9. COMMUNITY HEALTH WORKER COMPENSATION MODELS: A ROUNDTABLE DISCUSSION WITH VOICES FROM THE FIELD

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Since the late 1950s, formal community health worker (CHW) programs have been implemented in developing countries as a means of reaching poor and underserved communities with basic health services. The 1978 International Conference on Primary Care in Alma-Ata encouraged the development of national CHW programs to improve primary care (Kahssay, Taylor, and Berman 1998). The subsequent upswing in CHW utilization reflected a broad range of programs with many variations in CHW job description, scope, and compensation. While there have been many guidelines made available to help countries and programs create CHW programs, there are still many complex decisions, especially in evolving fields such as medicine and public health, in which important insights can be found from the field.

Attracting and retaining well-trained CHWs is a critical component of any effective program. Yet attrition rates among community health workers range from 3.2 to 77 percent in studies covering the 1990s (Bhattacharyya et al. 2001; Nkonki, Cliff, and Sanders 2011). This disparity has triggered an influx of resources and academic energies into defining the key principles needed to create a successful, context-specific CHW program. These broad principles, taken from multiple sources (Nkonki, Cliff, and Sanders 2011; Prasad and Muraleedharan 2008; Shakir 2010) are summarized in box 1. Specific impediments to programming that have also been identified as playing a key role in causing many CHW programs to fall short of their goals are listed in box 2.

BOX 1. KEY PRINCIPLES IN SUCCESSFUL CHW PROGRAMS

- Well-defined job descriptions
- Recognition by local community and government
- Community involvement, from the beginning of recruitment and selection onward
- Adequate and consistent resources for supplies, job aids, equipment, and remuneration, if used
- Consistent and effective monitoring and evaluation
- Integration within the formal health system
- Adequate training and supervision
- Multiple incentives or motivators
- Advancement opportunities

Sources: Nkonki, Cliff, and Sanders 2011; Prasad and Muraleedharan 2008; Shakir 2010.

BOX 2. KEY PRINCIPLES IN FAILURES OF CHW PROGRAMS

- Poor initial planning without community involvement
- Unrealistic expectations, changing expectations, or undefined job descriptions for CHWs
- Inadequate training
- Difficulty of scale-up due to community tailoring of CHW programs
- Lack or inconsistency of resources for supplies, equipment, and/or remuneration
- Lack or inconsistency of incentives and compensation
- Poor supervision and support

Sources: Nkonki, Cliff, and Sanders 2011; Prasad and Muraleedharan 2008; Shakir 2010.

The principles laid out in boxes 1 and 2 suggest that methods of compensation are key to the success of any CHW program. With these concepts in mind, this paper was developed to give readers a real-world view of the methods and challenges involved in creating an effective compensation structure for CHW programs. This discussion focuses on programs in different countries and contexts that employ different compensations for CHWs. Its purpose is to provide readers with a broad view of the various forms of compensation used in CHW models. Each of the authors and programs have been chosen based on the author's experience with CHW programming so as to reflect a diversity of institutional approaches to CHW programs and compensation models.

ROUNDTABLE FORMAT OF THIS PAPER

In an innovative approach to discussing CHW compensation structures, we invited five practitioners in CHW programming to discuss the compensation models used in their programs and respond to each other's questions. The format is meant to be that of a panel discussion, informal and accessible. The discussion begins with a general program description by each practitioner, structured around his or her answers to the following four questions:

1. What system do you use to compensate CHWs?
2. Why was this system chosen? In which context do you use this model, and do you think it is particularly relevant to some contexts but not others?
3. What benefits have you seen as a result of this system?

4. What problems does the system present? How have you tried to address them?

Each of these contributions is followed by a brief response from another roundtable author posing additional questions and, lastly, by the original author's reply to his or her respondent.

CASE 1: BRAC BY MARIA A. MAY AND FARUQUE AHMED

Since its founding in Bangladesh in 1972, BRAC's primary mission has been the reduction of poverty. The health program was born in the early 1980s due to the significant needs observed in the microfinance "village organizations" we first established, when even basic pharmacies were absent from the rural areas. At first, the health program was essentially the selection by the village organization (comprised entirely of poor women) of one member who would serve as the basic source of health information and products. Over the past thirty-five years, the role has expanded significantly: today our community health promoters (*shasthya shebikas* in Bangladesh) are trained to provide important primary health care services, addressing issues including tuberculosis, acute respiratory infection, eye care, and nutrition. In the context of developing countries, where formal health systems have increasing capacity but are often unregulated and increasingly fragmented, another important role of the promoter is to act as a source of referrals, linkages, and accompaniment.

In 2002, BRAC established a program in Afghanistan to apply many aspects of its holistic model (based in microfinance, education, and health) to its impoverished rural communities. Currently, BRAC is implementing variations of this model in nine countries: Bangladesh, Afghanistan, Pakistan, Tanzania, Uganda, South Sudan, Liberia, Sierra Leone, and Haiti. Given the diversity of contexts internationally and increasing within rapidly urbanizing Bangladesh, multiple local experiments and adaptations of the model are under way. BRAC's cadre of community health promoters and workers numbers over ninety thousand in Bangladesh alone, providing care to 100 million people.

