BASICS II

Community Health Worker Incentives and Disincentives:

How They Affect Motivation, Retention, and Sustainability

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Abstract

This paper examines the experience with using various incentives to motivate and retain community health workers (CHWs) serving primarily as volunteers in child health and nutrition programs in developing countries. It makes recommendations for more systematic use of multiple incentives based on an understanding of the functions of different kinds of incentives and emphasizes the importance of the relationship between a CHW and community. Case studies from Afghanistan, El Salvador, Honduras, and Madagascar illustrate effective use of different incentives to retain CHWs and sustain CHW programs.

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Acronyms

ADRA	Adventist Development and Relief Agency
AHSSP	Afghanistan Health Sector Support Project
AIN	Atención Integral a la Niñez
ARI	acute respiratory infection
BHT	bridge to health team
BHW	barangay health worker (Philippines) or basic health worker (Afghanistan)
CARE	Cooperative for Assistance and Relief Everywhere
CHA	community health agent
CHC	community health center
CHP	community health promoter
CHVW	community health volunteer worker
CHW	community health worker
CRS	Catholic Relief Services
DHO	district health office
HA	health agent
HAC	health action committees
HC	health center
HH/C	household and community
IMCI	Integrated Management of Childhood Illness
MOH	Ministry of Health
NGO	nongovernmental organization
ORS	oral rehydration solution
TBA	traditional birth attendant
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHC	village health committee
VHW	village health worker

Executive Summary

Over the past couple decades, a number of studies have shown that community health workers (CHWs) can help reduce morbidity and mortality in certain settings. Health programs have recruited and trained these primarily volunteer workers to carry out a variety of health promotion, case management, and service delivery activities at the community level. CHWs can serve as a bridge between professional health staff and the community and help communities identify and address their own health needs. They can provide information to health system managers that may otherwise never reach them and can encourage those in the health system to understand and respond to community needs. CHWs can help mobilize community resources, act as advocates for the community, and build local capacity.

The overall environment of international public health has changed dramatically with health sector reform and decentralization. Local governments have greater autonomy and authority to develop and finance health solutions appropriate to their locales. In child survival programs, the Integrated Management of Childhood Illness (IMCI) approach is changing the way sick children are managed and health facilities are organized. As these dramatic changes in the public health context create new opportunities for programs that include community health workers, this is a critical time to review the past experience and draw lessons for the future.

One of the most critical problems for CHW programs is the high rate of attrition. Attrition rates are reported between 3.2 percent and 77 percent. Higher rates are generally associated with volunteers. Such high attrition rates lead to a lack of continuity in the relationship between a CHW and community, increased costs in selecting and training CHWs, and lost opportunities to build on experience. Indeed, the very effectiveness of CHW work usually depends on retention.

This paper examines experience with various incentives for CHWs and their impact on retention of CHWs and the sustainability of CHW programs. It reviews the types of incentives that are needed to motivate involvement, to retain CHWs once they have been trained, and to sustain their performance at acceptable levels. Although there are important lessons to learn from other community-based development workers, this paper focuses primarily on community-based workers who provide some type of health or nutrition service.

Organization of the Paper

The paper is organized into the following sections. Section 1 discusses the context of CHW programs, including the changes brought on by health sector reform and the IMCI approach. Section 2 describes the objectives and methodology of the review. Section 3 reviews the typical characteristics of CHWs and provides an overview of the wide range of their functions. Section 4 looks at the various ways that cash can be both an incentive and a disincentive and reviews in-kind incentives. Section 5 discusses some of the other program features that can motivate CHWs to continue their work, including their relationship to other health staff, their sense of personal growth and accomplishment, training opportunities, and peer support. Section 6 examines the critical relationship between CHWs and their communities. Section 7 reviews how the use of multiple incentives can contribute to CHW retention, and Section 8 contains conclusions and recommendations.

Conclusions

Perhaps the most important conclusion of this review is that there is no tidy package of three incentives that will ensure motivated CHWs

who will continue to work for years. Rather, a complex set of factors affects CHW motivation and attrition, and how these factors play out varies considerably from place to place. However, program planners can draw on the extensive experience of the public health community with CHW programs. A summary of the main conclusions of the review follows.

CHWs do not exist in a vacuum. They are part of and are influenced by the larger cultural and political environment in which they work. The process of health sector reform, the adoption of the IMCI strategy, and the progress made by community-based nutrition programs have generated renewed interest in the potential contribution of CHWs. Health sector reform has changed the supervisory structure within health systems and given more autonomy to peripheral health facilities. It has also decentralized the control of health funds, allowing greater flexibility in spending for various types of CHW incentives. The IMCI strategy includes a training curriculum on assessing and treating mild and moderate childhood illnesses. Such training allows CHWs to play a curative role, which is usually what communities demand. Policies on CHW distribution of antimicrobials and antimalarials can have tremendous effects on their relationship with the community.

The motivation and retention of CHWs is influenced by who they are in the community context. The inherent characteristics of CHWs, such as their age, gender, ethnicity, and even economic status, will affect how they are perceived by community members and their ability to work effectively.

At the micro level, the specific tasks and duties of CHWs affect their motivation and retention. When given too many tasks, CHWs feel overwhelmed with information or may spend so much time in training that they rarely practice what they have learned. Often the catchment areas they cover are too large with too many households, making it difficult for a CHW to spend the time or find the transportation to go to all the households. Many CHWs are restricted to preventive and promotive roles that leave them unable to respond to community demands for curative care (and usually medicines).

Monetary incentives can increase retention. CHWs are poor people trying to support their families. But monetary incentives often bring a host of problems because the money may not be enough, may not be paid regularly, or may stop altogether. Monetary incentives may also cause problems among different cadres of development workers who are paid and not paid. However, there are some success stories of programs paying CHWs. Many programs have used in-kind incentives effectively.

Non-monetary incentives are critical to the success of any CHW program. CHWs need to feel that they are a part of the health system through supportive supervision and appropriate training. Relatively small things, such as an identification badge, can provide a sense of pride in their work and increased status in their communities. Appropriate job aides such as counseling cards and regular replenishment of supplies can help ensure that CHWs feel competent to do their jobs. Peer support can come in many forms, such as working regularly with one or two other CHWs, frequent refresher training, or even CHW associations.

In the end, the effectiveness of a CHW comes down to his or her relationship with the community. Programs must do everything they can to strengthen and support this relationship. First, program planners must recognize the social complexity of communities and that communities are not all alike. Different communities will need different types of incentives, depending on the other job opportunities available, prior experience with CHWs, the economic situation of the community, and other factors. Unfortunately, very little experience or guidance is available on how best to differentiate communities. It is important to

CHW Incentives and Disincentives Organized by a Systems Approach		
	Incentives	***Disincentives***
Monetary factors that motivate individual CHWs	■ Satisfactory remuneration/ Material Incentives/Financial Incentives ■ Possibility of future paid employment	■ Inconsistent remuneration ■ Change in tangible incentives ■ Inequitable distribution of incentives among different types of community workers
Nonmonetary factors that motivate individual CHWs	■ Community recognition and respect of CHW work ■ Acquisition of valued skills ■ Personal growth and development ■ Accomplishment ■ Peer support ■ CHW associations ■ Identification (badge, shirt) and job aids ■ Status within community ■ Preferential treatment ■ Flexible and minimal hours clear role	■ Person not from community ■ Inadequate refresher training ■ Inadequate supervision ■ Excessive demands/time constraints ■ Lack of respect from health facility staff
Community-level factors that motivate individual CHWs	■ Community involvement in CHW selection ■ Community organizations that support CHW work ■ Community involvement in CHW training ■ Community information systems	■ Inappropriate selection of CHWs ■ Lack of community involvement in CHW selection, training, and support
Factors that motivate communities to support and sustain CHWs	■ Witnessing visible changes ■ Contribution to community empowerment ■ CHW associations ■ Successful referrals to health facilities	■ Unclear role and expectations (preventive versus curative care) ■ Inappropriate CHW behavior ■ Needs of the community not taken into account
Factors that motivate MOH staff to support and sustain CHWs	■ Policies/legislation that support CHWs ■ Witnessing visible changes ■ Funding for supervisory activities from government and/or community	■ Inadequate staff and supplies

involve communities in all aspects of the CHW program but especially in establishing criteria for CHWs and making the final selection. Programs can provide opportunities for quick visible results that will promote community recognition of CHWs' work. CHWs must be trained in appropriate and respectful interactions with all community members and in how to respond to difficult people or situations. Community-based organizations, such as religious groups or youth clubs, can provide support to CHWs and significantly lessen their load by taking on health education activities.

Many successful programs use multiple incentives over time to keep CHWs motivated. A systematic effort that plans for multiple incentives over time can build up a CHW's continuing sense of satisfaction and fulfillment.

Recommendations

Support the CHW's relationship with the community.
The fact that the effectiveness of the work of the CHW depends almost entirely on his or her relationship with the community is surprisingly often overlooked. Many programs focus on clinical training, supervisory checklists, and logistics (all of which are extremely important), to the exclusion of activities that support the community relationship. Effective programs have (explicitly or implicitly) oriented the whole program to support and strengthen every interaction that a CHW has with community members. Many examples of such efforts are given throughout the paper, from public recognition of CHW work by supervisors to job aides that support the ongoing dialogue between community members and CHWs. Programs must continually ask what can be done to promote beneficial interactions.

Use multiple incentives.
In most of the programs reviewed, incentives were implemented in an ad-hoc manner rather than as part of a systematic program. It would be useful to identify the functions of each of the incentives used to understand which are the critical functions and how those might vary based on the CHW role and type of community. Intrinsic incentives work to promote a sense that the work is worthwhile, while extrinsic incentives include salary and increased status within the community and with colleagues. It is clear that both intrinsic and extrinsic incentives should be implemented and monitored. The table on page xi shows a list of CHW incentives, including key disincentives mentioned in the literature and through personal communi-cations, organized into a systems approach that helps an implementer consider what can be done to support a CHW at different levels of the system.

Vary the incentives based on CHW duties.
CHWs continue to play an important role in many international primary health care programs. While continuing their preventive and community mobilization tasks, CHWs are increasingly becoming involved in community-based case management of prevalent childhood diseases. The Community-IMCI framework lays out three elements of implementation and describes different types of communities where those elements are appropriate. The role of CHWs, and consequently their incentives, will vary among the elements.

Are CHWs volunteers or employees?
In general CHWs are not paid salaries because the MOH or donors do not consider salaries to be sustainable. Yet CHWs are often held accountable and supervised as if they were employees. CHW programs must recognize that CHWs are *volunteers*, even if they receive small monetary or nonmonetary incentives. They are volunteering their time to serve the community.

Continue to understand your program.
Many programs do not understand why their CHWs drop out. Programs would be well served by monitoring some of the most important factors that affect a CHW's motivation and desire to stay on the job. Program managers must stay abreast of the "competition": what other jobs and opportunities are available for the CHWs? When new tasks or functions are added, programs should assess how CHWs are managing the increased workload. How do community members and the CHW interact? What demands are community members making on the CHWs? How do their supervisors and other staff in the health system treat CHWs? Do the CHWs have the training and job aides they need to be

effective and feel competent in their jobs? What monetary or nonmonetary incentives would increase their motivation and support their work?

More research is needed.
The question of how to sustain a long-term CHW program and to retain workers requires additional investigation. It is unfortunate that despite the vast experience with CHWs, relatively little scientific evidence is available to answer some of the basic questions: What are the current attrition rates? What are realistic attrition rates? What is the most efficient way to monitor CHW programs? What are successful ways of reducing attrition and increasing retention of CHWs? What are some financing strategies to pay CHWs in a regular and sustainable manner? What are the critical functions that are achieved by different incentives? What are the most important differences among communities that affect CHW programs, and what is the best way to assess these differences? How can planners efficiently tailor their programs to meet local needs?

CHWs: The Context

Community health workers (CHWs) are not a new concept. Health programs have recruited and trained CHWs to carry out a variety of health promotion, case management, and service delivery activities at the community level for several decades. CHWs can serve as a bridge between professional health staff and the community and help communities identify and address their own health needs. They can provide health system managers with information that may otherwise never reach them and can encourage those in the health system to understand and respond to community needs. CHWs can help mobilize community resources, act as advocates for the community, and build local capacity (Center for Policy Alternatives 1998).

Background

Yet for many public health practitioners, especially donor agencies, CHWs are a failed concept. Both the effectiveness of CHWs as change agents and the feasibility of implementing and sustaining large-scale CHW programs have been called into question. After being touted earlier as a key component of the strategy of Health for All by the Year 2000, CHW programs have frequently failed to live up to the expectations of a dynamic grassroots movement.

Despite this perception, CHW programs are worth reviewing. Over the past two decades, a number of studies have shown that CHWs can help reduce morbidity and mortality in certain settings. The overall environment of international public health has changed dramatically with health sector reform and decentralization, giving local governments greater autonomy and authority to develop and finance health solutions appropriate to their locales. In child survival programs, the Integrated Management of Childhood Illness approach has created a paradigm shift in the management of sick children and organization of health facilities. And with the advent of the community component of IMCI, CHWs have been sought out as effective community agents with a role to play in the prevention of disease, the promotion of healthy behaviors, and, in some places, the case management of sick children.

These dramatic changes in the public health context have created new opportunities for CHW programs. Now is a critical time to review past experience and draw lessons for the future. Although there may be important lessons to learn from other community-based development workers, this paper focuses on community-based workers who provide some type of health or nutrition service.

CHW programs face many problems, including poor training, inadequate supervision, lack of supplies, and poor relationships with communities. One of the most frustrating elements of many CHW programs is their high attrition rate. This paper examines recent experiences with CHW programs to determine

the factors that contribute to high motivation and low attrition of CHWs. Identifying these incentives will help program planners develop sustainable CHW programs.

Attrition in CHW Programs

Attrition rates for CHWs of 3.2 percent to 77 percent are reported in the literature, with higher rates generally associated with volunteers (Walt 1989). One review (Parlato and Favin 1982) found attrition rates of 30 percent over nine months in Senegal and 50 percent over two years in Nigeria. CHWs who depend on community financing have twice the attrition rate as those who receive a government salary. In the Solomon Islands, attrition was attributed to multiple causes in addition to inadequate pay, including family reasons, lack of community support, and upgrading of health posts (Chevalier 1993).

High attrition rates cause several problems. Frequent turnover of CHWs means a lack of continuity in the relationships established among a CHW, community, and health system. Considerable investment is made in each CHW, and program costs for identifying, screening, selecting, and training the CHW rise with high attrition rates. When CHWs leave their posts, the opportunity is lost to build on their experience and further develop their skills over time through refresher training. The very effectiveness of CHW work usually depends on retention.

Definitions of Key Words

Community Health Workers

Since the role of the CHW was re-emphasized during the Alma Ata conference in 1978, there have been several variations and definitions of this term. The specific roles and responsibilities of CHWs vary greatly among countries, depending on people's access to health care and the presence of other cadres of health workers. Table 1 shows the vast array of titles used for CHWs. In this report the term *CHW* refers to all of these titles, with the local titles used to refer to specific examples.

