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COMMUNITY HEALTH WORKER INCENTIVES IN MADAGASCAR: LESSONS LEARNED

Photo by USAID MIKOLO

Background

Community health workers (CHWs) play a critical role in extending access to health services, especially in underserved and hard-to-reach areas. They are an important part of the frontline primary health care team and serve an essential role in integrated health systems. To maximize their impact, the design and implementation of CHW programs should be aligned with guiding principles that emphasize performance management. These include addressing CHW program leadership, health system integration, community engagement, financing, monitoring, health worker training, supervision, management, support, and the use of incentives.[1]

ABOUT ASH

African Strategies for Health (ASH) is a five-year project funded by the U.S. Agency for International Development's (USAID) Bureau for Africa and implemented by Management Sciences for Health. ASH works to improve the health status of populations across Africa through identifying and advocating for best practices, enhancing technical capacity, and engaging African regional institutions to address health issues in a sustainable manner. ASH provides information on trends and developments on the continent to USAID and other development partners to enhance decision-making regarding investments in health.

In order for governments and organizations to adopt, implement, and scale-up community health programs, knowledge of the wide typology of CHW models and their associated incentive mechanisms is critical. It is equally important for policy makers and program implementers to understand the impact of program design factors, like incentives, and how they may contribute to optimal CHW performance and the achievement of sustained health impact.[2]

To better understand the impact of financial and non-financial incentives on CHW performance and retention in Africa, the African Strategies for Health (ASH) project undertook a literature review and in-depth studies in two countries.[3] Madagascar was selected as one of the two countries, as CHWs play an essential part in improving access to quality health services in the context of a weak public sector and a severe shortage of trained healthcare workers. This technical brief presents key findings and recommendations based on research conducted in Madagascar.[4]

Country Context: Madagascar

For 83 percent of Madagascar's 22.9 million people living in rural areas,[5] access to quality health services remains limited. Following the 2009 military-backed coup d'état and subsequent political and economic crises, the Government of Madagascar (GoM) closed down 339 centres de santé de base (CSB -

primary healthcare centers) resulting in a 20 percent decrease in attendance rates while the health system experienced frequent stock-outs of essential medicines and interruptions in the delivery of health services.[6]

The country's under-five mortality rate remains at 62 deaths per 1,000 live births,[7] most of which can be attributed to largely preventable causes including acute respiratory infections, diarrhea, malaria, and neonatal sepsis. Moreover, the maternal death rate has stagnated at 478 deaths per 100,000 live births – far from its 2015 target of 127 deaths per 100,000 live births[8] – while only 43.9 percent of births are attended by a skilled worker.[9]

CHWs and unpaid, community health volunteers (CHVs)[10] represent the foundation of Madagascar's health system and play a key role in providing access to quality health services, often serving as the first point of care. Recognized as trusted members of their communities, more than 34,000 trained CHWs[11] provide a variety of services addressing priority health areas including maternal and child health; family planning (FP) and reproductive health; nutrition; tuberculosis; and water, sanitation, and hygiene (WASH).

However, community-based health approaches have often served as a palliative alternative to supplement the shortcomings of the health and social protection system.[12] Some community health programs remain fairly vertical (i.e. disease-focused), are often under-funded, and frequently lack harmonization between donors and implementing organizations.

Approach and Methodology

The overall objectives of the Madagascar study were to identify the types of CHW cadres and incentives being used and to analyze the impact of these incentives on CHW performance and program implementation.

Three regions (Analamanga, Atsimo Andrefana, and Atsinanana) were selected for this study with consideration given to the presence of partner-supported CHW programs, populations living in hard-to-reach areas, and general accessibility.

Using a semi-structured questionnaire, 68 informants including different types of CHWs and CHVs, their supervisors, and selected partners were interviewed in January 2015 about intervention design factors influencing performance, including incentives. Data was collected on indicators at both the CHW and end-user levels (see Box 1).[13] Implementing partner NGOs also provided data, when available, on CHW supervision frequency, prices of equipment and medicines, and management, supervision, meeting, and training costs, as well as information on financial and non-financial incentives.