What System Do You Use to Compensate CHWs?

We have found that it is crucial to find women who possess an internal desire to better the health of their community and who also have personal resources and networks of support. We do this by including our village organizations in our search and selection process and by visiting the women at home to meet and engage their families.

In Bangladesh, BRAC does not provide a salary to its *shasthya shebikas*. They purchase simple health products, such as iron pills, pain relievers, and iodized salt, from BRAC at a cost, and then sell these for a 10–15 percent markup to the community. In addition, we provide compensations

for specific services. For example, a *shasthya shebika* receives 50 taka (US$0.67) for linking a pregnant woman with prenatal care, and 500 tk (US$6.00) for accompanying a tuberculosis patient through six months of directly observed therapy.

These are examples of the compensations we provide, but our experience and studies point to other forms of compensation also at work. Many of these women gain social standing in their communities; they are called *Daktar Apa* ("doctor sister" in Bangla) and are valued by their families and communities more deeply as a result of their work. Almost all report that the work enhances their financial independence.[1]

Why Was This System Chosen? In Which Context Do You Use This Model, and Do You Think That This Model Is Particularly Relevant to Some Contexts but Not Others?

When we began to think about elevating health care in the late 1970s, resources in Bangladesh were extremely limited. BRAC's leaders thought that a performance-based model would be most effective for yielding results and that it would enable us to maximize the number of patients reached. For example, in our Oral Rehydration Therapy Extension Program, in which we educated 13 million households on how to make this lifesaving solution at home, we paid the educators based on how well a random subset of the household members could make the solution when visited by evaluators a month or so later.[2] We found that educators were extremely creative in devising systems to convince families about the effectiveness of the rehydration solution and in designing tricks that would help families remember the proper proportions needed to make the solution.

Another benefit of the performance-based model is that it keeps *shasthya shebikas* responsive to the community's priorities. Many of the changes that we have implemented over the years stem from their observations; they alert us to unmet needs because they see opportunities to perform better and increase their income.

BRAC has found the performance-based approach to be quite effective. However, as it is being adapted to the urban areas of East Africa, where women have many more economic opportunities, there are challenges. Retaining talented health promoters and workers is a challenge. We are exploring ways to increase their income through strategies such as creating opportunities to develop new skills, enhancing compensations, and increasing the variety of products they can sell.

What Benefits Have You Seen as a Result of This System?

First, through *shasthya shebikas* we have been able to provide critical services in every district in Bangladesh, including in some of the most remote villages where basic health care was previously inaccessible. In 2011, we successfully cured more than ninety thousand tuberculosis patients, provided antenatal care to 4.4 million pregnant women, and contributed to the national

achievement of ensuring more than 80 percent of all children were fully immunized.[3]

BRAC not only benefits patients but also impacts policy. In Afghanistan, for example, based on the outcomes of a pilot program, the Ministry of Public Health has incorporated many components of BRAC's model of community-based tuberculosis treatment into its basic package of health services, which means that it is also being implemented nationally by other partners.[4]

What Problems Does the System Present? How Have You Tried to Address Them?

Performance-based systems influence behavior significantly; therefore, insufficiently trained CHWs can spread misinformation and represent great potential risk. To minimize this risk, we conduct extensive training, including regular refreshers, to ensure that community health promoters have sufficient expertise and an opportunity to get feedback concerning the challenges they face. Social support is also important, from other community health promoters, community members, and supervisors.

Management is probably the biggest safeguard to ensure quality of service and the productivity of community health promoters. Both a BRAC program organizer and a community health worker visit each promoter at least once a month, to review her activities and visit a few patients to corroborate the information on which she reports. We are conducting a small pilot using mobile phones to collect and report real-time patient data for maternal care and are excited to see how it has enabled us to improve both our delivery model and program management.

Case 1: Questions for BRAC by Didi Bertrand Farmer

Implementing community health interventions across multiple sites internationally is no easy task, particularly in countries as diverse as Bangladesh, Afghanistan, Pakistan, Tanzania, Uganda, South Sudan, Liberia, Sierra Leone, and Haiti, where BRAC currently operates. I would challenge the author to clarify what are the core components of the BRAC model, and what are the "variations" in place in terms of community health financing and interventions in each country it currently serves. While the author indicates that poverty reduction is the primary mission of BRAC, she fails to iterate how poverty reduction is to be achieved in this model, either through the creation of income-generating activities for CHWs themselves or as part of a broader approach to health as an inherently social issue. *If the former is the case, then how does BRAC rationalize placing the burden of financing community health work on patients who, for example, must pay a 10–15 percent markup on pharmaceuticals to their* shasthya shebikas *in Bangladesh? If the latter, then how does BRAC mobilize CHWs to address the socioeconomic needs of patients in low-resource settings, if at all?* In either case, more information about the responsibilities of these CHWs is in order. For the purposes of this roundtable, *I would specifically ask the author what the challenges*

have been in terms of financing different types of community health work, as well as community health work across different sites. What BRAC can perhaps best offer to our discussion is a nuanced understanding of how context affects community health financing, drawing on its varied experiences in nine very different countries around the world.