Walt (1998) provides the following common definition of CHWs as:

> *... generally local inhabitants given a limited amount of training to provide specific basic health and nutrition services to the mothers of their surrounding communities. They are expected to remain in their home village or neighborhood and usually only work part-time as health workers. They may be volunteers or receive a salary. They are generally not, however, civil servants or professional employees of Ministry of Health.*

Table 1. Alternative Titles for CHWs

Title	*Country*
Activista	Mozambique
Anganwadi	India
Animatrice	Haiti
Barangay health worker	Philippines
Basic health worker	India
Brigadista	Nicaragua
Colaborador voluntario	Guatemala
Community health agent	Ethiopia
Community health promoter	Zambia
Community health representative	various countries
Community health volunteer	Malawi
Community nutrition worker	India
Community resource person	Uganda
Female multipurpose health worker	Nepal
Health promoter	various countries
Kader	Indonesia
Monitora	Honduras
Outreach educator	various countries
Promotora	Honduras
Rural health motivator	Swaziland
Sevika	Nepal
Village health helper	Kenya
Village health worker	various countries

A distinction should be made between CHWs and other professional health staff to explain the unique role and background of CHWs. Table 2 presents an example from Latin America comparing two groups of health workers—professional and volunteer. This comparison applies in most other countries and regions.

Many definitions of CHWs also reflect expectations of their roles. For example, "…members of the communities where they work; should be selected by the communities; should be answerable to the communities for their activities; should be supported by the health system but not necessarily part of its organization; and have a shorter training [period] than professional workers" (Frankel 1992). CHWs usually provide services to people living in specific catchment areas, most often the areas where they themselves live.

Other Definitions

The following definitions and assumptions for the key concepts of CHW *incentives*, *motivation*, *retention*, and *sustainability* are used throughout the paper.

Incentives: Positive or negative, intrinsic or extrinsic factors influencing CHW motivation and volunteerism (Note: this paper focuses on incentives that can be addressed programmatically.)

Motivation: Desire to serve and perform effectively as a CHW

Retention: Length of time that an individual CHW actively performs appropriate community primary health care tasks

Sustainability: A continuing system of recruitment, training, and supervision of a cadre of volunteers in a community or district that meets its member or group health care needs

CHWs and Comprehensive Primary Health Care

During the Alma Ata conference in 1978, CHWs were identified as one of the cornerstones of comprehensive primary health care. CHWs had the potential to deliver equitable health services to populations living in remote areas and to help fill the unmet demand for regular health services in many countries. Such workers could solve the problems of poor access to health care and the high cost of doctors and reduce the social and cultural barriers to health care. While providing simple technical and educational interventions, CHWs could also serve as an entry point into the larger cultural, environmental, political, and social factors that affect health. They could be agents of change stimulating community participation in efforts to resolve the causal

Table 2. Comparison of CHWs with Professional Health Staff

Auxiliary nurses or health technicians (professional health staff)	*Health promoters or village health workers (volunteers from the community)*
■ Primary education plus 1–2 years of training ■ From outside the community ■ Employed full time ■ Salary usually paid by the program (not by the community)	■ Third grade education plus 1–6 months of training ■ From the community ■ Employed part time ■ Supported by farm labor or other community help ■ May be traditional healers

Source: Walt 1988

factors of illness (Frankel 1992). In other words, CHWs were thought to be the magic bullets of primary health care.

After Alma Ata many countries initiated programs to scale up local CHW initiatives to the national level. By the early 1990s, however, enthusiasm for CHWs was waning among ministries of health and donor organizations for a variety of reasons.

- Countries could not replicate CHW programs and take them to scale while maintaining the original levels of altruism, commitment, and effectiveness.
- The barefoot doctor movement in China, which was for many the model for scaling up CHW programs, declined in both coverage and effectiveness in the wake of economic reform and conversion of much of the health sector to the fee-for-service model.
- Attempts to create a global (one-size-fits-all) approach to CHW programs led to inflexible programs and approaches.
- Use of the mass media and social marketing seemed to be more cost effective than CHWs in promoting changes in health-related behaviors at the national level.
- Attempts were initiated to upgrade the skills of existing community-level health care providers (pharmacists, private physicians, traditional healers) rather than to create new cadres of health workers who might cease activities once funds run out.
- The use of CHWs as agents for specific vertical programs, such as for diarrhea and malaria, diminished the advantages of the holistic approach and often led to multiple training with less time on the job.

Despite these limitations, there is evidence that CHWs can reduce morbidity and mortality under certain conditions and therefore provide outreach and services that governments may not otherwise be able to deliver. In Egypt infant mortality was reduced by 40 percent when oral rehydration solution (ORS) was distributed to homes, compared to a reduction of only 15 percent when it was available only through pharmacists (Parlato and Favin 1982). In Nepal, where CHWs were provided with antibiotics and training in the diagnosis of pneumonia, an evaluation found that the case management by CHWs was correct in 80 percent of cases (Dawson et al. 2001). A study in Ecuador found that CHWs were much more cost effective than hospital-based workers in vaccinating children (San Sebastian et al. 2001). Among populations with limited access to basic health care, CHWs can facilitate referrals. There is growing evidence that CHW programs are an appropriate way to address concerns about equity among underserved populations, as well as to increase the effectiveness of programs. Two impact studies carried out in Colombia suggest that smaller-scale programs (within a neighborhood, municipality, district, or ethnic community) developed through community participation are more effective in changing health-related practices than larger programs (Quinones 1999). Along with other community resource people, CHWs can be critical to the promotion of key preventive and treatment behaviors.

While CHWs may not be appropriate in all settings, they cannot be dismissed as a programmatic option. Mass media and social marketing approaches cannot by themselves provide the depth of interaction necessary to change complex health behaviors. For example, the media may promote eating foods rich in vitamin A, but CHWs can work with individual families to develop acceptable recipes and use locally available foods. Similarly, approaches that rely exclusively on the private sector may have limited impact where commercial outlets are rare. Healthy behaviors need to be negotiated continually so that families can apply them to their own situations. CHWs can be a practical and effective way to do this in many, though not all, situations.

CHWs in the Context of Health Sector Reform

Most countries in Africa and much of the rest of the world are undergoing health sector

reform that involves the reorganization of the entire health sector. Health sector reform usually includes decentralization, the introduction of fees for a variety of health services, integrated health care packages, and donor coordination.

The focus on health sector reform and decentralization has led to a renewed emphasis on ways to extend coverage to underserved areas as well as to increase local involvement in decision making regarding health service delivery. The problems faced by health systems are illustrated in a recent study of health services in Burkina Faso (Bodart et al. 2001). The study documents a steady decline in the use of curative services, a strong urban bias in public spending on health, and high cost of care to patients. Policymakers are concerned about how to address these and other issues to improve access to health care among underserved populations. Health sector reform, including decentralization of civil and health systems, provides a new opportunity to revitalize CHW programs and develop local solutions to CHW incentives.

The role and tasks of CHWs vary by district and community, and the type of incentives needed to support the CHWs in these tasks need to be locally specific as well. As part of the movement to decentralize health services, ministries of health and donor organizations are turning increasingly to nongovernmental organizations (NGOs)[1] as natural partners for extending coverage and scaling up interventions. CHWs frequently play a key role in the operations of NGOs at the village and district levels.

Because programs funded by governments can often change or disappear from one administration to the next, many large-scale government CHW payment programs have not been sustained in the long term (Frankel 1992). The decentralized framework provides new opportunities for the support and motivation of CHWs.

Governments that have devolved local decision making and authority to districts, municipalities, and villages seem to be successful in applying general government guidance flexibly to meet their local health needs. Appropriate legislation and policies can help CHWs organize and retain members and maintain a CHW system over time. Two examples are discussed on page 6.

CHWs and Community IMCI

In 1995 WHO and UNICEF launched the Integrated Management of Childhood Illness strategy. IMCI is an integrated approach to the assessment, classification, and treatment of sick children that combines aspects of nutrition, immunization, disease prevention, and promotion of growth and development. The strategy addresses the illnesses and health problems responsible for the majority of deaths among children under five years of age and the fact that children are often ill from multiple causes. IMCI ensures that a child who is brought into a health center for diarrhea will also be treated for malaria or pneumonia if needed.

Until recently IMCI focused on improving health systems (including drug availability) and the skills of health workers to assess, classify, and treat children accurately. In 1997 the household and community (HH/C) component of IMCI was launched (Lambrechts et al. 1999). A framework has been defined for planning and implementing Community IMCI (Steinwand 2001; Winch et al. 2001) that includes the three following elements:

1. Improving partnerships between health facilities and services and the communities they serve
2. Increasing appropriate and accessible care and information from community-based providers
3. Integrating promotion of key family practices critical for child health and nutrition

1. In this document NGO refers to U.S.-based private voluntary organizations and their international and local nongovernmental partners.

The three elements are to be implemented by working across many sectors (a "multisectoral platform") in order to address the social, economic, and environmental factors that facilitate or hinder the adoption of key family practices. Each of these elements addresses a point of influence critical to appropriate child health care. At each point of influence, CHWs are often involved in delivering services and messages and in mobilizing the community (Table 3).

The role of a CHW varies with the strategy chosen to implement each element that is appropriate for a specific setting. Clearly, however, CHWs of some sort are critical to the success of Community IMCI. Implementation of the community component of IMCI requires a cadre of workers to deliver needed services to peripheral areas, promote child wellness and good nutritional status, prevent child illness, and link communities with health facilities that may be underutilized. Although private practitioners of some kind may be available even in remote areas, the fee-for-service approach does not lend itself to preventive services or to nutrition-related interventions. Organizations such as the Pan American Health Organization (PAHO) are therefore promoting CHWs as the entry point for the implementation of Community IMCI.

Policy Environment and Decentralization

The overall health policy environment can dramatically affect CHW programs. In Indonesia the kader system survived on the tradition of volunteerism and the support of the PKK, a national organization of the wives of political leaders (Favin 2001). In Mozambique community members who had been happy to volunteer under socialism are now demanding cash incentives with the move toward capitalism (Favin 2001). Policies often determine who is eligible to become a CHW and whether the CHWs can administer antibiotics or receive cash incentives. With health sector reform, some ministries of health are restructuring their CHW programs. Two examples of such restructuring are described below.

In 1995 the Philippine government enacted the Barangay Health Workers Act of 1995, which granted benefits and incentives to accredited *barangay* health workers (BHWs). The act included such provisions as subsistence allowance, career enrichment programs, recognition of years of primary health care, special training programs, and preferential access to loans. Experience from a pilot advocacy campaign showed that with adequate information and motivation, local government units were willing to provide financial and logistical support, including a transportation allowance and budget for regular upgrade training, as well as formal recognition of the roles of BHWs. BHWs have now organized themselves at the barangay level and in many areas are federated at the municipal and provincial levels and are becoming a significant political force for child survival (Paison 1999).

A program in Ceara, Brazil, found that a decentralized approach using paid health agents (HAs) could improve access to health care. The HAs had to have lived in the community for the previous five years. They also had to be over 18, able to work eight hours a day, and committed to social service. Each HA visits 75 households (225 in urban areas) once a month to provide health education and minor curative treatment. Nurses from the nearest clinic supervise them. The agents earn the equivalent of US $112 a month (twice the average local monthly income), which is paid out of tax funds from the state government to insulate the HAs from local politics. To ensure local support for the HAs, municipal governments must use some of the newly decentralized funds to employ the nurse supervisors before the state funds can be released. The results have been a well-trained cadre of health workers and dramatic improvements in child health, with an infant mortality reduction of 32 percent. Unfortunately, attrition rates are not reported (Svitone et al. 2000).

Table 3. Roles of CHWs in the Implementation of the Three Elements of the HH/C IMCI Framework

Element	*CHW role*
1. Improving partnerships between health facilities or services and the communities they serve	■ Help health facilities conduct community outreach. ■ Involve community members in planning and implementing health programs and services. ■ Raise awareness in the community about improvements to health services. ■ Educate community members about danger signs requiring care at health facilities. ■ Participate in data collection for community health information systems.
2. Increasing appropriate, accessible care and information from community-based providers	■ Provide effective basic care (e.g., oral rehydration therapy, antipyretic drugs) for sick children. ■ In some areas, treat sick children with other first-line drugs, such as chloroquine and cotrimoxazole, and advocate against harmful practices, such as injections. ■ Refer sick children to appropriate health facilities when advanced care is required. ■ Serve as a bridge to other providers (private sector and traditional healers).
3. Integrating promotion of key family practices critical for child health and nutrition	■ Engage communities in selecting behaviors to be promoted and identifying actions to be taken. ■ Promote key family practices for enhanced physical growth and mental development, prevention of disease, appropriate home care, and appropriate care-seeking behavior through individual counseling and community meetings.

Methodology

The renewed interest in CHWs described on pages 5-6 is leading policymakers and program managers to examine critically past experience with CHW programs. In light of all the problems brought by high attrition, managers are asking what types of incentives are needed to motivate involvement of CHWs, retain them once they have been trained, and sustain their performance at acceptable levels. This review examines experience with various incentives for CHWs and their impact on the retention of CHWs and the sustainability of CHW programs.

Organization of This Review

Section 3 of this paper reviews the typical characteristics of CHWs. Section 4 provides an overview of the wide range of their functions. Section 5 looks at the various ways cash can serve as both an incentive and a disincentive and reviews the use of in-kind payments. Section 6 discusses other program features that can motivate CHWs to continue their work, including relationships with other health staff, sense of personal growth and accomplishment, training opportunities, and peer support. Section 7 examines the critical relationship between the CHW and the community. Finally, Section 8 reviews the contribution of the overall policy environment and the mix of incentives that can contribute to CHW retention.

Methodology

A review of incentives for CHWs was identified as a priority at a meeting between the staff of the Basic Support for Institutionalizing Child Survival II (BASICS II) Project and the Child Survival Collaboration and Resources Group (CORE)[2] IMCI Working Group in the fall of 1999. BASICS and NGO staff had observed that minimal tokens of recognition could make a world of difference in enhancing community participation and increasing volunteer retention. By looking more closely at incentives, BASICS II hoped to learn how they affect the motivation, retention, and sustainability of CHWs.

This paper is based on a review of the literature and interviews with program staff from many organizations. A literature search was conducted using the Internet databases PubMed, Medline, and Popline. The key words *motivation*, *incentives*, *sustainability*, *CHWs*, *volunteers*, and *developing countries* were used in different combinations during the search. Several books and articles recommended by practitioners working with CHWs were also used for the paper. Since much of the information on CHWs is in the unpublished ("gray") literature, this literature was identified through personal contacts and through a request for information that included a questionnaire sent to the CORE Child Survival Community Group list serve and the MSH Community Health list serve. The

2. A network of more than 35 U.S. NGOs working together to improve primary health care programs for women and children and the communities in which they live.

questionnaire generated over 30 responses. Some of these responses led to further interviews with over a dozen practitioners.

Two broad categories of literature were identified and reviewed. The first category included papers reviewing the history and experience of CHW programs, and the second category included specific examples from programs working with CHWs. One of the key documents used in this paper is the 1982 paper *Progress and Problems: An Analysis of 52 AID-assisted Projects*, by Parlato and Favin. Although almost 20 years old, this paper is unique in systematically reviewing the experience of a wide range of primary health care programs. The authors provide important details about the work of CHWs in these programs, although they include little information about incentives.

