

Access to healthcare through community health workers in East and Southern Africa



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Access to healthcare through community health workers in East and Southern Africa

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Access to Healthcare through Community Health Workers in East and Southern Africa

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Keywords: East Africa, Southern Africa, community health worker, health extension, community health, village health, health volunteer, iCCM, community case management, human resources for health, hard-to-reach areas, malaria, pneumonia, diarrhoea

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Executive Summary

In the last decade, there has been an unprecedented investment in health care to accelerate the reduction of under-five child mortality. However, one of the main barriers to proven and affordable health care has been limited access to high-impact child survival interventions for pneumonia, diarrhoea and malaria in remote areas and marginalized communities. The deployment of well-supervised Community Health Workers (CHWs) is a strategy that aims to increase access to health care for millions of children across Africa. All 20 countries in the East and Southern Africa Region (ESAR) surveyed have CHWs serving in some capacity.

Policies supportive of CHWs are regularly incorporated into general health policy and strategy documents at a national level, although policy status was not reported for all countries surveyed. CHWs are allowed to provide a wide range of services, as per policy. Indeed, many countries have multiple CHW cadres with differing levels of training, responsibility, and professional status. They provide a spectrum of health-related counselling, as well as preventive and curative health services outside of formal health facilities, bringing services closer to families who previously had limited contact with trained health workers.

Most of the CHW programs described here have multiple external funders and are at least partially funded by donors. Only two countries, Angola and Lesotho, reported supporting their CHW programs fully through domestic funding. However, about half of the cadres listed were at least partially funded through domestic resources. Most of the donor funding is time-bound, which means that there is a need for improved transition planning with respect to implementation. CHW programs can be thrown into crisis at the conclusion of an external grant – governments may attempt to retain the CHWs for some time, but the programs are not sustainable without the financing for incentives and further training.

The approach of using CHWs to identify, treat, and refer complicated cases of pneumonia, diarrhoea or malaria (the leading causes of under-five mortality) is known as integrated community case management (iCCM). At policy and implementation levels, iCCM is often a later stage addition to training and responsibilities in existing CHW programs. Since 2010, at least one cadre of CHWs in about half of ESAR countries conduct iCCM in targeted areas, evaluating patients at home or in the community at the onset of symptoms, and providing immediate treatment or referral.

The main objective of this report is to elucidate the current state of community provision of health services beyond public facilities, through the vehicle of CHWs. Understanding the role of each CHW cadre in the ESAR countries is intended to clarify the current and potential roles of CHWs in contributing to national healthcare systems.

In addition to a comprehensive literature review, the study used a cross-sectional survey with close- and open-ended questions administered to UNICEF Country Offices and other key informants to investigate and map CHW characteristics and activities throughout the region. Responses were received from 20 of the 21 UNICEF Country Offices in the UNICEF East and Southern Africa region in May–June 2013. Data on 37 cadres from across the 20 countries made up of nearly 266,000 CHWs form the basis of this report. This report catalogues the types and characteristics of CHWs, their relationship to the broader health system, the health services they provide and geographic coverage of their work.

Eligibility for candidacy in CHW programs is an area of significant variability among countries and even among cadres within countries. The criteria for eligibility can be subdivided into the following categories: qualifications (academic or skills), age, gender, and geography. The most common qualification-related prerequisites are a minimum level of education (18 cadres) or literacy (17). The level of education required varies from completion of primary school to high school diploma; the latter is often for more responsible cadres, such as in Ethiopia, Namibia, Tanzania, Zambia, and Zimbabwe. For the largest number of programs (13), the age requirement is simply having reached 18 years old or the age of maturity; eight require a minimum age of 20 or 21; and four require an age of 25 or more. No cadre has a strict gender requirement, although four programs in Kenya,

Mozambique, Ethiopia, and Somalia prefer females. All cadres but two (Community Health Assistants - CHAs - of Tanzania and Zambia and Health Surveillance Assistants – HSAs - of Malawi) require CHW candidates to be a resident in and/or elected by the local community.

Pre-service training regimens vary between cadres and countries based on the availability and skills of trainers, training budgets, and the responsibilities of the CHWs being trained. Beyond pre-service training, many countries also provide in-service trainings to extend or refresh the skills of the CHWs. Of the 20 cadres receiving pre-service training in iCCM, the iCCM component generally takes place in less than a week (only five cadres receive more). Both Ethiopia (HEWs) and Zambia (CHAs) provide pre-service training for one year on a range of promotive, preventative and curative services, including a component on iCCM.

CHWs also receive a wide range of incentives for their work, varying from complete voluntary workers (Botswana, South Africa) to what are increasingly called Health Extension Workers (HEWs) or CHAs that are formally employed and paid using domestic funds (Ethiopia, