

The Role of Community Health Workers in Northeast Brazil

Rebecca Grossman Kahn¹

Community health workers have received increased attention in recent years as many global health programs emphasize their potential for improving community health. Brazil is a modern example of a population that employs community health workers as part of its national healthcare system. This study investigated how these community health workers view the health of the communities where they work and moreover how their work shapes the community's health. I collected the data used in this study during a summer in Bahia, Brazil using both informal and formal interviews, and field observation to understand how community members, community health workers, and health professionals evaluate and conceptualize the health of the community. Special emphasis was placed on how the informant's relationship to the community—such as insiders/outsider status—may influence his or her perspectives.

Background

Paul Farmer recently spoke at Stanford about Partners in Health's new program in Rwanda, a program that relies heavily on community health workers. At Stanford's ThinkBig conference on international women's health and human rights, several of the speakers, including Paul Blumenthal, highlighted the role of community health workers (CHWs) in working toward improving women's health worldwide. Recently, the global health community is placing an increased amount of faith in community health workers to help implement health interventions and improve health outcomes. While the enthusiasm and support for community-based programs is growing, the body of research on community health workers still remains small. Before global and local health initiatives invest in programs that utilize CHWs to effect change, it is important to explore the roles of CHWs within communities and how community members perceive their work. These perceptions will influence the success of interventions: while there has been much talk about community health workers, it is more important to talk to them. This study uses the experiences of CHWs and their

working relationships with community members and health professionals to help determine more palatable ways to integrate and employ the work of community health workers to improve global health outcomes.

Paul Farmer and Paul Blumenthal are not the only ones promoting the involvement of CHWs in global health. Community-based programs have gained popularity and are present today in many countries around the world. A community health worker may be "any health worker carrying out functions related to health care delivery; trained in some way in the context of the intervention; and having no formal professional or paraprofessional certificated or degreed tertiary education" (Lewin *et al* 2005). Generally community health workers function as intermediaries between community and institutional health care services. The training and responsibilities of CHWs can vary widely: some CHWs are volunteers, while others are paid; some are from within the communities in which they work, while others are not. In some cases, they may be trained to deliver basic health care and implement interventions, while in others, their primary role may be to deliver information about health and how to

access health services.

Most of the existing research on community health work has utilized quantitative methods to analyze pre- and post-CHW intervention statistics to determine whether or not CHWs change health outcomes. A Cochrane meta-review of lay health workers in primary health care in the U.S. and in developing countries concluded that CHWs are successful at improving certain outcomes, such as immunization and the prevalence of breastfeeding (Levin *et al* 2005). Separate studies specific to Northeast Brazil (Macinko, de Fatima Marinho de Souza, Guinai, and da Silva Simoes, 2007; Edmond, Pollock, Da Costa, Maranhao, and Macedo, 2002; Cuvino, Vasconcellos, and Araujo Craveiro, 2000) similarly found that the presence of CHWs is associated with decreases in infant mortality rate, post-neonatal mortality, and mortality due to diarrhea, but not with neonatal mortality rates. After CHW intervention, breastfeeding rates, especially of infants 6 months and older, immunization rates, and the number of women receiving contraceptive advice from a physician all increased. These studies provide evidence for the effectiveness of CHW interventions in improving maternal and child health outcomes.

While these studies indicate that CHWs can have a positive effect on health outcomes, little research has addressed the best practices for CHW recruitment and training. A meta-study by Levin *et al* (2005) on lay health workers in the United States and around the world stated that best practices for recruiting, training, and delegating tasks to CHWs remain unclear due to insufficient research. Ultimately, it is not just the presence of CHWs that leads to change, but their individual operations, as well as the organization and design of the program through which they operate. What are the strategies and characteristics of CHWs who are successful at changing the behaviors of community members? How do community members view CHW

¹Stanford University

interventions? What training processes and interactions between community members, health professionals, and CHWs take place that lead to improved health outcomes? How are health outcomes affected by the relationships between the CHW and the community, and what factors impact the relationships? These questions set the backdrop for this study of CHWs in the Brazilian national health care system. In particular, this study will address the respective strengths that both insider and outsider CHWs bring to the job, and potential differences in how they evaluate and conceptualize the health of the community.

The Family Health Program in Northeast Brazil

Brazil has a universal health care system that draws heavily upon primary health care and community-based health models. A crucial component is the Family Health Program (*Programa da Saúde da Família*, or PSF), which was implemented in 1994 to increase primary care coverage. PSF clinics provide services focused on health promotion, disease prevention, and disease surveillance; these often include vaccinations and regular check-ups, prenatal care, and health education. The PSF clinics are staffed by one doctor, one nurse, other health professionals, and 6-12 CHWs. Each CHW is responsible for an area of approximately 150 families in the community. As links between the community and the PSF clinic, CHWs schedule appointments for individuals with the health professionals and encourage community members to seek care at the clinic (Ministry of Health, 2002). Because the community health program in Brazil has been in place for several years now, it provided a useful environment in which to study interactions between CHWs and community members, and their impact on the community's overall health.