Qualitative and quantitative data collected were used to identify the geographic coverage of CHW programs, the types and location of services provided, actual and target coverage, supervision and support, stock-outs, and expected CHW time spent on carrying out relevant duties.[14] Data were further analyzed using the CHW and end-user levels framework (outlined in Box 1) to determine the impact of incentives on performance. Specific measures at each level are outlined in the findings section.

Select Findings

CHW Programs Sampled

CHW programs in Madagascar are reliant on external support, though some are supported through Ministry of Health supervision. Interviews were conducted with 25 CHWs supported by three community-based programs: the USAID Mikolo project, USAID the United Nations Children Fund (UNICEF), and Marie Stopes Madagascar. Due to flooding and limited site accessibility, interviews were not conducted with CHVs supported by the USAID Mahefa project; however, programmatic data were issued by the central office were included in the study. Interviews were also conducted with five CHW supervisors working for local NGOs, two village health committees (COSAN), and eight Ministry of Health (MoH) staff from the central, regional, district, and primary healthcare facility levels. Details on the programs, the incentives provided to CHWs, workload across CHW cadres, as well as services provided by these CHWs are available in Tables 1 and 2. Further details on specific incentives provided to each cadre of CHW are available in the full report.[15]

Types of Incentives Being Used

The most common financial incentives across all interviewed CHWs included per diem for attending trainings and meetings, user fees from the sale of medicines and commodities, performance-based financing (PBF) incentives, and referral payments for FP services. Some CHWs were also involved in program-supported savings and internal lending communities (SILCs) and income generating activities, while others received free enrollement in community health insurance schemes. High-performing CHWs supported by USAID Mahefa received bicycles and participated in exchange visits to share experiences with other CHWs.

Box 1. Measuring CHW Performance

The design of CHW programs influences CHW performance. Important program design factors include CHW workload, human resource management, financial and non-financial incentives, quality assurance, resources and logistics, and community and health system links. This study examines the influence of incentives (financial and non-financial) on performance.

CHW performance can be measured at two levels: the individual CHW level and the end user or community level.

- **At the CHW level, measurable factors include CHW motivation, competency, guideline adherence and job satisfaction.**
- **At the end-user/community level, CHW performance can be measured through coverage, number of services provided, utilization of services, quality of services, health-seeking behavior, and adoption of practices that promote health and community empowerment.**