Initial group and private interviews were conducted with BASICS II staff, NGO staff active in child survival programs, academics, and current and former staff from programs funded by the United States Agency for International Development (USAID). These interviews were based on the interview guide in Annex 1 and focused on specific examples and experiences from work with CHWs.

A draft of this paper was circulated to all BASICS II technical field and headquarters staff and through the CORE list serve in August 2000 to solicit additional information and comments. Further interviews were conducted with project staff to elicit the BASICS experience with CHWs. Semistructured interviews were conducted with staff in the Ecuador, El Salvador, Honduras, Madagascar, Nigeria, and Zambia programs. The interview guide in Annex 2 covers a wide range of topics, including the selection of CHWs, support from the health system, training opportunities, and monetary and nonmonetary incentives. On the basis of these comments and additional experiences, substantial revisions were undertaken and the final paper completed.

The literature review and interviews focused primarily on CHWs working in child health, rather than other types of development workers, such as family planning workers, traditional birth attendants, or agricultural outreach workers.

Who Are CHWs and What Do They Do?

Long before considering money, t-shirts, or other external incentives, programs must decide whom to select as CHWs. The characteristics of the CHWs are usually far more important for their ability to function effectively than their external incentives.

Characteristics of CHWs

No prescription for the ideal CHW exists, but programs must understand the role and status of the people who work as CHWs in order to plan appropriate incentives. In many cultures men cannot visit and talk with women, and women cannot travel alone to other communities or talk with people in unfamiliar households. The ethnic group, religion, or language skills of CHWs are often critical to their ability to work effectively. Most non-Western cultures place greater emphasis on ascribed characteristics (those inherent in the person, such as age or gender) than on achieved characteristics, such as special training. Thus, in some cultures young unmarried women are not viewed as people with health expertise even when they have received extensive training. Similarly, communities respond differently to CHWs from inside the community than to those from outside. Some community members may feel that because insiders are "just like me" they have no special knowledge. Others may feel that insiders understand their situation far better than outsiders. Such "insider" CHWs "…are armed with knowledge that no professional can match: an intimate knowledge of their own culture" (Quinones 1999).

Most CHWs are from the communities where they work, but their personal characteristics vary widely among countries. One review of 38 projects (Parlato and Favin 1982) found that 40 percent enlisted men CHWs, 23 percent women, and 37 percent both men and women. Many programs require that CHWs be literate (primary school educated) so that they can record health information and use written materials. Other programs have developed ways to record information for nonliterate people, such as using color-coded cards or pebbles in boxes (Storms 1979). Literacy requirements often affect the age of the selected CHWs: literate people tend to be younger. There is some evidence, on the other hand, that older CHWs are more respected in their communities (Ofosu-Amaah 1983).

Duties of CHWs

The responsibilities of CHWs, as in any job, are tied to the need and expectation of various incentives. The specific duties and functions of CHWs can dramatically influence their effectiveness and motivation to stay on the job. A CHW may assist the health system in improving access to health, promoting preventive health messages, providing nutritional counseling or curative care, and helping community residents find other health care options through referrals. Some CHWs work only in health promotion and have no curative functions. All national health programs operate with financial constraints and limited trained staff. As a result, these programs tend to add tasks and functions continually to the duties of existing staff, especially CHWs. Although there is no perfect equation for the combination of CHW

duties, recent experience sheds light on some of the issues surrounding the role of the CHW.

Single or Multiple Focus

The Alma Ata Declaration enumerated the following tasks expected of CHWs: "home visits, environmental sanitation, provision of water supply, first aid and treatment of simple and common ailments, health education, nutrition and surveillance, maternal and child health and family planning activities, communicable disease control, community development activities, referrals, record-keeping, and collection of data on vital events" (Ofosu-Amaah 1983). This long list of responsibilities would seem unreasonable to demand of volunteer workers. Some programs have trained several people and divided the functions among them. For example, in Nepal the village health worker does the basic preventive and curative work, while the community health leader motivates the community to participate in special campaigns (Parlato and Favin 1982). A team of workers often exacerbates the problem of incentives, however, because more people require support.

Many programs have trained CHWs to work in a single area, such as diarrhea, malaria, or nutrition. For example, in many parts of Latin America, volunteer collaborators conduct treatment and surveillance for malaria. They make home visits to people with symptoms of malaria, complete patient reports, take blood smears, and administer doses of chloroquine (Ruebush et al. 1994). The advantage of CHWs with a single focus is that they can be trained and monitored to perform a manageable set of tasks. The main disadvantage is frequent training and retraining in various vertical programs, with no opportunity for integration. Experience in Madagascar suggests that a CHW can manage only three or four themes at the most (Gottert 2001).

Apart from a consensus that no one person can manage all the activities laid out in the Alma Ata Declaration, there is little scientific evidence of the optimal number and mix of CHW functions and tasks. Programs must carefully monitor CHWs' workloads and their effects on motivation as additional tasks are added.

Mix of Curative and Preventive Services

Whether CHWs have a single or multiple focus, the balance between curative and preventive care has been identified as an issue. Prevention is extremely hard to sell in all public health programs. When curative care is offered, it is generally more welcomed and appreciated by the residents (Frankel 1992; Heggenhougen et al. 1987; Walt et al. 1989; Curtale et al. 1995). A report from Tanzania noted that "CHWs have expressed frustration at not being able to provide the quality of services demanded by the community and therefore want further training in curative medicine" (Heggenhougen et al. 1987). With disappointment on the part of the villagers and feelings of inadequacy among the CHWs, the relationship has been "characterized by a lack of support from the community…." The Tanzania report states that "unless the community's expectations change, the lack of support for the CHWs will be aggravated if the preventive role predominates over their curative activities…."

"Credibility of CHWs is highly dependent on the workers' curative role," find Parlato and Favin (1982). In Nepal community health volunteers who were able to treat acute respiratory infection (ARI) greatly increased their credibility among the village population. (Curtale et al. 1995). A lack of curative skills may be a disincentive for CHWs, compromising their standing in the community. (Gilson et al. 1989). Given a choice between preventive and curative care, community members demand more curative care (Walt et al. 1989), and problems often arise when CHWs cannot meet community demands. The relationship between the CHW and the community must be monitored and supported to ensure an effective partnership.

Drugs

Closely linked to the importance of providing curative care are CHWs' access to and supply of drugs. The kind of medicines CHWs should be allowed to administer has been the subject of much debate. Many are concerned that treatment with antibiotics and antimalarials, in particular, might lead to overuse and misuse of these medicines and eventual increases in drug resistance. Those who advocate inclusion of these drugs in CHW kits argue that they are readily available from local pharmacists and drug sellers and that trained CHWs may be able to promote proper usage.

The respect and status of CHWs in their communities unquestionably increases when they have drugs at their disposal. In their review of 52 projects, Parlato and Favin (1982) found that "CHWs' credibility suffers when drug supplies are irregular." Recent experience with recruiting CHWs from practicing drug sellers and pharmacists has shown that this strategy makes drugs available, gives the drug sellers greater prestige, and greatly reduces attrition (Ishan 2001).

In Nigeria's Gongola State, village health workers (VHWs) were trained to work in remote villages to treat common diseases with basic drugs and provide health education. An operations research study conducted to determine what contributed to the high VHW attrition rate found that one of the main reasons was villagers' dissatisfaction with the VHWs' limited curative role. The VHWs' lack of training or licenses to give injections created a discrepancy between what the community wanted and what the VHW could provide (Gray and Ciroma 1987).

Monetary Incentives and Disincentives

By definition a CHW is not usually a full-time salaried employee of the ministry of health (MOH) or other organization. The primary reason is the belief that the MOH cannot afford to pay CHWs over the long term. Compensation of CHWs for their services, however, is a recurrent issue in many programs. CHWs often work long hours, even full time, alongside salaried employees, which inevitably leads to demands by CHWs for regular compensation for services provided. While full-time salaried CHWs are relatively rare, many CHWs receive some type of cash incentive. This section of the paper reviews cash incentives of all types.

Money as an Incentive

There are many advantages to providing CHWs with cash incentives. From the program perspective, paid CHWs can be asked to work longer hours to achieve specific objectives within a specified time frame. When agents are paid, rigorous supervision can be exercised, programs can be implemented rapidly, work routines can be standardized, and service quality can be maintained (Phillips 1999). Negative reinforcers such as firing or punishment can be used to encourage desired performance. Payment is also seen as helping to build some economic equity in a minimally literate or economically disadvantaged population.

The main programmatic advantage to cash incentives is the apparently lower attrition rate among paid CHWs. In Gongola State, Nigeria, the Rural Health Program of the Christian Reformed Church found that VHWs left their posts after one to three years (Gray and Ciroma 1987). The VHWs worked one or two hours a day and received a small salary (the equivalent of US$13 to $27 a month in 1984). Men with lower monthly incomes worked two years and women with lower incomes worked one year, while men with higher pay stayed an average of 3.25 years and higher paid women stayed 1.5 years. Small salaries were mentioned most often as the reason VHWs found the work difficult. In a system established in Ethiopia's Gumer District, each household contributed one *birr* (US$0.15) a year to support the community health agents (CHAs) and traditional birth attendants (TBAs). This contribution was enough to cover a modest stipend for all trained CHAs and TBAs, and the attrition rate fell from 85 percent a year to zero (Wubneh 1999).

From the CHW perspective, appropriate, respectful, and regular compensation is a sign of acknowledgment and approval that allows them to earn a living or supplement other income. Cash incentives may come in several forms. CHWs may be part of the civil service and be paid a salary. They may also be given a small stipend. CHWs are often given per diem and travel allowances to attend training

or make field visits. Cash incentives may also be tied to drug sales.

The source of CHW payments can be the community (contributions from individual households), the government, an NGO, or even a for-profit company. The source of funds may affect the role and allegiance of the CHW. Several NGOs have tried to create community revolving drug funds or other types of community-based credit funds specifically for health incentives. When associated with profits that are the "incentive" for the CHW, few of these schemes have been successful or achieved any level of scale (Edison 2000; Henderson 2000). When compensation is tied to drug sales, CHWs tend to focus on curative care, while CHWs with salaries maintain both preventive and curative activities (Parlato and Favin 1982). Fee-for-service schemes often result in an increase of curative over preventive activities and the overprescription of medications (Davis 2000). Some NGOs report misuse of the funds through "borrowing" from the proceeds of the sales.

There is some indication that decentralization increases the flexibility of the local government to respond to issues of CHW remuneration. In the Philippines an increasing number of honoraria, or travel allowances, have been provided to community volunteer health workers (CVHWs) from both municipal governments and village development councils. The honoraria, which range from US$.50 to US$50 a month, are possible because of the devolution of health services from the provincial level to the municipality and village levels. At each level local support for the health programs is funded out of the government's respective revenue allocation (Paison 1999).

Some countries have experimented with insurance plans. In Haiti a combination of a prepaid scheme, existing community groups, and revenue-generating activity has been used to motivate CHWs to provide preventive services. Groups of mothers who could demonstrate their knowledge in child survival interventions and whose children were fully immunized and participating in growth monitoring were eligible to receive low-interest loans for income-generating activities. Each group of mothers paid an annual fee for a health card, and the funds were used to support the CHW. These funds have been matched by a one-time grant from the institution sponsoring the CHW program. Mothers had an economic incentive to learn health interventions in order to have access to the loans (Augustin and Pipp 1986).

Problems with Using Money as an Incentive

While paying CHWs regularly can solve many problems, experience in many countries has shown that such payment can have unforeseen negative consequences, depending on how it is handled. Money can be a divisive factor for CHWs and can undermine their commitment and the relationships they have with their communities. Volunteers often cite lack of remuneration as a key factor causing their attrition, but they also cite other critical reasons, such as lack of community support and lack of supervision (Wubneh 1999). Payment is difficult to disaggregate from other reasons because they are often interconnected. When using cash incentives, program managers should calculate how long such a payment scheme can be funded. When the government or an NGO offers monetary support, special effort is needed to compensate for possible distrust or heightened expectations in the community. Some examples of the negative consequences of paying CHWs are described below.

The Money Is Never Enough

The first problem with money is that workers inevitably demand more money, benefits, and opportunities for promotion. In the Solomon Islands 38 percent of nonworking VHWs left because of irregular remuneration. Ninety-two percent of the 66 working VHWs surveyed thought their allowances were inadequate and wanted them doubled from US$13.67 to US$27 a month (Chevalier 1993). In

Swaziland CHW salaries did not change over a decade in which the local currency gained 400 percent in buying power (Green 1996). If CHWs do not consider their salaries adequate, their performance and retention levels may by negatively affected.

Sustainability of Payments

The second problem with monetary compensation is that payment is often irregular and may end altogether when project funding runs out. Using other terms for payments, such as "field allowance," "transport allowance," or "per diem," can have advantages in some circumstances because they create fewer expectations. The sustainability of such incentives, however, ultimately may depend on their source.

Payments are often linked to specific training sessions. In Zambia the NGO Adventist Development and Relief Agency (ADRA) provided small "meal allowances" to CHWs when they brought their monthly reports to the health centers (Edison 2000). To circumvent salary issues, an NGO in Bolivia gave very small financial incentives to CHWs for discrete tasks that were easy to measure and track (Shanklin 2000). Staff had to spend time evaluating over-reporting and double reporting among CHWs, however.

Inequity among Workers

Comparison of their salaries with those of other workers may lead CHWs to call for salary increases or benefits such as pensions and health care. Payment is rarely consistent among cadres of workers such as CHWs and community-based distributors of contraceptives, who may work side by side and perform similar duties. Such discrepancies can result in jealousy and enmity. If some but not all CHWs or other community workers are paid, tension can result between the paid and unpaid groups. In Colombia CHWs who receive financial compensation for their work have generated tension and envy among other CHWs and community leaders who do not receive any remuneration (Quinones 1999). *Monitoras* who work in Honduras along the border with El Salvador frequently complain that their Salvadoran counterparts are paid while they are not (Griffiths 2001).

Are CHWs Accountable to the Community or to the Government?

CHWs who receive a salary or stipend may see themselves as employees of the government or NGO rather than as servants of the community. Financial incentives can destroy the spirit of volunteerism and work against the volunteer philosophy of a sense of community (Alonzo and Hurtate 2000). Even a tiny allowance can reinforce the community's perception that the CHWs are government employees and lead to expectations that they give even more freely of their time and personal resources (Taylor 2000; Hilton 2000). A community may become less willing to support the volunteers in other ways. For example, communities in Mozambique that thought *activistas* would receive a monetary incentive from an NGO or the MOH withheld their in-kind support (Snetro 2000). When people distrust the government, they distrust CHWs who are perceived to be a part of the government system.

In-kind Payments as an Effective "Compromise"

Paying CHWs in kind rather than in cash has advantages. In-kind payments are less prone to comparison with levels of compensation of salaried employees because their exact value may be difficult to quantify. CHWs can be paid in kind with cooking, food, housing, and help with agricultural work and child care. Most successful in-kind payments are planned and implemented by the community. Beneficiary families in Peru have taken turns working for free on the farms of the volunteers in recognition of their important contribution (Buenavente 2000).