Methodology

To answer my research questions, I designed and conducted a qualitative case study of CHWs in Brazil. During an 8-week stay in Brazil, I collected data from field observation, interviews, and participation in the community, focusing on perceptions of community health. I aimed to recruit a diverse group of CHWs for the study to help explore how an insider is defined within the community, and the strengths that both insiders and outsiders bring to community health projects. I choose these qualitative methods because I was specifically interested in how the concepts of an insider and community health are socially constructed and understood (Glesne and Peshkin, 1992). It was my goal to understand CHWs and how they contribute to community health within the context of the community and the PSF. I suspected that the dynamics between CHWs, the community, and the PSF are play important roles in how individuals talk about the system and the community's health. Living in the community helped me build relationships with informants and understand the data and their contradictions from a broader perspective, within a broader social and cultural context.

I interviewed twelve CHWs, and observed eleven of them on routine house visits lasting one to two hours. I talked to 17 community members and informally interviewed two nurses and two doctors at the PSF, as well as one nurse technician. While the focus of my study was CHWs and they comprised my main population sample, I also collected data from CMs to understand how CHWs are perceived in the community and to what extent CMs and CHWs share their views of the PSF. Health professionals were also a valuable subpopulation to include in the study since they are all outsiders, have received extensive formal training, and supervise the CHWs, and were able to provide a unique perspective on community health. The CHWs and

health professionals were all employed by the local PSF clinic, and they were recruited by announcements at staff meetings. The CHWs who participated ranged in age from 23 years to over 40 years old; one-third were male and two-thirds were female.

After collecting all data, transcribing interviews and expanding field notes, I coded the data using inductive and deductive codes, generating the codes from my research questions, previous studies, and the data itself. I then grouped the codes into five major headings: interactions with community members, responsibility for health outcomes, perceptions of health, role perception of CHWs, and perceptions of PSF. A second round of analysis then looked at differences in these five themes across specific CHW characteristics, such as gender, age, and experience. Through several rounds of refining codes and writing conceptual memos (Miles and Huberman, 1994), I identified emerging themes and preliminary ideas about the data, and then tested several explanations for them.

Results & Discussion

Preliminary Theme: CHWs have fluid and dynamic responsibilities, not solely confined to a limited rigid set of tasks

Initial data analysis reveals several interesting contrasts within the perceived roles of CHWs and how these roles play out in the community. This paper focuses on how tasks of CHWs can vary dynamically depending on issues that arise within the community each day, and these tasks are carried out nearly anytime and anywhere; yet the tasks fall within a very limited and rigid scope. While all CHWs perform the same, narrow range of tasks approved by the government, CHWs work beyond the spatial and temporal boundaries of the PSF (the clinic and 8am-5pm, respectively), constantly adapting their work to respond to the daily events and needs of the community.

CHWs must be flexible and ready to respond to issues in the community as they arise

There were several times during the summer when community members or CHWs pointed out instances that were prototypical of the CHW's work, highlighting the fluidity and dynamic nature of the work. I first noted this in my field notes while I was shadowing Anna, a CHW, on house visits.

We are on the street near the PSF clinic, when a middle-aged man approaches Anna with a list of three medications and says he needs refill prescriptions. He gives Anna the address of a hotel in the city center and asks her to drop off the prescriptions there. Anna smiles and sighs as we walk back towards the clinic to get the prescriptions from the doctor. "You see?" she says to me. "This is the work of the CHW." (Anna Observation, July 20)

This short encounter illustrates the spatial and temporal boundaries of the CHW's daily work, which are often fluid; interactions between community members and CHWs are informal, and can take place anywhere in the community and at any time. While most of their work involves house visits, CHWs are also expected to respond to community members' needs as they arise. This scene also illustrates the CHW's role as a liaison between the community members and the health professionals at the clinic; the man was able to approach Anna on the street in a way that he would not approach the nurse or doctor, and Anna was able to interrupt the doctor for a few minutes in order to have her write the prescription.

Another situation I observed in São Pedro also illustrates the informal nature of the work, how much of it is conducted on the street, as well as how the CHWs respond to unexpected events and changes in their usual schedule. Julia, the CHW, was on her way to the

neighborhood where she conducts house visits, when she ran into community members who told her that a woman in Julia's area had left her baby with some neighbors. Julia knew the woman and was concerned about the situation, so she postponed house visits until she was able to seek advice from the PSF nurse, and then locate the woman and her baby. "*You see?*" Julia says to me as we finally begin house visits. "*This is what the job of the community health worker is*" (Julia Observation, August 11). The CHW's job is dynamic and constantly caters to current and day-to-day issues in the community. Community members seek CHWs out to help resolve personal and community issues.

