruptions in the formal health system. 		

How Can Community Engagement Be Used to Shape the Design and Management of Community Health Worker Programs?

In order for CHWs to effectively carry out their duties, a level of trust between the CHW and the community is needed to enable relationships that will produce positive health outcomes. A CHW program can be designed in a way to maximize trust among CHWs, their clients, and the community at large, or at the least, to minimize the initial level of mistrust that might exist. William Brieger, Professor of International Health at the Johns Hopkins Bloomberg School of Public Health, has given the following recommendation:

Time and energy should be spent to ensure that communities have realistic expectations of the CHW program. When CHW responsibilities are not accurately portrayed to the community, false expectations may be set up resulting in CHW attrition or program stagnation.¹¹

The importance of community participation in all aspects of CHW program design is discussed throughout the various chapters shown in Box 1. Specific roles of the community are summarized here, but covered in more depth in these other chapters. Contextual factors such as existing social structures, culture, and community needs influence all of these design elements.

Box 1. Community Participation in Selection of CHW in Bangladesh NGO program¹²

The NGO Building Resources Across Communities (BRAC) has a program of more than 100,000 CHWs called Shasthya Shebikas. With a focus on equity, the CHWs are recruited from village-based BRAC credit and development groups, called Village Organizations, formed by poor women in each village. The Village Organization nominates prospective female candidates to regional BRAC office members who finalize the selection. They deliberately select candidates who do not live near a health facility in order to increase health access for remote communities and to avoid competition with the health facility.

Box 2. CHW program design elements that can benefit from community participation

Defining role and tasks	Chapter 6
Selection.....	Chapter 7
Training.....	Chapter 8
Supervision.....	Chapter 9
Incentives	Chapter 10
Monitoring and evaluation	Chapter 14

CHW Selection

The CHW selection process should be an open and transparent process within each community. Though requiring more time and additional effort, having the right CHW for the job in each community is critical to an effective program—and one of the most important components in community participation. Communities are complex and vary in their dynamics, making community participation in the CHW selection process critical, whether the CHW is ultimately community selected or state-selected.

Box 3. Common CHW selection criteria¹³

- Elected or endorsed by the community
 - Well-respected member of the community, with a good reputation
 - Honest, friendly, good communication skills
 - Willing to make household visits
 - Able to attend initial training and periodic refresher training courses
 - Willing to be supervised by the community and attend health center meetings
 - Live in the community
 - Share local language/culture
-

The degree to which the program leaders engage the community and the degree to which the community understands what is to be expected of CHWs are important factors in determining whether the community makes a good selection. The ideal in both cases is to involve as many people from the community as possible (e.g., men, women, youth, elders, different castes, different tribes, wealthy, poor) in the selection itself or in witnessing the selection, so that the candidate is truly representative, not hand-picked by a leader, and not automatically of an elite caste. Dispelling notions of favoritism during the selection process is important to diminish any mistrust that could lead to jealousy or loss of willingness to cooperate.

To promote the program goal of equity, the selection criteria may favor underserved population representatives, such as women, those who are illiterate, and members of lower caste groups. Program designers should be careful of criteria that might exclude certain groups. For example, Benin set education level requirements high, feeling that it would help with data collection and reporting. However, the policy ended up excluding women who would have been a better fit for the community. In Ethiopia, when the proposed grade 10 educational level cannot be reached, program managers can change the educational and gender criteria. In the Uganda Community-Directed Intervention (CDI) Program for onchocerciasis, the community is organized around kinship groups, and these kinship groups select the ivermectin distributors from among themselves. Although the recommendation was to select one Community-Directed Health Worker (CDHW) per 250 population, Uganda decided to allow every self-identified kinship or neighborhood group to select as many CDHWs as practical. This provides a higher concentration of CHWs per population, each with the support of their kinship group.¹⁴ Programs need to be flexible enough to adjust policies at the local level.

Box 4. Community participation in selection of CHW in Brazil¹²

In Brazil, the CHWs are selected through a public process with community members. The Municipal Health Council, with support of the State Health Secretariat, conducts the process and guarantees transparency. Candidates are assessed for their aptitude, posture, and attitudes during a simulated community problem. The State Health Secretariat sets up interview schedules and conducts the interviews in public places, such as schools or community meeting halls. Communities encourage candidates to apply.

Box 5. Community participation in selection of CHW in different states of India¹⁵

The CHW selection process laid down in India's guidelines specifies a sequence of events: starting from community mobilization, with facilitators helping in enabling weaker communities to articulate their choices based on a set of criteria, village meetings, and finally *Panchayat* (block level) endorsement of the final choice.

According to an evaluation in 2011, however, the entire sequence has almost never happened. In Assam, Andhra, West Bengal, and Kerala, a formal multi-stakeholder committee assigned by the government with this task made the decision. In Orissa, meetings of women’s self-help groups facilitated by the Anganwadi Worker made the choice, while in Jharkhand it was the Village Health Committee. The evaluators found no clear evidence that the various selection processes made much difference to the overall health outcomes of the program, as long as the contribution of other selection factors, such as transparency and community participation, were followed.

The formal introduction of CHWs back into their community after training can also be very helpful for the success of the program. This introduction could be in the form of a town hall meeting to make sure that the community is aware of and understands the CHW role. In Nepal, such a meeting made an important difference to the acceptability of CHWs in the community. It can also be important to have local leaders endorse the CHW to their community.

Defining the CHW Role

To be trusted, the CHW should be able to address the community’s broader social development needs in addition to their health needs. It is important that the parameters around the roles and obligations of the CHW, the community, and the health center are clear. A community can participate in the creation of the job description or contribute to a code of conduct that will then be visibly displayed. Statements in a code of conduct often include behaviors, such as avoiding alcohol when serving as a community provider, not asking for favors or monetary gifts from the community, being gentle and attentive, and so forth. In some countries, groups of CHWs create a common code of conduct that is then shared with the community. Common challenges include unrealistic expectations and undefined job descriptions.

The community may also help to design the CHW’s role to tailor it to their needs. While the national program may set up an essential health package, the community may prioritize certain aspects. If the community does not see that a CHW has a role or something to offer them, then the program will not work. For example, while developmental and educational activities are considered important, curative services are demanded by communities who do not have access to these services.¹⁶ While existing CHWs may deliver preventive interventions with minimal supervision, CHWs who deliver community case management (CCM) treatments for common childhood illnesses require more training and support from facility-based services.¹⁷ Table 2 provides examples of the importance of community participation and the ways communities can participate in various health tasks.

Table 2. Community Participation by different CHW roles

CHW ROLE	IMPORTANCE OF COMMUNITY PARTICIPATION	WAYS COMMUNITY CAN PARTICIPATE
Health promotion, including communication, counseling, and support to improve health and prevent disease.	Behavior change requires repeated, intensive contacts over a period of time, and is influenced by peer support and community norms.	Participatory community or peer groups who witness visible change provide support and continuity for behavior change.

CHW ROLE	IMPORTANCE OF COMMUNITY PARTICIPATION	WAYS COMMUNITY CAN PARTICIPATE
Health provider, including treatment of common illnesses, referral to health facilities, and care and support to the chronically ill.	<p>Cultural perceptions of illness and treatment may undermine prevention, treatment, and care options unless addressed openly.</p> <p>Social relations of care, if not understood and managed well, can worsen health status.</p>	<p>Participation in community planning approaches or formative research to uncover specific terminology and belief patterns that lead to behavior change.</p> <p>Participation in quality improvement processes for provider interaction and use of facility-based services.</p> <p>Election of specialized volunteer cadres who are patient advocates or who support referral to CHW.</p>
Agent of change, including support for community mobilization, empowerment, and human rights.	Structural risks to good health (power dynamics, poverty, discrimination) will not change without community action.	Engagement in the problem-posing and problem-solving process at community meetings can lead to collective action to change circumstances.
Health management, including vital event and other reporting.	Communities may not want to provide vital events information to government agents.	Election of volunteer cadre who support the CHW with household visits to neighbors (i.e., Care Group approach: see www.caregroupinfo.org).

Box 6. Training: Country Examples¹⁸

India prioritized the building of CHW skills in village health planning, while Brazil has taken on a human rights framework that focuses on problem-solving and conflict-resolution skills. An evaluation of the Brazilian program found that community health agents (CHAs) needed more knowledge about how political, financial, and environmental factors influence community health and how that applied knowledge influenced the effectiveness of the CHAs.

While the community does not generally participate heavily in training, some training is conducted in the community and may involve community members. Besides learning technical health skills, the CHW needs to demonstrate respect and empathy for the patient by listening and expressing care and concern. Role playing of potential situations in the community is critical and is often followed by practice in the community. Training for community leaders in the CHW program, especially at the time of initiating a CHW program or during times of program change, can also be critical.

Supervision

While a CHW needs a trained health supervisor, she also needs supportive supervision from the community. Many communities already have village health committees (VHCs) or other existing community management structures that were established as part of national health or democracy initiatives. These groups provide feedback to the CHW if any complaints are received regarding her performance; help her with problem-solving, especially if it relates to water and sanitation or other determinants; provide incentives, especially in the form of recognition; resolve conflicts that may arise; and have the ability to influence termination of work should there be discord between the CHW and the community.

Social support for CHWs from the community is a powerful motivator, but needs to be combined with incentives from the health system. Community involvement in CHW selection and

supervision is key, as is public recognition. The community needs to have trust in the CHW. Support from community leaders provides her with legitimacy. Community management structures, whether formal or informal, can provide in-kind material support. Examples include exemption from duties in the community (e.g., community patrol and cleaning day responsibilities), donation of farm labor to help with the CHW's own farming, or donations (e.g., chickens or vegetables). In Jamkhed, India, farmers' clubs supported CHWs and helped them solve community problems.

Box 7. Recognition and Motivation

CHW Recognition in Nepal

In 2003, the female CHW program established a National FCHV Day and the districts have been encouraged to hold events to celebrate this day.

CHW Motivation in Rwanda¹⁹

A study in Rwanda found the three biggest motivators for CHWs to be the opportunity to develop social relationships through the work, trust and esteem from neighbors, and helping the community/saving lives.

Monitoring and Evaluation

If health facility workers, the CHW, and community members discuss and understand household data and vital events collected by CHWs and see the impact of what is happening in their community over time, the influence of CHWs in the community will become increasingly evident, resulting in increased CHW motivation.²⁰ Community-based health information systems, birth registries and community scoreboards collected by CHWs, when fed back to the community, enable community members to understand the epidemiology of their setting and to prioritize solutions. Community management structures can also support the CHW in advocating to local government for supplies and resources.

How Do You Locally Tailor Community Participation?

The level of community engagement needed will vary with the health outcome desired, the capacity of the community, and the degree to which the cultural context is supportive. No matter what approach is used along the community participation continuum, it will only be effective if it is responsive to community needs and implemented well. In underserved communities, especially among poorer populations, a community engagement strategy that is more robust and transformative will be needed. Finding the right balance between a CHW strategy that is highly tailored to local needs, on the one hand, and a rigid national program on the other hand that does not allow for local adaptation is key. A highly tailored strategy may take too long for national implementation, while a rigid program may prove ineffective because CHW messages and tasks may not be appropriate for particular communities. A CHW program should have community engagement principles that support a continuum of community participation, depending on circumstance that enables design and implementation flexibility at the local level. The challenge is to maintain the momentum of engagement over time, assessing the environment, and adjusting the program to respond appropriately to social and political realities.

Box 8. *Atencion a la Ninez en la Comunidad (AIN-C) Monitora* Strategy in Honduras²¹

AIN-C devoted considerable care to developing an operational strategy related to the community *monitoras'* job description, their selection, their task execution, training, supervision, and replacement. The goal was to overcome common problems with volunteer community worker schemes and to allow maximum flexibility for local ownership. The job of the *monitora* is

manageable for a volunteer, as they work on average 15 hours per month.

The following are a few of the critical considerations:

Flexibility and ownership: Every community is made the owner of its program and of its success in achieving healthy growth in their children. Communities decide if they want to have the program in their community, how many and who will be *monitoras*, how they will reach every child younger than two years of age every month, how they will create a community environment that favors adequate child growth, and how they will interact with the government's health infrastructure.

Teamwork with specialization: A key practice implemented by AIN-C is the use of a team of volunteers at the community level rather than relying on just one person. Communities are told that they can choose anywhere from two to about five *monitoras* to be trained. Having a team means that each member contributes different strengths. One may be good at weighing and charting while another is good at counseling. In addition, a team minimizes the effect of turnover and enables all members to help each other learn and remember lessons from the training. The fact that over a five-year period, six to eight people might have worked in their community's AIN-C program (instead of just three) strengthens community commitment, knowledge, and ownership of the process and the program.

Focus on tasks: The job description of the *monitora* is the basis for determining all other program actions because their tasks support the community effort. The *monitora* manual is not a technical guide, but rather an operational guide to the actions that must be completed.

Flexibility in operationalizing tasks: AIN-C guidance does not give precise details on how *monitoras* are to perform their jobs. Instead, the program, in collaboration with the community, establishes goals for outcomes that must be reached. How the *monitoras* choose to reach the goals is up to them. For example, all children younger than two years should be seen by a *monitora* each month. Whether the *monitoras* accomplish this by, for example, house-to-house visits, neighborhood meetings, or community-wide meetings, is up to them.

Rewards and incentives: AIN-C provides regular incentives to its volunteers, and these incentives have both intrinsic and market value. Incentives are regularly provided and planned for—just like all other operational aspects of the program. Examples of the incentives are a letter from the Secretary of Health thanking the family of the *monitora* for their generosity, an identification card with a photo of the *monitoras*, and regular community parties in honor of the *monitoras*. Training and monthly meetings at the health center are also seen as incentives.

What Are Key Barriers and Enablers Community Participation?

Engaging in and supporting the empowerment of the community for community health decision-making and action is a critical element in health promotion and disease prevention. The impact of programs that target individual behavior change is often transient and diluted unless efforts are also undertaken to bring about systematic change at multiple levels of society.²²

External and internal factors constrain the promotion of participatory development. External obstacles include the role played by development professionals and donors for immediate results, co-optation by government of community participation (e.g., using the political system as a form of social control), and the tendency among governments and development agencies to favor and apply certain selection criteria that favor the more vocal, wealthier, more articulate and educated groups. Further, governments and development groups may favor investment in product delivery and under-invest in the more intangible social processes and community participation that are critical to the product's use and long-term sustainability. Internal

obstacles refer to conflicting local interest groups, gate-keeping by local elites, and local apathy.²³ A CHW can often do little to overcome these factors, which are inherent in the system.

Table 3 offers some of the factors that can either negatively or positively influence the success of community participation efforts with CHWs. Planners and organizers of these efforts may find it useful to keep these factors in mind as they plan for community engagement efforts in their setting. The categories and barriers were from a systematic review of community engagement initiatives in the United Kingdom.⁵ The more enablers who are present, the easier it will be for a CHW to engage the community in a meaningful way. The greater the number of barriers, the more a longer-term investment in developing meaningful partnerships with stakeholders will be required.

Table 3. Barriers and enablers of community engagement with CHWs⁵

CATEGORY	BARRIER	ENABLER
Power	Misuse of power by professionals, leaders, and developmental actors <ul style="list-style-type: none"> • Discursive – defining who can be engaged • Positional – controlling the terms of engagement • Financial – shaping level and type of support provided for communities 	<ul style="list-style-type: none"> ▪ Broad community participation with an appropriate cross-section of community members ▪ Specific CHW selection criteria favoring disadvantaged groups ▪ Involvement of community governance group
Skills and Knowledge	Lack of relevant skills and knowledge impeding communication	<ul style="list-style-type: none"> ▪ Clear and realistic goals for CHW and community with appropriate skill-based training and continuing education ▪ Networking among peer CHWs and shared learning
Practices of Engagement	Style of meetings, failure to accommodate cultural diversity, accessibility	<ul style="list-style-type: none"> ▪ Environment of mutual respect, understanding, and trust ▪ Open and frequent interaction, information, and discussion ▪ Skilled convener
Transaction Costs	Time lost and financial resources required, especially in rural areas	<ul style="list-style-type: none"> ▪ Members see engagement to be in their self-interest and benefits of engagement as offsetting costs such as small visible activities ▪ CHW travel stipend and perceived valuable incentives
Cultural	Stereotypical attitudes among officials toward gender roles and disabled; dominance of deficit images of communities as having high needs and few assets	<ul style="list-style-type: none"> ▪ History of collaboration and cooperation in the community ▪ Partnership-Defined Quality (PDQ) approaches¹
Active or Passive Resistance	Apathy and disinterest in communities that have been co-opted in the past	<ul style="list-style-type: none"> ▪ Positive past experience ▪ Members feel ownership and share a stake in both process and outcome

¹Partnership-Defined Quality (PDQ) is a process for engaging communities and health care providers to work together in defining, implementing, and monitoring activities intended to improve the quality of care.

CATEGORY	BARRIER	ENABLER
Appropriateness of Approaches (models of engagement)	Not being able to reach consensus; unrealistic expectations; confusion between representative governance (where the representative decides on behalf of the community) and participatory governance (where everyone votes)	<ul style="list-style-type: none"> ▪ Basic governance training ▪ Clarity of roles and guidelines Shared vision
National Policy Context	<ul style="list-style-type: none"> ▪ Tensions between representative and participatory democracy ▪ Different forms of governance: participative versus managerial setting of targets versus central control with inspections and audits ▪ Tensions between the objectives of different policies – community partnerships versus organizational efficiencies 	<ul style="list-style-type: none"> ▪ High-level commitment over time ▪ Favorable political and social climate ▪ Shared vision with guiding principles ▪ Governance training
Other Factors	Lack of resources	<ul style="list-style-type: none"> ▪ Technical support from NGOs and voluntary sector ▪ Diversity in the types of opportunities for various community groups ▪ Sufficient resources

Is a Community Participation Policy a Necessary Component of a CHW Program?

A policy or guidance document that outlines principles for community engagement should enable the government to:

- Set aside resources for investment in community engagement strategies, including CHW training and support, and in community management structures, training and support
- Make clear that the community needs to be involved in health care policy and delivery in government plans
- Enable multiple stakeholders in various parts of national and local government, the private sector, and the voluntary sector to better harmonize with and support community engagement strategies
- Enable civil society to hold both government and communities accountable

The policy should be created with representatives of government, NGOs, and civil society actors so that these strategies are not co-opted by governments to try and delay action or diffuse public criticism, legitimize an existing poor-quality service, or divest itself of responsibilities by passing them on to communities. The policy should also ensure that a small non-representative group of elites within the community cannot abuse these principles. The formation of a Community Health Desk, an office within the Ministry of Health (MOH) that oversees community health policies and practices, as implemented in Rwanda, may be helpful for coordination and iterative learning of lessons learned and new practices.

What Are Various Components of a Functioning Community Participation Strategy?

While many countries have policies that support a functional CHW program and the development of community management structures as a main community participation strategy, a community engagement strategy is more complex, requiring multiple actions

throughout the health system. Establishing political buy-in at national, district, and local levels is critical, as is establishing processes for maintaining appropriate expectations at the different levels. Community involvement in decisions about health systems has the potential to improve health care services. However, its effectiveness is likely to depend on having explicit methods for involving communities and clearly defining roles and responsibilities, for training of policymakers and clients, and for ensuring adequate funding.²⁴ A long-term investment and commitment is also needed for a cultural shift in viewing communities as impediments to public health to viewing them as agents of change.

An example of a robust community engagement strategy was developed by the National Institute for Health and Clinical Excellence in the United Kingdom.²⁵ It calls for coordinated implementation across ministry departments and organizations, long-term investment, organizational change processes to align values and attitudes to encourage community engagement, and training of staff and communities at national, regional, and local levels.

One of the main reasons why a program does not get implemented as planned is because program managers have strong and differing views of how a program ought to unfold. Different stakeholders have different explanations of how a CHW's work would lead to improved health status and what she should or should not do with respect to both the provision of curative care services and community empowerment and mobilization.

Box 9. India – Different Interpretations of the Role of the CHW

The government of India's policy is that the Accredited Social Health Activist (ASHA) worker is a CHW that provides health promotion along with curative services. In the states of Kerala and West Bengal, the majority of stakeholders felt that the ASHA should only conduct health promotion activities and assist the facility with data collection and recording. Her role in responding to common but potentially life-threatening illness was down-played and not fully supported, undermining the huge investment in the ASHA program.

In the state of Assam, the state officials pushed for a health promotion role only for the ASHA worker, while district and field managers were advocating for a role that involved engagement of the ASHA worker in curative care. The lack of role clarity undermined the community's confidence in the ASHA. Of particular note was the fact that she was often out of supplies and her drug kit was not consistently refilled.

In the state of Andhra Pradesh, NGOs were involved in the selection and training of the ASHA worker at an early phase and brought an activist empowerment approach. In contrast, state officials and district medical officers supported only a health promotion role. Both groups ended up equally critical of the program, even becoming hostile to it. Even though national ASHA guidelines have been developed and approved, key mechanisms such as the process of selection, the emphasis on social mobilization, the refilling of the drug kit, and the development of a strong support system are modified on a state-by-state basis.

The Comprehensive Rural Health Project in Jamkhed, India, one of the world's pioneering CHW programs and India's first CHW program, is contracted by the government to provide training in the ASHA system to both government and NGO staff and to CHWs. Their program mandates that all people involved in the CHW program, from top-line supervisors to field managers, receive at least some training, including personal experience with community engagement, so they are fully aware and supportive of the CHW program.

How Can Governments Maximize their Work with Non-Governmental and Faith-Based Actors?

NGOs and faith-based organizations (FBOs) were working with CHWs prior to the Alma-Ata conference in 1978. They have brought both human and financial resources to establish and support CHW programs as part of a broad technical and community mobilization effort, especially in underserved communities. They have brought new innovations in CHW program design and management, and they have tested MOH policies in the field for their effectiveness. They have established learning and training centers that have enabled others to adapt their approaches and scale them up, and they have built the capacity of local organizations and district programs of MOHs. Much of their focus is on equity and serving hard-to-reach and disadvantaged populations. Their expertise in community mobilization and community organization enhances the work of the CHW. Their efforts have enabled millions of people around the world to access basic medical care. FBOs, especially in many countries in Africa where they provide more than half of the countries' health services, have a major role in providing health services for mothers and children. WHO estimates that 30–70% of clinics and hospitals across Africa are owned or managed by FBOs.²⁶

In some countries, NGOs manage very large CHW programs that are complementary to the work of CHWs employed by government, such as the CHW programs of the Catholic Pastorate of the Child in Brazil and BRAC in Bangladesh. NGO-administered CHW programs are better able to respond to changing circumstances since there is less of a formal bureaucracy involved. They also can reach populations with minimal access to formal facilities and assist in community mobilization efforts, including the use of multi-sectoral strategies, such as linking health programs with literacy or micro-credit programs.

On the other hand, multiple uncoordinated NGO efforts may undermine a national CHW strategy. NGOs may have a mosaic of different training systems with differing content and quality; competitive and duplicative working strategies limiting efficiency and the quality of care; diverse sets of competing incentive packages causing conflicts of interest; parallel services creating competition and friction with the MOH; and diversity in quality assurance, supervision and reporting systems, making it difficult for the MOH to have a coherent picture of CHW activities.²⁷ Thus, NGO programs can undermine large-scale CHW programs when not harmonized with government strategies.

NGOs should be encouraged to support a CHW system, following MOH guidance with input from civil society and other stakeholders, including CHWs. Policies should enable the NGO sector to support CHW services on behalf of the ministry, test CHW innovations in the field, set up complementary cadres of community volunteers especially in areas of high mortality, and build the capacity of community-based groups and organizations, including community governance structures. Encouraging multiple cadres of volunteers and groups who support a formal full-time, fully trained, and paid CHW may be part of a holistic CHW strategy, enabling the right numbers and mix of CHWs to support the specific needs of varying communities.

Box 10. Kabeho Mwana (Life for a Child) Project in Rwanda²⁸

Three international NGOs—Concern Worldwide, International Rescue Committee and World Relief—worked with the Community Health Desk in Rwanda to test a new CHW strategy in six districts of Rwanda that served approximately one-fifth of the country's population. All CHWs in Rwanda are organized into cooperatives, each with 100–250 members, through which CHWs meet quarterly at health centers. Each type of CHW is supposed to reach the entire village with messages limited to their CHW function. The project introduced a Peer Support Group (PSG) model to coordinate and cross-train CHWs in different behavior change communication

interventions. PSGs averaged 20 CHWs from four to five neighboring villages who met at least once a month for training on health topics and for joint planning of home visits and other health promotion activities. Each CHW visited approximately 10 households per month to deliver messages on healthy family practices outlined at the PSG meetings. The repeated, familiar contact with fewer households resulted in increased CHW utilization and health behaviors, influencing the government to consider adoption of this strategy as national policy.

PART TWO: COMMUNITY MANAGEMENT STRUCTURES

In 1989, WHO again recommended that an effective CHW program have the support of a group composed of members of the community that has active links with the health sector and improves governance at the local level. We refer to these groups as community management structures known by different names, such as village health committees, community health committees, ward health committees, community advisory boards, and health management committees. In most countries, these management structures provide support to the CHW at the community level and a bridge to the health system, and may also be linked with the local political system. Well-functioning committees can describe their roles and responsibilities and how they relate to other groups, including the CHWs, the health facility, and the district health authorities.

Objectives of a Community Management Structure²⁹

- Provide a support system for CHWs
 - Work with CHWs to mobilize the community for improved health
 - Assist with communication to and from the district health system and the local administration
 - Advocate for supplies and investments critical to good health.
-

In other countries, health facility management committees (also known by different names such as health center committees) may exist, either as the predominant community management structure or in addition to other community governance structures. The health facility management committees provide oversight of the health facility, including CHWs who are associated with that health facility. These committees generally have administrative and financial responsibilities, such as ensuring the facility meets the community needs to increase usage, oversight of facility budgets and staffing, resource-generation activities, and management of insurance schemes to lower cost barriers for the poor. Because of their duties, these facility management structures have the potential to be more contentious and generally require more intensive support.

What Are Common Issues with Community Management Structures?

While many countries have active community management structures, they are generally weak. Table 4, modified from the CHW Assessment and Improvement Matrix Tool,³⁰ highlights some best practices along with the most common issues and functionality problems of community management structures described in the literature.³¹ An assessment of existing issues may help a ministry plan and budget for ongoing support. In many cases, clear and transparent guidance and exchange of good practices may be a solution. An EQUINET review of district health systems in East and Southern Africa found that community participation can have the most impact when supported by functional local management structures that promote participation in decision-making in addition to carrying out administrative tasks. However, when these structures are composed of elites, they are not accountable to any defined constituency and broad community participation is constrained.³²

Table 4. Community Management Structures: Guidance from the Assessment and Improvement Matrix¹³

COMPONENT	GOOD PRACTICE	ISSUES THAT ARISE	RESULTS WHEN NOT DONE WELL
Recruitment/ Selection to Community Management Committees	<p>Selection of enough members to represent the main social groups in the community while maintaining a small enough group to make decisions and take actions (6–12 members)</p> <p>Builds on well-functioning community structures where possible</p> <p>Selection by a broad segment of the community</p> <p>Election of esteemed community representatives rather than elites with sufficient gender, ethnic/tribal, and disadvantaged groups represented</p>	<p>Generally, committees are staffed by health workers, community members, and appointed key figures, but there is little guidance on optimal numbers and selection criteria and processes including size of committees, women, and quotas to ensure adequate representation of different segments of the community</p>	<p>There is a lack of consistent and regular functioning due to having a quorum</p> <p>Males may dominate</p> <p>Community members are selected by the community leader and may be the relatively affluent or prominent members seeking political gain</p>
Committee role	<p>The alignment, design and clarity of role from the community, CHW and health system perspective is known to all</p>	<p>Roles of the committee are not formalized</p> <p>Confusion exists regarding different roles such as governance, co-management, CHW support, resource generation, community outreach, advocacy, intelligence, social leveler</p>	<p>The committee generally wants to respond to community-expressed needs but may be seen by the health system as a utilitarian mechanism for supplying resources</p> <p>Views on if, when and how to involve communities and CHWs differ significantly between stakeholders on the committee</p> <p>They may have different implicit views of a CHW model focused on individual behavior change versus interventions that seek more broad community change</p>
Initial training	<p>Training is provided to the committee members on participatory, decision-making processes and problem-solving skills</p>	<p>Committee members may have inadequate training for their role</p> <p>Their health knowledge and management skills vary as does their confidence to lead</p>	<p>The committee is ineffective in solving issues between the community, health system and the CHW</p>
Continuing training	<p>Ongoing training is provided to committees to reinforce initial training, and build organizational development skills and health literacy to solve root causes of poor health</p>	<p>There is generally no budget or system to provide ongoing training that reflects committee's needs</p>	<p>Committees falter and may cease to function</p>

COMPONENT	GOOD PRACTICE	ISSUES THAT ARISE	RESULTS WHEN NOT DONE WELL
Budget	Designated funding to enable community committees to take action to support CHW and health outreach activities	Under-resourced committee	Unable to perform actions
Supervision of the committee	Supportive supervision is carried out regularly to provide coaching and review of CHW activities and local data	Many committees have unclear reporting structure to local government or health system Inadequate support and poorly integrated into health system	Committee may be non-functional
Program performance evaluation	Evaluation to assess work and health changes over a period of time. Include key performance indicators related to community governance committees in job descriptions of relevant supervising health workers and managers and by conducting periodic structured audits of governance committees	No evaluation to know whether committee work is effective or not	Committee may falter over time or not be aligned with current health conditions
Community incentives to participate	An incentive package of non-financial incentives such as training, recognition, certification, etc. appropriate to job expectations	Community members are not publicly recognized There may be general community unawareness and no incentives for participation	Community members view participation in health as a tedious task of administrative supervision without pay and may cease to come to meetings
Incentives for supervising health workers to participate	An incentive package of non-financial incentives such as training, recognition, certification, etc. appropriate to job expectations	Duties may be seen as additional to work responsibilities with no added benefit	Lack of motivation to participate at committee meetings Seen as additional layer of administrative supervision by untrained people
Community involvement	The role that the community plays in supporting and joining the committee and supporting the CHW is well-understood	Social, political, and cultural factors all impact on the purpose, form, type and effectiveness of community involvement Health literacy, necessary knowledge of legal frameworks, and skills needed to participate effectively are wanting	When the community role is implemented poorly, it might create community resistance to participation
Referral system	A process to support the CHW with referral assistance when needed	Community has not created an emergency transport system for referrals to a health facility	Life-saving emergency transport systems and logistics help for referrals do not work

COMPONENT	GOOD PRACTICE	ISSUES THAT ARISE	RESULTS WHEN NOT DONE WELL
Communication and information management	Processes used by the governance structure include monitoring data flows to the health system and back to the community, publicly sharing information, and using data for service improvement Tools such as patients' rights charters, citizen report cards, suggestion boxes, health clubs, are used	Public health data do not exist Community does not take appropriate action to address disease epidemiology or address root causes of disease	Perceived lack of transparency may cause community resistance to change CHWs and health workers are not accountable to the community No or slow change in disease reduction
Linkages to health system	Community management structures are linked to the larger health system, with a supporting management culture that encourages transparency and openness between the health facility, CHWs and the community	Relationships among community committees, CHWs and the health system unclear Mistrust and imbalance in power and information	Health workers may control committees Community governance structures may be perceived as interfering with health worker duties, especially those related to use of funds and drugs Deterioration in communication from central ministry about the purpose and function of community governance structures may cause a decline in community governance
Country ownership	The MOH or other ministries have policies in place that integrate and include community governance structures in health system planning and budgeting and provides logistical support to sustain them	Unclear legal position Lack of support	Without a clear mandate, the community management structure has no direct influence over the core budget governing a CHW or health facility and little influence on clinic management There is a lack of clarity on the extent of the community's decision-making power to hire/fire the CHW

Box 11. Village Health and Sanitation Committees (VHSCs) in India³³

An evaluation of the ASHA program in India reported in 2011 found that where VHSCs are established and functional, they are supportive of many health activities and functions, though there is room for improvement, especially in the key task of village health planning. In Assam State, one ASHA facilitator was hired for 10 ASHA workers to provide support in holding VHSC meetings, counseling families, accompanying newborn visits, and supporting immunization and antenatal care services.

Box 12. Revitalizing Community Health Committees in Liberia³⁴

Community Health Committees (CHCs) were a community management structure supported by the Ministry of Health in Liberia before the civil war. Medical Teams International (MTI) revitalized these traditional structures to support Household Health Promoters. Each CHC had on average eight members, including community leaders such as imams, pastors, women leaders, and trained community midwives. MTI developed a self-assessment tool around the following key tasks to enable the CHCs to appraise themselves at yearly intervals:

- Frequency and organization of meetings
 - Participation and leadership in meetings
 - Problem identification
 - Prioritization and action planning
 - Support to Household Health Promoters
 - Utilization of locally collected data
 - Establishment of emergency health funds and transportation system
 - Participation in conflict prevention and resolution
-

What Are Key Questions to Consider When Designing a Strategy for Community Management Structures?

There is no one-size-fits-all approach for designing or implementing a strategy on community management structures related to CHWs. However, a discussion around some key questions, as shown in Table 5, can help open the way for decisions on their potential roles and functions. A policy on community management structures would follow an assessment of their current content and context in relationship to a CHW program, followed by discussions on stakeholder perceptions and guidance around the mechanism.

Table 5. Questions to consider in the design of a community management structure strategy³⁵

CONTENT Questions

- What is the purpose?
- What is the intended depth of community involvement?
- Who introduced the initiative and why?
- Does it build on existing community organizations and networks?
- Who is expected to represent whom and how?
- What technical knowledge is required?
- What training, supervision, and support are included for different actors?