Another type of in-kind payment is material items provided by NGOs. Such items are often, though not always, related

to the CHWs' job functions. Successful in-kind payments provided by NGOs have included bags to carry supplies, agriculture tools, raincoats, backpacks, supplies for home improvement, educational materials, herbal plants, and fruit trees. Alonso and Hurtarte (2000) have found, however, that incentives given too often or in too many forms are unsuccessful and demotivating in the long term. The Shishu Kabar Hearth nutritional program in Bangladesh gave each volunteer mother a set of dishes at the end of the sessions, avoiding a cash payment. This incentive helped the volunteers feel appreciated and made it easier for trainers to recruit mothers in new communities (Wollinka 1997). In some instances food supplements have been used as payments, but CHWs have been reluctant to continue working when the food supplements have ended. ADRA's experience has shown that any kind of financial support or subsidy, despite its positive short-term impact, is problematic for long-term sustainability (McHenry 2000). Selectively giving payment or food to some communities and not to others can generate animosity among communities and jealousy among families (Shanklin 2000).

Preferential Treatment

Several programs demonstrate appreciation for CHWs' work through preferential treatment, such as access to credit programs, literacy classes, or first-in-line treatment at health posts. For example, CHWs in Guatemala were exempt from military service (Parlato and Favin 1982). In India the CHW must show success with an income-generating activity to gain recognition as a health worker. Rather than receiving a salary or wage, the Indian CHW is given access to credit for income-generating activities through a bank loan (Arole 2000). Other NGO programs give CHWs, especially women, priority for inclusion in other development programs, such as group-guaranteed lending and savings programs. In the Ashanti Region of Ghana, members of the village health committees (VHCs) receive identity cards that allow them to be seen quickly at clinics. When there is a death in the family of a VHC member, a small cash donation is given to the family, and the district health management team (DHMT) is represented at the funeral (Leonard 2000). In all such cases, preferential treatment of CHWs must be monitored carefully to ensure that community members do not resent special treatment of CHWs.

Nonmonetary Incentives and Disincentives

Even when monetary or in-kind incentives are provided to CHWs, they are not sufficient to maintain and retain CHWs' motivation. Other types of incentives, often intangible, are critical to job satisfaction and fulfillment. These incentives include a good relationship with health staff, personal growth and development opportunities, training, and peer support. Perhaps the most important nonmonetary incentive, a good relationship with the community, is discussed in the following section.

Supervision or Recognition

CHWs occupy a unique position in the health system. They are usually not full-time salaried health workers, yet they are the pivotal bridge between the community and the health system. Compared with other health workers, they tend to have the lowest status because of their low levels of education and poor economic status. To ensure that the CHWs remain "of the community," ministries of health are usually reluctant to treat them as another cadre of health worker, while the CHWs are often eager to be identified with the prestige of the health system. These competing and contradictory tensions create a host of problems related to a CHW's sense of inclusion in and support from the health system.

The MOH can help CHWs feel supported and appreciated in many ways. In Indonesia a radio-based health communication campaign motivated the kaders by publicly praising them as "volunteers who work without compensation for our children in our village for the sake of the future." After the campaign mothers and village headmen complimented the kaders and attended the health posts more often. Retention improved significantly as a result (Elder 1992). In Kitwe, Zambia, where the community health promoters (CHPs) had no contact with the health system, frequent visits by outsiders (donors and NGOs) helped them maintain their commitment and motivation (Steel 2001). Sometimes the MOH sends letters of appreciation to the CHWs and their families, although such expressions of appreciation are not the norm.

Typically, after the initial training a CHW's relationship with the rest of the health system is limited to what is usually called supervision. Supervisors can give the CHW opportunities to discuss problems, exchange information, and take advantage of continuing education. Supervisory visits help reduce the feelings of isolation that often accompany a CHW's occupation. To be effective, supervisory visits should be regular and based on a common understanding of the purpose of the visit. CHWs appreciate good supervision given with the honest intention of capacity building and mentoring. In Guatemala supervised CHWs had attrition rates two to three times lower than those of unsupervised CHWs because their link with outside experts gave them higher status (Parlato and Favin 1982).

Weak, inadequate, and inconsistent supervision is cited frequently as a cause of low rates of CHW retention (Frankel 1992; Ofosu-Amaah 1983; Heggenhougen et al. 1987; Walt et al. 1989; Curtale et al. 1995; Ojofeitimi 1987; Schaefer 1985). Problems with supervision range from the logistical difficulties of reaching remote communities to interactions that are more punitive than supportive. Ofusu-Amaah (1992) summarizes many of the problems of CHW supervision of by health professionals in the following list:

- heavy clinical and other responsibilities of health professionals
- inappropriate training of health professionals in primary health care
- inaccessibility of villages
- multiple uncoordinated supervision visits by different health personnel working with the CHWs
- lack of vehicles or petrol
- lack of per diem
- general shortage of health personnel

In Sri Lanka the frequency and duration of supervision was inadequate because of major shortages of supervisory staff at all levels, and especially at the central MOH level, where a third of the positions were vacant (Ofosu-Amaah 1983). In Tanzania CHWs received some supervision from the village leaders and village council but were not familiar with CHW training or job descriptions (Heggenhougen et al. 1987). Poor management can also affect the quality of supervision at all levels of peripheral health services and primary level services. Gilson et al. (1989) describe this effect as "the reluctance to supervise which comes from lack of incentives, lack of confidence in supervisory techniques, and lack of objectives and targets for which to work."

While often beneficial, close contact with health staff can create problems when CHWs compare themselves with professional health workers. For example, CHWs in Colombia affiliated with health institutions such as hospitals felt that their work was undervalued and that they were treated differently from the other health workers and assistants, even though they performed the same tasks. This perception was seen as a major demotivater and reason for attrition (Quinones 1999).

When supervision is inconsistent, CHWs may not feel supported by the health system. Ensuring that supervisors are trained to supervise and soliciting the community's involvement in supervision can increase retention of CHWs and help ensure their long-term sustainability in the community. A study in Colombia (Robinson and Larsen 1990) found that the community had more influence on the CHWs than the health system, contrary to widely held assumptions. If the community and not the health system is the primary reference group for CHWs, then feedback from the community has a significant influence on motivation and performance. This study suggests that the supervisor should ask, "How can my contact with the CHW contribute to further development of the relationship with the community?" These findings indicate that a health facility or NGO supervisor should foster more positive interactions and dialogue with community members on pertinent issues.

Identification and Job Aids

One of the commonest and easiest ways to strengthen a CHW's affiliation with the MOH or supporting organization is to provide some form of identification. Identification cards, badges, or diplomas can provide security in politically volatile situations and are status symbols in the community. Many NGOs have given CHWs t-shirts, notebooks, caps, ponchos, and bags with identifying logos that promote group solidarity and facilitate entry into households during a project (Pearcy 2000; Rubardt 2000). Some programs provide bicycles or motorcycles for CHWs to use but usually not own. People who completed the Ghana Red Cross training program were allowed to purchase and wear the Red Cross smock or t-shirt. The Red Cross symbol identified them as Red Cross volunteers

and provided recognition and respect from their communities and from the MOH (Leonard 2000).

Job aids are materials that help a CHW perform the required tasks. While providing a sense of affiliation and enhancing the CHW's authority, appropriate job aids also strengthen skills and are invaluable in increasing confidence. Job aids have included medicines, health education materials such as counseling cards, first aid kits, pots for demonstrating preparation of weaning foods, pens and pencils, flipcharts, notebooks, and boxes to store records. These frequently cited incentives are important to CHWs' self-esteem and ability to fulfill their role (Henderson 2000).

Personal Growth and Development Opportunities

Personal growth and development is mentioned consistently in the gray literature as a major incentive for CHWs. Acquisition of knowledge and skills is seen as a stepping stone to future employment and a necessary component in meeting community health needs. Their jobs put CHWs living in rural areas with little chance of employment on the path of lifelong learning. Ongoing skill development (acquisition and promotion of preventive messages, basic curative services, problem analysis, and problem-solving skills) is viewed as important to job satisfaction.

CHW posts have been an entry into government employment in some situations, but in many other situations the training and job duties provided are too minimal to prepare CHWs for such employment, where it exists. In Solapar District in India, 93 percent of volunteers were not satisfied with their duties because they believed they would be a stepping stone to future government jobs that never materialized (Kartikeyan and Chaturvedi 1991).

Personal Accomplishment

Witnessing positive change is a strong motivator for CHWs. A sense of quick accomplishment often comes from providing curative services and nutritional interventions rather than from preventive services. In Haiti volunteer mothers, or *animatrices*, are motivated by seeing their lethargic children with no appetite become "bright, energetic children who eat ravenously" (Wollinka et al. 1997). This dramatic change convince the animatrice "that her efforts have had an impact, which appears to strengthen her commitment to the program, the balanced menu, and the more frequent feeding pattern the program recommends." In Ghana volunteer mothers are motivated by the health of their children and their desire to help other mothers have healthy children (Leonard 2000). Mothers' support groups meet regularly with the support of health workers to discuss breastfeeding and help new breastfeeding mothers solve problems. The volunteers often use their own children as examples of healthy, exclusively breastfed babies.

CHWs can derive a sense of accomplishment at a collective level as well as from seeing changes in individual children, which is often difficult. CHWs who collect and use health information can monitor and feel proud of their own progress. In Bolivia CHWs, health care providers, and community members meet monthly to discuss community-collected health data and plan action based on the data (Howard-Grabman 2000). This process has resulted in increased community awareness, more concern for maternal and child health issues, and positive attitudinal changes in the community and among health care providers. CHWs are seen as the bridge for these empowering meetings between health care providers and the community. Vaccination, vitamin A usage, and growth monitoring programs increased in the Bolivian communities using this "integrated community epidemiological system," and women in pilot communities were 2.2 times more likely to breastfeed within one hour postpartum.

Training

Lack of general and skills-based training is frequently mentioned as a barrier to effective

CHW performance (Walt et al. 1989; Gilson et al. 1989; Kaseje et al. 1987; Robinson and Larsen 1990). Most observers of community - based contraceptive distribution programs agree that the quality and intensity of agents' training is the most important single determinant of program quality and impact (Phillips 1999). Training can provide CHWs with the opportunity to learn skills, receive education, interact with higher levels of professional staff, and obtain other benefits that they would not be able to obtain otherwise. Learning skills is one of the main reasons CHWs volunteer.

Training is essential if CHWs are to carry out their work effectively. Training covers not only providing preventive, curative, or other relevant services to the community, but also teaching and communicating with community residents. In Nepal more training allowed the community health volunteers (CHVs) to identify causes and treatment of night blindness and to recognize fast breathing as a major sign of ARI (Curtale et al. 1995). Their ability to deliver treatment increased their motivation.

To be effective, training has to be done regularly and continuously, with the needs of the community in mind (Gilson et al. 1989; Kaseje et al. 1987; Robinson and Larsen 1990; Walt et al. 1989). VHWs in Gongola State, Nigeria, said in interviews that they felt that further health care training would allow them to advance to professional health care work and receive higher pay (Gray and Ciroma 1987).

The right combination of skills can help a CHW become a more qualified worker. Having skills that the community values raises the status of a CHW in the community. In Colombia and Tanzania training strategies were based on community surveys completed by CHW candidates before training began (Robinson and Larsen 1990). The skills the CHWs learned were directly related to the health issues in the communities. Robinson and others further explain how this training orientation solidifies the CHWs' connection with the communities while enhancing their standing as they try to meet community needs.

Without the ability to provide treatment or prevention, a CHW can lose standing in the community. The volunteers in the Sri Lanka study state, "Often we have to go to the public health nurse midwife to get an answer, and then tell the householder. When this happens, the community loses faith in us and refuses to accept any advice we give them" (Walt et al. 1989). Those designing training should consider the way material is taught, the place where training is carried out, and relevant skills that strengthen CHWs' ability to educate community members (Ofusu-Amaah 1983; Gilson et al. 1989; Kaseje et al. 1987; Robinson and Larsen 1990). Problem-solving skills are a critical part of the training needed to promote behavior change rather than knowledge accumulation.

Training Methods Make a Difference

Many training methods are inadequate. The methods tend to be too theoretical, too classroom based, and too complicated (Gilson et al. 1989). Such methods can be a disincentive to CHWs who are learning unfamiliar information. The following lessons learned for participatory training have emerged through NGO work with CHWs (LeBan 1999):

- CHW functions need to be clearly defined before training.
- Curricula, tools, and methods must cover each specific CHW task, with ample opportunity for hands-on management of real cases.
- Role modeling and one-on-one tutorial training approaches work extremely well.
- Adult participatory learning methodologies and problem-solving approaches help CHWs assume the role of change agent at the community level.

The training venue is also important to the CHW's ability to learn. Training is more

effective in a setting that matches CHWs' places of residence, whether urban or rural. Robinson reports that most training should take place in the community. Time spent in hands-on activities increases visibility and reinforces the relationship with the community (Robinson and Larsen 1990). Trainers and CHWs should go together to the rural or urban setting to work and assess skills in real situations (Gilson et al. 1989). CHWs should be trained in the closest health facility by health facility staff trainers to better link the formal health care system with the community (LeBan 1999). After training, the awarding of certificates to CHWs or a community celebration or recognition ceremony can be invaluable in recognizing the CHWs' accomplishments (Hilton 2000; Henderson 2000; Edison 2000; Pearcy 2000).

Using other CHWs to assist with the training can help ensure that it is relevant to the local situation. In an adaptation of the training-of-trainers approach in Mozambique, lead activistas (the strongest CHWs) were excellent auxiliary trainers, and their assistance reduced the time and costs of training (Koepsell et al. 1999).

Refresher Training

Continuous training has been cited as "an essential prerequisite for an effective CHW program" (Frankel 1992) and an important factor in retaining the motivation of workers, in light of the short training periods available and the low levels of education of most CHWs (Ofosu-Amaah 1983). Refresher training allows the CHWs to learn new skills, take on new challenges, and interact with peers, keeping the job interesting and promoting personal development. Little information is available on best practices associated with the periodicity of refresher training or the sequencing of messages and skill development. In most situations refresher training depends on budgets and is often cut when resources are scarce.

Experienced community-based rehabilitation kader in Indonesia became frustrated as they became more proficient in identifying disabilities. They realized that they needed additional education to handle more complex rehabilitation problems (Lysack and Frefting 1993). In Kenya continuous training provided enough motivation for the village health helpers to continue working even without financial support (Kaseje 1987). In Mozambique monthly refresher training featured a specific health theme, which allowed activistas to emphasize that theme during the following months' health education (Koepsell et al. 1999).

Sometimes training alone is enough to keep motivated workers going. La Leche League mothers in Guatemala continued to provide counseling and referrals four years after the end of the project grant (Rasmuson et al. 1998). Their motivation was attributed to a combination of refresher training, annual workshops, peer support, and visible change.

Training, however, has a negative side. CHWs, especially effective ones, tend to be targeted by a variety of vertical health programs (such as tuberculosis, malaria, and onchocerciasis) and taken frequently for training in these topics. Usually the CHWs enjoy the additional perks of training (a chance to leave the community, travel allowances, interaction with peers, learning new skills), but the communities are left without CHWs during the training. In El Salvador CHWs were found to spend more time in training than on the job (Contreras 2001).