Table 1. Overview of Activities and Incentives for Community Health Programs

Community Health Program	Overview of Activities and Incentives
USAID Mikolo (2013-2018)	*Geographic coverage:* Implemented in six regions (Atsinanana, Vatovavy-Fitovinany, Amoron'i Mania, Haute Matsiatra, Ihorombe, and Atsimo-Andrefana), 32 districts, and 375 communes
	Role of CHWs: CHVs provide integrated community case management (iCCM) treatment (diarrhea, malaria, and pneumonia) and short-acting FP methods (pilplan, condoms, cycle beads, Depo-Provera) among other health promotional activities.
	Financial incentives: CHVs are considered unpaid volunteers but receive per diem for attending trainings and meetings and earn money from user fees from the sale of medicines and commodities. Selected CHVs also have access to credit through project-established SILCs.
	Non-financial incentives: CHVs receive training, equipment, and a start-up kit of medicines/commodities. CHVs are supervised regularly by a field technician and can be promoted to a higher level certification based on competency tests. CHVs indicate public acknowledgement, increased knowledge, and improved capacity as motivating nonfinancial incentives.
UNICEF Maternal and Neonatal Community Health Project (2012 – 2014)	*Geographic coverage:* Implemented in two regions (Atsimo Andrefana and Anosy) three districts (Toliara II, Betioky Sud, and Amboasary), and 66 communes
	Role of CHWs: CHWs are tasked with raising awareness and increasing the uptake of priority maternal and neonatal health interventions, including encouraging early prenatal exams, prenatal exams, deliveries at the CSB, postnatal exams, and kangaroo mother care.
	Financial incentives: CHWs receive quarterly performance-based incentive payments based on the number of activities that they conduct. Incentive payments are based on the funding available and the importance of the indicator (i.e. high-impact services such as referring women for delivery at the CSB are weighted heavily).
	Non-financial incentives: CHWs receive training and equipment as well as quarterly supervision and assessments by CSB staff.
Marie Stopes Madagascar Mobile Outreach Clinics (2007 - present)	*Geographic coverage:* Implemented in all 22 regions of Madagascar, including 100 districts, and 828 communes
	Role of CHWs: CHWs conduct outreach education for FP services. CHWs provide clients with a voucher to receive counseling and LA/PM from Marie Stopes Madagascar's mobile health team during quarterly visits.
	Financial incentives: CHWs earn 2,000 Ar (USD 0.62) for each client they refer for a LA/PM.
	Non-financial incentives: CHWs receive an initial training and quarterly supervision visits by mobile outreach teams.
USAID Mahefa (2011-2016)	*Geographic coverage:* Implemented in six regions (Boeny, DIANA, Melaky, Menabe, SAVA, and Sofia), 24 districts, and 279 communes
	Role of CHWs: CHVs provide iCCM diagnostic and treatment (diarrhea, malaria, and pneumonia) and short-acting FP methods (pilplan, condoms, cycle beads, Depo-Provera) among other health and WASH promotional activities.
	Financial incentives: CHVs are unpaid volunteers but receive per diem for attending trainings and meetings and earn user fees from the sale of medicines and commodities. Certain CHVs are selected to participate in income-generating activities (e.g. Eboxes and selling of WASH products).
	Non-financial incentives: CHVs receive training, equipment, and a start-up kit of medicines and commodities. CHVs participate in group supervision meetings each month and receive on-site supervision visits by both health center staff and NGO field workers. All CHVs in the program receive feedback from their clients on the quality of their services via the community score card approach and also in the commune-level health review sessions. High-performing CHVs receive bicycles, participate in exchange visits to share experiences with other CHVs, and sometimes travel to other regions to disseminate good practices and participate in conferences and workshops. CHVs also refer clients for long-acting/permanent methods (LA/PM) to Marie Stopes Madagascar mobile clinics and receive 2,000 Ar (USD 0.62) per referral.

The most commonly cited non-financial incentives included acquisition of valued skills through trainings (i.e. education and improved capacity), equipment and materials, mentorship and programmatic supervision, public recognition, and opportunities for job advancement as a CHW. Based on interviews conducted and an analysis of programmatic data, these incentives have considerable advantages and disadvantages and can influence CHW performance.

Impact of Incentives on CHW-Level Factors

CHW performance can be measured through individual factors such as motivation, attitudes, competencies, guideline adherence, and job satisfaction. The following effects of incentives (labeled "F" for financial and "NF" for non-financial) were identified through key informant interviews.

Motivation

- Per diem payments (F) for attending trainings and meetings motivate CHWs to attend and help to offset the opportunity costs of their time as volunteers. The financial support also allows CHWs to provide for their families.
- Variance in per diem payments (F) across implementing partners was considered demotivating among CHWs involved in multiple programs.
- Income from performance-based incentives (F) served as motivation for CHWs to encourage the adoption of healthy behaviors and interventions for improved health outcomes.
- Insufficient financial compensation (F) and delays in receiving PBF payments were cited as demotivating factors.

Table 2. Summary of Incentives for Community Health Programs

	USAID Mikolo	USAID Mahefa	UNICEF	Marie Stopes
Financial Incentives				
Per diem for trainings & meetings	✓	✓	✓	✓
User fees	✓	✓		
PBF incentives			✓	
Referral payments				✓
Enrollment in community health insurance schemes	✓	✓		
Income Generating Activities		✓		
Non-Financial Incentives				
Education & improved capacity	✓	✓	✓	✓
Equipment & materials	✓	✓	✓	✓
Mentorship & supervision	✓	✓	✓	✓
Public recognition	✓	✓	✓	✓
Opportunity for job advancement	✓	✓		

- One-on-one and group supervision (NF) reportedly improves CHW motivation, as visits serve as an opportunity for CHWs review their work, discuss challenges, and share experiences.
- Conversely, inconsistent supervision (NF) may lead to lower quality services or CHWs not feeling adequately supported by the health system[16] and, as a result, may lead to increased attrition.
- CHWs reported being motivated by the recognition and respect (NF) they receive from their community and program staff.
- Lack of opportunities for job advancement (NF) causes CHWs to lose motivation as their role remains static.