Case 1: Responses by Maria A. May and Faruque Ahmed

Thanks, Didi, for raising these very important issues. Certainly, capturing what the BRAC community health model is has grown increasingly complex as we expand in terms of both depth and scale. In essence, what remains consistent is the idea of a trained and supported woman residing in a village who provides a core set of basic public health services and products, with a focus on the household as the point of distribution. These individual interactions are complemented by community-level health interventions. Other components, such as tuberculosis, maternal and child health, or eye care, are added to this "essential health care" package in various contexts. In East Africa and Bangladesh's Chittagong Hill Tracts, for example, malaria activities are quite expansive, whereas in Afghanistan, malaria is not a health concern. Coverage per worker varies widely according to the intensity of her work and the population density of the area she serves; a community health promoter in South Sudan cannot be expected to visit nearly as many households as a *shasthya shebika* in Dhaka.

Other variations in the model arise as a consequence of the health financing mechanisms in use in each context. Bangladesh's health system is quite pluralistic, and funds for *shasthya shebikas* come from many sources. As you mentioned, *shebikas* sell health products to the community for a small markup (at prices similar to local drugstores). BRAC provides payment for some health services (such as providing TB treatment) and for all health products and services provided to ultrapoor members of a community. In addition, during government immunization campaigns, *shebikas* receive a stipend from the government for identifying eligible children. Obviously these factors vary significantly between countries—in Afghanistan, for example, we provide both a fixed stipend and performance compensations.

You rightly frame BRAC's approach to health as part of a larger social issue, linked with microfinance, schools, and agricultural activities, for example. From this perspective, we see the benefits of the community health worker as far transcending just the financial resources that enter the community. The knowledge and skills that she acquires through this process can be quite powerful in transforming her own family's life and that of her community. In addition, her visibility and connection with BRAC promotes gender equity, as does her clear impact on health. Bangladesh has virtually universal knowledge of oral rehydration therapy; for a country where diarrheal disease was just a few decades ago the major killer of children under five, we have seen what an army of community health workers can do!

CASE 2: IGANGA-MAYUGE HEALTH CHW, UGANDA BY GEORGE PARIYO

This three-year program based in Uganda was an integrated, randomized study project, designed with a focused, ultimate goal of creating programs for home-based management of fever, with an additional pneumonia component. The project included the recruitment of 132 volunteers who were trained in basic management of malaria and pneumonia and who became the community medicine distributors (CMDs).

What System Do You Use to Compensate CHWs?

Our program is strongly linked with established formal health care facilities. Facility-based health staff were involved in the initial training of CHWs and provide ongoing support and supervision through visits to the CHW in the community and monthly visits by the CHW to the facility. During these visits, the CHW has a chance to interact with others, discuss any issues or problems she may be facing, submit records of drug distribution (for accountability), and choose supplies for the following month. With each visit to the facility, CHWs receive a token financial compensation for their visit, officially referred to as a "transport refund," equivalent to about US$5 a month, as well as a lunch allowance of about US$5. They are provided with a CHW identification card, a uniform, and a bag for carrying their supplies.

Why Was This System Chosen? In Which Context Do You Use This Model, and Do You Think That This Model Is Particularly Relevant to Some Contexts but Not Others?

We adopted this approach because many of us involved in designing this program realized that linking it to existing health facilities was a critical component for success. The transport refund, while not a salary as such, provides reimbursement for costs incurred while visiting the facility as well as for lunch. This is in keeping with the existing policy context in Uganda, where CHWs are community volunteers and therefore officially do not get paid for their work. CHWs value the recognition they get in the community, hence the need to give them a uniform and identification badges. They need bags to carry supplies and to protect them against the elements.

What Benefits Have You Seen as a Result of This System?

We find that this approach works well if close links with facilities are maintained and supervision is regular. CHWs continue to carry out their work as long as they are supported by the formal health care system instead of being regarded as competitors. They help to significantly increase access to first-line treatment by providing appropriately dosed medications to treat pneumonia

and prevent and treat malaria. Experience from the field suggests that the CHW's use of rapid diagnostics (another related pilot project) may help improve appropriate use of anti-malarial medications. Although this has not been formally studied, practical experience and feedback from CHWs and community members provide preliminary information on the value of these rapid diagnostics.

What Problems Does the System Present? How Have You Tried to Address Them?

Logistics is a major challenge. For instance, ensuring a steady flow of drugs and basic supplies depends on the national drug logistics and supply system. Ideally, one should work within the existing supply chain and try not to set up a parallel drug distribution system. However, working within the system often raises problems with the continuity of supplies, a shortage of funding, and so on, sometimes driving the creation of a parallel system. Often, projects work well during the pilot phase when they are visited regularly, have sufficient funds, and motivation is still high. Over time, however, the tendency is for supplies to run out unless there is a strong system in place. In my experience, establishing links with the formal health care delivery system—linking with established health care facilities, involving health facility–based staff in training CHWs and in their supervision—is essential for success and strengthens that said system, although it is alone not sufficient. Having a clear national policy that recognizes the role and integration of CHWs into the national health care delivery system is important for ensuring that they are supported and supervised.