CONTEXT Questions

- Is community accountability prioritized nationally and internationally?
- How decentralized is the health system?
- How clear are lines of responsibility and accountability at different levels of the health system?
- Does the mechanism challenge or complement other health system interventions, existing community structures and socio-cultural norms?

PROCESS Questions

Stakeholder Perceptions and Relations

-
- What are the different parties' views on the relevance and relative costs and benefits of this mechanism?
 - What are relationships of power and trust and different levels within institutions, and among individuals? How will these be affected?

Mechanism Functioning

- Who represents whom and how?
 - Who sits in groups and committees?
 - How are they selected and how do they link to the health system and the community?
 - How clear are their roles? What is their motivation?
 - How are decisions made?
 - How much of a decision-making role do they have in practice?
 - How was the intervention introduced? Which stakeholders were involved? How and at which stage? How did this work?
 - What training took place and what resources were allocated in practice?
 - What are the links to other institutions? How does information and communication flow among and within institutions?
-

CONCLUSION

This chapter highlights the critical importance of community participation to a CHW program. Because community participation can take many forms, and because each community is unique and always changing, large-scale CHW programs should be designed to enable local flexibility and tailoring in relation to community assets and needs. Maximizing community participation is not the sole job of the CHW, but rather it requires leadership from the overall CHW program, as well as the support of the health system and local government at all levels, and partnerships with other organizations. The formation or strengthening of a community management structure, such as a village health committee, is often a strategy of choice for the community support of a CHW. However, these structures also require ongoing support and training if they are to work well.

Acknowledgments

Our thanks to the CORE Group Community/Child Health Working Group for their ideas and assistance.

References

1. World Health Organization, UNICEF. Declaration of Alma-Ata. International Conference on Primary Health Care, 6-12 September 1978; 1978; Alma-Ata, USSR: World Health Organization; 1978.http://www.who.int/publications/almaata_declaration_en.pdf.
2. Physicians for Human Rights. The Right to Health and Health Workforce Planning: A Guide for Government Officials, NGOS, Health Workers and Development Partners. Cambridge, MA: Physicians for Human Rights, 2008. https://s3.amazonaws.com/PHR_other/health-workforce-planning-guide-2.pdf.
3. Rifkin S. Lessons from community participation in health programmes: a review of the post Alma-Ata experience. *International Health* 2009; **1**(1): 31–6.
4. Evidence Review Team 1. Which Community Support Activities Improve the Performance of CHWs? Washington, D.C.: USAID, 2012.<http://www.usaid.gov/sites/default/files/documents/1864/CHW-Evidence-Summit-Final-Report.pdf>.
5. Popay J, Alltree P, Hornby D, et al., editors. Community Engagement in Initiatives Addressing the Wider Social Determinants of Health: A Rapid Review of Evidence on Impact, Experience and Process. Lancaster, United Kingdom: Lancaster University Liverpool University Central Lancashire University; 2007.
6. Rosato M, Laverack G, Grabman LH, et al. Community participation: lessons for maternal, newborn, and child health. *Lancet* 2008; **372**(9642): 962–71.
7. Liu A, Sullivan S, Khan M, Sachs S, Singh P. Community health workers in global health: scale and scalability. *The Mount Sinai journal of medicine, New York* 2011; **78**(3): 419–35.
8. World Health Organization. Strengthening the performance of community health workers in primary health care. Geneva, Switzerland: World Health Organization 1989.http://whqlibdoc.who.int/trs/WHO_TRS_780.pdf.
9. Underwood C, Boulay M, Snetro-Plewman G, et al. Community capacity as means to improved health practices and an end in itself: evidence from a multi-stage study. *Int Q Community Health Educ* 2012; **33**(2): 105–27.
10. Amazigo U, Okeibunor J, Matovu V, Zoure H, Bump J, Seketeli A. Performance of predictors: evaluating sustainability in community-directed treatment projects of the African programme for onchocerciasis control. *Soc Sci Med* 2007; **64**(10): 2070–82.
11. Brieger W. Interview regarding Community Health Worker programs. 2012
12. Bhutta Z, Lassi ZS, Pariyo G, Huicho L. Global Experience of Community Health Workers for Delivery of Health Related Millennium Developmental Goals: A Systematic Review, Country Case Studies, and Recommendations for Integration into National Health Systems. Geneva, Switzerland: World Health Organization and Global Health Workforce Alliance, 2010. http://www.who.int/workforcealliance/knowledge/publications/alliance/Global_CHW_web.pdf
13. Crigler L, K. H, Furth R, Bjerregaard D. Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services. Washington, DC: Health Care Improvement Project, University Research Corporation, and USAID, 2011. http://www.hciproject.org/sites/default/files/CHW%20AIM%20Toolkit_March2011.pdf.
14. Katararwa MN, Habomugisha P, Richards FO, Jr., Hopkins D. Community-directed interventions strategy enhances efficient and effective integration of health care delivery and development activities in rural disadvantaged communities of Uganda. *Trop Med Int Health* 2005; **10**(4): 312–21.

15. National Health Systems Resource Centre. ASHA Which way forward...? Evaluation of ASHA Programme. New Delhi, India: National Rural Health Mission National Health Systems Resource Centre, 2011.
http://nhsrccindia.org/download.php?downloadname=pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/ASHA_Which_way_forward_-_Evalaution_of_ASHA_Programme_Report_NHSRC_417.pdf
16. Lehmann U, Sanders D. Community health workers: what do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers. Geneva, Switzerland: World Health Organization 2007.
http://www.who.int/hrh/documents/community_health_workers.pdf
17. Core Group, Save the Children, BASICS, MCHIP. Community Case Management Essentials: Treating Common Childhood Illness in the Community. A Guide for Program Managers. Washington, D.C.: USAID Save the Children, 2010.
http://www.jsi.com/JSIInternet/Inc/Common/_download_pub.cfm?id=10777&lid=3
18. Zanchetta MS, McCrae Vander Voet S, Galhego-Garcia W, et al. Effectiveness of community health agents' actions in situations of social vulnerability. *Health Educ Res* 2009; **24**(2): 330–42.
19. JSI. SC4CCM Intervention Strategy in Rwanda. 2012.
<http://sc4ccm.jsi.com/files/2012/10/Rwanda-country-factsheet.pdf>.
20. Strachan DL, Kallander K, Ten Asbroek AH, et al. Interventions to Improve Motivation and Retention of Community Health Workers Delivering Integrated Community Case Management (iCCM): Stakeholder Perceptions and Priorities. *Am J Trop Med Hyg* 2012; **87**(5 Suppl): 111–9.
21. Griffiths M, McGuire J, editors. A new dimension for health reform: the integrated community child health program in Honduras. Washington, DC: World Bank; 2005.
22. Braithwaite RL, Bianchi C, Taylor SE. Ethnographic approach to community organization and health empowerment. *Health education quarterly* 1994; **21**(3): 407–16.
23. Botes L, Van Rensburg D. Community participation in development: nine plagues and twelve commandments. *Community Development Journal* 2000; **35**(1): 41–58.
24. Mijumbi R. What are the best methods for involving patients in health system decision making in Uganda? Kampala, Uganda: SURE Supporting the Use of Research Evidence Project, College of Health Sciences, Makerere University 2010.
<http://uchpsr.org/Rapid%20response%20taxonomy/Organization/Community%20involvement.pdf>
25. National Institute for Health and Clinical Excellence. Community engagement to improve health London, U.K.: National Institute for Health and Clinical Excellence 2008.
<http://www.nice.org.uk/nicemedia/pdf/PH009Guidance.pdf>.
26. Widmer M, Betran AP, Merialdi M, Requejo J, Karpf T. The role of faith-based organizations in maternal and newborn health care in Africa. *Int J Gynaecol Obstet* 2011; **114**(3): 218–22.
27. Walker PR, Downey S, Crigler L, LeBan K. CHW "Principles of Practice": Guiding principles for non-governmental organizations and their partners for coordinated national scale-up of community health worker programs. Washington, D.C.: CORE Group World Vision International. 2013.
http://www.coregroup.org/storage/Program_Learning/Community_Health_Workers/CHW_Principles_of_Practice.pdf
28. Sarriot E. Final Evaluation of the Kabeho Mwana Expanded Impact Child Survival Program: Concern Worldwide, International Rescue Committee, and World Relief, 2011.

http://www.mchip.net/sites/default/files/mchipfiles/FINAL_Kabeho%20Mwana%20Final%20Evaluation.pdf

29. CORE Group. Community Case Management Essentials: Treating Common Childhood Illnesses in the Community. A Guide for Program Managers. Washington, DC: CORE Group, Save the Children, BASICS and MCHIP; 2010.
<http://www.coregroup.org/storage/documents/CCM/CCMbook-internet2.pdf>
30. Crigler L, Hill K, Furth R, Bjerregaard D. Community Health Worker Assessment and Improvement Matrix (CHW AIM): A Toolkit for Improving CHW Programs and Services Bethesda, MD: USAID Health Care Improvement Project University Research Co., LLC (URC), 2011. <http://www.who.int/workforcealliance/knowledge/toolkit/50.pdf>
31. McCoy DC, Hall JA, Ridge M. A systematic review of the literature for evidence on health facility committees in low- and middle-income countries. *Health Policy Plan* 2012; **27**(6): 449–66.
32. Baez C, Barron P. Community voice and role in district health systems in east and southern Africa: a literature review., 2006. www.equinetafrica.org/bibl/docs/DIS39GOVbaez.pdf
33. NHSRC. Which Way Forward? Evaluation of AHSA Programme. New Delhi, India: National Health Systems Resource Centre and the National Rural Health Mission, 2011
34. Capps JM, Carruth MH, Nitkin T, Doty D, Dechasa S. Grand Cape Mount Child Survival Project Improved Child Health in a Transitional State through IMCI: Final Evaluation Medical Teams International USAID, 2010. http://pdf.usaid.gov/pdf_docs/PDACR825.pdf
35. Molyneux S, Atela M, Angwenyi V, Goodman C. Community accountability at peripheral health facilities: a review of the empirical literature and development of a conceptual framework. *Health Policy Plan* 2012; **27**(7): 541–54.

SECTION 4. ACHIEVING IMPACT

Scaling Up and Maintaining Effective Community Health Worker Programs at Scale

Steve Hodgins, Lauren Crigler, Simon Lewin, Sharon Tsui, and Henry Perry

30 September 2013

Key Points

- Effective programming at scale requires having a viable, scalable program that works on a small scale under routine field conditions, followed by careful planning (appropriate to the national context) that assures long-term sustainability at scale.
- Ongoing monitoring and evaluation (M&E), with adjustments to the program based on these findings, is essential both for effective scale-up and long-term program effectiveness at scale.
- Scaling up is a political process, so leadership and proper engagement with the political system, national-level stakeholders, and the Ministry of Health (MOH) is essential.

INTRODUCTION

A pitfall affecting many areas in global health, including community health worker (CHW) programs, is the tendency of planners and managers to uncritically assume that because something works well when implemented on a small scale, with fairly intensive engagement and support (undertaken by a nongovernmental organization [NGO], for example), there should be no problem doing more or less the same thing on a large scale (under the Ministry of Health [MOH], typically). As discussed in the introductory chapter (see Chapter 1), there have been a number of noteworthy small-demonstration experiences over the history of primary health care (PHC) program implementation that have influenced thinking about what is possible at the community level. Although not necessarily “replicated,” they have served as inspiration and informed planning for the development of somewhat analogous efforts, some of which have also been effective at large scale. But such successful translation is far from straightforward. Often, the results obtained by CHW programs operating at large scale are far less impressive than those seen in demonstration projects.

Although not necessarily “replicated,” these demonstration experiences have served as inspiration for the development of somewhat analogous efforts that have also been effective at large scale. However, such successful translation is far from straightforward. Often, the best that can be done at large scale is a pale shadow of the conspicuous successes seen in demonstration projects.

Highlight the challenge of scaling up a community-based PHC program is offered at the outset as a word of caution. When successful demonstration projects are proposed as solutions to nationwide problems of PHC, the challenges of achieving this proposition should be recognized. Policymakers and planners need to look critically at the landscape of all the specific requirements that needed to be met to achieve that success. A careful look at the settings where implementation is planned is required, along with a determination of what it would take to meet these requirements—at scale. Is there a robust enough policy framework and adequate political support, management and supply systems, numbers of staff, and financial resources for successful scale-up and continued long-term effectiveness? If the picture looks favorable, it may be warranted to cautiously proceed, first implementing on a limited scale but under realistic conditions (i.e., what one could expect to provide at scale), and monitoring closely for performance, ready to make any necessary adjustments to address identified barriers or constraints to good performance. Then, as an approach is progressively validated, we can move toward scale.

So, from the beginning we are focusing not merely *getting to scale*, but on what it is going to take to ensure a functional and effective program (with demonstrated impact) on a continuing basis once we are at scale. In this chapter, we discuss a number of questions that policymakers and program managers need to consider when considering taking CHW programs to scale. We assume here that the MOH will be guiding the scale-up of a national CHW program.

Key Questions

- What kind of planning is needed for CHW programs to operate at scale?
- How do we get to scale?
- What are some of the pitfalls of scaling up?

Box 1 contains a set of detailed issues that relate to both the key questions for this chapter, as well as to other chapters in this guide. In this chapter, we focus on the core questions related to scaling up specifically.

Box 1. Some key issues to consider when scaling up a CHW program

Below are some detailed issues that need to be considered as a scaling-up process is being envisioned. These issues have been adapted specifically to CHW programs, but the questions were originally developed to address issues of scaling up any type of health program.¹ Help with addressing these issues is what this entire guide is about, so the information in each of the various chapters of this guide can contribute to the process of answering each of these questions.

- What is the range and complexity of activities or tasks that the CHW program includes (i.e., what exactly is being scaled up?), and what implications does this have for scale-up?
 - To what extent, and how, will the CHW program be tailored to local needs and capacity, and what are the implications for scale-up? Is there a model or pilot project that will provide a 'blueprint' for scale-up?
 - How will CHWs actually deliver their services in the community?
 - What are the requirements of the CHW program in terms of the governance/regulation of services at national, regional and local levels, and what are the implications for scale-up?
 - What are the requirements that the CHW program imposes on the capacity of the health system and its institutions, and on managers and health care providers? What are the implications for scale-up?
 - What requirements are needed for good performance?
 - What demands will the scale-up make on the current system? What requirements and demands would this make on existing managers or clinical staff? How can these demands be met? What possible unintended negative (or positive) effects can this have elsewhere in the system? What would the costs be, both in terms of rolling out the new service and in recurrent costs?
 - Is the widespread implementation of the CHW program likely to have important impacts on the health sector at large and on other sectors beyond and, if so, what are the implications for scale-up?
 - What are the likely cost and financing considerations of scaling up and sustaining the CHW program? What new procurement costs and salary costs would we need to plan for? How would these costs be covered?
 - What systems, including monitoring and evaluation (M&E) systems, need to be in place to ensure quality of service provision for effective performance at scale?
 - Is the CHW program sustainable over the long term? Is the CHW program or its effects likely to change over time?
 - What are the likely impacts of scale-up on equity? Should high need areas be prioritized rather than trying to achieve uniform coverage?
-

What Kind of Planning Is Needed for CHW Programs to Operate at Scale?

Table 1 outlines a series of steps that should be considered when planning the scale-up of a CHW program. The questions outlined here bring us back to many of the issues addressed in Chapter 3 on planning.

Table 1. Planning process for scaling up CHW programs

Vision of desired future: What would this look like?	Durable impact at scale High effective coverage Appropriate service delivery model(s) effectively <ul style="list-style-type: none"> ▪ implemented at scale
↓	
What conditions need to be satisfied to achieve this vision?	<ul style="list-style-type: none"> ▪ Realistic testing/refining of service delivery approach(es) ▪ Policy, systems, and operational conditions are met, including: <ul style="list-style-type: none"> – Supplies of drugs and commodities – Personnel (service providers, managers, and so forth) equipped and supported for their roles with appropriate training, and tools – Supervision and monitoring systems in place and functioning
↓	
What needs to be done to meet these necessary conditions? How will we get there, and what are the priority initial tasks?	Specify who will be responsible for developing: <ul style="list-style-type: none"> ▪ Roles/responsibilities ▪ Work plans/budgets ▪ Coordination/planning/oversight
↓	
What needs to be done now, and over the coming year(s)? Who will need to be doing what?	Specify who will be responsible for developing: <ul style="list-style-type: none"> ▪ Roles/responsibilities ▪ Work plans/budgets ▪ Coordination/planning/oversight

Developing a Scale-Up Plan

A good plan is always a work-in-progress and will need to be adapted as scale-up progresses. Looking beyond just the first steps of planning for scale-up to how to ensure continued institutionalized high performance at scale is the long-term goal. Doing so requires foresight and making appropriate choices now to ensure that we create the conditions for success later.

A “learning phase”¹ (or piloting) is a realistic, reasonably large-scale practice run, which is rigorously monitored to generate learning on key operational issues. On the basis of the learning from this phase, the approach may be adapted to try to ensure better performance in the next stage of scaling up. The best plans are those that have been adjusted in response to feedback as plan implementation proceeds.