Competency

- Per diem payments (F), used to encourage CHW attendance at trainings and meetings, may help to improve CHW knowledge and capacity to provide quality health services.
- Education and training (NF) opportunities are a means of improving CHW knowledge and expertise.
- Supervision (NF) reportedly improves the quality of services, and also invokes a sense of trust in the community about the health services that the CHW provides.
- Job advancement opportunities (NF) permit CHWs to increase their competencies through additional skills and certifications, and, in some cases, serve as a mentor to other CHWs.

Guideline Adherence

- Supervision and regular skilss assessments (NF) hold CHWs accountable to their job descriptions and for the provision of quality services.
- User fees (F) from the sale of commodities allow CHWs to refill their supply stocks with quality products and purchase basic necessities for the families in the community.
- The provision of materials and equipment (NF) enable CHWs to effectively provide health services within their communities.

Job Satisfaction

- Variance in per diem payments (F) across implementing partners was considered a cause of frustration among CHWs involved in multiple programs.
- Supervision (NF) reinforces the role of a CHW and serves as a reminder that a support system is in place.
- Inconsistent training and reporting forms (NF) offered by the different programs reportedly cause confusion and frustration among CHWs involved in multiple programs.

Impact of Incentives on End-User/Community-Level Factors

CHW performance can also be measured through end-user or community-level factors. This study focused on supply-side factors and did not explore health seeking behavior or community empowerment. Analysis of interviews and programmatic data determined that incentives influenced CHW performance in the following ways.

Population and geographic coverage

Each of the four community health programs supports the delivery of various community-based health interventions and operates in several regions of the country, each with their own unique set of geographic and cultural differences. Population and geographic coverage varied across programs and CHWs provided both vertical and integrated health services. For example, some CHWs only provided preventive or promotional services while others provided integrated community case management (iCCM) for children or FP services to women of reproductive age.

Lesson: CHWs trained in the provision of a comprehensive, integrated package of services can help to meet the needs of their community and achieve greater population coverage as they are able to target priority populations (e.g. iCCM services for children and FP and reproductive health services for women).

Number of Services Provided

Caseload data were available for all four CHW programs; however, the availability and consistency of actual programmatic data vary considerably and therefore comparisons across programs are not possible. Moreover, programs vary in terms of their geographic coverage, variations of disease burden, access to services, and ratio of CHWs to population. The uptake of services also could depend on a number of supply- and demand-side factors as well as the maturity of the community health program.

In 2014, USAID Mikolo-supported CHVs each provided, on average, 6.54 iCCM services per month. Children under-five living in catchment areas received 2.28 iCCM services per capita during the reporting period.[17] These CHVs also reported having 37 regular FP users per month. USAID Mahefa-supported CHVs each provided 3.34 iCCM services per month and 2.68 iCCM services per capita.[18] The same CHVs also reported having 15 regular FP users per month. These programs were supported through both financial and non-financial incentives such as user fees, per diem for trainings and meetings, and equipment, among others (seeTable 2).

CHWs supported by UNICEF referred an average of 11.6 women for an ANC visit per year; conducted 29 information, education and communication (IEC) sessions per year; and referred or accompanied 37 patients to the primary health facility. CHWs supported by Marie Stopes Madagascar referred an average of 253 persons per year to mobile outreach FP clinics. Based on the number of total clients receiving an LA/PM (88,422 persons), each CHW, on average, referred124 persons in 2014 who received an LA/PM.

Lesson: CHW cadres receiving regular support through assessments and both financial and non-financial incentives are able to maintain competency and provide health services to their communities.

Estimated Demand and Use of Services

Direct comparisons of CHW performance across programs are not possible due to significant differences in disease epidemiology, demand for and availability of health services, the ratio of CHWs to population, among other geographic, cultural and contextual factors. Despite these key differences, this study sought to examine the estimated demand and use of services provided by CHWs by considering a number of variables, including the estimated catchment population and the expected number of services for each condition included in the package of services provided by CHWs, based upon incidence rates for each disease.