Case 2: Questions for Iganga-Mayuge Health by Maria A. May and Faruque Ahmed, with Responses by George Pariyo

Much of what George writes of the Iganga-Mayuge CHW study in Uganda resonates with our own experience. Building and maintaining linkages with the formal health facility amplifies the value of community health workers, but it requires ongoing attention, resources, and active buy-in at many levels. George's final comments about the role of influential policy to create a system that integrates and promotes CHWs as a key component of a health policy nicely illustrate the need for implementers to participate in and influence national health strategy.

You mention that regular visits to see the CHW are a critical component of management. How are the health facility staff supported and supervised to fulfill this responsibility?

The program has a coordinator at district level (a public health nurse) who is a member of the district health management team (DHMT) with specific responsibility to supervise the CHW program. It is her responsibility to ensure regular follow-up of health facility staff to ensure that they are supporting CHWs adequately, as well as ensuring that monthly reports are made and

consolidated. The coordinator attends some of the monthly meetings between facility staff and CHWs and is at hand to respond to questions, solve problems, and provide support, such as ensuring the flow of logistics. Since the coordinator is responsible for initially training the CHWs, they already know her. Apart from having a dedicated co-coordinator, the other members of the DHMT, including the district health officer, are very much aware of the CHW program; they have been regularly briefed and updated since the start of the program.

Moving from a pilot to a sustainable operation is quite a challenge. What data have you collected that can compel other stakeholders, such as government, donors, or other implementers, to support or adopt your model?

Although we started the program as part of a research effort, we built it on the existing supervision and logistical structures of the district health system. Data are collected monthly on cases treated by the CHWs, doses of antibiotics and anti-malarial drugs dispensed, cases referred to health facilities, and any complications and adverse reactions, among others. We tried to keep a simple reporting requirement that will provide programmatically useful information. As part of this effort, we also collect and document costs involved since start-up, including setup and operational costs such as drugs, supplies, and supervision costs. Such data will help the government and other donors appreciate the program and see that it is feasible within existing resource constraints.

We often think of the diversity of our CHW's basket as a strength of the BRAC model, so it is interesting to read about yours, which is much more targeted. What would you say the advantages are of keeping the scope of the CHW's work relatively specific?

We are not saying that all CHW programs should be targeted. There are advantages and disadvantages of each approach. As I stated, our program started mainly to evaluate the impact of home management of pneumonia and malaria using CHWs; it was not an attempt to see which is the best model or scope of practice. Having said that, keeping a defined scope is useful to ensure that CHWs are not overwhelmed with too many tasks and too much information; thus it can help maintain the quality of the services they perform. On a personal note, I am not much in favor of vertical CHW programs over the long term. However, one can start with a specific scope and expand later, once the program is more established and CHWs and supervisors are more comfortable with their tasks, rather than overloading them from the very beginning. One has to keep in mind that most of the CHWs are not doing this as a full-time job, and in Uganda, they are still considered volunteers.

CASE 3: MINISTRY OF HEALTH, MALAWI BY ANN PHOYA

Using community health workers (CHWs) to improve access to health services has been integral to Malawi's health care system for nearly thirty years. The notion of a community-based health

worker was first introduced in 1973 in response to a cholera outbreak. Malawi's first CHWs were relied upon to contain the spread of the outbreak by monitoring and reporting cases, providing information to communities on hygiene and sanitation, and assisting families with home-based water purification methods. Because of the nature of their work, these CHWs were named health surveillance assistants (HSAs). Following the containment of the cholera outbreak and the introduction of the concept of primary health care by the World Health Organization in 1978, the role of the HSAs was expanded to include the implementation of other community-based health promotion interventions, such as performing immunizations, monitoring the hygienic practices of traditional birth attendants, creating and training village health committees, monitoring child and infant morbidity and mortality rates, and serving as a link between communities and the formal health care system.

The HSA's role is continuously being expanded to include community interventions targeted at emerging disease priorities and health programs, such as counseling for and testing of HIV and AIDS, distributing insecticide-treated bed-nets to prevent malaria, providing family planning services, ensuring follow-up for postnatal mothers and TB cases, and mobilizing communities for safe birth preparedness. As NGOs, with support from development partners, joined the health sector as service providers, especially at the community level, other categories of CHWs were introduced into the health care system. These include, among other categories, community-based distributing agents for family planning, traditional birth attendants, and home-based care providers for treating chronic diseases (especially HIV and AIDS) and for monitoring child survival rates.

What System Do You Use to Compensate CHWs?