Elements that need to be considered in planning (from which specific anticipated strategic tasks can be derived) include the following:

- Supplies of drugs and commodities
- Personnel (e.g., service providers, managers, and so forth) equipped and supported for their roles with appropriate training and tools

¹ Note that learning and adapting (modifying based on what we are learning) needs to be done at all phases, including once we have fully institutionalized and “scaled up” an effort.

- Supervision and monitoring systems in place and functioning
- Human and institutional actors and their perceptions, needs, and interests
- Regulatory and approval issues
- Performance management. (This involves monitoring key indicators of the program, including quality of training and quality of care. See Chapters 8 and 14 on training and on M&E.)
- Supply chain and other key systems issues
- Product issues (Is there an appropriate fit of the proposed program with the users and the context?)
- Resources/funds needed at each stage of the plan
- Human and institutional actors and their perceptions, needs and interests
- Direction

Scaling up and maintaining an effective CHW program over the long-run also requires performance management. This is best carried through processes that include monitoring of key indicators of the program, including quality of care. (See Chapter 14 on monitoring and evaluation.)

Sustaining Impact at Scale

For CHW programs, it is important not just to achieve implementation at scale, but also to maintain effective programming at scale. Below, we describe some principles for sustaining impact at scale.

Gain and Maintain Support from Policy-Makers at the Relevant Levels

Key gate-keepers and opinion leaders (e.g., leading pediatricians in the country) need to be informed and “won over” to the initiative through early one-on-one informational briefings and exchange of views. Potential champions, who are well-placed to influence opinion and decision-making, need to be identified and encouraged.

Policy and regulatory processes, both formal and informal, must be dealt with from the beginning. Examples of formal processes include registration with drug regulatory bodies and revisions to the Essential Medicines List, if the program will introduce any new medications. Informal processes include fully informing and eliciting concerns from key government and non-governmental counterparts, opinion leaders, and funding agencies.

Sustain Program Momentum

Program momentum may diminish for a range of reasons including withdrawal of support from a key stakeholder, budgetary constraints, poor management and supervision, and so forth. (See chapters on financing, supervision and relationship with other parts of the health system.) One proactive strategy to avoid loss of momentum is the formation of a technical working group with MOH leadership and establishing an ongoing and meaningful involvement by all key partners in directing the initiative. An alternative is to assign this responsibility to an existing technical working group, if it has a suitable membership and mandate. An example might be a Ministry-led working group responsible for community health services. Sustaining program momentum involves ensuring effective and sustained functioning of whatever group is selected, including that regular meetings are held, action points are identified, and follow-up is carried out.

Ensure that What the Scale-Up Initiative Offers Will Appeal to the Intended End-User

Formative research can help in identifying the potential end users' current practices, perspectives, and preferences with respect to the specific new service planned. These end-users include the MOH, the district health system, front-line health workers, and beneficiaries. In developing any new approach, strategy, or product, one has to start with where the user is now, "bridging from the known to the new." Formative research can help to establish this strategy. Then, messaging and strategies related to scaling-up can be geared to this current reality. Not uncommonly, there is a major disjunction between what people want and what programs can deliver.²

Achieve and Maintain High Coverage (Especially Among Segments of the Population Where Disease Burden Is Concentrated)

Design a delivery strategy tailored to the country context, taking advantage of available channels or platforms. Start with a learning (pilot) phase, implementing at limited scale (e.g., within one district), but under conditions closely approximating what one would expect when institutionalized and running as a normal program. Rigorously monitor during this phase, and then, based on what has been learned, revise and streamline the approach for implementation at the next stage of scale (preferably not nationally).

Through all phases, from early learning to at-scale implementation, ensure continued sound performance management—at all levels, monitoring important aspects of program performance (in particular, effective population coverage), and actively addressing identified performance issues. This monitoring is likely to entail incorporating appropriate population coverage indicators into the routine health information system, and ensuring that coverage is monitored at all levels as a basis for taking action to ensure good performance.

Secure long-term arrangements for procurement, if the initiative involves a particular program commodity, and ensure an adequately robust supply chain; special attention will be needed to do so.

HOW DO WE GET TO SCALE?

Conceptual Frameworks

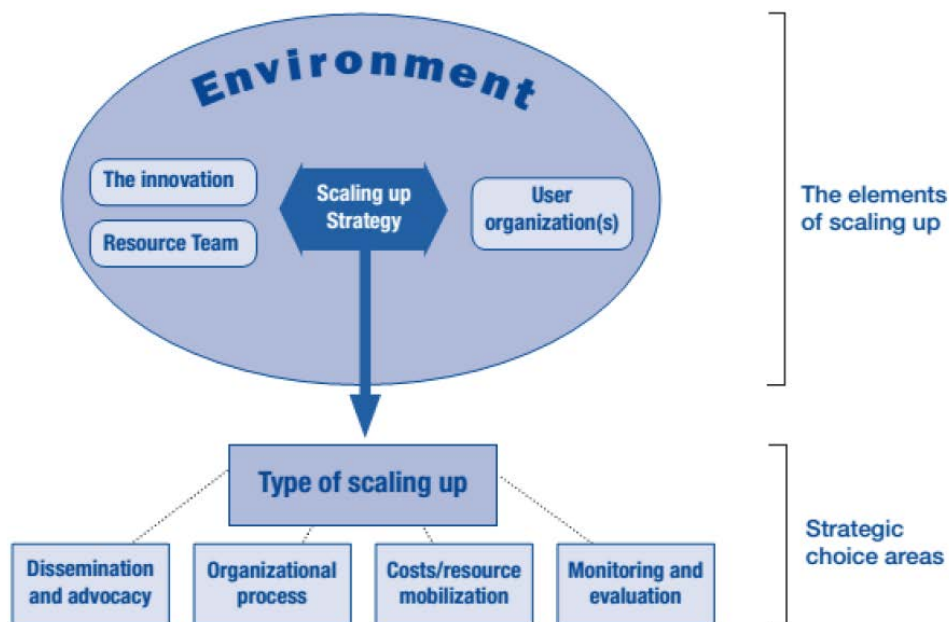
There are two major conceptual frameworks on scaling up health interventions that are widely used in global health: one developed by ExpandNet/World Health Organization (WHO)^{3, 4} and the other by Management Systems International.⁵ A principle guiding both is an "open systems perspective," which views scale-up in the context of existing systems (e.g., political, legal, policy, socio-cultural, health sector, and organizational systems). As mentioned previously, another key principle is that scaling-up is a *political* process and there will always be resistance to change and issues that need to be negotiated with the political system.⁶ Scale-up requires leadership to champion adoption and maintenance of an innovation and is more than the implementation of technical steps.

The ExpandNet/WHO model consists of five components: the innovation, the user organization, the environment, the resource team, and the scale-up strategy (Figure 1). Adapting this framework to CHW programs is reflected as follows:

- **The innovation** – this refers to the program to be scaled up and including the specific interventions that it comprises
- **The user organization(s)** – this refers to the organization(s) primarily responsible for implementing the program, and those organizations that work closely with it or support it

- **The resource team** – this refers to individuals and entities promoting or facilitating the scale-up process
- **The environment** – this refers to conditions external to the user organization that are fundamental to scaling up the program (this is sometimes referred to as the context)
- **The scale-up strategy** – this refers to plans and actions necessary to scale up the program

Figure 1. The ExpandNet/WHO framework for scaling up³



Attributes Contributing to Success (from ExpandNet)

Building on some of the diffusion of innovation literature that has permeated the social science literature over the past four decades, we describe here some of the ways to design a scale-up that might facilitate success.

The Innovation

While some health interventions can spread passively with minimal help, substantial strategic planning and action is normally needed to successfully scale-up CHW programs. According to Glaser, Abelson, and Garrison,⁷ innovations that possess the following “CORRECT” characteristics may be more likely to spread:

- **Credible** – based on sound evidence, supported by respected persons or institutions
- **Observable** – results that can be seen by user organizations
- **Relevant** – addresses relevant needs
- **Relative advantage** – has benefits over existing practices
- **Easy to implement and understand** – straightforward to learn and put into practice
- **Compatible** – consistent with existing values and norms of the user organizations
- **Testable** – can be tried out on a pilot basis without a long-term commitment to adoption and scale-up

With any important new CHW initiative under consideration, these issues should be addressed at the planning stage. What can be done to create more optimal conditions for successful spread? Or as Simmons⁴ frames it, “Are there ways to simplify the innovation while making sure that essential components that produce successes are not lost?”

The User Organization

As a condition for successful adoption and implementation, the user organization (which in this case generally will be the MOH and its district health systems) needs to be convinced of the need for the particular program, and have the necessary capacity and resources to implement it. Champions are a key ingredient to advocate and inspire others at all phases, including when an initiative is first being considered, as well as much later, ensuring serious attention to ongoing implementation.^{3, 8, 9} According to McCannon et al.⁸, to be effective, champions should be respected, have an established platform from which to speak, be aligned with the cause, and be willing to publicly support the cause. Experience and capacity are preconditions for effective implementation at scale.³ A user organization with the capacity for large-scale implementation has the needed infrastructure and human resources network to undertake the rollout process and to ensure adequate continuing resources and systems support to maintain sound performance.^{10, 11}

Resource Team

The “resource team” could consist of a technical working group, convened under MOH auspices. Leadership could be supplemented from partner agencies or academic institutions. To be effective, those making up the resource team need collectively to have sound leadership, advocacy, and managerial skills in addition to technical and implementation skills.^{3, 9, 10, 12} Whether the team is advisory or has a decision-making role must be set out clearly, and the relationship between the resource team and implementing organization needs to be negotiated and formalized.

Strong leadership and management are also needed to create a vision for scale (by defining the scope of the proposed effort and how it fits into the health needs of the country) and to develop strategies to build momentum and energy over time.⁸ Further, advocacy skills are needed to influence the views of user organizations and opinion leaders (e.g., the MOH, regulatory bodies, professional bodies, and donors) and to garner their support.

The User Organization/Resource Team Relationship: Factors Promoting Success

- Close physical proximity³
 - Opportunities to develop informal contacts and relationships^{10, 13}
 - Clear and established norms for operation⁸
 - Compatibility in organizational values, norms, and systems⁵
-

Environment

The national political environment can influence the choice and pace of scale-up strategies. The political environment often exerts a marked influence on national decisions to go to scale with CHW programs, and the stability and longevity of such support can affect decisions about whether a gradual, phased approach is adopted or a rapid scale-up is selected to take advantage of a politically opportune time.¹⁴ The timing and duration of support from donor and international organizations can also influence the approach. In the past, the international political environment has been an important factor in the renewed interest in CHW programs.

There are considerable differences among settings that are relevant to community health services and that need careful consideration when planning for larger-scale implementation. Contextual issues of particular importance to large-scale implementation of community health services include:

- Local epidemiology, including population demographics and burden of disease
- Local mix of PHC services, including public, private and NGO providers, what categories of health workers are present, and the density of health care providers per unit population
- Strengths and weaknesses of the local PHC system, including in relation to governance, financial, and delivery arrangements

The guided process may involve three types of scale-up: scaling up horizontally, vertically, and through diversification^{3, 9} **Horizontal scale-up** involves expansion, in that, increasing the number of beneficiaries reached by the CHW program. This can be done additively by increasing the overall size of the program through one or more separate community-based organizations that work in non-overlapping catchment areas but provide similar, if not identical, CHW services. The Bangladesh national family planning program was scaled up in this way (see below).

Vertical scale-up involves institutionalization, in that, ensuring sustainability of the scaled-up program through changes in high-level systems, such as policies, budgets, and laws.^{3, 9} The timing of advocacy to promote institutionalization depends on the innovation promoted. In some instances of institutionalization, laws or regulations must be changed in order to allow for task-shifting of health activities to CHWs (e.g., authorizations for properly trained and supervised CHWs to manage childhood pneumonia with antibiotics in the community). This has to take place prior to the launch of the CHW program. In other instances, institutionalization occurs after the CHW program has demonstrated impact, as in the case of the Bangladesh family planning program, discussed further below.

Finally, scaling up by diversification refers to adding new interventions into an existing CHW program. An example of this is CHWs who were originally trained to monitor growth and treat malnutrition are now also trained to treat childhood diarrhea and pneumonia.⁹ An unguided approach to scale-up can also be carried out multiplicatively through the creation of learning centers, centers of excellence, or living universities around which scaling up takes place.^{9, 15}

WHAT ARE SOME OF THE PITFALLS OF SCALING UP?

Scaling-up a CHW program is a complex and challenging process. Even if heroic efforts are made to consider and plan for success, there will always be many factors that lie outside of the program's control. For example, the availability of resources may not be synchronized with the policy or political environment.¹⁴ However, many challenges can be mitigated by foresight and careful planning. Designing the initial program with scalability in mind certainly helps the scaling up process. (For an example of this, see Islam and May's 2011 case study on BRAC's community-based tuberculosis program relying on CHWs.¹⁶) Coordination and consensus among multiple implementing partners is vital but often difficult to achieve. A common strategy endorsed by all stakeholders is necessary so that the MOH can give its full support in a coordinated way. (For an example of where this was not done, see the case study of scaling up mHealth in Sri Lanka, where inadequate coordination and different funders of demonstration sites led to the creation of standalone systems that were very difficult to unify.¹⁷)

Expanding tasks of an existing cadre or starting out anew with a totally new cadre is an important issue to settle up front. For example, a CHW cadre involved primarily in

immunization outreach services can progressively have new duties added. In Malawi, health surveillance assistants (HSAs) have long been responsible for outreach immunization services. Recently, case-management of childhood illness has been added to their duties. Alternatively, new cadres of CHWs have been created and they have been given comparatively long initial training and, from the beginning, have been expected to cover a wide range of duties. This has been the case, for example, with health extension workers (HEWs) in Ethiopia. There is no single correct strategy, in this regard. However, it can be very challenging to simultaneously introduce a broad range of new functions. It can also be challenging for trainees to adequately absorb all the necessary material and it can be very difficult to put in place adequately functional support systems to cover the requirements of multiple interventions and programs. If these conditions can be met, then this more ambitious approach can be successful. In many settings however, more modest initiatives, such as incrementally adding on functions to CHWs, may stand a better chance of success.

By giving serious attention to such questions up front, we can more confidently make decisions about if and how to proceed. We can design a process focusing not just on a short-term rollout effort, but with serious attention to ensuring that all the necessary conditions can be achieved and maintained such that the desired new service will continue to be effectively delivered. All too often, CHW programs have fallen prey to pitfalls that are not widely known and certainly not described or analysed in the peer-reviewed literature or even in publicly available documents. Such pitfalls are detailed below.

Inappropriate Pilots/Learning Phases

In many instances, NGOs or donor-supported projects develop relatively small-scale programs or services relying on CHWs and with relatively intensive inputs (for example, with regard to training and supervision). Where evaluations of these programs show very promising results, the models may be promoted for large-scale implementation. However, unless piloting has been done under conditions closely approximating how these activities would be delivered at scale, many important issues of feasibility, scalability, sustainability, and so forth are unlikely to have been adequately addressed or evaluated. It can be very risky to proceed with scale-up without getting answers to such questions.

As important issues of scalability tend not to be addressed in most pilot programs, many MOHs have grown impatient with external partners proposing yet another pilot program. Instead, they insist that partner support be invested in the introduction of new interventions or program elements *at scale*, from the very beginning. Depending on the complexity of the innovation, this can be a very risky practice. In many instances, a learning phase, conducted under realistic program conditions but rigorously documented and evaluated, can answer many critical questions that need to be addressed in developing a sound strategy for implementation at scale.

Too Rapid a Pace of Geographic Spread

Too often, there is an uncritical rushing forward to “take it to scale,” assuming that sound implementation will take care of itself. And all too often, several years down the road, someone will do a rigorous evaluation and demonstrate that the program has achieved virtually no impact in spite of major efforts and financial inputs. Therefore, for any change that could involve community-based services and before committing to a new initiative, it is important to look very closely at the current health system, such as staffing and management capacity, systems support, service utilization patterns, and population coverage of services, to determine needs *and* also what we can realistically expect from the health system to deliver.

Whether due to political pressures or timing constraints on availability of funds, there can be considerable pressure on both governments and external partners to introduce and expand new programs very quickly. Typically with rapid spread, many aspects of implementation may be

inadequate, including monitoring of program performance. The key metric of success may be the number of districts “covered” or the number of CHWs trained, rather than measures of service delivery, utilization, or health behavior. In many instances these programs perform more poorly than was initially expected. In contrast, some of the most effective community health programs now operating at large-scale expanded at a very measured pace, with quality of the program work carefully attended. A good example of this is the vitamin A supplement distribution program in Nepal, in which female community health workers (FCHWs) were the key players. Scale-up was done over a period of 10 years, with new batches of districts added each year, and serious attention was given to the quality of implementation and to the ongoing monitoring of population coverage.