These scenarios are also representative of the relationships of interdependence between community members, CHWs, and health professionals. The community members depend on the CHWs to resolve varied issues—from filling a prescription to keeping tabs on a neglectful mother—and they are able to approach CHWs informally, in a way they are not able to seek out health professionals. The CHWs, in turn, need the support of the health professionals in order to fulfill their responsibilities. The most common task of the CHW is referring community members to see the health professionals. The health professionals, however, also are unable to do their work without the CHWs updating them on the health of community members.

Dr. Alicia, the nurse in Itacaré, cited the PSF team's response to a boy with meningitis in the community as a perfect example of the role of the CHW and how it fits within the role of the PSF as a whole:

Did you hear about the boy with meningitis? That is a perfect example of the PSF in action. Without the CHWs, we might not have known about the case for two days, maybe 2 or 3 days...but we found out right away, and we had to do the block-off,

you saw, right? Give everyone meds who had been in close contact with him...preventing more outbreaks. That was a really good example of the PSF's work.

Again, this scenario was a sudden event, and the CHWs and health professionals had to work as a team to respond quickly. Dra. Alicia knew which medication to prescribe, and the CHWs knew the families that had been affected and where they live. In this sense, the CHWs are not only liaisons between the community and the PSF, but they are the eyes and ears of the PSF.

Anna, Julia, and Dr. Alicia all emphasize the dynamics and diversity of the day-to-day activities of CHWs.

Luis gave one specific example of a CHW activity, checking children's vaccination cards, that reveals his perception of the more abstract role of the CHW within the PSF, by filling in the missing link between the health services provided by the PSF and the community members' health. Luis beautifully summarizes the role of the CHW by saying, "now there's someone checking the card."

When I started working I'd say 50% of mothers didn't pay attention to the vaccine schedule. And it was also that they didn't understand the card. They would bring their newborn to the clinic, the nurse would give a shot and mark in their little card, and they'd go home without understanding the whole schedule, that they had to come back on such and such date. Before they didn't have someone coming to their house and checking the card, and explaining. Now there's someone checking the card.

The goal of the PSF is prevention, which requires the CHWs to proactively connect the community members with the health services. The health service itself, providing immunizations, would be

ineffective without CHWs. They not only helped decipher the paperwork, but also held community members accountable for following through with appointments.

Rigidity of the Tasks Appropriate for CHWs

The CHW occupies a very clear and defined space within the PSF. While CHWs are not always satisfied with what that space, or role, entailed, they did not imagine or entertain the idea of changing or expanding the role. For example, many CHWs agree that their work would be more efficient if they were trained to measure blood pressure, but explained to me that if they were trained to do that, they wouldn't be CHWs anymore; they would be nurse technicians. When I asked Taís whether she would like to be able to take blood pressure, rather than enlisting the help of the nurse, she replied, “*No, for that I'd have to be a [nurse] technician, and I'm not a technician, I'm a CHW.*” Anna, another CHW, echoed a strong identification with the CHW role, and the tasks that are within and outside its realm:

The only people who can take blood pressure are nursing assistants and professional nurses... We CHWs are neither nurses nor nursing assistants. Our role is to advise... they could train us, because I already know how to [measure] blood pressure. But it's to protect the Secretary of Health, because I could do it all wrong, so they prefer that the professionals do it. They are the ones responsible for it. The CHW can't even tell patients to take one little pill, because he is not a doctor... it's only to orient the

community about health.

The positions within the PSF are defined and understood by specific tasks, and measuring blood pressure is within the nurse technicians' domain. Although CHWs are not always content with the limited scope of their tasks, they have internalized the official roles of each PSF employee, such that receiving additional training automatically promotes them to a level above community health worker. This perspective reflects the rigidity of the CHW role. While it is a dynamic and fluid role in that the work spans a range of places and times and involves unexpected events, only a distinct and restricted subset of tasks are associated with the CHW role.

Implications for Community Health Programs

These emerging themes are just one small piece of the process of answering larger questions of community participation and community agency in working towards improving community health. While many people working in global health and community health are enthusiastic and optimistic about incorporating community health workers into health interventions, still relatively little is known about how to best incorporate CHWs into existing and new health systems. How community members and CHWs themselves conceptualize the CHW role has crucial implications for the extent to which CHW interventions will be successful. It is possible that expanding the scope of the CHW role, such that it includes tasks such as taking blood pressure that are now associated with health professionals, may help legitimize

the CHW role and increase community members' utilization of CHW services. Providing training that would allow CHWs to have as much flexibility in their skills as they currently have in their schedules may increase the effectiveness of CHWs. Overall, understanding how the CHW role is constructed within the community and health system, and its influence on perceptions of health can help inform best practices for CHW recruitment and involvement. The results of continued research on community health workers will bring the public health community one step closer to understanding the optimal approach to understanding and fulfilling the goals of community-based development.

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REBECCA GROSSMAN-KAHN is a senior majoring in Human Biology with a concentration in Infectious Diseases and Global Health. She spent a semester in 2006 in Brazil on a study abroad program focused on community health, learning about Brazil's national health care system as well as localized traditional health practices. She returned to Bahia in 2007 and spent the summer with community health workers to conduct research for her senior thesis.