The HSAs within the public health sector are an integral part of the salaried health workforce. As salaried health workers, they receive payment monthly, the amount of which is determined by the Civil Service Commission, which also determines the conditions of service for all civil servants in the country. In addition to the salary, the HSAs receive an annual incremental pay increase of about 5 percent, paid annual leave of twenty days, paid sick leave, a uniform, a bicycle, and a pension or gratuity at the end of service. HSAs who completed secondary school can further their education with financial support from the government (Ministry of Health) by training in health professions, including nursing and midwifery. Initial training provided at the time of recruitment is also viewed by the HSA as a form of compensation to join this cadre of health workers. CHWs are also recruited by NGOs and other development partners, but they work as volunteers and therefore do not receive a salary; instead, they receive a variety of compensations determined by the recruiter. These compensations may include uniforms, branded umbrellas, shoes, bicycles, agricultural inputs (seeds and fertilizer), participation in workshops or short training sessions related to their prescribed duties, and service kits containing job aid materials. During workshops

or training sessions, volunteers receive monetary allowances that may be slightly higher than what they need for their subsistence.

Why Was This System Chosen? In Which Context Do You Use This Model, and Do You Think It Is Particularly Relevant to Some Contexts but Not Others?

Ensuring access to services that promote and provide health care is the responsibility of national governments. Experience on the ground has shown that volunteers work for a short time and leave to seek paid employment or concentrate on economic activities that will allow them to earn a decent living. In countries where poverty levels are quite high, such as Malawi, asking poor individuals to spend their time doing unpaid or voluntary work is not justifiable. Creating a cadre of salaried community health workers was the only alternative that assured Malawi a continuity of community-based health interventions.

What Benefits Have You Seen as a Result of This System?

This system for incentivizing community health workers has helped the country implement high-impact interventions that have contributed to the improvement of health indicators, including immunization coverage, use of contraceptives, the number of people accessing HIV testing and counseling, and universal access to TB diagnosis.

What Problems Does the System Present? How Have You Tried to Address Them?

Using salaries to compensate CHWs has indeed worked to the benefit of the public health system and has broader implications for other sectors of government and society. The benefits range from having a workforce that can be relied on to carry out planned activities over a sustained period without the disruptions in service that arise from frequent turnover or unexplained absenteeism. Since CHW positions already exist in the government structure, the public health sector does not encounter problems when it needs to recruit additional numbers; all that is required is to include the needed allocation of resources within annual budgets and strategic plans. Those organizations that depend on volunteers, however, cannot be sure that their volunteers will continue to provide services; volunteers from different organizations tend to compare notes about the compensations various NGOs provide. Due to this competition, volunteers are often temporary as they wait to move to an NGO with better compensation. Because of this, even the use of volunteerism has become an expensive venture for NGOs who then need to seek and train new volunteers.

Case 3: Questions for MOH Malawi by George Pariyo, with Responses by Ann Phoya

I notice that there are different types of CHWs. How does Malawi attempt to standardize these different categories?

Providing CHWs with salaries was itself an attempt to standardize CHWs. All of Malawi's official CHWs are salaried health surveillance assistants. Any partner in the health sector wanting to implement a community-based initiative can employ them. Volunteers are used by NGOs to supplement the work of these official community health workers.

How do you avoid continued fragmentation and verticalization at the community level?

Fragmentation and verticalization are avoided by integrating all health-related interventions into the annual District Implementation Plan (DIP). The DIP maps out priority health interventions, and partners buy into this plan to support the district health management team. Volunteer CHWs engaged or employed by different partners work with official salaried CHWs at the community level.

Doesn't paying CHWs a salary similar to civil servants risk expanding the government wage bill, particularly considering Malawi is already having problems paying existing professional cadres adequately?

Malawi does not have adequate numbers of health workers. The paid CHWs are assisting in improving access to essential health workers through task shifting. The financial resources used to pay CHWs could be redirected to improve the salaries of fewer professional health workers, but this would fail to meet the workload, especially concerning health promotion and preventive activities. A balance, therefore, needs to be created in order to ensure equal coverage of both curative and preventive health services at the community level. What needs to be done is to identify other health financing mechanisms to adequately pay the needed number of staff in order to meet the health needs of the people.

CASE 4: PARTNERS IN HEALTH BY DIDI BERTRAND FARMER

Partners in Health (PIH) has been recruiting and training community health workers for over twenty years, developing community-based platforms for infectious disease care in Haiti that were then scaled up and adapted to address the broader health, social, and economic needs of communities served in countries as diverse as Rwanda, Peru, and the United States. Beginning in the early 1980s, a network of polyvalent CHWs began providing tuberculosis treatment and care to rural communities in Haiti. When the first cases of HIV began to appear in the country, PIH was able to utilize its community health platform to provide treatment and care for HIV-affected households, expanding and adapting the model to provide accompaniment to patients,

including daily medication for people living with HIV/AIDS, and psychosocial support. At that time, prevailing wisdom claimed it was impossible to provide high-quality treatment and follow-up for people living with HIV/AIDS in developing countries. The success of PIH's patients in adhering to the program, however, proved otherwise. In addition to providing patient care, this type of CHW, known as an *accompagnateur*, conducts active case finding in the community to ensure that patients are able to begin antiretroviral therapy and other treatment at an early stage in their illness. Active case finding is complemented by advocacy to ensure that medications and high-quality treatments are both available and accessible.