Failure to Ensure the Quality of Training

This failing was one of the important contributors to the disappointing results seen with most integrated management of childhood illnesses (IMCI) scale-up efforts. In many instances, large-scale, rapid, cascade-model training initiatives have resulted in seriously compromised *quality* of training. Good training requires good trainers, who tend to be in short supply, and it requires careful monitoring of the quality of training. A hybrid model that has been used in many stronger CHW training programs has been to ensure the presence of at least one expert, external trainer with *every* training batch, to help ensure the quality of training.

Envisioning Scaling-Up Simply as a Training Cascade

There are many examples where scale-up has been conceived of as an intensive, cascade training initiative (when trainers are taught, then they teach trainers of trainers, and so on). Although there may be instances where this is appropriate, in very many cases the results (when finally rigorously evaluated) turn out to be very disappointing. If, in fact, the key missing piece is providing CHWs with appropriate knowledge and skills, an appropriate training can result in a service being properly delivered. However, for most new community health interventions or services, providing CHWs with knowledge and skills is just one of a number of conditions that need to be met for the service to be properly provided (and to reach the intended population at high coverage). So, even if well-done, training alone will generally not be sufficient to produce the desired change.

Scaling Up without Ensuring Long-Term Sustainability

Some scaled-up CHW initiatives have been successful initially, but the success was short-lived. Continued improvements in population health requires continued high-quality program activity, and that, in turn, requires continued vigilance in ensuring that the program remains functional and reaches a large proportion of those needing it. For both MOHs and external partners, it can be much more appealing to throw effort and resources into the latest new narrow approach than to keep flogging away at an established program.

Large-scale CHW initiatives probably need to be planned with a 10-year horizon at least. Otherwise there may not be much point in starting at all. This requires a secure political commitment and secure funding, among other things. Continued progress in pushing down maternal and child mortality, for instance, requires that important community-based programs remain solid and functional. This is much more likely to happen if it is planned for from the beginning of scale-up efforts and if key partners firmly commit not only to support scale-up but to the ongoing, longer-term efforts to ensure that programs continue to perform solidly.

Lack of Adherence to Basic Standards

Basic standards need to be set and, secondly, some governmental or quasi-governmental body (e.g., a CHW program board) needs to be tasked with monitoring implementation and the

quality of care and ensuring that the implementing agencies adhere to the basic standards. This is a governance issue as well. (See Chapter 4 on Governance.)

In many settings, even when new community health services come under MOH plans and structures, implementation is by NGOs, multilateral agencies, or donor-supported projects. One consequence is that initiatives that may look very neat and tidy in national planning documents but may be implemented by different partners in very different ways. The way training is done may differ; the use of incentives may vary; program elements or CHW duties not appearing in national plans may be added in different settings—all due to the varying priorities or interests of the partners. Some governments have been quite assertive with external partners, insisting on adherence to standards. This can be very helpful in avoiding the free-for-all that otherwise often develops.

At the same time, there can be legitimate reasons for variation in community health services. Most obviously, for example, the situation in urban areas is very different from rural areas. There are generally far more health workers of all types, and private practitioners often play a very important role in providing health services. Reaching the population with health messages in an urban area needs to be done in quite a different way than how one would do so at a village level. Similarly, pastoralist groups or remote, sparsely populated regions may require different approaches to community health services than those in more densely populated rural areas. In some cases, the appropriate programmatic response will be to use completely different delivery modalities. In other cases, modest modifications may be sufficient. For example, for optimal service delivery coverage, the ratio of population/CHW may need to be adjusted, with a smaller number of households per CHW in smaller, more remote communities.

EXAMPLES OF COMMUNITY HEALTH WORKER PROGRAM SCALE-UP

Numerous examples exist of CHW programs that have been scaled up, but there are far fewer examples of CHW programs that have been scaled up and effectively sustained for a long period of time. The Barefoot Doctor program in China collapsed as rural communes collapsed. India's early national CHW program, which was initiated in 1978, scaled up quickly to produce 500,000 CHWs. But, because of lack of attention to proper selection, training, supervision, and linkage to health facilities, the program was abandoned within only a few years.¹⁸

India

By far the most dramatic scale-up of a CHW program has been India's ASHA Worker Program, which began in 2006 and now, less than a decade later, has close to one million workers, making it the largest CHW program in the world. The recent evaluation of the ASHA Program demonstrated that almost one-third of households were not reached by ASHA workers, and they were among the most disadvantaged members of the population.¹⁹ The evaluation concluded that improving the skills of ASHA workers is still needed, as are improvements in supervisory and commodity supply.

Brazil

Another of the world's largest CHW programs is Brazil's Community Health Agent (CHA) Program, which now has 236,000 CHAs. This program expanded over three decades and was closely integrated with the PHC program of the country and its family health care teams (*Equipo de Saúde Familiar*). There is evidence that this scaling-up process has been effective, with maintenance of high-quality services, high levels of coverage, and very impressive achievements in terms of national progress in reduction of maternal and under-five child mortality.

Bangladesh

Bangladesh has a long history large-scale community health services. The most notable of these are the national community-based family planning (FP) program, the national oral rehydration therapy program, the national tuberculosis program, and the BRAC CHW (Shasthya Shebika) program. The development and expansion of these programs took different trajectories. The Bangladesh FP program, generally considered one of the most effective in the world in a low-income country not undergoing rapid socioeconomic development, began with an effective pilot program in a typical rural district (Matlab) in 1977. There, CHWs visited homes, promoted FP, and distributed birth control pills and condoms. A strong operations research effort (including a control area where such services were not implemented) demonstrated an increase in coverage of services and a decrease in fertility.

This provided the impetus for a gradual scale-up nationally over the following two decades, with a specially funded program at icddr,b (formerly the International Centre for Diarrhoeal Disease Research, Bangladesh) called the Rural Extension Project, which played a resource team function, providing ongoing monitoring and support for scale-up. In addition, activities were coordinated between the government and NGOs (many of which were funded by the United States Agency for International Development) so that there was eventually a uniform and national coverage of household services provided by FP CHWs (called family welfare visitors, or FWVs). This scaling up process took place gradually over a two-decade period with the total fertility rate declining from one of the highest in the world in 1971 (6.3) to 2.3 at present, one of the lowest rates in the world among countries at similar levels of development. The program eventually had 23,500 government-paid FHWs and another 7,000 CHWs supported by NGOs.^{20, 21}

The BRAC National Oral Therapy Extension Program (OTEP), mentioned previously, is a good example of a large-scale CHW program that focused on a single intervention and was not envisioned initially as a long-term sustained program. BRAC gradually scaled up a home visitation program in which trained CHWs (called oral rehydration workers or ORWs) visited every rural household in Bangladesh—12.5 million in total—to teach mothers how to manage childhood diarrhea using home-based commodities, such as sugar, salt, and water. The house-to-house visits by ORWs have changed the norms of childhood diarrhea treatment, and Bangladesh now has one of the highest utilization rates of oral rehydration therapy for childhood diarrhea in the world, with 81% of children with diarrhea given oral rehydration solution (ORS). The scale-up process included a strong M&E component managed independently by icddr,b.

Following a pre-pilot and a pilot stage, the OTEP program expanded in phases, with the first phase reached 2.5 million households over a three-year period (1980–83), the second phase reaching twice that many households over the subsequent three-year period (1983–86), and in the final three-year period another 5 million households. Scaling up involved organizing CHWs into decentralized teams with strong provisions for supervision and accountability. An innovative program of CHW performance evaluation was developed by independent evaluators visiting 10% of homes following an educational session given by a CHW. CHWs with outstanding performance were rewarded with a financial bonus, thereby motivating workers and improving program effectiveness. This is an example of a national CHW program implemented by an NGO working in close collaboration with the government, other NGOs, and multiple donors.^{21, 22}

The Bangladesh MOH has also scaled up an innovative national community-based tuberculosis program involving CHWs in collaboration with NGOs. CHWs visit homes and identify those with a cough of more than three weeks duration and then collect a sputum specimen that is examined microscopically by a MOH technician at a government health facility. The CHW

working with the NGO then supervises directly observed therapy (DOTS) of those who test positive. This program began in 1994 follow a successful pilot program led by BRAC, in close coordination with the MOH, in one district that took place between 1984 and 1991, with expansion to nine additional districts in 1992 and eight more in 1995. Now, this program has gradually expanded so that there are 10 collaborating NGO partners. Case detection rates are quite high—in the range of 80%—and treatment success rate is in the range of 85%.^{21, 23, 24}

In short, BRAC's experience with successful scale-up of a number of different community-based health interventions involving CHWs all involve a similar process: develop and pilot a model program that is scalable, then gradually scale it up with a strong external M&E process so that mid-course corrections can be made. Maintenance of strong training programs and strong supervisory support at each step is essential for success.

CONCLUSIONS

Effectively scaling up of a CHW program and sustaining effective program functioning at scale are enormous challenges. However, examples of well-run programs at scale suggest that this is achievable with the proper combination of leadership, visioning, planning, identification of the appropriate model, fitting the program to the local and national contexts, ensuring long-term financial support, and continuing performance improvements on the basis of rigorous ongoing M&E. Learning from successful and failed experiences of other programs can also provide invaluable insights.

Key Resources

WHO. Beginning with the end in mind: Planning pilot projects and other programmatic research for successful scaling up. World Health Organization. 2011.

<http://www.expandnet.net/PDFs/ExpandNet-WHO%20Guide%20Beginning%20with%20the%20end%20in%20mind%20-%20May%2019,%202011%20-%20draft.pdf>

WHO. Nine steps for developing a scale-up strategy. World Health Organization. 2010.

<http://www.expandnet.net/PDFs/Nine%20steps%20for%20developing%20a%20scaling%20up%20strategy%20-%20WHO%20publication.pdf>

WHO. Practical guidance for scaling up health service innovations. World Health Organization. 2009.

http://www.expandnet.net/PDFs/WHO_ExpandNet_Practical_Guide_published.pdf

Simmons R, Fajans P, and Ghiron L, eds. Scaling up health service delivery: from pilot innovations to policies and programmes. 2007. http://www.expandnet.net/PDFs/Scaling-Up_Health_Service_Delivery-WHO-ExpandNet.pdf

ExpandNet scaling-up bibliography: <http://www.expandnet.net/biblio.htm>

The following is a detailed guide, also focusing particularly on public sector efforts for scaling up:

MSH. A guide for fostering change to scale-up effective health services. 2007.

http://erc.msh.org/toolkit/toolkitfiles/file/FC_Guide2.pdf

The following guide draws particularly from NGO experiences in South Asia:

Kohl R, Cooley L. "Scaling up: from vision to large-scale change," Management Systems International. 2005. <http://www.msiworldwide.com/files/scalingup-framework.pdf>

The following guide, as the title suggests, is particularly oriented to maternal-newborn scale-up efforts:

Robb-McCord J, Voet W. Scaling up practices, tools, and approaches in the maternal and neonatal health program. Jhpiego. 2003.

www.jhpiego.org/resources/pubs/mnh/scaleupMNH.pdf

The following guide draws on an approach developed by the Institute of Healthcare Improvement:

Massoud MR, Donohue KL, and McCannon CJ. 2010. Options for Large-scale Spread of Simple, High-impact Interventions. *Technical Report*. Published by the USAID Health Care Improvement Project. Bethesda, MD: University Research Co. LLC (URC).

http://www.ihp.org/NR/rdonlyres/B37CD455-9F65-422F-878F-3DB1C920A380/0/MassoudDonahueMcCannonLargeScaleSpreadHighImpactInterventions_USAIDURCSept10.pdf

Related to our focus here on scale-up is the challenge of closing the research-to-practice gap. The following review captures a broad range of this literature:

Fixsen, D. L., Naoom, S. F., Blase, K. A., Friedman, R. M. & Wallace, F. (2005). *Implementation Research: A Synthesis of the Literature*. Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, The National Implementation Research Network (FMHI Publication #231).

<http://www.fpg.unc.edu/~nirn/resources/detail.cfm?resourceID=31>

Two other useful resources (not specific to health) are the following:

Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyiakidou O. Diffusion of Innovations in Service Organizations: Systematic Review and Recommendations. *Milbank Quarterly* 82(4); 2004: 581–629.

Daniel Taylor-Ide and Carl Taylor. Chapter 22. How to go to scale. *Just and Lasting Scale: When Communities Own Their Futures*. Baltimore: Johns Hopkins University Press, 2002, pp. 282–307.

References

1. Munabi-Babigumira S, Oxman A, Lavis J, Fretheim A, Lewin S. Scaling up policies and programmes. Oslo: Norwegian Knowledge Centre for the Health Services, 2009.http://www.cdbph.org/documents/STP_13_Scaling%20up_policies_and_programmes_2009_06_12.pdf
2. Glenton C, Carlsen B, Swartz A, Lewin S, Noyes J, Rashidian A. Barriers and facilitators to the implementation of lay health worker programmes to improve access to maternal and child health: qualitative evidence synthesis. *Cochrane Database Syst Rev* 2013 (Submitted for Publication).
3. Simmons R, Ghiron L, Fajans P. Nine steps for developing a scaling-up strategy Geneva, Switzerland: World Health Organization, ExpandNet, 2010.http://whqlibdoc.who.int/publications/2010/9789241500319_eng.pdf
4. Simmons R, Fajans P, Ghiron L, Johnson B. Managing scaling up. In: Cash R, Chowdhury MR, Smith GB, Ahmed F, eds. *From One to Many: Scaling Up Health Programs in Low Income Countries*. Dhaka, Bangladesh: The University Press Limited; 2011: 3-12.
5. Cooley L, Kohl R. *Scaling Up - From Vision to Large-scale Change: A Management Framework for Practitioners*. Washington, D.C.: Management Systems International 2006.<http://www.msiworldwide.com/files/scalingup-framework.pdf>
6. Lavis JN, Rottingen JA, Bosch-Capblanch X, et al. Guidance for evidence-informed policies about health systems: linking guidance development to policy development. *PLoS Med* 2012; **9**(3): e1001186.
7. Glaser E, Abelson HH, Garrison KN. *Putting knowledge to use: facilitating the diffusion of knowledge and the implementation of planned change*. San Francisco, California: Jossey-Bass; 1983.
8. McCannon J, Schall MW, Perla RJ, Barker P. Planning for Scaling Up. In: Cash R, Chowdhury MR, Smith GB, Ahmed F, eds. *From One to Many: Scaling Up Health Programs in Low Income Countries*. Dhaka, Bangladesh: The University Press Limited; 2011: 15-29.
9. CORE Group. "Scale" and "Scaling-Up" A CORE Group Background Paper on "Scaling-Up" Maternal, Newborn and Child Health Services. 2005 CORE spring meeting and the USAID child survival and health grants program mini-university 2005; Washington, D.C.: CORE Group; 2005. p. 11.http://www.coregroup.org/storage/documents/Workingpapers/scaling_up_background_paper_7-13.pdf
10. Kaosar A. Scaling up BRAC's maternal, neonatal and child health interventions in Bangladesh. In: Cash R, Chowdhury MR, Smith GB, Ahmed F, eds. *From One to Many: Scaling Up Health Programs in Low Income Countries*. Dhaka, Bangladesh: The University Press Limited; 2011: 59-73.
11. Pallas SW, Minhas D, Perez-Escamilla R, Taylor L, Curry L, Bradley EH. Community health workers in low- and middle-income countries: what do we know about scaling up and sustainability? *Am J Public Health* 2013; **103**(7): e74-82.
12. Nahar T, Azad K, Aumon BH, et al. Scaling up community mobilisation through women's groups for maternal and neonatal health: experiences from rural Bangladesh. *BMC Pregnancy Childbirth* 2012; **12**: 5.
13. Gawande A. Slow ideas. Some innovations spread fast. How do you speed the ones that don't? *The New Yorker*. 2013 July 29, 2013.http://www.newyorker.com/reporting/2013/07/29/130729fa_fact_gawande

14. Simmons R, Shiffman J. Scaling up health service innovations: a framework for action In: Simmons R, Fajans P, Ghiron L, eds. *Scaling Up Health Service Delivery from Pilot Innovations to Policies and Programmes*. Geneva, Switzerland: World Health Organization 2007: 1-30.
15. Taylor-Ide D, Taylor CE. *Just and Lasting Change: When Communities Own Their Futures*. Baltimore, MD: Johns Hopkins University Press; 2002.
16. Islam MK, May MA. Decentralized management in the expansion of BRAC's rural tuberculosis program (DOTs). In: Cash R, Chowdhury MR, Smith GB, Ahmed F, eds. *From One to Many: Scaling Up Health Programs in Low Income Countries: The University Press Limited*; 2011: 207-14.
17. Chathoth P. Scaling up in eHealth: leveraging the potential of ICTs. In: Cash R, Chowdhury MR, Smith GB, Ahmed F, eds. *From One to Many: Scaling Up Health Programs in Low Income Countries*. Dhaka, Bangladesh: The University Press Limited; 2011: 105-28.
18. Rohde JE, Wyon J. Introduction to Part I: A brief history of community-based primary health care. In: Rohde JE, Wyon J, eds. *Community-Based Health Care: Lessons from Bangladesh to Boston*. Boston, MA: Management Sciences for Health (in collaboration with the Harvard School of Public Health); 2002: 3-12.
19. National Health Systems Resource Centre. *ASHA Which way forward...? Evaluation of ASHA Programme*. New Delhi, India: National Rural Health Mission. National Health Systems Resource Centre, 2011.
http://nhsrindia.org/download.php?downloadname=pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/ASHA_Which_way_forward_-_Evalaution_of_ASHA_Programme_Report_NHSRC_417.pdf
20. Cleland J, Phillips JF, Amin S, Kamal GM. *The Determinants of Reproductive Change in Bangladesh*. Washington, DC: The World Bank; 1994.
21. Perry H. *Heath for All in Bangladesh: Lessons in Primary Health Care for the Twenty-First Century*. Dhaka, Bangladesh University Press Ltd.; 2000.
22. Chowdhury AM, Cash R. *A Simple Solution* Dhaka, Bangladesh University Presst Ltd.; 1996.
23. Zafar Ullah AN, Newell JN, Ahmed JU, Hyder MK, Islam A. Government-NGO collaboration: the case of tuberculosis control in Bangladesh. *Health Policy Plan* 2006; **21**(2): 143-55.
24. Islam MK, May MA, Ahmed F, Cash R, Ahmed J. *Joining forces: a public private partnership for TB control Making Tuberculosis History: Community-based Solutions for Millions: The University Press Limited*; 2011.