Training is clearly a critical and ongoing part of any CHW program. The NGO CARE (2000) describes a comprehensive training strategy in Nyanza, Kenya, that has the involvement of both the MOH and the community. CARE combined a training and supervision strategy for CHWs using NGO, MOH, and community trainers and supervisors. Community health committees (CHCs) recruited CHWs to serve 20 families each. The district health office (DHO) provided health facilities for training, quarterly in-service training, and referral. Practical training

took place at the hospital. CARE and MOH staff provided additional incremental training for three months following the initial training. The DHO and the CHCs assumed overall supervisory responsibility for the performance of the CHWs. Within two years, 319 CHWs were managing sick children at the community level. The clinical proficiency of the CHWs was equal to or better than that of the MOH clinicians in that setting (LeBan 1999; Steinwand 2001). The motivation of the CHWs, which had been high early in the project, began to subside after a few years. The community elders, already engaged in supervision, promised to take a more aggressive role in solving the problems of CHW incentives in their areas.

Peer Support and CHW Networks

Interaction with other CHWs can be a critical motivator for people who often work with little supervision or tangible evidence of their effectiveness. Peer support comes in several forms. Several NGO programs have successfully paired CHWs so that they can work together and support each other. In the *Atención Integral a la Niñez* (AIN) program in Honduras, for example, monitoras worked in groups of three. Working in teams allows CHWs to divide their work and reduces the sense of isolation and complete responsibility for a geographic area. In Liben District, Ethiopia, Save the Children mobilized communities to form "bridge to health" teams (BHTs). Each BHT included a wisewoman, a wiseman, and a young traditional apprentice. Two-thirds of the BHT members were influential, respected TBAs, bone setters, herbalists, or circumcisers. Most traditional healers in the district were elected as BHTs. The teams decreased the isolation of the BHTs, provided mutual support, and allowed for local exchange of information (Marsh et al. 1999).

Group meetings can provide motivation for CHWs through peer support. Findings from Colombia, Mozambique, Nepal, and Uganda show that peer support is as important to CHW performance as supervisory feedback (Snetro 2000; Robinson and Larsen 1990; Taylor 2000; Oriokot 2000). Successful programs have brought CHWs together in monthly meetings and used these meetings to promote CHW bonding, as well as provide in-service training and supervision (Robinson and Larsen 1990). In the Shishu Kabar Hearth nutritional program in Bangladesh, trainers had the freedom to be creative and make suggestions to improve the program. Their ideas were incorporated into the program to give them a sense of ownership and involvement in decision making. Their contributions were recognized at weekly meetings. The trainers were encouraged to discuss successes and solve problems among themselves to exchange information and create a supportive environment (Wollinka 1997).

Examples of supporting groups of CHWs in forming CHW associations exist in many countries. In Peru CARE has effectively mobilized community volunteers into local committees that cover specific geographic areas. Representatives of these committees organize themselves into district associations. The committees meet monthly to discuss experiences and mutually reinforce commitment. They raise funds to cover their own activities, organize training events, and advocate for health with government and the MOH. This arrangement has resulted in dedicated, well trained, and active CHWs who have strong ties to the MOH but are not dependent on it (McNulty 2000).

Relationship with the Community

Working with the community gives health workers a platform from which to strengthen their relationship with the community and receive community feedback, as well as a structure for regular interaction with health facility staff. Community participation is an integral part of CHWs' motivation. Without involvement, communities lack interest and expectations, leaving CHWs without a support system.

Enhancing Relationships between CHWs and Communities

In many programs the potential of the CHW has not been realized because of a poor relationship with the community. In the Solomon Islands, 32 percent of the nonworking village health workers surveyed left their posts because of a lack of community support (Chevalier 1993). Programs and organizations that do not engage communities actively in CHW programs from their inception generally experience low morale among their CHWs. This lack of shared ownership generally triggers a separation and distance from active community participation in the CHW program, resulting in high attrition.

If CHWs are to serve as the bridge between the health system and the community, the relationship with the community must receive great attention. Yet this relationship is often given plenty of rhetoric but few if any financial or technical resources. Two misconceptions of the community have been common: a naive concept of community and an assumption that all communities are alike. Much current understanding of the complexity of communities comes from the work of social scientists and the field experiences of NGOs.

Programs have tended to oversimplify the "community" and underestimate its social complexity. Communities are *not* homogenous groups of people who always work well together. Like all communities, those in developing countries are made up of various groups of people based on such criteria as religion, ethnicity, and economic status. With notable exceptions, the most marginalized and powerless groups—women and the very poor—need CHW services the most, yet rarely have real involvement in CHW programs. Programs that do not recognize the complexity of local communities or ensure that the marginalized are given a voice may find that their CHWs are pawns of the local elites. One way to guard against this is to work through existing community groups and to increase the total number of CHWs in a community.

All poor communities are not alike. If programs make any distinction among communities, it is the distinction between rural and urban communities. Planning tends to be inflexible in responding to the diversity among communities. Of course, communities differ considerably. Some have more resources than others. Some have access to health facilities, markets, and cash crops, while others are on the verge of famine, with little food or other resources. The more stressed communities cannot and should not be expected to provide labor, money, or other resources to support CHWs. Communities with access to better job markets may have a hard time recruiting volunteers, as Catholic

Relief Services found in El Salvador (see p. 32). Communities may also have different epidemiological profiles, as in Ethiopia, where malaria is a problem only in some altitudes. Clearly, the relationship between a CHW and community varies with the characteristics of the community. Little has been documented on approaches to differentiating communities.

Selection of CHWs

Ideally, a community should be involved in all aspects of a CHW program, including selection, training, and supervision, but community members may not have the time and resources to invest in all these areas. Community involvement in selecting CHWs, as well as in using their services and contributing in-kind payments, appears to be critical to CHW programs.

Criteria for Selection

Selecting a CHW involves many steps. Criteria must be established, candidates identified, and a final selection made, perhaps after a trial period. Although the community could have a role in each step, usually it is involved only in proposing candidates who meet criteria established by program staff. As discussed in Section 4, the personal characteristics of CHWs play an important role in their relationships with the community and their continued motivation.

When given the opportunity, communities are often able to develop criteria that ensure CHWs stay on the job. In trying to revive the Community Health Agent (CHA) program, the MOH in Ethiopia established literacy as the only criterion for recruitment. When asked what criteria they would use to select CHAs, however, local communities listed 16 characteristics, including selection by the community, married status (so the CHWs would not leave the community), and no addiction to *chat*, an herbal stimulant (Bhattacharyya et al. 1997). In Guatemala local residents thought the volunteer collaborators should be "responsible individuals" and "able to take care of patients at all times of the day, even when they were busy" (Ruebush 1994). Candidates should also be selected on the basis of their demonstrated involvement in and commitment to the community (Robinson and Larsen 1990). Community members are often much more aware of the characteristics that will ensure CHW retention.

Process of Selection

Once criteria for selection are established, the "community" is usually asked to nominate candidates. Because this process is often a black box to outsiders who know little if anything about the internal social dynamics of the community, many problems can occur at this stage. Communities may not be organized to choose CHWs representative of the majority of residents, or they may not fully understand the functions of the CHWs. Communities that do not understand the role of the CHWs are less likely to give the CHWs the necessary support and may not understand their own role in improving their health. In Saradidi, Kenya, the responsibilities of the village health helper were discussed in open community meetings and formal and informal exchanges (Kaseje 1987). In many cases, however, selection of CHWs is completed well before the community has a clear understanding of what they do. CHWs' ability to carry out their tasks effectively can be enhanced when communities are invested in trying to improve their own health.

Communities understanding of their own role in changing their health status can help sustain the CHWs' activities. Community members should be informed of the job description, capabilities, and commitment of CHWs (Frankel 1992; Ofosu-Amaah 1983; Heggenhougen et al. 1987; Walt et al. 1989). If the communities understand what the CHWs are trained to do, there is less chance that residents' expectations of a CHW will go unmet. Community understanding will also reduce inappropriate demands and frustrations (Heggenhougen 1987).

Ideally, a CHW should be chosen with the

input of the community so that residents' health needs are considered and they respect and feel comfortable interacting with the CHW for their health services. In some cases, however, CHWs have been selected by village leaders who choose relatives or friends or by village committees that disregard community input. A survey-style CHW evaluation by UNICEF in 1989 reported that 45 percent of the CHWs surveyed were related to the local chief or subchief. The percentage would have been higher if other kinship ties and filial connections with members of the chiefs' councils had been included (Green 1996). A brief evaluation in Swaziland found that nepotism and self-interest determined the choice of the CHW by the local chief and his council, with no consideration of the candidates' interest in or qualifications for the job (Green 1996).

Extensive field experience and long association with specific communities have helped many NGOs find ways to ensure that the CHW selection process is fair and representative of marginalized groups. For example, CHVs in Senegal were chosen during community meetings by community leaders who did not include women or representatives of all community groups. Although the chosen CHVs were motivated in the beginning, 60 percent had abandoned their jobs after two years, and many of those who remained were no longer motivated to carry out community health activities. During the following phase of the project, volunteers were chosen instead through in-depth discussion with community members and village health committees established by World Vision. Five years later few CHVs had left their posts, an achievement attributed to official community recognition of their roles and to moral encouragement from their communities (Aubel et al. 1999).

Community Recognition of CHW Work

Community recognition and appreciation of the work of CHWs can have a snowball effect as communities demand more services and the MOH is able to respond with additional training and support. This is the ultimate goal of many CHW programs. In Mozambique, where activistas have worked for many years, their roles seem to have matured, and communities seem to accept their work to a high degree. Community members now approach activistas for family planning services and other types of support (Snetro 2000). When *sevikas* in Nepal were asked why they continued their volunteer work, they said, "Our neighbors won't let us resign; they insist we continue because their children's health depends on us" (Taylor 2000).

Several programs have mentioned the support of the community as an incentive for CHWs. Trust, prestige, mobility, and social interaction are other factors that are favorably mentioned (Walt et al.; Kaseje 1987; Lysack and Krefting 1993; Ruebush 1994). Many CHWs volunteer because they enjoy serving the community.

Visible Benefits

Communities that have directly and visibly benefited from CHW programs are the most willing to support the continued presence of CHWs. The community's interest in sustaining a CHW program is based in large part on evidence of positive changes in health status because of the CHW or on benefits such as effective referrals to health facilities. Visible change is limited by the predominance of preventive health in a CHW's work. With the exception of nutritional rehabilitation or the use of ORS for dehydrated children, few dramatic changes in health are visible to community members.

One way CHWs and communities can create visible change is to monitor simple health indicators over time. In Kitwe, Zambia, communities monitor the number of children who gain weight in the past month as an overall indicator of child health (Steel 2001). In Eastern Province, Zambia, communities use risk maps to monitor indicators such as immunization status and availability of latrines. Risk maps identify

households using color codes to mark indicators, such as green for fully immunized children and red for those not fully immunized (Bhattacharyya and Murray 1997). The collection and analysis of health information to chart changes in behavior (for example, more use of health services) or health status (for example, fewer cases of dehydration) allows CHWs to show the communities the results of their work.

Encouraging communication and interactions between CHWs and community members is critical to building an understanding of the CHWs' role and support for their work. There are a number of examples of community supervision of CHWs. While community health committees cannot be expected to do clinical supervision, they can monitor CHW performance at the community level. For example, the barefoot doctors in China were accountable to the villages and were given technical supervision by the health centers (Frankel 1992).

Individual Interactions

Negative CHW behavior has a negative effect on community support of CHWs and the messages they promote. Health workers in Niger did not treat mothers respectfully or patiently and did not counsel them on possible side effects of the vaccinations given to their children. The mothers reported that this negative behavior was a major barrier to their using the CHWs' health services (Boyd and Shaw 1995).

To be effective change agents, CHWs need to demonstrate the positive effects of new practices in their own homes. In Mozambique CHWs who had pit latrines in their homes stimulated community interest in their messages promoting the use of such latrines, while those who did not discouraged such interest (Snetro 2000). In Honduras, Save the Children and the MOH posted the photos and names of CHWs on the health post wall, bringing public recognition to the CHWs and increasing their visibility and retention (Amendola 1999).

Status

Being identified as a CHW and affiliated with the health system is usually, though not always, a status symbol that generates power and respect within the community. CHWs in Colombia ranked "having influence in the community" as the most important extrinsic reward affecting their performance. Informal observations indicated that this influence made the CHWs opinion leaders on a variety of issues of concern to the community. The fact that influence in the community is highly valued by community-based workers adds a dimension to their role that few other health workers, particularly those based in institutions, can share (Robinson and Larsen 1990). Identification badges, uniforms, and relationships with "outsiders," as in the Kitwe example, can increase the status of a CHW in a community.

Praise and respect from community residents and peers can motivate CHWs positively and increase their length of service. The appreciation of the people they serve is a strong incentive that is often cited as important to CHWs' job satisfaction. Minnesota International Health Volunteers has trained about 2,000 community volunteers in Uganda for a variety of tasks. Community recognition has proved to be a valuable tool in motivating and retaining community volunteers by increasing their status in the community. About 70 percent of them have been elected to various positions on their local councils since becoming volunteers (Mullins 2000).

Especially for women, public recognition outside the family can generate self-respect and empowerment to act in the community. Poor women in Dhaka, Bangladesh, who served as CHWs for ten years were seen as valuable members of their communities (Silimperi 2000). The activistas in Mozambique repeatedly emphasized the importance of community value and support, demonstrated by their neighbors' increased respect, reciprocal gestures of help, and acceptance of health behavior change messages; community leaders' understanding of and support for their

role; frequent visits by NGO staff; and opportunities to learn (Snetro 2000).

Community Organizations that Support CHW Work

In addition to community recognition, the formation of community organizations or village development committees has been cited as useful in supporting and sustaining the role of CHWs. Some form of viable community organization is necessary to establish an operational relationship between the community and the government. In Gongola State, Nigeria, the support and encouragement of the village health committee emerged as an important factor in VHW job satisfaction. The average length of service for 13 former VHWs who had met monthly with their local committees was three years, while that of 14 others who had never met with their local committees or met with them rarely was 1.3 years (Gray and Ciroma 1987).

In another example, Save the Children and the MOH trained BHTs in Ethiopia in emphasis behaviors and community mobilization. Health action committees (HACs) of ten to 12 elected members were trained to support the four to six BHTs in each *kebele* (village) and to support TBAs in safe delivery and danger sign recognition. Mothers and primary health caregivers believed that BHT health messages came from traditionally respected sources. BHT members were motivated by training, effectiveness in the community, and support from local leadership in the HACs (Marsh et al. 1999).

When support from community groups is missing, CHWs face an uphill battle in gaining the respect of the community. CHWs from Cochabamba, Bolivia, felt that the community was unsupportive and unaware of their activities. They saw themselves as divorced from important decision-making organizations. They also felt that institutional support from highly visible community leaders would increase their motivation and their credibility with the villagers (Gonzalez 1987).

Putting It All Together: Multiple Incentives

Successful CHW programs depend on a framework of incentives at the individual, community, and health system levels that together can motivate people to become CHWs and continue in this capacity for a few to several years, as well as motivate communities or ministry health offices to maintain and support CHWs and replace them over several years. Successful projects generally use multiple incentives simultaneously to motivate CHWs. Understanding the functions of various incentives can help programs combine these incentives effectively.