Since 2005, PIH has been working in Rwanda, where our initial mandate was to support the Rwandan Ministry of Health (RMOH) in facilitating access to treatment and care for HIV/AIDS and TB at the community level. Adapting the model for community-based care from Haiti, a network of *accompagnateurs* first began working in Rwanda's southern Kayonza district. *Accompagnateurs* now serve chronic disease patients in three districts of rural Rwanda. *Accompagnateurs*, as one type of community worker in the Rwandan community health system, offer an enhanced package of care as part of the RMOH-PIH partnership for health systems strengthening in these districts, helping to build a robust referral and transfer network.

What System Do You Use to Compensate CHWs?

The accompaniment model features a direct compensation system in which each *accompagnateur* is offered a base monthly stipend to support a single household; often these households contain multiple patients who suffer from chronic illnesses ranging from HIV and/or TB to diabetes and cardiac disease. The *accompagnateur* is given a supplementary stipend for each additional household he or she supports. The maximum number of households for which one *accompagnateur* can take responsibility is restricted in order to ensure quality care, which is crucial given PIH's holistic approach to patient accompaniment. "Support" in this context means directly observed therapy, liaising with health and social services on behalf of the household and/or offering individual psychosocial support to patients and family members.

Why Was This System Chosen? In Which Context Do You Use This Model, and Do You Think It Is Particularly Relevant to Some Contexts but Not Others?

The PIH direct compensation system may differ from the national community health compensation system, depending on the country in which PIH is working. For example, the system used by the RMOH to compensate primary care and maternal and child health CHWs is performance-based financing (PBF). Rather than direct payment, Rwanda's PBF system provides capital to CHW cooperatives, which allows CHWs to invest in income-generating

activities through their cooperatives. This differs from PIH's direct compensation model for *accompagnateurs* in Rwanda.

The *accompagnateur* role is dynamic, changing along with the patient's needs. *Accompagnateurs* must be available to offer directly observed therapy for chronic and infectious illnesses, to accompany patients to health centers for hospital visits, to provide psychosocial support, and to support patient involvement in associations for people living with HIV/AIDS. PIH supports patient associations by providing members with loans for micro-finance activities. *Accompagnateurs* also play a critical role in their communities, fighting discrimination and building solidarity and trust. Further, many *accompagnateurs* are also primary care or maternal and child health CHWs through the national community health system in Rwanda, which adds additional responsibilities to their workload. Direct payment, therefore, assures a modest compensation, allowing *accompagnateurs* to offer sustained, quality care without having to labor elsewhere.

In Rwanda, where the rural economy is primarily agricultural, direct compensation in PIH-supported districts enhances the Rwandan incentive system by ensuring that multidisciplinary CHWs have access to funds to hire workers for their fields and to maintain their households while they are providing health services in the community. Access to direct compensation increases retention rates in the community health program, allowing CHWs to perform their responsibilities in the community while receiving resources to ensure their family is cared for. As the PIH model has been developed primarily for rural communities with agricultural economies, we have found the direct compensation model particularly useful for supporting CHWs. In other contexts, perhaps where *accompagnateurs* could sustain themselves with less time-intensive and remote labor, a different compensation model would prove equally effective.

What Benefits Have You Seen as a Result of This System?

The accompaniment model has produced exciting results. A retrospective study from 2012 of over 1,000 patients served by *accompagnateurs* for HIV and/or TB in three PIH-supported districts of Rwanda recorded program retention rates of over 92 percent (Rich et al. 2012). Internal program monitoring and evaluation show adherence rates of around 94 percent, as well as mortality rates estimated at less than 1 percent since 2005. Patients in the program benefit from increased support not only from CHWs but also from the community as a result of CHW advocacy to build solidarity and reduce the stigma that surrounds HIV/AIDS. Further, patients and CHWs often build strong, supportive relationships, which benefits patients, their families, and the CHWs who view their work as important and meaningful.

What Problems Does the System Present? How Have You Tried to Address Them?

In response to the immediate needs of the government of Rwanda, the accompaniment model was developed in 2005 to specifically address the burden of HIV/AIDS. As the Rwandan priority at the time was providing HIV/AIDS treatment and care, the accompaniment model was designed as a targeted program that would work in parallel with the national community health system, which was itself undergoing a major reorganization. We are now entering a new era of community health in Rwanda where the country wishes to integrate chronic disease management into the package of primary health care services provided at the community level. Based on the success of the accompaniment program, PIH is working with the RMOH to develop the best framework to fully integrate accompaniment into the national system. The integration process, however, takes time to implement and requires active communication between the RMOH and partner organizations. While integration has been successfully completed in one PIH-supported district, it is only with time that we will see the effects of harmonizing these two systems. Further, effective training and continuous support will be necessary to build the confidence, experience, and skills of CHWs so that they will have the expertise to successfully deliver an integrated package of health services.

Case 4: Questions for PIH by MaryAnn Dakkak, with Responses by Didi Bertrand Farmer

It is clear that PIH has a successful model of *accompagnateurs* for specific health issues. My questions stem from issues of context and generalizability.

Do you feel that there is any conflict in having a different model of compensation in Rwanda alongside their PBF model?

