Chapter 10
Supervision of Community Health Workers

Lauren Crigler, Jessica Gergen, and Henry Perry

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" as supervisors 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 (see Chapters 3 on planning and 5 on financing), 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	▪ 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	▪ 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 nongovernmental organizations (NGOs) and civil society organizations that are currently conducting supervision? ▪ Is there a community health management committee? If so, what is its role? ▪ 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	▪ 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	▪ 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 Chapter 7, on CHW roles and 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 Chapter 3, on planning)
7. How will information be used to improve performance? (See Chapter 12, on health system linkages)

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 make sure that the CHW understands his/her tasks and can perform them to an acceptable standard. High-quality services also require the continuous monitoring and improvement of CHW performance through measurement, feedback, and learning—tasks that are generally assigned to supervisors. 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 BRAC's supervisors, *Shasthya Kormis*, 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 (MOH).

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 this chapter's 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 MOH 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, health committees, or community associations take on some of the monitoring and feedback role in supervision). In many countries, NGOs and multilateral partners also provide support for supervision and training of CHWs.

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 MOHs at the central, regional, district, 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. Supervisors are rarely prepared for their supervisory tasks in advance. 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. Frequently, various programs and donors will require data on specific indicators. CHWs are asked to provide all of the information requested, regardless of duplication and without an overall strategy on data collection and management. 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.

Box 4. External Supervision in Rwanda's CHW Program

The Rwandan MOH 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 three CHWs: two "*binômes*" (one male and one female CHW) who address community integrated management of childhood illness, and one CHW for maternal health. Concern Worldwide implemented a program from 2007 to 2011 in six districts in Rwanda in which CHW cooperatives—consisting of 150 to 300 CHWs from 40 to 80 villages—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 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]

Furthermore, the cell coordinator's aim is to follow up on, supervise, and strengthen CHWs' activities. Although the cell coordinators have clear roles, there are too few of them to consistently supervise the 150–300 CHWs that each cell coordinator is responsible for. At each health facility there is a CHW-in-charge who meets with the cell coordinators and also makes visits to supervise CHWs. At the district level there is a CHW supervisor who collects and reports on key health indicators collected by CHWs for the district, and at the central level, the community health desk is responsible for all community activities.

Although CHWs are volunteers, they do receive performance-based incentives. In addition, CHW cooperatives are managed and overseen by a community health committee at the sector level. The cooperatives sign a performance contract with the MOH and are compensated for the achievement of indicators in the contract. The CHWs receive 30% of the compensation for their contribution, and 70% goes into the collective fund for the CHW cooperative.

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

The Ethiopian Health Extension Program has been described by the MOH 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. Group supervision meetings can occur at health centers or in villages, and this approach 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 6. 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.

Women's 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 women's 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 13 on community relationships.)

Box 7. 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 MOH 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. In some cases, such as Rwanda, community health committees are directly involved in the financial management of performance-based incentives and provide administrative oversight to CHWs, but play little role in the supportive supervision of CHWs.

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

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.
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.

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.
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, MOHs 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 technology based on short message service (RapidSMS) 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 8. 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 this chapter.

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 CHART[1]

(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 LEVEL[2]

(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 PROGRAM[3]

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/welcomed 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)

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