Behavioral Model

Several models in the behavioral science literature apply to motivation in a workplace setting. A model by Pareek (1986) identifies six primary needs or motivators relevant to understanding the behavior of people in organizations. This model identifies key motives that contribute to employee satisfaction and fulfillment (Table 4). It suggests that incentives that positively affect and reinforce each of these motives would contribute to higher motivation and retention of CHWs, and that incentives that exacerbate "fears" would likely lead to higher attrition.

The third column in Table 4 categorizes the incentives that have been reviewed in this paper according to the motivation model. This type of categorization can help program planners choose several incentives that reinforce positive aspects of all six motives simultaneously.

The same list of CHW incentives, including the key disincentives mentioned in the literature and in personal communications, can be organized into a systems approach that shows an implementer what can be done to support CHWs at different levels of the system (Table 5).

Examples of Multiple Incentives

As the rest of this paper shows, appropriate incentives depend on the social status of CHWs, their duties, and other opportunities in the community. This section reviews several examples of programs that have used multiple incentives. More detail about each program can be found in Annex 1.

Catholic Relief Services, El Salvador

Catholic Relief Services (CRS) has used the Pareek behavioral model to plan and implement multiple incentives for CHWs in El Salvador. This is the only example found of an organization using an explicit behavioral model to plan CHW incentives and tracking attrition rates to evaluate the effects of the incentives. The El Salvador experience yields several lessons. First, the use of multiple incentives based on the model was critical not only in reducing attrition but also in involving the community (Rosales et al. 2000). Second, attrition rates fell by 18 percent over all three

Table 4. Motivation Model

Motive	*Definition*	*CHW incentives*
Achievement	Concern for excellence; setting of challenging goals	■ Possibility of future employment ■ Personal growth and development ■ Acquisition of skills
Affiliation	Concern for establishing and maintaining close, personal relationships	■ Peer support ■ CHW associations and networks ■ Community involvement ■ Identification (badges, shirts, etc.)
Extension	Concern for others; urge to be relevant and useful to larger groups	■ Community recognition of and respect for CHW work ■ Successful referrals
Influence	Concern with making an impact on others; desire to change matters and develop others	■ Status in the community ■ Accomplishment ■ Visible changes
Control	Concern for orderliness; desire to be and stay informed; urge to monitor and take corrective action when needed	■ Clear role ■ Job aids ■ Feedback to the MOH and community ■ Support from the health system ■ Policies or legislation that support CHWs
Dependency	Desire for the help of others in one's own self-development; urge to maintain an "approval" relationship	■ Satisfactory remuneration (monetary and nonmonetary) ■ Training and refresher training ■ Supervision ■ Preferential treatment

Source: Pareek 1996

communities studied and by 54 percent in two of the communities. Third, as discussed above, not all communities are alike. The establishment of garment factories in one of the communities led to very high attrition of CHWs who took jobs in the factories. The main lesson of the CRS experience may be that creating a cadre of volunteer workers may not be the best approach to establishing CHWs in areas with growing opportunities for paid employment.

Atención Integral a la Niñez, Honduras

The MOH of Honduras has implemented the AIN program with technical assistance from the BASICS Project since 1995. The AIN program has a very strong group of monitoras who weigh children under two years old each month and counsel mothers whose children have not gained weight adequately. Several factors appear to be critical to the monitoras' success. First, they work in groups of three and are free to divide their tasks any way they like. Second, the monitoras, health center nurses, and program staff all focus on the same indicator: adequate child growth in the previous month. Because of this unified goal, every actor in the program knows which children are not growing adequately and why, as well as what actions have been taken to

Table 5. CHW Incentives and Disincentives Organized by a Systems Approach

Motivating factors	*Incentives*	*Disincentives*
Monetary factors that motivate CHWs	■ Satisfactory remuneration; material incentives; financial incentives ■ Possibility of future paid employment	■ Inconsistent remuneration ■ Change in tangible incentives ■ Inequitable distribution of incentives among different community workers
Nonmonetary factors that motivate CHWs	■ Community recognition and respect ■ Acquisition of valued skills ■ Personal growth and development ■ Accomplishment ■ Peer support ■ CHW associations ■ Identification (badge, shirt) and job aids ■ Community status ■ Preferential treatment ■ Flexible and minimal hours ■ Clear role	■ CHWs from outside community ■ Inadequate refresher training ■ Inadequate supervision ■ Excessive demands or time constraints ■ Lack of respect from health facility staff
Community factors that motivate CHWs	■ Community involvement in CHW selection ■ Community organizations that support CHW work ■ Community involvement in CHW training ■ Community information systems	■ Inappropriate selection of CHWs ■ Lack of community involvement in CHW selection, training, and support
Factors that motivate communities to support and sustain CHWs	■ Visible change ■ Contribution to community empowerment ■ CHW associations ■ Successful referrals to health facilities	■ Unclear role and expectations (preventive versus curative care) ■ Inappropriate CHW behavior ■ Failure to take community needs into account
Factors that motivate MOH staff to support and sustain CHWs	■ Policies or legislation that support CHWs ■ Visible change ■ Government or community funding for supervisory activities	■ Inadequate staff and supplies

improve the children's growth. Third, the program has used a variety of small incentives to encourage and support the monitoras.

Jereo Salama Isika, Madagascar

In Madagascar BASICS has provided technical assistance to the Jereo Salama Isika project, which implements community-based IMCI and community-based nutrition interventions using an integrated communication strategy. The Madagascar approach to using community volunteers, or *animateurs*, is unique in several respects. The program expects that 50 percent of the animateurs will drop out after 12 to 18 months.

After the animateurs leave the program, however, they are still viewed by the community as important sources of health information. For this reason, the program celebrates its graduates rather than worrying about its dropouts. The program's goal is to train as many people as possible (at least 1 percent of the population) in a two-day training workshop. The technical focus of the program is on promoting "small, doable actions" that are illustrated on counseling cards (for example, taking a child to be immunized). All NGOs and donors in the country use the same illustrations in a wide range of materials, resulting in consistency and continuity to health communication.

The Jereo Salama Isika program also highlights the importance of considering the interaction of the role of the volunteers (in Madagascar they are health promoters only, with no curative functions) and their incentives. Finally, the word *supervision* is not used to describe the relationship between health staff and volunteers. Instead, communities and health staff celebrate the achievements each year in a health festival.

Afghanistan Health Sector Support Project (AHSSP)

The Afghanistan Health Sector Support Project (HSSP) began in 1986 to provide basic health care to the rural Afghan population scattered among small villages separated by natural barriers or war. The project trained over 2000 basic health workers (BHWs) to provide preventive and curative care. While the project faces the unique challenges of war, cross-border traffic, and large numbers of refugees, it shares with other CHW projects the issues of selecting BHWs and providing them with incentives.

The BHWs were selected carefully to ensure that they were committed to improving health services in Afghanistan and to serving the resistance movement. Their work was monitored by checking administrative records, reviewing reports of border crossings, and making annual (in some cases triannual) visits. After their training the BHWs received diplomas, which were considered prestigious. The project decided to pay the BHWs to give them an incentive to stay in Afghanistan rather then move to Pakistan, as many people were doing. AHSSP demonstrated tight accountability by cross-matching three data sources, an approach that the BHWs appreciated because they felt the project was able to identify "cheaters." The BHWs also valued their contact with foreign agencies. The attrition rates were fairly low, with an average of 5 percent, and the average time of participation was just over two years. These statistics did not change much even when salaries were cut by 50 percent. The BHWs who served in areas that bordered Pakistan had much higher dropout rates, probably because of family connections and better opportunities in Pakistan.

Conclusions and Recommendations

The experiences with CHW programs reviewed in the previous section show that no one CHW program will work for all communities in all countries. Nevertheless, because program planners find it easier to develop one program and apply it globally, they are tempted to move in that direction. If a global CHW program is impracticable, how should programs be tailored and adapted to specific situations? What issues should be considered? How should decisions about incentives be made?

Perhaps the most important conclusion of this review is already known: there is no tidy package of three incentives that will ensure motivated CHWs who continue to work for years. Instead, a complex set of factors affect CHW motivation and attrition, and the way these factors play out varies considerably from place to place. Program planners do not need to start from scratch, however: they can draw on the public health community's extensive experience with CHW programs.

In summary, CHWs do not exist in a vacuum. They are part of and are influenced by the larger cultural and political environment in which they work. The process of health sector reform, the IMCI strategy, and the achievements of community-based nutrition programs have generated renewed interest in the potential contribution of CHWs. Health sector reform has changed the supervisory structure within health systems and given more autonomy to peripheral health facilities. Reform has also decentralized the control of health funds, allowing greater flexibility in spending for various types of CHW incentives. The IMCI strategy includes a training curriculum for the assessment and treatment of mild and moderate child illnesses. This strategy allows CHWs to play a curative role, which is usually what the community demands. Policies on CHW distribution of antimicrobials and antimalarials can have tremendous effects on their relationship with the community.

At a micro level, the position of CHWs in their communities influences their motivation and retention. The inherent characteristics of CHWs, such as their age, gender, ethnicity, and even economic status, affect the way they are perceived by community members and their ability to work effectively.

The specific tasks and duties of CHWs affect their motivation and retention. Given too many tasks, CHWs may feel overwhelmed with information or spend so much time in training that they rarely practice what they have learned. Often the catchment areas are too large, making it difficult for CHWs to find the time or transportation to visit all the households. Many CHWs are restricted to preventive and promotive roles that leave them unable to respond to community demands for curative care (and usually medicines).

Monetary incentives can increase retention. CHWs are poor people trying to support their families. But monetary incentives often bring a host of problems: the money may not be enough, may not be paid regularly, or may stop altogether. Monetary

incentives may also cause problems among different cadres of development workers, some of whom are not paid. Nevertheless, some programs have paid CHWs successfully, and many have used in-kind incentives effectively.

Nonmonetary incentives are critical to the success of any CHW program. CHWs need to feel through supportive supervision and appropriate training that they are part of the health system. Relatively small tokens, such as identification badges, can give CHWs a sense of pride in their work and increased status in their communities. Appropriate job aids, such as counseling cards and regular replenishment of supplies, can ensure that CHWs feel competent to do their jobs. Peer support can come in many forms, such as working regularly with one or two other CHWs, receiving frequent refresher training, or joining CHW associations.

In the end a CHW's effectiveness depends on his or her relationship with the community. Programs must do everything possible to strengthen and support this relationship. First, program planners must recognize the social complexity and diversity of communities. Different communities need different types of incentives, depending on other local job opportunities, prior experience with CHWs, the economic situation, and other factors.

Unfortunately, little experience or guidance on differentiating communities is available. Programs should involve communities in all aspects of the CHW program, but especially in establishing criteria for CHWs and making the final selection. Programs can provide opportunities for quick, visible results that promote community recognition of CHWs' work. CHWs must be trained in appropriate and respectful interactions with all community members and in appropriate responses to difficult people or situations. Community-based organizations such as religious groups or youth clubs can provide support to CHWs and lessen their load significantly by taking on health education activities.

Many successful programs use multiple incentives over time to keep CHWs motivated. A systematic effort that plans for multiple incentives over time can build a CHW's continuing sense of satisfaction and fulfillment. Identifying the functions of each of the incentives would be useful to clarify the critical functions and how those might vary based on the CHW role and type of community.

Support the CHW's Relationship with the Community

Surprisingly, the fact that the effectiveness of the work of CHWs depends almost entirely on their relationship with the community is often overlooked. Many programs end up focusing on clinical training, supervisory checklists, and logistics (all of which are extremely important) to the exclusion of activities that support the community relationship.

Effective programs have (explicitly or implicitly) oriented the whole program to support and strengthen every interaction of CHWs with community members. The paper includes many examples of such orientation, from public recognition of CHW work by supervisors to job aids that support the ongoing dialogue between community members and CHWs. Programs must ask continually what they can do to promote beneficial CHW-community interactions.

Use Multiple Incentives

In most of the programs reviewed in this paper, incentives were implemented ad hoc rather than as part of a systematic program. While multiple incentives are used in successful programs, new incentives are often proposed in reaction to a crisis of low morale rather than as part of an overall program effort to maintain high morale. Programs should consider a systematic effort to plan for multiple incentives over time to build CHWs' continuing sense of satisfaction and fulfillment.

Programs might find it useful to identify the functions of each of the incentives using Pareek's model or some other model to understand the critical functions and how

those might vary based on the CHW role and type of community. Intrinsic incentives work to promote a sense that the work is worthwhile, while extrinsic incentives include salary, increased status in the community, and the support of colleagues. Both intrinsic and extrinsic incentives clearly should be implemented and monitored. An incentives plan could address the multiple motives of achievement, affiliation, extension, influence, control, and dependency, as presented by Pareek. Alternatively, the plan could combine incentives targeted at different parts of the systems—monetary or nonmonetary factors that affect the individual CHW, community factors that encourage and support CHWs, and health system factors that support CHWs. Ideally, an incentive plan would include a combination of both approaches.

Match Incentives with Duties

CHWs continue to play an important role in many international primary health care programs. While continuing their preventive and community mobilization tasks, CHWs are increasingly becoming involved in community-based case management of prevalent childhood diseases. While CHWs' success rate is often lauded in the early stages of a new and exciting project, their motivation diminishes over time unless frequent steps are taken to maintain their enthusiasm for their essential but voluntary role.

The Community IMCI framework lays out three elements of implementation and describes the types of communities in which those elements are appropriate. The role of CHWs, and consequently their incentives, will vary among the elements. The first element emphasizes building strong partnerships between health facilities and communities, which depend to a great extent on the CHWs' acting as bridges. In such situations, where personal relationships are critical, incentive packages should be developed to avoid frequent turnover.

The second element of the Community IMCI framework focuses on improving community-based workers' ability to provide preventive services and some curative treatment of childhood illnesses. For this element CHWs will use IMCI concepts and tools to classify and treat illnesses and also to provide health education. In this arrangement, which is similar to that in the examples from El Salvador and Honduras described on pages 31-33, the main problem with high attrition is the training costs. Programs therefore should plan incentives and develop realistic expectations of the length of service.

The third element of the Community IMCI framework involves promoting the key family practices critical for health and nutrition. When CHWs work as health promoters, as in the Madagascar example on pages 33-34, programs should consider maximizing the number of training graduates so that healthy behaviors are spread widely.

Employees or Volunteers?

In general CHWs are not paid salaries because the MOH or donors do not consider salaries to be sustainable. Yet CHWs are often held accountable and supervised as if they were employees. CHW programs must recognize that CHWs are *volunteers*, even if they receive small monetary or nonmonetary incentives. They are volunteering their time to serve the community. Too often CHWs are treated as inferior employees instead of helpful volunteers.

Perhaps high attrition is not a problem, but an opportunity to involve more community members in promoting good health and nutrition. The example from Madagascar shows ways to change the way people think of CHWs: to celebrate graduates rather than worry about dropouts, plan for high turnover, and hold shorter, more frequent training sessions.

Importance of Monitoring

Many programs do not understand why their CHWs drop out. Such programs would be well-served by monitoring some of the most

important factors that affect CHWs' motivation and desire to stay on the job. Such monitoring need not be complex or quantitative. Much could be done qualitatively, through interviews with and observations of CHWs and community members during routine field visits.