It seems that you use your accompagnateurs *for very specific disease states—HIV, TB, preventing mother-to-child transmission. Do you think that the compensation structure you use is only applicable to programs like DOT or other intensive, specific health issue programs? Or, would you argue it could be used in different contexts, and if so, which?*

How do your accompagnateurs *work alongside the Rwandan health system? Are they in any way integrated within the public health system?*

Thank you for asking such important questions at a time when PIH and the RMOH are currently considering how best to integrate the accompaniment model into the national community health system. We began by piloting the integration of the accompaniment program with the national community health system in one PIH-supported district. Building on what we learned from the pilot integration, we have successfully merged the two community health systems in that district and are currently in the process of completing integration in all PIH-supported districts. PIH provides innovative support to the national community health

system, partnering with the RMOH to incorporate elements of the accompaniment model into the national community health system throughout the country. Through integration, CHWs will be able to provide a package of primary health care services that includes chronic and noncommunicable disease care.

As we develop an integration framework and prepare to scale services up to the national level, we are in the process of harmonizing compensation structures. Currently, multidisciplinary CHWs receive PBF through cooperatives, in addition to earning direct compensation for services in PIH-supported districts. Thus, PIH provides strategic enhancement to the national community health system through direct compensation. Additional PIH enhancements to the national system include developing tools for supervision, training, and program support.

At this critical juncture, PIH is conducting internal evaluations of the accompaniment program, speaking to patients, *accompagnateurs*, supervisors, and health center staff. These evaluations are providing important insights into how the program has grown over the past seven years and how it can be further refined and adapted for integration into the national system. For example, the evaluation asks how the program can best adapt to the changing needs of patients who remain in the program over time. Preliminary results attest to the many benefits of the program in terms of its positive impact on both patients and service providers. We look forward to continuing to refine the accompaniment model within the Rwandan context to create a sustainable platform for the RMOH to successfully integrate accompaniment into community health across the country.

CONCLUSION

The participants of this roundtable discussion make clear that the employment of CHWs is no longer a novelty. Decades of experience across almost all continents show that, given a chance, CHWs can profoundly influence the health of whole populations (Bhutta et al. 2010; Haines et al. 2007; Mitnick et al. 2003). Expert opinion and contemporary comprehensive reviews continue to confirm this notion and have further clarified the magnitude of the effect of these programs (Berman and Franco 2012; Earth Institute 2011; Freeman and Freeman 2011; Frehywot and Wuliji 2012; Perry and Townsend 2012). The cases presented in this discussion represent a broad range of CHW models that have had a positive impact across a number of health indicators. Yet, the variety of the participants' responses underscores that we are still seeking novel ways to unlock and maximize the vast potential of the CHW concept. In order to do this, we need to pay attention to the key themes and tensions these discussions highlight.

From a bird's-eye view, the participants—informed by a wealth of field experience—describe the ways in which CHWs in different contexts are motivated to perform their work. Worker

motivation is a broad and complex topic that has been discussed profusely in the business and management literature. There exist a variety of models, many drawing on insights from psychology and organizational behavior, which map out factors that underlie employee motivation (Nohria, Groysberg, and Lee 2008). For many CHW program architects and managers, this issue is often reduced to the practical question of how to effectively remunerate CHWs for their work. When addressing this question, the participants in this roundtable describe three CHW employment patterns: volunteer, salaried, and variably compensated (table 1).

TABLE 1. MODELS OF CHW WORKERS, ADVANTAGES AND DISADVANTAGES

CHW Model	Potential Advantages	Potential Disadvantages
Volunteer	• This model may offer a cost savings in the short term. • Workers are chosen based on sense of duty. • Workers are often committed and integrated in the communities they serve. • Workers may gain social standing in their communities if they are valued deeply (use of badges, uniforms, supplies, certificates may help with this)	• Lack of wages may increase chances of attrition to paid jobs. This attrition is expensive in the long term due to the loss of start-up costs to recruit and train those CHWs.* • Turnover may harm community. • System is dependent on altruism alone. Different communities may not produce the number of altruistic people necessary to meet the demand. • Model may require more management and supervision to ensure that volunteers stay motivated and committed.**
Salaried	• Salaries may be a form of job security to some CHWs. • Attrition rates may decrease. • Absenteeism rates may drop. • Workers may have the social benefits of being a CHW along with the economic stability and opportunity for career advancement.	• System can be costly definitely up front, but also in the long term, and will depend on ongoing funders or policies dedicated to the program. • Without other motivators or adequate supervision, job security may decrease the incentive to work hard.***

Continued

Table 1, continued

CHW Model	Potential Advantages	Potential Disadvantages
Variably compensated	• This model offers variety and flexibility of different compensations (e.g., as job aids, reimbursement, training, meals, direct payment for specific interventions, free health coverage). • It can be less costly depending on compensations used and retention of CHWs. • Interventions may be prioritized based on compensations. • Different compensation schemes can supplement either volunteer or salaried CHW programs.	• The compensations may become more important than the job; i.e., workers may focus more on achieving the short-term objective that will activate their compensation than on working for a long-term impact.**** • Depending on context, there may still be risk of high attrition rates where there are better economic opportunities.