Measurement and Data Use for Community Health Services

Steve Hodgins, Dena Javadi, and Henry Perry

30 September 2013

Key Points

- Routine measurement and data use for community health services are poorly developed in most countries.
- Such information systems, if well-developed and used, can strengthen community health services, including the performance of community health workers (CHWs).
- Sometimes additional information will need to be collected beyond what is normally reported on routine monthly report forms.
- Descriptions of some of the findings from monitoring and evaluation of large-scale CHW programs in Pakistan and India are provided.

INTRODUCTION

Measurement for a program is analogous to senses for the human body. It is an essential function, required for program effectiveness. It tells what is happening, alerting people to areas that need attention. Data are used at different points in the development and implementation of program activities. Data are used to define or characterize a problem that may call for some new action. So, for example, we may be relying on health facility-based care for immunization. Considering routinely generated data on service volume, we may determine that population coverage is very low. That could prompt decisions to develop new modes of service delivery that more adequately meet the needs of the population (possibly including a new use of CHWs). Data coming from special studies or periodic population surveys can also serve this purpose of helping us better understand problems that may need new approaches.

Another important use of data is evaluation. Typically, formal evaluations are a donor requirement associated with major program initiatives. Most often, they are done as one-offs, sometimes finding very disappointing performance, resulting in decisions to make major changes in direction. Related to evaluations is the measurement and analytic work associated with pilot activities. From such findings, decisions can be made about whether or not to proceed with scale-up, and what particular aspects of a demonstration activity need to be modified.

Finally, returning to the analogy with senses and the human body, measurement can serve a critical function informing, on an ongoing basis, what is happening and where adjustments need to be made. As important as the other uses of measurement are, this chapter focuses primarily on the ongoing collection and use of data related to community health services for purposes of continually improving performance and impact. This process requires appropriate documentation and information management systems and requires equipping CHWs and other health workers on appropriate documentation and data management and use for improving services.

KEY QUESTIONS

- What does monitoring and evaluation consist of?
- What are the steps in developing a monitoring and evaluation system?
- What are methods for routine monitoring and performance management?
- When is routine measurement not enough?

On this ongoing function, Lant Pritchett¹ et al. supplement the conventional concepts of “monitoring” and “evaluation” with the idea of “structured experiential learning,” adding an additional “e” to M&E, to get MeE. They point out that typically: (1) “evaluation” is done infrequently, and by some external entity; and (2) ongoing “monitoring,” of the usual kind, is done as an administrative, reporting function. What is needed is more than this; they call for “structured experiential learning,” by which they mean rigorous, real-time tracking of important aspects of program performance by implementers, with tight feedback loops and continuous attention to address performance problems.

In the case of many tasks or program activities conducted by CHWs, even routine (administrative) monitoring may be missing because health management information systems (HMISs) commonly fail to capture services provided more peripherally than at the health facility level. The fact that a function gets measured and reported does not necessarily mean that it will get meaningful attention to ensure performance, but if it is not monitored at all there is little likelihood of effective performance management. This need for monitoring is true

of all services, but is particularly important for community health services that often are not adequately monitored. Too frequently, they are also scaled up and implemented over long periods without being subject to rigorous evaluation. Unfortunately, there have been few examples of rigorous, large-scale evaluations of community-based services.¹

Some community-based services are frequently captured in routine monitoring or health information systems. For example, in many settings outreach strategies and the use of health auxiliaries are important for delivery of immunization services. Where this is the case, these services are generally reflected in routine health information systems, though not necessarily disaggregated from health facility-based provision. For many other programs, however, services provided by CHWs frequently are not captured at all. For example, CHWs may be depot holders for oral rehydration solution (ORS), condoms, or oral contraceptives, yet distribution of these commodities/services by CHWs may not be captured in the HMIS. Health education and community mobilization functions are typically not captured at all or, if documented and reported, the information may not be interpretable. For example, a report on the number of community education sessions conducted per month by a CHW does not really provide any useful information about the quality of the session, the number of attendees, and so forth.

There is a general principle that what gets measured gets attention. Health facility and program managers at all levels are only empowered to actively and effectively manage performance of their services and programs if they have a good idea how things are actually going. That requires selection of meaningful indicators, appropriate ongoing measurement, review of the collected information, and actions taken in response to the information collected. So, although we acknowledge the importance of traditional “monitoring” and “evaluation,” what is particularly important here is the “e” in MeE, i.e., what Pritchett et al. refer to as “experiential learning.” This term can be understood as ongoing monitoring/measurement to track and manage services to improve performance. As we have seen, immunization is a program area that, in many settings, is managed in a way that can serve as a model for other areas of community-level service delivery.

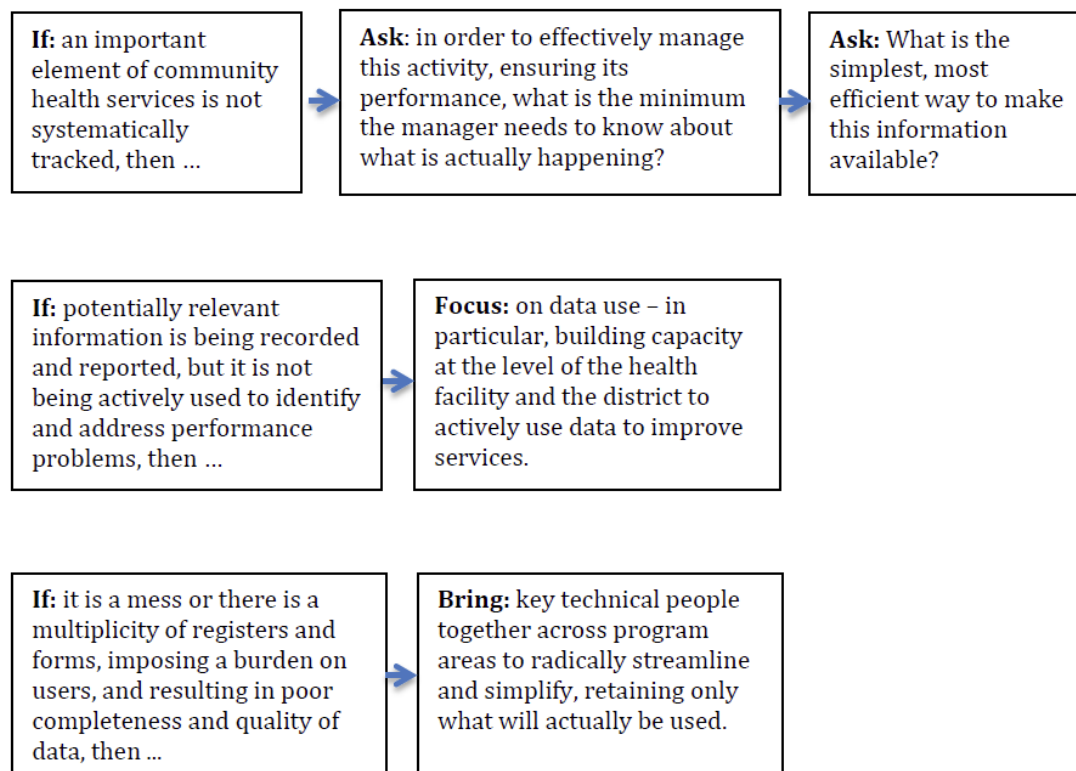
WHAT ARE THE STEPS IN DEVELOPING A MONITORING AND EVALUATION SYSTEM?

If a program activity is judged to be important, managers need to have a good idea how it is actually doing. Frequently, enough checking can certainly help a lot. But, supplementing this monitoring with more systematic checking, using indicators and information systems, is generally necessary.

There are several common problems, calling for specific responses as shown in Figure 1.

¹A notable exception is the multi-country evaluation of community health services by Bryce et al.²

Figure 1. Steps in developing a functional information system for community health services



WHAT ARE METHODS FOR ROUTINE MONITORING AND PERFORMANCE MANAGEMENT?

Virtually all primary health care services have routine health information systems, consisting of registers, forms, and reports. They may also include standardized case records, patient-held cards/records, and more specialized information sub-systems, for example, for health facility-level supply chain management. Some systems have provision for capturing services delivered at outreach sessions or at the household level, with dedicated registers or forms used at that level. In most instances, there are no institutionalized provisions for processing and using information collected through these various tools other than for extracting certain items for submission in monthly or quarterly reports. Although there may be integrated information systems that consolidate across all or some programs or services at the primary healthcare level, the more usual situation is a multiplicity of documentation tools associated with different programs. This system imposes a documentation and reporting burden on health workers and CHWs (to the extent that they, too, are obliged to record such information). It also contributes to problems of data quality and completeness and further reduces the likelihood of active data use for quality improvement.

There are other possible data sources for routine monitoring and performance management. These sources can include documentation arising from supervisory contacts, individual patient records, and material generated from institutionalized death audit processes.

WHEN IS ROUTINE MEASUREMENT NOT ENOUGH?

As already discussed, measurement related to health program performance has several important functions. As a basis for developing strategy, understanding the current situation helps in prioritizing, directing design decisions, and determining resources needed. But, as

services are delivered over time, there are also important dimensions of performance and of drivers or determinants of performance that cannot be readily measured through the normal means available to us for routine monitoring. For example, an important target of many CHW programs is changes in specific household practices. If part of a CHW's role is to promote exclusive breastfeeding at the household and community levels, the most important measure of effectiveness is what is actually happening with breastfeeding rates. Normally, that cannot be measured any other way than by a representative household level survey of the whole population. Similarly, if an important focus of CHW work is to promote appropriate care seeking for danger signs, we will not be in a position to properly measure this practice based only on public sector service delivery statistics.

There can also be important drivers or determinants of performance that program managers need to accurately judge. For example, morale or motivation of health workers (including CHWs) can be a very important factor influencing their performance. But, routine monitoring tools do not provide any insight into such factors. For important aspects of program performance that do not lend themselves to routine measurement, periodic surveys, and special studies can provide valuable information, although normally we have to be satisfied with getting this information far less frequently than we would like. Certain CHW programs, such as Pakistan's lady health worker (LHW) program and Nepal's female community health volunteer (FCHV) program, have had the benefit of periodic surveys specifically looking at those programs. These surveys have provided invaluable information on what the CHWs are doing and on factors influencing performance.

EXAMPLES OF MEASUREMENT AND DATA USE IN SPECIFIC CHW PROGRAMS

Two recent examples of evaluations of large-scale CHW programs are of Pakistan's LHW program (established in 1994 with 100,000 LHWs at present) and India's accredited social health activists (ASHA) worker program (established in 2006 with 820,000 ASHA workers at present).

Box 1. An example from India of regional-level monitoring

In India's ASHA program, ASHA supervisors monitor performance and report on it. The reports on ASHA functionality involve recording whether ASHAs are completing such tasks as (1) visiting newborns within the first day (for newborns born at home), (2) attending immunization camps, (3) visiting households to discuss nutrition, and (4) acting as directly observed treatment short-course (DOTS) providers (to directly administer TB medication).³ These reports are then submitted to the block community mobilizer on a monthly basis and assessed quarterly to determine what percentage of ASHAs are functional. These results are then submitted to the district coordinator, who grades each block in the district based on ASHA functionality. Finally, the monitoring data are consolidated at the state level, and each district is graded.

Similar to the ASHA example, monitoring systems for anganwadi workers (AWWs) in India start at the village level and data flows to the child development project officer at the block level and finally to the Ministry of Women and Child Development at the state and national level. Data are reviewed at each level and applied in decision-making. The monitoring and information system is currently being updated and revised so that each state adheres to a common national standard. The revision process involves creating online monitoring software for use at the block level, new information registers, and new reporting formats from the village to the state level.⁴

In 2009, Oxford Policy Management conducted an external evaluation of the LHW program in Pakistan,⁵⁻⁹ covering the period from 2003-2008. It included a survey of a nationally

representative sample of households and a similarly representative sample of LHWs. Separate interviews were conducted with LHW supervisors, selected medical staff, and community groups. The goals of the evaluation were to examine the level of performance of LHWs and their determinants, measure quality and coverage of services, including coverage among the poor. In addition, reviews of management, organizational systems, program expenditures, and unit costs were done, resulting in 11 reports, including reports for each province of the country.

Among the many findings of the evaluation were that the LHW program has effectively managed its expansion from 70,000 to nearly 100,000 LHWs without undermining its impact, although there are still serious problems encountered with supplies, equipment, and clinical referral services. However, it did identify that 25% of LHWs exhibited low levels of service, including working outside of their catchment areas for other organizations and charging for services (which is prohibited). In addition, it found that high turnover in management positions impeded program performance. Coverage in the most disadvantaged areas of the country is still incomplete, so the program will still need to expand further.

In India, in 2009 and 2010, the National Health Systems Resource Centre, a technical support institution with the National Rural Health Mission, conducted an assessment to determine what components of the ASHA program work, where, under what circumstances, and to what extent.³ The evaluation was done in three phases: Phase 1 was a qualitative study and a review of secondary information; Phase 2 was a structured questionnaire of a sample of stakeholders in two districts of each of the eight states selected for inclusion in the evaluation (in each district, 100 ASHA workers, 600 beneficiaries, 25 auxiliary nurse midwives [ANMs], 100 AWWs, and 100 community leaders who are representatives of the Panchayati Raj institutions). Their 207-page report had findings and recommendations specific to each state. In addition, the overall recommendations arising from the evaluation results included, among others, the following:

- Improve ASHA worker skills in counseling and interpersonal behavior change in areas related to nutrition, care in pregnancy (including recognition of maternal complications and referral), home-based care of the newborn, prevention, and management of illness in the young child, and prevention of communicable diseases and promotion of good health practices.
- Improve the quality of supervisory support and improve the drug kit refill process.
- Reinforce efforts to ensure that every household in the village is reached by an ASHA worker.
- Focus on advocacy for the program so that policymakers and others in the health system understand the potential impact of the program on saving maternal, newborn, and child lives.
- Establish a system of monitor ASHA functionality at the block, district, and state levels.
- Clarify and build synergy among the overlapping roles of AWWs, ANMs, and ASHA workers.
- Establish improved processes for replacement of ASHA workers and create opportunities for career advancement for qualified ASHA workers. This process will require competency-based training and certification of ASHA workers.
- Promote ASHA worker motivation by achieving a good balance between appropriate remuneration and a spirit of volunteerism and desire to benefit the community.²

² The report's statement was: "We need to forge a way forward that builds on the ASHA's own reiterations of community service, as being her main motivating element and the concept of volunteerism and activism. At the same time we also need to ensure that we do not become exploitative of her service, and that we respect the need to value her service and compensate her adequately for her time." [p. 127]

CONCLUSIONS

Measurement and use of data for strengthening community health services at the local level can strengthen the performance of CHW programs. In addition, well-developed national CHW program evaluations conducted at 5- to 10-year intervals can serve to guide national program strengthening. For CHW programs to remain relevant and effective and to maintain political and governmental support for their long-term sustainability, well-developed monitoring and evaluation activities will be essential.

Useful Resources

Segone, M (ed.) *Country-led Monitoring and Evaluation Systems: Better Evidence, Better Policies, Better Development Results*. UNICEF Regional Office for CEE/CIS. Available online at: <http://www.ceecis.org/remf/Country-ledMEsystems.pdf>.

Lippeveld T, Sauerborn R, and Bodart C. 2000. *Design and Implementation of Health Information Systems*. World Health Organization: Geneva, Switzerland.