Perhaps the most important issue that should be monitored by CHW programs is whether the programs are able to stay abreast of the "competition" for CHWs; that is, other jobs and opportunities. Another issue for monitoring is how CHWs manage the increased workload when new tasks or functions are added. Yet another is the interaction of community members and CHWs. What demands do community members make on the CHWs? How are CHWs treated by their supervisors and other staff in the health system? Do the CHWs have the training and job aids they need to be effective and feel competent in their jobs? What monetary or nonmonetary incentives would increase their motivation and support their work?

Topics for Research

Unfortunately, despite the vast experience with CHWs, relatively little scientific evidence is available to answer some of the basic questions: What are current attrition rates? What attrition rates are realistic? What is the most efficient way to monitor CHW programs? How can CHW attrition be reduced successfully and retention increased? What financing strategies can be used to ensure that CHWs are paid regularly and sustainably? What critical functions are achieved by different incentives? What important differences among communities affect CHW programs, and what is the best way to assess these differences? How can planners efficiently tailor their programs to meet local needs?

These issues, touched on in this paper, require further investigation. Much research is still needed to determine the best ways to sustain long-term CHW programs and retain volunteer health workers.

References

Alonzo, L, and S Hurtarte. Catholic Relief Service. Personal communication, March 21, 2000.

Amendola, L. Save the Children. Personal communication, June 1999.

Arole, RS. JAMKHED Comprehensive Rural Health Care Project. Personal communication, June 1999.

Aubel, J, et al. Strengthening Partnerships between Communities and Health Workers for Child Health. In B Burkhalter and V Graham, eds. *Presented Papers: High Impact PVO Child Survival Programs, Volume 2.* Proceedings of an Expert Consultation, Gaulladet University, Washington, DC, June 21-24, 1998. Published for the PVO community and the U.S. Agency for International Development by the Child Survival Collaboration and Resources (CORE) Group, Washington, DC, and Basic Support for Institutionalizing Child Survival Project (BASICS II), Arlington, VA, 1999: 73-87.

Augustin, DA, and MM Pipp. Alternative Methods of Motivating Community Health Workers (abstract). Chevy Chase, Maryland: PRICOR/ University Research Corporation, 1986.

Bhattacharyya K, P Freund, W Made, and D Teshome. *Community Demand Study for the Essential Services for Health in Ethiopia Project.* BASICS Technical Report. Arlington, Virginia: BASICS Project, 1997.

Bhattacharyya, K, and J Murray. *Community Assessment and Planning: A Participatory Approach*. BASICS Technical Report. Arlington, Virginia: BASICS Project, 1997.

Bodart C, G Servais, YL Mohamed, and B Schmidt-Ehry. The Influence of Health Sector Reform and External Assistance in Burkina Faso. *Health Policy and Planning* 16(1):74–86, 2001.

Boyd, B, and WD Shaw. *Unlocking Health Worker Potential: Some Creative Strategies from the Field*. Washington, DC: Academy for Educational Development/HealthCom, 1995.

Buenavente, L. Project HOPE. Personal communication, March 3, 2000.

CARE Kenya. Community Initiatives for Child Survival: Siaya (CICSS-II) Detailed Implementation Plan. March 2000.

Center for Policy Alternatives. Community Health Workers: A Leadership Brief on Preventive Health Programs. Washington, DC: Georgetown University Law Center, Harrison Institute for Public Law, Civic Health Institute, Codman Square Health Center, 1998.

Chevalier, C, et al. Why Do Village Health Workers Drop Out? *World Health Forum* 14(3):258–61, 1993.

Curtale, F, et al. Improving Skills and Utilization of Community Health Volunteers in Nepal. *Social Science & Medicine* 40(8):1117–25, 1995.

Dawson, P. Partnerships to Increase Access, Quality, and Scale of Childhood Pneumonia Treatment through Female Community Health Volunteers. In R Steinwand. *Reaching Communities for Child Health: Advancing PVO/ NGO Technical Capacity and Leadership for Household and Community Integrated Management of Childhood Illness (HH/C IMCI)*. Proceedings of a workshop, January 17-19, 2001, Baltimore, Maryland. Washington, DC: Child Survival Collaboration and Resources (CORE) Group and Arlington, Virginia: Basic Support for Institutionalizing Child Survival Project (BASICS II), 2001.

Davis, T. Food for the Hungry International. Personal communication, April 14, 2000.

Edison, J. Adventist Development and Relief Agency. Personal communication, March 2000.

Elder, J, et al. HealthCom Indonesia: The Use of Radio Spots to Improve Performance and Motivation of the Kader. *International Quarterly of Community Health Education* XI/4 (December), 1992.

Favin, M. CHANGE Project. Personal communication, June 2001.

Frankel, S, and MA Doggett. *The Community Health Worker: Effective Programmes for Developing Countries*. New York: Oxford University Press, 1992.

Gilson, L, et al. National Community Health Worker Programs: How Can They Be Strengthened? *Journal of Public Health Policy* 10(4):518–32, 1989.

Gonzalez, DR. Community Financing to Reduce Attrition of Community Health Workers and Increase Health Service Coverage in Rural Bolivia (summary). Bethesda, Maryland: PRICOR/University Research Corporation, 1987.

Gottert, P, R Roland, and R Alban. Streamlining Community-based IMCI: Six Guiding Principles. Project paper BASICS/JSI/LINKAGES/ Madagascar, 2000.

Gray, DHH, and J Ciroma. Attrition among Village Health Workers in Nigeria (summary). Bethesda, Maryland: PRICOR/University Research Co., 1987.

Green, EC *Indigenous Healers and the African State: Policy Issues Concerning African Indigenous Healers in Mozambique and Southern Africa*. New York: PACT Publications, 1996.

Griffiths, M. The Manoff Group. Semistructured interview, 2001.

Griffiths, M. The Manoff Group. Personal communication, July 12, 2000.

Griffiths, M, and V De Alvarado. Honduras: The AIN Community Experience (unpublished monograph). The Manoff Group, 1999.

Heggenhougan, K. *Community Health Workers: The Tanzanian Experience*. New York: Oxford University Press, 1987.

Henderson, A. World Vision. Personal communication, April 10, 2000.

Hilton, D. Emory University. Personal communication, April 13, 2000.

Howard-Grabman, L. Community Epidemiology Information System. Save the Children and Johns Hopkins University presentation at BASICS II, Arlington, Virginia, 2000.

Ishan, T. Save the Children. Personal communication, June 6, 2001.

Kartikeyan, S, and RM Chaturvedi. Community Health Volunteers: A Waste of Precious Resources? *World Health Forum* 12:341–342, 1991.

Kaseje, DC, et al. Characteristics and Functions of Community Health Workers in Saradidi, Kenya. *Annals of Tropical Medicine and Parasitology* 81 suppl. 1:56–66, 1987.

Koepsell J, et al. The Strength Project: Strengthening District and Community Teams for Mother and Child Health in Northern Mozambique. Project application. Nacala, Mozambique and Washington, DC: Save the Children, 1999.

Lambrechts, T, et al. Integrated Management of Childhood Illness: A Summary of First Experiences. *Bulletin of the World Health Organization* 77(7):582–94, 1999.

LeBan, K, ed. *Workshop Proceedings: Reaching Communities for Child Health: Partnering with PVOs in Integrated Management of Childhood Illness (IMCI)*. Washington, DC: Child Survival Collaboration and Resources (CORE) Group, 1999.

Leonard, SG, ed. Community IMCI Workshop, March 29 and 30, 2000. Consultancy to the Ministry of Health, Ghana. Arlington, Virginia: BASICS II Project, 2000.

Lysack, C, and L Krefting. Community-based Rehabilitation Cadres: Their Motivation for Volunteerism. *International Journal of Rehabilitation Research* 16(2):133–41, 1993.

Marsh, D, et al. Enlisting Traditional Healers for Rapid Change in Community Health Norms in a Conservative Rural Ethiopian District. Child Survival XIII Midterm Evaluation. Save the Children, October 1999.

McHenry, M. Adventist Development and Relief Agency. Personal communication, March 4, 2000.

McNulty, J. CARE International. Personal communication, March 19, 2000.

Mullins, J. Minnesota International Health Volunteers. Personal communication, July 11, 2000.

Ofosu-Amaah, V. National Experience in the Use of Community Health Workers. A Review of Current Issues and Problems. *WHO Offset Publication* 71:1–49, 1983.

Ojofeitimi, EO, et al. Increasing the Productivity of Community Health Workers through Supervision in the Rural Areas of Nigeria's Ife-Ijesha Zone (summary). Bethesda, Maryland: PRICOR/University Research Co., 1987.

Oriokot, F. AMREF. Presentation at a meeting with government and NGOs contributing to improvement in child health. Kampala, Uganda, February 9, 2000.

Paison, NG. Policy-level Impact of the Save the Children–Department of Health Partnerships on the Community Volunteer Health Workers Program. In *Presented Papers: High Impact PVO Child Survival Programs, Volume 2*. Proceedings of an Expert Consultation, Gaulladet University, Washington, DC, June 21-24, 1998. Published for the PVO community and the U.S. Agency for International Development by the Child Survival Collaboration and Resources (CORE) Group, Washington, DC, and Basic Support for Institutionalizing Child Survival Project (BASICS II), Arlington, VA, 1999: 183–191.

Pareek, U. 1986. Motivational Analysis of Organizational Behavior (MAD-B). In JW Pfeiffer and LD Goodstein, eds. *The 1986 Annual: Developing Human Resources*. San Diego, California: University Associates, 1986.

Parlato, M, and M Favin. Progress and Problems: An Analysis of 52 A.I.D. Assisted Projects. Washington, DC: American Public Health Association, 1982.

Pearcy, K. Mercy Corps International. Personal communication, April 19, 2000.

Phillips, JF, WL Greene, and EF Jackson. *Lessons from Community-based Distribution of Family Planning in Africa*. Population Council Policy Research Division Working Paper No. 121. New York: The Population Council, 1999.

Quinones, IdPL. *Community Health Workers: Profile and Training Process in Colombia*. Washington, DC: Pan American Health Organization and World Health Organization, 1999.

Rasmuson, M, et al. (eds.). *Community-based Approaches to Child Health: BASICS Experiences to Date*. Arlington, Virginia: BASICS Project, 1998.

Reis, T, et al. An Examination of the Performance and Motivation of Indonesian Village Health Volunteers. *International Quarterly of Community Health Education* 11(1):19–27, 1990.

Robinson, SA, and DE Larsen. The Relative Influence of the Community and the Health System on Work Performance: A Case Study of Community Health Workers in Colombia. *Social Science & Medicine* 30(10):1041–8, 1990.

Rosales, A, S de Mena, and J de Mazariego. Community Support for Improving Child Health: Its Promotion and Network Sustainability. In R Steinwand. *Reaching Communities for Child Health: Advancing PVO/NGO Technical Capacity and Leadership for Household and Community Integrated Management of Childhood Illness (HH/C IMCI)*. Proceedings of a workshop, January 17-19, 2001, Baltimore, Maryland. Washington, DC: Child Survival Collaboration and Resources (CORE) Group and Arlington, Virginia: Basic Support for Institutionalizing Child Survival Project (BASICS II), 2001.

Rubardt, M. Personal communication, March 22, 2000.

Ruebush, TK, et al. Qualities of an Ideal Volunteer Community Malaria Worker: A Comparison of the Opinions of Community Residents and National Malaria Service Staff. *Social Science & Medicine* 39(1):123–31, 1994.

San Sebastian M, I Goicolea, J Aviles, and M Narvaez. Improving Immunization Coverage in Rural Areas of Ecuador: A Cost-effectiveness Analysis. *Tropical Doctor* 31(1):21–4, 2001.

Sanghvi, T. BASICS Project. Semistructured interview, 2001.

Schaefer, M, and Reynolds, J. Operations Research Issues: Community Health Workers. Bethesda, Maryland: PRICOR/University Research Co., 1985.

Shanklin, D. Andean Rural Health Care. Personal communication, March 9, 2000.

Silimperi, D. University Research Corporation. Personal communication, April 17, 2000.

Snetro, G. Vision for Change: Community Health Promoters in Mozambique (draft). Save the Children Health, Population and Nutrition Unit, 2000.

Solat, S. Africare. Personal communication, July 12, 2000.

Steel, A. BASICS Project. Semistructured interview, 2001.

Steinwand, R.W. *Reaching Communities for Child Health: Advancing PVO/NGO Technical Capacity and Leadership for Household and Community Integrated Management of Childhood Illness (HH/C IMCI)*. Proceedings of a workshop, January 17-19, 2001, Baltimore, Maryland. Washington, DC: Child Survival Collaboration and Resources (CORE) Group and Arlington, Virginia: Basic Support for Institutionalizing Child Survival Project (BASICS II), 2001: 45.

Stinson, W, M Favin, and B Bradford. Training Community Health Workers. An issue paper prepared for UNICEF by the World Federation of Public Health Associations, 1983.

Storms, D. *Training and Working with Auxiliary Health Workers: Lessons from Developing Countries*. APHA Monograph Series 3. Washington, DC: American Public Health Association, 1979.

Svitone, EC, R Garfield, and MI Vasconcelos. Primary Health Care Lessons from the Northeast of Brazil: The Agentes de Saúde Program. *Pan American Journal of Public Health* 7(5):293–302, 2000.

Taylor, C. Health Equity in Nepal. (draft, January 29, 2000). Johns Hopkins School of Public Health.

Walt, G. *Community Health Workers: Policy and Practice in National Programs*. EPC Publication No. 16. London: The Evaluation and Planning Centre, London School of Hygiene & Tropical Medicine, 1988.

Walt, G, et al. Are Large-scale Volunteer Community Health Worker Programmes Feasible? The Case of Sri Lanka. *Social Science & Medicine* 29(5):599–608, 1989.

Werner, D. The Village Health Worker: Lackey or Liberator? *World Health Forum* 2(1):46–68, 1981.

Winch, P, K LeBan, and B Kusha. *Reaching Communities for Child Health and Nutrition: NGO Contributions to Community IMCI.* Calverton, Maryland: The Child Survival Technical Support Project, Arlington, VA: Basic Support for Institutionalizing Child Survival Project (BASICS II), and Washington, DC: Child Survival Collaboration and Resources (CORE) Group, 2001.

Wollinka, O, et al. Hearth Nutrition Model: Applications in Haiti, Vietnam, and Bangladesh. Arlington, Virginia: Basic Support for Institutionalizing Child Survival (BASICS) Project, 1997.

Wubneh, H. Gumer Child Survival Project and the Horses: An Alternative and Sustainable Approach to Child Survival Programs. In B Burkhalter and V Graham, eds. *Presented Papers: High Impact PVO Child Survival Programs, Volume 2*. Proceedings of an Expert Consultation, Gaulladet University, Washington, DC, June 21-24, 1998. Published for the PVO community and the U.S. Agency for International Development by the Child Survival Collaboration and Resources (CORE) Group, Washington, DC, and Basic Support for Institutionalizing Child Survival Project (BASICS II), Arlington, VA, 1999: 124-133.