For example, USAID Mikolo-supported CHVs treated 46 percent of pneumonia cases, two percent of diarrhea cases, and 48 percent of fever cases. USAID Mahefa-supported CHVs treated 22 percent of pneumonia cases, three percent of diarrhea cases, and 15 percent of fever cases.

The utilization of CHW services could be attributed to a number of supply- and demand-side factors including the availability of CHWs, availability of medicines, and client preference to seek services at the CSB or from another health provider. Moreover, these figures could be a result of the estimated population figures and/or incidence rates which may significantly vary considerably by region.

Lesson: The uptake of community health services depends on a number of supply- and demand-side factors. However, for CHWs to be effective and able to meet the health needs of their communities, they should be sufficiently supplied with equipment and medicines, frequently supervised, and adequately incentivized.

Quality of Services Provided by CHWs

Interviews with community members and facility staff were conducted; however, there was limited information provided on the community's opinion of CHW performance and the perceived quality of services. Staff working for the USAID Mikolo and USAID Mahefa projects overwhelmingly indicated the importance of ongoing supervision to ensure that CHWs continued to provide appropriate and correct treatment. Both projects held monthly group supervision sessions to update CHWs' technical skills, share expereience, and and review reports. USAID Mahefa CHVs receive feedback from their clients on the quality of their services via the community score card approach and also in commune-level health review sessions.

Lesson: Frequent supervision and support as well as assessments of CHWs skills and knowledge can improve CHW adherence to service delivery protocols and can result in higher quality of services and reporting. Client feedback is also important in improving CHW service provision.

Discussion and Recommendations

The findings of this study demonstrate that CHW performance in Madagascar is influenced by the provision of both financial and non-financial incentives. Variations in the design of CHW programs and the use of incentives have considerable influence on CHW performance. The following recommendations are intended to improve the performance of CHWs and the delivery of community-based health services.

1. Programs must ensure that incentives reflect the context of CHWs' workload, opportunity costs (i.e. time commitment), and the environment in which they work. Financial incentives are important motivators for CHWs and help to encourage accountability and commitment to the provision of quality services in hard-to-reach areas. Consistency in the timing and amount of financial compensation–such as from per diem and user fees–is essential in sustaining CHW motivation and, in many cases, maintaining a regular supply of medicines.
2. Non-financial incentives such as regular training, supervision, public recognition, and opportunities for advancement and professional development must be included as essential components of any community health programs. These incentives not only motivate CHWs, but serve to improve their capacity and ensure high-quality service provision.
3. Community health programs must harmonize their incentives, trainings, reporting, and supervision, to reduce duplicative costs and improve CHW capacity, utilization of services, and limit CHWs' frustration related to inconsistent incentives, as evidenced in Madagascar.

Conclusions

Incentives must be sustained over time to ensure that CHWs obtain the needed support to provide access to high-quality health services. Frequently, interruptions in the delivery of health services are the result of completed or expired funding which supports key programmatic components, including supervision, trainings, and commodities. Supporting CHWs through regular incentives and harmonized CHW programs can help to improve CHW capacity and provide valuable opportunities to link the community-based system with the broader health system.

This study aimed to identify and analyze the impact of incentives on CHW performance in Madagascar. The findings and recommendations may be useful for countries that are considering introducing, modifying, or scaling up a community health program. As governments analyze efficiencies in the allocation of resources across health system components, it is important to improve the planning of community health activities using existing human resources for health. By understanding how design features of community-based programs affect CHW performance, interventions can be shaped and adjusted to achieve optimal health impact. ■

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ENDNOTES

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3. This study used the WHO definition: "CHWs, 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 a part of its organization, and have shorter training than professional workers" (Adapted from WHO. "Community health workers: what do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers." Evidence and Information for Policy, Department of Human Resources for Health. Geneva, Switzerland. January 2007)
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17. Nine month reporting period (April – December, 2014)
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