References

1. Pritchett L, Samji S, and Hammer J. 2013. *It's All About MeE: Using Structured Experiential Learning ("e") to Crawl the Design Space*. Harvard University, John F. Kennedy School of Government: Cambridge, MA. Available online at: <http://ideas.repec.org/p/ecl/harjfk/rwp13-012.html>.
2. Bryce J et al. 2010. The Accelerated Child Survival and Development programme in west Africa: a retrospective evaluation. *Lancet* 375(9714): 572-82.
3. National Health Systems Resource Centre. 2011. *ASHA Which way forward...? Evaluation of ASHA Programme*. New Delhi, India: National Rural Health Mission
National Health Systems Resource Centre. Available online at: http://nhsrindia.org/download.php?downloadname=pdf_files/resources_thematic/Community_Participation/NHSRC_Contribution/ASHA_Which_way_forward_-_Evalaution_of_ASHA_Programme_Report_NHSRC_417.pdf.
4. Ministry of Women and Child Development, Government of India. 2012. *Integrated Child Development Services (ICDS) Scheme*. Accessed on August 15, 2013 at: <http://wcd.nic.in/icds.htm>.
5. Oxford Policy Management. 2009. *External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Lady Health Worker Study of Socio-Economic Benefits and Experiences*. Canadian International Development Agency. Available online at: http://www.opml.co.uk/sites/opml/files/LHW_Quantitative%20Report_1.pdf.
6. Oxford Policy Management. 2009. *External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Systems Review*. Canadian International Development Agency. Available online at: http://www.opml.co.uk/sites/opml/files/LHW_%20Systems%20Review_1.pdf
7. Oxford Policy Management. 2009. *External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Summary of Results*. Canadian International Development Agency. Available online at: http://www.opml.co.uk/sites/opml/files/Lady%20Health%20Worker%20Programme%20-%204th%20Evaluation%20-%20Summary%20of%20Results_0.pdf.
8. Oxford Policy Management. 2009. *Fourth External Evaluation for the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Quantitative Survey Report*. Canadian International Development Agency. Available online at: http://www.opml.co.uk/sites/opml/files/LHW%20Quantitative%20Report_0.pdf.
9. Oxford Policy Management. 2009. *External Evaluation of the National Programme for Family Planning and Primary Health Care: Lady Health Worker Programme. Management Review.*: Canadian International Development Agency. Available online at: http://www.opml.co.uk/sites/opml/files/LHW_%20Management%20Review_1.pdf.

Wrap-Up

Henry Perry, Lauren Crigler, and Steve Hodgins

30 September 2013

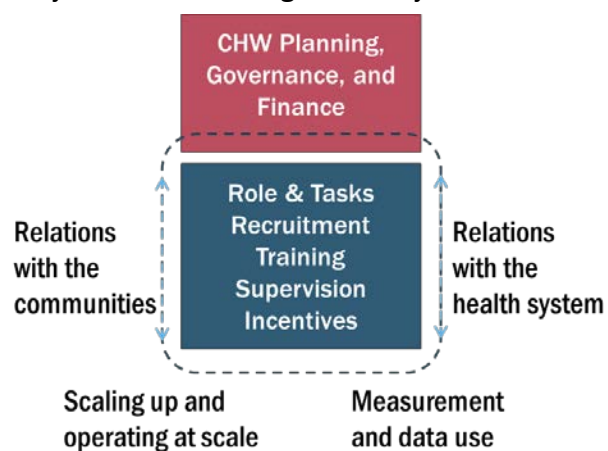
Key Points

- The current enthusiasm for large-scale community health worker (CHW) programs needs to be tempered with a sobering reflection on the disappointments that followed a similar wave of enthusiasm in the 1970s and 1980s and that challenges in scaling up and sustaining large-scale public sector CHW programs remain.
- Large-scale public sector CHW programs are complex entities that require adapting a systems perspective to the national and local contexts.
- This reference guide has attempted to avoid categorical recommendations and has suggested issues and principles to consider and, when possible, has cited relevant program experience.

Given the recent re-emergence of interest in large-scale CHW programs, we have taken the opportunity to take stock of issues and challenges that these programs face and what might be done to make them as effective as possible. This reference guide is intended to be a practical guide for policymakers and program managers who wish to develop or strengthen a CHW program, drawing lessons from other countries that have implemented CHW programs at scale. We have discussed major policy and programmatic issues that decision-makers and planners need to consider when designing, implementing, scaling up, or strengthening a national-level CHW program. We have offered an overview of specific challenges CHW programs face, country lessons, tools, and other resources that may be helpful for policymakers and program managers. As much as possible, we have brought in relevant programmatic examples.

We return to Figure 1 that was presented in the Introduction to highlight the inter-relationships between all the different parts of the “system” that makes up a CHW program. As should be even clearer than perhaps it was at the outset, because all of these functions have important inter-relations, design decisions in one area have consequences in many others.

Figure 1. Overview of Community Health Worker Program Sub-systems and Their Interactions



For more than 50 years, as leaders in primary health care have tried to elaborate strategies to better meet population health needs, they have gravitated repeatedly to solutions that have involved recruiting and training local people to play roles complementing and supplementing those of health professionals, encouraging healthier practices and care seeking and, in some instances, providing services that otherwise would fall within the responsibility of health professionals through task-shifting.

Strategies have varied considerably by place and time. Different names for community-level workers have been used. Some notable ones include: “health auxiliary,” “village health worker,” and “community health worker” and, most recently, “front-line health worker” (albeit, a designation used also to cover primary health care professionals, as well as lesser-trained community-level workers).

The initial wave of CHW programs established in the 1960s, 70s, and 80s was for a very different world from today. Many of the societies where we work have become more prosperous since then; the standard of education and literacy has improved; economies have evolved in the direction of greater monetization and away from traditional subsistence economies; in many settings, the private sector now accounts for a large proportion of health services provided; road networks have expanded; and new technologies (notably mobile phones) are now in widespread use. Perhaps most importantly, the world today is much more urbanized.

Nevertheless, many of the issues that face policymakers, program managers, and external development partners as they make decisions and as they design and manage community health programs are essentially the same as those faced by their predecessors: how to sustainably finance such a program; how to design it so that it will function effectively; how to select, train, motivate, retain, and supervise CHWs; how to ensure consistent supply of needed drugs and other commodities; and how to monitor and ensure performance. Also, now more than ever, programs need to be resilient and adaptable, adjusting to new evidence and policies to enable them to implement newly approved recommendations.

Unfortunately, examples can be found today of decisions being made in the development or implementation of CHW programs that repeat mistakes made in the past, dooming programs to the same compromised effectiveness as last time round. Our goal is for this reference guide to enable policymakers and program implementers to reduce the frequency of such decisions that fail to take into account lessons that can be drawn from past experience.

The accumulating evidence regarding the effectiveness of CHWs in low-, middle- and even in high-income countries provides strong indications that for the foreseeable future CHW programs are no longer just a stopgap solution. Investments in them are, in fact, investments in strengthening the health system. But, to reach their full potential they need adequate financing, just as all essential programs do. Whether emerging large-scale CHW programs can garner the financial resources they need to achieve their full potential is a question that is too early to answer at present.

Each of the chapters in this manual is authored separately, so they may differ in style and approach; however, in each case, authors were asked to present a series of key questions and provide alternative scenarios that might help decision-makers identify the best solution for their particular challenge.

Across chapters, there are key themes that emerge:

- Planning, managing, and financing CHW programs is complex because CHW programs generally fall somewhere between the formal health system and communities, and rely on the involvement of a wide range of stakeholders at local, national, and international levels. CHW programs frequently fall outside of the formal health structures and are poorly integrated with it.
- Careful planning that takes into account the full costs of the program is essential, and a plan for adequate financing that is fair and sustainable must follow. Establishing a strong base of political support for long-term financing is critical if government funding is required. Early success can build long-term success – an ineffective program is hard to fund in the long term.
- Balancing the inherent tensions of a large-scale CHW program in which the CHW is the lowest tier worker of a national health system and also acts on behalf of the always changing local world of a community will be an ongoing challenge requiring decentralized flexibility in program policy, design, and implementation.
- Attention to human resources, from role definition and recruitment to training, supervision, and incentives must be considered in full at the outset (if possible) of the program. Each of these areas individually and cumulatively provides the means and mechanism for the delivery of quality services. The program is responsible for providing basic and realistic support for people expected to deliver any kind of service to a community.
- Early program quality can generate political support that will be valuable in providing the needed governmental financial support. Strong evidence of effectiveness can help to secure

political support for funding and can be achieved by having a strong monitoring and evaluation program.

- Where community or local participation is well established, models of community-driven programs and local accountability may be appropriate and useful for CHW programs. Where local participation in governance is not well established (for example, because governance of the health and political systems are highly centralized) or is weak, stakeholders need to explore other mechanisms for accountability.
- It is challenging to include a very local participatory structure for governing a CHW program within a large-scale program, and there are few sustained examples of this. For large-scale programs, formal local governance structures, such as elected local government councils, may need to be relied on. Stakeholders need to consider how to organize CHW program governance in such contexts.
- Engaging localities in the governance of large-scale CHW programs is difficult to achieve without substantial resources, adequate planning, and sustained attention to maintaining these structures. Stakeholders need to consider what resources are needed and how these can be made available. However, the development and support of community networks, linkages, partners, and coordination is necessary to enable a comprehensive community participation approach for better health.

Although many themes and issues have been explored, we have not included a whole range of topics that are of great importance, but must be addressed elsewhere. These include the following:

- The effectiveness of specific interventions and specific strategies for delivering them in the community.
- Current advances in the application of mHealth for CHW programs and the potential of mHealth for CHW programs in the future.
- The adaptation of CHW programs to urban environments.

CONCLUSIONS

Our goal in this reference guide has been to offer reflection and, hopefully, some guidance for policymakers and program implementers as they begin to plan new CHW programs, scale up existing programs, and/or strengthen existing programs. In 1987, Berman, Gwatkin, and Berger asked if CHWs were a “false start or head start toward Health for All.”¹ The accumulated scientific evidence and programmatic experience (only a small portion of which has been cited in this guide) have provided a new and stronger foundation for being certain that CHWs definitely move the world toward Health for All, and not just as a stop-gap measure, but for the foreseeable future. We hope that this reference guide will help to enlighten the way – even if just a bit – toward Health for All.

References

1. Berman PA, Gwatkin DR, and Burger SE. 1987. Community-based health workers: head start or false start towards health for all? *Soc Sci Med* 25(5): 443-59.

APPENDICES

Current Perspectives on Large-Scale Community Health Worker Programs: Summary of Findings from Key Informant Opinions

Sharon Tsui, Elizabeth Salisbury-Afshar, Rose Zulliger, and Henry Perry

30 September 2013

INTRODUCTION

There is currently a high level interest in community health worker (CHW) programs from the Secretary General of the United Nations to host-country governments to donor agencies and on down. Some countries have recently launched new cadres of CHWs as part of the primary health care system or are considering doing so. Other countries with mature CHW cadres in national programs are faced with decisions about possible changes in these programs, such as changing the selection criteria of CHWs, adding functions to existing CHW tasks, or modifying compensation arrangements. The majority of available published literature on CHW program effectiveness concerns smaller-scale CHW programs to improve population health.¹ In contrast, little is known about large-scale CHW programs. There is very little documentation on the planning and implementation of these programs. Also, there is a dearth of empirical research on the overall effectiveness of large-scale CHW programs on population health and on the functioning of specific program components, such as financing, CHW retention, supervision, and so forth.

PURPOSE

We explored the opinions of experienced technical advisors, program managers, and evaluators to contribute knowledge on large-scale CHW programs. The specific objectives were to identify: (1) key components of a successful large-scale CHW program, (2) key decisions that CHW program planners must consider when developing a program, (3) common errors made in CHW programs that compromise performance, and (4) areas where further research are needed. The purpose of this exploration was to serve as a guide for planning a systematic assessment of large-scale CHW programs, which is the subject of this guide.

METHODS

We conducted semi-structured in-depth interviews with 14 key informants in fall 2011 and early 2012. Each informant had significant and intensive experience working with large-scale CHW programs: each informant had five or more years of experience in working with one or more national CHW programs and had served as a technical advisor, program manager, or evaluator of a large-scale CHW program. The interviews were conducted one-on-one via telephone or Skype by three of the authors (ES-A, RZ, and HP) and also by two members of the study team—Steve Hodgins and Simon Lewin. See the interview guide in Appendix A to this document. Detailed notes were taken on each interview to record informant responses. The textual data were analyzed by identifying and summarizing *a priori* and emergent themes.

FINDINGS

Contextual Understanding Needed to Design Effective Large-Scale CHW Program

Expert informants emphasized there is no “one-size fits all” model to developing a successful CHW program. The features of a successful program in one setting may not be appropriate in another setting. Rather, informants pointed to the importance of understanding contextual factors, such as cultural, social, political, religious, geographic, economic, and health system factors, to designing an effective large-scale CHW program. Contextual factors can inform the nature of linkages of the CHW program to other services, the scope of services provided by the CHW, compensation, selection criteria, and processes for training and supervision. The following examples highlight how contextual understanding can help design a more appropriate and effective CHW program.

Example 1: CHW Recruitment Process

An appreciation of the cultural and political aspects of social structures and their hierarchy at the village level can help a program designer decide whom to involve in the CHW recruitment and selection process and discern how an applicant's social position may influence his/her effectiveness as a CHW. One key informant stated:

It is very important to look at the cultural and political aspects of a program. For example, to look at whether you ask a village chief, a community clinic, or a village committee to select a community health worker and what are the different outcomes or implications.

A CHW must have a certain kind of standing within and ties with the community. The person who has this type of standing and community ties may not be the same type of person that the government wants to select as a CHW... the social position of a CHW in the community affects their effectiveness.

Example 2: CHW Selection Criteria

Understanding cultural and geographic factors is especially important in the selection of CHWs. Factors utilized in the selection of CHWs for large-scale CHW programs include age, gender, literacy level, education attainment, marital status, and geographic location (e.g., living in a particular area). Different socio-demographic characteristics are relevant in different communities in the selection of appropriate CHWs. Some communities are more likely to ascribe respect and trust to CHWs who are older and experienced as mothers. One key informant stated: *"It is exceedingly important that CHWs be responsive, accountable, respected, and trusted. These attributes are often associated with age and children."* In other communities, gender norms guide how CHWs interact with the community. For example, another key informant stated: *"Context is important here. In Afghanistan, only male and female pairs are accepted because women can't go outside of the home."* In another example, gender norms dictate where women live after marriage, which can impact where female CHWs can work and their retention. *"Marriage [as a] criterion has pros and cons—women who are unmarried and later get married are likely to leave the community,"* reported one key informant.

Example 3: CHW Payment and Incentives

Informants emphasized the need to find pay and incentives that are relevant to the local context. Varying types of incentives may appeal differently to different communities. Incentives that have been used for large-scale CHW programs may be financial (e.g., transport reimbursement), in-kind (e.g., bags, shirts, or badges), or social (e.g., a "CHW Day" to honor and celebrate this cadre). Considering the CHW's age and social standing within the country's social and economic contexts can also help the program designer identify an appropriate amount of payment and appropriate types of incentives. One key informant stated:

I think that these issues are very contextual—are the CHWs young or old? High or low class? Young people desire skills and want to show them off. Providing skills might be enough to keep young people interested, but this may not be enough for an older person with high status.

Example 4: CHW Roles and Responsibilities

A clear understanding of the national health system—particularly its stakeholders, how health care is delivered, and its human resource needs—is needed to see where CHWs fit into the larger health system and to clearly define their roles and responsibilities. For example, one key informant noted, *"It is important to understand the organization of the health care delivery in a particular setting to be able to understand how and where the CHWs fit in."* Another asked,

“Where does the program situate itself in the bigger picture—how is it linked to the health facility, district level, and the ministry of health? How are CHWs supported by the bigger formal system?” Notably, an appreciation of the various formal and informal stakeholders and their role in health service provision is necessary to ensure that CHWs have specific roles and do not displace other sectors of workers. A commonly neglected stakeholder is drug sellers.

It is also necessary to understand what health services are valued by community members. Several key informants said community members have a tendency to place greater value on curative treatments than on preventive messages. Understanding this tendency is needed to ensure CHWs are meeting some of these needs for them to gain credibility in the community. For example, one key informant said, *“In terms of public health impact, behavioral changes can play a larger role; however, the community listens more when CHWs have some curative role. It can be hard to get the community to listen to a CHW when the only messages are preventive.”* Similarly, another key informant stated, *“It is important that the CHWs come with credible skills. CHWs need to be seen as valuable to the community and as providing something that is interesting. Being able to provide “quick fixes” is very valuable in gaining interest or credibility.”*

Need for a Long-Term Vision and Planning to Support Large-Scale CHW Program Functioning

Multiple key informants attributed an inadequate long-term vision and a lack of long-term planning as a key reason why some large-scale CHW programs have not been successful. Some informants noted that the lack of a long-term vision is often in response to demands from donors who push ministries of health (MOHs) to focus only on short-term goals and outcomes that are related to a particular funding cycle. This has resulted in inadequate preparation and planning of the program components, such as government ownership of the program, commitment of funds to support long-term costs, planning for a CHW career trajectory, and development of data collection systems.

Example 5: Governance

Governance is a leadership process typically administered by a national government and relates to defining expectations, granting power, and verifying performance. Key informants emphasized how governance of a CHW program is developed over time through a political process by nurturing relationships with relevant stakeholders, such as MOH officials, donors, and opinion leaders. One key informant stated, *“Our failures have been more political than technical. We don’t put enough energy into the political side of it - both in terms of government officials and donors.”*

Informants have suggested different strategies to promote government ownership of a CHW program. One strategy is for the implementing partner to involve the MOH delegate in program planning as much as possible and develop an advocate for the program. For example, one international organization that was an implementing partner of a new national CHW program gave special attention to nurturing the position and involvement of certain MOH personnel assigned to the CHW program. As a result of nurturing these relationships, the MOH assigned personnel became the *“biggest champions of CHWs in the country,”* reported one key informant. This same informant noted that it is important to keep up with personnel changes in the MOH: *“Any time there is a new leader, new emphasis needs to be placed on educating him or her about what CHWs are capable of.”* Another strategy is to appeal first to opinion leaders, such as medical academics or a small group of decision-makers, before getting the MOH on board with the proposed program. Allow opinion leaders to see the program first-hand through dissemination workshops in the community and through site visits. This process can promote awareness of CHW program benefits and address points of skepticism.

Example 6: Financing Large-Scale CHW Programs

Consideration of the long-term costs of program planning is often neglected. Inadequate financing planning for a large-scale CHW program may be caused by donors who rush the government to start a program. According to one key informant, *“Many programs are developed when donors push on the MOH and neither the government nor the donor approaches the new cadre with a long-term perspective. So, activities continue for as long as external funds are available and quickly wither away once the funding has come to an end.”*

Also, there is a mistaken tendency for MOHs and donor agencies to assume that CHW programs are low-cost options. As one key informant reported, *“CHWs are not a low-cost alternative; they are a high-cost alternative, but also a high-access alternative. The number one cause of failure [of large-scale CHW programs] is that people consider this to be a low-cost option, and they don’t factor in the high costs associated with high-level technical support and other support functions.”*

In addition to funds needed to start a CHW program, long-term costs are required to provide appropriate continuous training, supervision, incentives, and other support functions, all of which are vital for an effective program. *“There’s a mistaken idea that once the CHWs are trained it is a free program. Regular meetings are important because they allow CHWs to get together, learn from each other, engage in healthy competition, obtain additional education, and so forth,”* reported one key informant.

Careful long-term planning is needed to fund the types of training and continuing education strategies that are more costly but are also needed for programs to be effective. For example, one key informant stated:

My sense is that most of the training should be conducted in their work environment. Of course, the problem with that is that it is very resource intensive because you need quite a number of trainers, but I do think that is the best way. One doesn’t expect CHWs to have very high theoretical skills but they should have practical skills. Practical skills can only really be learned in practice so it seems obvious to me that a lot of the training should occur in the community.

Careful long-term planning is also needed to provide appropriate incentives that will motivate CHWs and at levels that can be sustained over time. Care should be taken to ensure that funds provided at the start of the program are no more than the amount CHWs can expect for their work over time. One key informant observed, *“A lot of CHWs get paid very well during their training because it involves three weeks of full-time training. Then they start “working” and they get paid much less because they are not working as much. The full-time pay during training increases their expectations.”* Further, key informants indicated that they advised program planners not to provide payments or incentives that cannot be sustained over time. One informant said, for example, *“If a program starts out paying CHWs, it would be very hard to transition it into a volunteer program later. Sustainability is an important consideration with respect to compensation.”* One key informant recommended movement toward recognition over compensation and salary because it is more sustainable financially.

Example 7: Training and Continuing Education for CHWs

As was mentioned briefly in Example 6, training and continuing education should be considered in the long-term planning of CHW programs. A long-range perspective to CHW programs may enable program planners to build a broader range of capacity among CHWs and ensure retention of these skills. In the words of two key informants,

The lack of time or attention to this reflects the fact that we are always in such a hurry. Quite often it would be better if we were developing a multi-purpose type of

CHW that you would train slowly, over time, in a piece-by-piece fashion (e.g., train them, let them practice it, train them on something else, let them practice it, etc.). But instead, because we're often in such a hurry, everything gets thrown into one larger training, which isn't as effective.

The approach to attaining and retaining skills is usually inadequate with initial training that offers too little practicum exposure and little or no program effort to confirm and ensure retention of skills.

Informants emphasized repeatedly the importance of using a slower but more rigorous and phased approach to training. Respondents from two informants were as follows:

CHWs that go through a training for three or six months remember what they learned in the last five days, and everything else is lost. One of my strongest recommendations is training should be shorter but more often. Building Resources across Communities (BRAC) has layered it on one task at a time.

Trying to do tons of messages all at once in one training doesn't work as well. You can't go in with everything all at once. We found our programs were most effective in doing things one step at a time. For example, start with family planning and breastfeeding, then let them practice these messages, then train on other issues.

Also, a key informant highlighted how a phased approach to training can be more responsive to community needs because the flexible training structure can allow the community to decide on what health problems to address. This person said, *“Let the community decide what they want to work on and when. So if they choose diarrhea as a problem they want to address, then you teach the diarrhea module, which includes hand washing and latrines, etc. I feel that very few programs have done this, and those that do, have strong programs.”*

Example 8: Defining CHW Tasks and Integration with the Peripheral Health System

There is a tendency to add tasks to CHWs as the program progresses, resulting in overworked CHWs, a lack of programmatic focus, and too many functions for a CHW to be effective. One key informant referred to the experience in Pakistan: *“More and more duties and functions have been added to Lady Health Workers (LHWs) in Pakistan, including from sectors other than health, with the result that their focus has become too diffused. More functional LHWs have been rendered less effective in their core functions.”* The addition of new functions to CHWs may result from unrealistic expectations. Another key information observed, *“There is an unrealistic set of expectations in terms of what CHWs are capable of doing—they are often burdened with doing too much and not being able to do anything well.”*

Therefore, several informants emphasized the need for a long-term vision of CHW tasks. Program designers need to prioritize key goals to be achieved by CHWs and set these expectations and provide a guideline at the start of the program. One key informant recommended the following:

“There is a tendency for more and more tasks to be added on once the program starts. It is crucial to think about workload during the program development stage and create guidelines and expectations prior to program start. The more it is structured prior to the program start, the better off. Any optimal or prioritized sets of activities need to be defined before the program starts. Any additional tasks that are suggested or proposed need to be weighed carefully against

the goals of the program and workload of the CHWs. It is also important to look at where that task fits in the curricula and how it will affect the ability to address previously outlined important tasks or goals.”

To avoid overloading existing CHWs with new tasks, some key informants favor the addition of new cadres of CHWs. For example, one said, *“As you expand the tasks you want CHWs to tend to, it may work better to have multiple cadres of CHWs that can work together as a group—but each working in a vertical manner with his or her specific program.”* Other key informants feel that multiple cadres of CHWs serving in the same catchment area may be confusing to the community. One said, *“It is confusing at the local level when there are different types of [CHW] workers in the same place.”* Also, clients may perceive CHWs from a vertical program to be too limited to help them. Another key informant stated, *“If it’s too vertical, the clients often feel the CHW can’t help with much.”*

Another consideration on tasks to be performed by CHWs is whether the assigned activities can be readily supported by the local health system. One key informant noted, *“Where does the program situate itself in the bigger picture? How is it linked to the health facility, district level, or MOH? How is the program supported by the bigger formal system?”* For example, if CHWs are expected to refer patients to health facilities, then they need the cooperation of health providers at these facilities and the MOH. One key informant, referring to the Jamkhed Comprehensive Rural Health Project (in central India) and the Barefoot Doctors in China, observed:

Without somewhere to refer people who have trauma or significant illnesses, then the program is not as successful. The strength of Jamkhed and the strength of the Barefoot Doctors was their connection to the public health system. CHWs should get feedback on their referrals after they refer someone. CHWs should know what happened, what they diagnosis was, and what the outcome was. Joining in meetings at the clinic is also important for them to feel integrated into the system.

Although there was consensus that CHWs should be connected to the frontline health workers in the local health system, key informants held varying perspectives on the level of integration between the CHW program and the national health system. Some feel that integration of CHWs into primary health care is necessary to ensure service delivery (to be able to refer patients, obtain medications and supplies, etc.) and to provide supervision and accountability of CHW performance. One key informant stated, *“CHWs need to be integrated with the health system at the most peripheral or local level—government needs a link to the frontline health workers to ensure programs are delivered.”* Others feel that if CHWs were fully integrated into a peripheral health system that they would be misused. One key informant recommended “engagement” or “active interface” with the peripheral health system over full integration. This informant warned that CHWs would likely be misused because they are viewed as the lowest-level person on the health team, and they would be given tasks that would take them away from their identified scope or tasks as CHWs (e.g., told to clean rooms and latrines at the health facility).

Example 9: CHW Supervision and Career Trajectory

Supervision and long-term support for career advancement of CHWs constitute another neglected program component that needs to be considered at the outset as part of program planning. One key informant reported, *“There is a failure of effective, institutionalized supervision. Often, supervision is a complete afterthought. Initial program efforts consist of developing a training manual, doing mass training and deployment, and then ... nothing.”*

Nurses or other health staff at a primary health care clinic have been the traditional supervisors of CHWs. However, multiple informants have noted several challenges with this supervision set up. First, supervision is assigned to a staff in the clinic without consideration of

whether this person has the time, skills, or desire to perform supervisory tasks. One key informant reflected in the following way, *“Our experience ... has been that it is not enough just to have people at health facilities overseeing CHWs as an additional task. We needed to seek out new employees specifically to take on this task of overseeing CHWs. Overloading of supervisors became a problem (e.g., trying to oversee the CHWs associated with 30-40 health posts was too much).”* Second, supervisors based in health facilities often lack means of transport or other mechanisms (e.g., a cell phone for text messaging) to monitor the quality and performance of CHWs. Finally, and most importantly, health providers were not in touch with the technical needs and realities of CHWs, so their supervision was not very effective. One key informant stated:

You have to have the right people to supervise and support CHWs - people who themselves are well-oriented. I worry that in South Africa professional nurses will supervise CHWs. I don't think most professional nurses in South Africa have a very comprehensive approach. They don't know about health promotion, disease prevention, and getting communities involved, yet they will be the direct supervisors of CHWs.”

Similarly, another key informant observed that in one program, *“The supervisors often were not as clinically savvy as many of the CHWs, so they were not able to effectively provide technical assistance.”* Yet another noted, *“Checklist supervision is minimally effective, if at all. One of the keys to effective programs is making sure that the supervisors or trainers are in touch with the needs and realities of their workers.”*

Several informants recommended “reverse supervision” (that is, having an experienced CHW be a supervisor to newer CHWs) as a means to more effectively monitor quality, provide technical support, and help problem solve issues on the ground. *“Reverse supervision at monthly meetings will allow CHWs to help each other solve problems,”* claimed one key informant. Reverse supervision can also be an incentive to retain and motivate CHWs, as it allows them to develop their career. One key informant stated, *“Career development and career mobility should exist. In my experience, the best supervisors are those who have worked their way up and were once CHWs themselves.”* Similarly, another key informant about Pakistan's LHW program, *“By selecting the best LHWs and allowing them to be a supervisor to other CHWs was an incentive for others to work harder.”*

Need for Relevant Data Collection System for Large-Scale CHW Program

Much of the available data on CHW programs comes from small pilot programs run by nongovernmental organizations (NGOs). These findings may not be appropriate for extrapolation to scaled-up national programs. Several key informants noted it would be helpful to have some type of database where the basic features of large-scale programs are documented. This database could include information such as:

- Number of households per CHW
- Scope of services being provided
- Compensation/incentives
- Selection criteria
- Selection process
- Training process
- Supervision process
- Degree and nature of integration with the primary health care system

- Management and evaluation systems
- Health outcomes measured

This database would allow governments to have a better understanding of what types of programs have been implemented in other settings and perhaps allow for increased collaboration during the planning phases.

Notably, several key informants pointed out the current top-down approach to monitoring and evaluation leads often to situations in which CHWs collect data that are not relevant to their work. One key informant emphasized, *“CHWs who are collecting health information should be able to use the data. If it’s not relevant to them or their work, then someone else should be collecting it.”*

Several key informants noted that there is a need for better documentation of the CHW program decision-making process at the national level. Having information about how large-scale programs are managed is seen as an important element for better understanding the reasons for the degree of effectiveness of large-scale CHW programs. The key informants also recognized that there is a lack of collaboration in the development of training materials, particularly for illiterate CHWs. Each program seems to be creating its own materials and is attempting to “recreate the wheel.”

CONCLUSION

Because of limited published information about the details of large-scale CHW programs, the opinions of those who are knowledgeable about such programs is of value at this time, given the rapidly growing interest in CHWs and the emerging commitments in a number of countries to strengthen existing national CHW programs or to establish new ones. The findings from this review of key informants suggests that as countries engage in these activities, the success of their efforts will depend to an important degree on the quality of realistic planning that is carried out initially, taking into account the real costs required for effective programming and then developing monitoring and evaluation systems that will make it possible for these programs to adjust to needs and problems as they emerge at the local level and at the various levels of management.

Appendix A: Interview Guide

Key Informant Interviews

There is currently high-level interest in CHW programs, from the Secretary General of the UN, to host-country governments, to donor agencies, on down. There are a number of countries that have recently launched new CHW cadres, or which are considering doing so. Furthermore, countries with mature CHW cadres and programs are faced with decisions about possible changes in these programs, for example adding functions, changing arrangements with regard to compensation or changing selection criteria.

Despite abundant experience with CHW programs, a vast body of literature documenting these experiences, and several large-scale reviews of such evidence, we see many of the same programmatic mistakes being made repeatedly. For example, while most CHW literature cites the importance of CHW supervision, many programs have not fully invested in the development or maintenance of such supervision. Additionally, much of the guidance available to date pays too little attention to the diversity of kinds of CHW work or of the settings where this work is done. Guidance on offer tends to be either so general as to not be very useful or overly prescriptive, over-generalizing based on specific program experience.

We would like to develop a product which will help to close this gap and influence decision-making through highlighting issues of CHW program design and development. Our goal is to reach beyond the published literature and speak to MoH officials, field officials and other experts about their experiences with such programs. We do not intend to use a case-based model, but rather plan to look at the processes and many decisions faced when developing or changing existing CHW programs.

We anticipate that the principal product of our effort will be a book-length set of papers or chapters that would be available as a free-access, full-text, online journal supplement (modeled in part on somewhat similar efforts around 20 years ago, led by Gill Walt and Stephen Frankel). This will probably be supplemented by other products, possibly including algorithmic decision-aid tools, powerpoints, and/or workshop modules.

As someone with considerable experience working in this area, we would like to tap that expertise and request your feedback and guidance.

- 1. Can you identify any gaps in the currently available CHW literature? If our goal is to assist decision-makers with the planning and revision of CHW programs, what information do you feel would be most useful?*
- 2. Where do you feel those involved in developing or making changes to CHW programs most often run into problems, or make choices which ultimately compromise performance?*
- 3. Where have failed programs gone wrong? Where, with a bit more foresight, can we sharpen up our judgment in making strategic choices concerning CHW programs?*
- 4. We have identified the following topic areas as important decision points in developing a national or large-scale CHW program. Can you provide us with feedback regarding which are the most important to include or other topics we might have left off the list?*
 - CHW selection criteria (only women as CHWs, age range eligible, married/unmarried eligible, literacy or education requirements, etc.)
 - CHW selection process (elected by community, appointed by local health council, etc.)

- Compensation/incentives (volunteers vs. paid salary vs. paid stipend vs. linkage to economy-production such as selling goods as part of role)
- Training (how long is training, how often do CHWs receive further education, etc.)
- Supervision (how often, by whom, etc.)
- Supply chain/commodities (consistent availability to the CHW of the drugs and supplies needed for them to fill their role - e.g. vaccines, antibiotics, antimalarial drugs, oral contraceptive pills, ORS sachets, reporting forms, functioning respiratory rate timers, etc.)
- Catchment population (how many households per CHW)
- Breadth of tasks (vertical program vs. more general information, focused interventions/campaign, curative vs. preventive care etc)
- Support from/integration with rest of PHC system
- Community support/accountability
- Role of external partners (INGOs, donors)
- Sense of ownership of the program by host government
- Performance monitoring
- Task shifting
- CHW safety issues

5. Do you have recommendations in terms of managing this process? How can we increase the likelihood that this effort will influence the design/development/implimentation of CHW programs?

6. Could you suggest any other individuals whom you considerable to be knowledgeable about CHW programs, broadly speaking?

This input will be particularly useful to us at this point, as it will help us prioritize across the various issues we could be addressing. We expect this will be just the first of a number of contacts we will have with you through this process.

References

1. Perry HB, Zulliger R. How Effective Are Community Health Workers? An Overview of Current Evidence with Recommendations for Strengthening Community Health Worker Programs to Accelerate Progress in Achieving the Health-Related Millennium Goals 2012. http://www.coregroup.org/storage/Program_Learning/Community_Health_Workers/review%20of%20chw%20effectiveness%20for%20mdgs-sept2012.pdf (accessed 9 January 2013).