Annex 1
Examples of the Use of Multiple Incentives

Catholic Relief Services, El Salvador

The Catholic Relief Services/CARITAS child survival project began in El Salvador in 1995. Community health committees, health promoters, and health collaborators were elected during community meetings. The role of the health committees was to maintain a link with health facilities and promote intersectoral collaboration. The health promoters collected local health information and supervised the health collaborators. The health collaborators were responsible for holding monthly meetings and making home visits to mothers to discuss breastfeeding, vaccination, and diarrhea management.

The midterm evaluation of the project found a high attrition rate among the collaborators. The project used the Pareek motivational model to plan multiple incentives for the volunteers. The achievement motive was addressed by using participatory training that reflected community needs, included the development of community organizing skills, and took place in the community. Forming women's support groups and health committees, providing ID badges, and promoting volunteer networks addressed the affiliation motive. The extension and influence motives were achieved when the community and MOH recognized and expressed support for the volunteers through "achievement days" every six months. The dependency motive was attained by periodic supervision by health staff and preferential treatment of volunteers at health facilities. The control motive was achieved through the use of the health information system.

The final evaluation showed that the attrition rate had dropped from 59 percent to 41 percent (a difference of 18 percent) among three communities. When the data were disaggregated by community, two of the communities had lower rates (Santiago de Maria fell from 85 percent to 15 percent and San Vicente from 67 percent to 33 percent), while the third community, Zacatecoluca, increased its attrition rate from 40 percent to 60 percent. The project found that garment factories recently opened in Zacatecoluca had drawn the volunteers away for paid employment (Rosales 2000).

Atención Integral a la Niñez, Honduras

The Atención Integral a la Niñez project is found in about three-fourths of the health areas in Honduras. It is implemented by the MOH with technical assistance from BASICS. All health centers (HCs) in those areas participate and are phasing in the number of communities served, for a total of about 1500 communities. While the numbers vary considerably, three monitoras cover 25 to 35 households with children under two years old.

HC nurses select communities with the lowest health indicators on the basis of a health needs assessment. Communities are asked whether they would like to participate in the program. Two communities have refused. The nurses hold community meetings in which community members are asked to nominate two to five people to be trained as monitoras. The only criterion for selection is that one of the nominees must be highly literate. About a third of the volunteers have previous experience as midwives or health promoters. Most are women with children of all ages. Literate people are often younger and without children. Many are among the better off in the community, and all tend to be extroverts and have a "presence" in the community.

The monitoras' duties include the following:

- Weigh all children under two each month and provide individual nutritional counseling based on the child's weight gain in the previous month.
- Identify and seek out all children under two who do not attend the weighing session and keep the lists of children up to date.
- Keep track of children who are not gaining weight.
- Make follow-up home visits to children who were sick or did not gain weight in the previous month.
- Hold community meetings three times a year to report the results of the monthly weighing sessions.
- Be available at set times to treat sick children under five using a modified IMCI algorithm and, if needed, provide oral rehydration solution or antibiotics. (The monitoras do not make follow-up household visits for this component, which was added recently and is being phased in).

The monitoras spend about a day or half a day a month conducting the weighing sessions and perhaps another two days making home visits. Three monitoras usually work in each community. Working as a group is critical to their success. The groups can decide how to divide their work. All seem to work well together. The program has not heard of any problems within the groups.

The initial training lasts five days, after which the monitoras are given three days of training for disease treatment. For this training they receive a minimal travel allowance. The frequency of refresher training and review meetings varies greatly, usually depending on the interest and initiative of the health center nurse. About 60 percent of monitoras receive some type of refresher training, primarily focused on counseling.

The monitoras receive no financial compensation for their work. Their main incentives seem to be their recognition by the community and their sense of altruism and commitment to volunteer work, of which there is a long history in Honduras. Their work is celebrated in a yearly party, which usually includes several hours of training. Initially, the program laid out a year's worth of incentives, including a letter to the monitoras' families from the MOH thanking them for allowing the monitoras to work, certificates of achievement, identification badges, and t-shirts.

Anecdotal evidence shows a fairly low dropout rate among the monitoras. Those who do drop out tend to be younger, literate people who find paying jobs. Some of the monitoras who work on the border with El Salvador border often ask for payment because their Salvadoran equivalents are paid a salary. Monitoras were very upset when their reimbursement for travel costs for training was delayed.

Monitoras report monthly on the results of the weighing sessions. Sometimes the HC nurses attend the weighing sessions to vaccinate children. Increasingly, the nurses recognize the critical role played by the monitoras in decreasing their workload. Sometimes monitoras help at the HC during national immunization days and other health events. Attempts are being made to make the municipalities more responsive to community needs, such as improved water supply (Griffiths 2000; Griffiths and De Alvarado 1999).

Jereo Salama Isika, Madagascar

The Jereo Salam Isika program began in two pilot districts in 1997 and is now going to scale in 20 districts, with a total population of 4.5 million people. When the decision was made to go to scale, a number of changes were made in the pilot program, including expanding the topics to include family planning, dropping one cadre of health volunteers (the *amis de santé*), and deciding to use only existing community groups rather than create new ones.

The current program has two levels of community volunteers: *encadreurs* and

animateurs. The encadreurs are selected by the MOH from existing community leaders. The animateurs are volunteers who are nominated by the community. The only criteria for selection are that they want to serve as animateurs and are nominated by the community. The program is so popular that people knock on the doors of the encadreurs asking to become animateurs. In each community served, ten encadreurs support 30 animateurs. The main tasks of the animateurs are organizing village theatre 20 to 30 times a year, using the counseling cards with groups of people, and planning health festivals. Sometimes the animateurs go to the health center to help organize people when crowds gather for occasions such as immunization days. The animateurs are trained in groups of 20 in two-day workshops, where they learn the use of counseling cards and village theatre techniques.

Most of the animateurs are women with young children with a range of literacy, although some are men. When asked why they want to be animateurs, most say they want to improve the health of their own families and increase their respect in the community. The program expects that 50 percent of the animateurs will stop working after 12 to 18 months. The animateurs give two reasons for stopping their work: 1) their child is seven years old, and there is nothing more to learn and 2) they can have jobs and still be seen as resources in the community.

A number of principles and lessons learned from the pilot program have benefited the current program (see Gottert et al. 2000 for the complete description). “Small, doable actions” rather than increasing knowledge, are the focal points of the overall strategy. These actions were agreed on by all MOH and NGO partners, ensuring complementary and consistent collaboration. Counseling cards were developed to show each of the small, doable actions, and the same images were used in a variety of other materials. The two-day workshops allow many more people to be trained. During the pilot program, the creation of village animation committees proved to be a labor-intensive process. The current program works only with existing community groups. The program also uses mass media, broadcasting 45-second radio spots and short rural radio programs frequently over ten stations. Volunteers are not supervised, but are supported and celebrated through health festivals (Sanghvi 2001; Gottert et al. 2000).

Afghanistan Health Sector Support Project (AHSSP)

In October 1986 a cooperative agreement was signed in Peshawar, Pakistan, between Management Sciences for Health and USAID to begin the Afghanistan Health Sector Support Project (AHSSP). Very early on the project developed an accelerated strategy to train a high volume of community or primary health care workers, called basic health workers. The BHWs would provide preventive, promotive, and simple curative services and would be expected to enroll in ongoing 12-day refresher courses when they went to replenish their supplies.

The BHWs were selected according to the following criteria:

1. ability to read and write
2. equivalent sixth class education
3. age of at least 16, preferably 20 to 30
4. residence in the assigned work location
5. immediate family inside Afghanistan
6. no employment in Pakistan
7. willingness to participate in the resistance movement inside Afghanistan after completion of the course
8. Muslim religion and previous participation in the resistance movement

The first three criteria established the candidates’ capacity to complete training successfully. The next three were aimed at selecting candidates with a personal interest in seeing improved health services inside Afghanistan. The seventh criterion reinforced the expectation that the BHW would work inside Afghanistan: serving the resisting

population was part of the resistance movement. The last criterion tried to eliminate candidates who had not yet served their regular term as mujahideen and consequently might be called to serve in the armed forces of the resistance.

From 1987 to 1993, 2,242 BHWs were trained and 2,190 served for some period. With very few exceptions, all BHWs trained were male because of the travel requirements. Every BHW's location inside Afghanistan was visited at least once a year, and many up to three times a year. Visiting project monitors took pictures, obtained signed statements of military and civil authorities on the BHWs' performance, and recorded structured interviews with patients. Quality control was the most difficult aspect of the project: few highly skilled health workers, such as physicians and nurses, were willing to risk traveling around the country for technical supervision visits.

BHWs were given several incentives. Upon graduation from the initial training and completion of each refresher course, each BHW received a written document confirming his new skills. This document was valued highly for the prestige it gave the BHW and the accountability it ensured to community leaders for the time spent in Pakistan. Although aware of the possible negative long-term effects of providing salaries, the AHSSP decided to pay the BHWs because salaries were seen as "cash for work" and gave Afghan families still living in rural Afghanistan an incentive to stay there. The amount was set at 870 Pakistani rupees, whose value against the U.S. dollar fell steadily to about half over the life of the project. Each BHW received an initial kit of medical supplies and basic equipment that could be resupplied every three to six months.

Moving between their assigned working places and Pakistan for training, supplies, and salary payment was hazardous for the BHWs because of the geography and infrastructure of the country and the political and military instability. Most of the 22 BHWs killed during the life of the project lost their lives while traveling. The BHWs were not reimbursed for their travel to Pakistan for the initial training, but they were often sponsored by the community inside Afghanistan. Travel from Pakistan to the locality of assignment and transport of medical supplies were advanced at going rates.

Cross matching of three data sources, as well as having monitoring reports countersigned by local community leaders, gave the BHWs a sense of being treated fairly. Particularly those who stayed in the project for several years appreciated the project's ability to pick up and single out "cheaters." In many communities the BHWs received recognition as "doctors" because no other source of Western medical care was available. Many BHWs expressed their satisfaction with being able to converse directly with the agency implementing the program rather than depending on Afghan authorities, who were often perceived as partisan and corrupt. The BHWs—even those excluded from the program for their poor performance—expressed appreciation for getting a "fair deal."

The average time of active participation of all the BHWs who dropped out of the project was 25 months, with a minimum of less than a month and a maximum of 67 months. The average (and median) attrition rate was 5 percent of the total BHWs enrolled a quarter, with a minimum of 1 percent and a maximum of 8 percent a quarter between September 1988 and September 1993.

In October 1992 the project decided to cut salary supplementation to 25 percent of the original amount by April 1992 and later to 50 percent. The contents of medical kits were revised and quantities reduced to reflect the actual average patient load of the BHWs. No increase in dropout rates was seen over the 12 months following the initial cuts.

Interestingly, BHWs active in the provinces bordering Pakistan had a much higher dropout rate (63 percent of all trained) than those from other provinces (32 percent of

all trained). Reasons proposed to explain this difference include the following:

- Refugee families in Pakistan were originally mostly from the border areas and often had "split families," part of whom still occupied land inside Afghanistan. BHWs from such families had less incentive to work permanently inside Afghanistan.
- The location of most cross-border health projects in the border provinces created opportunities for more gainful employment of BHWs once they were trained, as well as competition with more skilled health workers.
- The border provinces were occupied by a mosaic of political factions and to a large extend made up the former "tribal belt" of Afghanistan, making it difficult for the BHWs to link with possible referral health facilities in the hands of other commanders. In the nonborder provinces, larger regional political entities had emerged by 1989, offering more local support to BHWs and in some cases an opportunity to fit into regional health systems.

(This appendix was drafted by Paul Ickx from project reports and discussions with Laurence Ickx-Laumonier, former field operations officer of the AHSSP.)

Annex 2
Questionnaire for E-mail and Initial Interviews

1. Please give examples of incentives that were successful or unsuccessful in retaining CHWs on a long-term basis and keeping them motivated.

2. Please relate any specific positive or negative experiences regarding the use of the following types of incentives for CHWs:

   a) Public recognition
   b) Income-generating activities
   c) Management of a first aid, drug, or commodity fund or kit
   d) Training
   e) Supervision
   f) Personal development opportunities
   g) Provision of food
   h) Provision of a monetary stipend
   i) Provision of a bicycle or moped
   j) Mentoring
   k) Other

3. Have you found any differences between regions of the world (Africa, Latin America and the Caribbean, Asia, the Newly Independent States) and the types of incentives that were successful in promoting long-term retention and motivation of CHWs? Please give examples.

4. Do you track information regarding retention rates of CHWs and the cost of rehiring and retraining?

5. Can you tell us how to obtain documentation on your project experiences with CHWs?

6. Who else would you recommend that we speak to regarding incentives for CHWs? How can we reach them through e-mail or by phone?

7. Is there any additional information on CHWs that would be useful to you if collected and analyzed?

Annex 3
Interview Guide for BASICS Examples

Learning about CHWs: Semi-structured Interview Guide

1. **Background:**
   - What is the population served by your program?
   - What is the total number of CHWs active at any one time?
   - How many CHWs leave the program or become inactive each year?
   - How many CHWs do you recruit each year?

2. **CHW selection:** How were CHWs selected? What criteria were established? Who established them? What role did the community play?

3. **CHW characteristics:** Could you describe some of the characteristics of the CHWs (e.g., sex, literacy level, previous experience)?

4. **Duties:** What are the specific duties of the CHWs? What is the relative balance between curative and preventive activities? How many households does each CHW cover? How much time is a CHW expected to spend on his/her duties?

5. **Drugs:** What drugs, especially antibiotics or antimalarials, were CHWs supplied with? How are they resupplied? How common are stock-outs?

6. **Training:** What resources do you put into training of newly recruited CHWs each year? How many training courses for new CHWs are there in a year? How many CHWs are trained each time? What was the length of training that CHWs received? What is the frequency and duration of in-service (or refresher) training? Were per diem or travel allowances provided?

7. **Incentives:** What incentives did the program plan for the CHWs? What do you think motivated the CHWs to work? Can you give examples of incentives that were successful in keeping CHWs motivated over a period of time? Please relate any specific positive or negative experiences regarding the use of the following incentives:
   - Cash in any form, including sale of drugs
   - In-kind incentives such as farming help, dishes, or t-shirts
   - Job aids, special identification
   - Community recognition

8. **Multiple incentives:** Is there more than one incentive for the CHWs to work? If so, did these evolve? Were they planned? How do they work together?

9. **Disincentives:** Have any CHWs dropped out? What do you think are the main reasons for dropping out? Do you feel that the program has a problem with high turnover or dropouts or attrition? Why or why not?

10. **CHW/facility link:** What is the relationship between the CHW and the health facility? Is the facility staff supposed to supervise the CHWs? How does this work? What difficulties are there?

11. **CHW/community link:** What is the status of CHWs in the community? Are they perceived as government health workers or volunteers? What CHW functions does the community value most? How are CHWs linked to community groups, including health committees?

12. **Peer support:** Do the CHWs work alone? In pairs? In groups of three? How are they meant to work together? What opportunities are CHWs given to interact with other CHWs from other areas?

13. **Information on CHWS:** What information do you routinely collect on CHWs (e.g., retention rates, costs of training, costs of incentives)? Is this type of information important to you? If so, how do you use this data (e.g., to modify incentives)?

14. **Documentation:** Do you have any documentation of experiences with CHWs that you can send to us?