Sources: *Kironde and Klaasen 2002; Walt 1988; **Jones and George 1998; Robinson and Larsen 1990; Stekelenburg, Kyanamina, and Wolffers 2003; ***Delfgaauw and Dur 2008; ****Scott and Shanker 2010.

No model is ideal. Every system wants to get the job done; these organizations strive to promote health, detect and refer diseases, cure acute diseases early, and manage chronic ones over the long term. They also aspire to maximize other benefits, such as boosting the local economy, increasing social capital, building capacity, and empowering marginalized groups. They certainly try hard to minimize potential harms, such as jealousy, destructive competition, elite capture, and corruption. The question at hand is: how can this best be achieved? Unfortunately, there is no one-size-fits-all model.

DISCUSSION

Different inputs in different contexts will produce different outcomes. We need to be clear about what we really want from our systems, and then have ways to monitor the results. Beyond comprehensive interim analyses that tend to be time-consuming and costly, measuring several key CHW-specific performance indicators during the regular workflow would assist in measuring impact, while not disrupting the actual tasks in progress. Among the many possibilities, such indicators may include retention, quantity of work (e.g., home visits, hours worked), quality of work (e.g., adherence to protocols, health outcomes), job satisfaction, and satisfaction of clients/patients/households (i.e., the CHW's "reputation within the communities they serve") (Lee 2012). In particular, retention may most clearly demonstrate the success of specific motivation schemes. While the unique complexities of local contexts will negate the possibility of ever formulating a standardized CHW type, as demonstrated by PIH's and BRAC's experiences with expansion, a common set of performance indicators will help us recognize those projects that perform at uniquely high levels. Through continued discussion, such as this roundtable, the experiences and techniques of program managers and architects can be disseminated and hopefully adapted by policymakers to different contexts, adopted across sites for cross-program quality improvement, or even synchronized in-country to formulate standardized national programs across districts.

By exploring these dynamics through this type of roundtable discussion, we can begin to stock the spice rack of options that will be available to us when developing a new program for a specific context. CHW leaders need to understand the chemistry behind these ingredients so that they can find the right balance between the various tensions in their context. There is no formula to cook up the perfect program, nor should there be. For any model, practitioners on the ground will need to learn not only how to implement a program but also how to adapt to inevitable challenges. Programs like the one described in Uganda give us a sense of how a pilot project can test a strategy in a focused context, while the broader-based experiences of national programs—such as those in Malawi or those run by multinational NGOs like PIH and BRAC—represent multicontext laboratories in which concepts can be tested and lessons learned.

BOX 3. RECOMMENDATIONS: THE SUCCESS OF ANY CHW INITIATIVE IS BASED ON PEOPLE, PROGRAMS, AND POLICIES

1. People
- CHWs hired through a rigorous process guided by merit, ignoring nepotism, and connected to teams and the existing communities and health networks

2. Programs
- Clear goals
- Clear tasks
- Context, via strong linkages between providers and stakeholders in their programs and alignment with local strategies and capacities
- Reliable inputs and compensations (including salaries if used)
- Adequate training and supervision
- Adequate and timely monitoring, evaluation, and revision of program

3. Policies
- Working alongside government and multinational actors to compensate investment in CHW programs
- Creating national models of CHWs

This discussion highlights a number of key themes that bear mentioning (see box 3). Essentially, the best programs will have (1) reliable people working in (2) well-designed programs that are supported by (3) sound policies. Reliable people are those selected by a rigorous process that is guided by merit, ignores nepotism, and is connected to the teams that work toward a common mission. Well-designed programs are those that have clear goals, defined tasks, and strong linkages between every worker participating in the process. In order to accomplish the final goals of the system, each cadre of worker should have an equal sense of responsibility for the specific tasks accorded to them. To do a good job, a worker needs a job worth doing, adequate training, and managers who lead with a spirit of teamwork and comprehensive support. This is, finally, where good planning and sound policies play a key role. Complex problems require comprehensive solutions, and comprehensive solutions need deliberate investments. We must focus on the outcomes to be achieved and then think of what investments are needed to reach them. In the end, we will need not only creative ways to maximize CHW compensation using what resources we have but also ways to motivate health policy and health financing to ensure that CHWs have access to the jobs, coworkers, work environments, and support they need to achieve a job well done.

ENDNOTES

[1] Income varies widely across and within countries, as the payment structures and basket of goods varies. Interested readers should see the research monograph by Reichenbach and Shimul, available at http://www.bracresearch.org/monographs/Monograph_49.pdf.
[2] The oral therapy extension program is thoroughly documented in *A Simple Solution* by A.M.R. Chowdhury and R.A. Cash (Dhaka, Bangladesh: University Press Ltd., 1996).
[3] See the 2011 BRAC Annual report for more details, available at www.brac.net/content/annual-report-and-publications#.UBDO0Fb0_eM.
[4] A book on BRAC's experiences in TB, called *Making Tuberculosis History: Community-based Solutions for Millions*, was released in 2011 by the BRAC Health Programme (Dhaka, Bangladesh: University Press Ltd.).

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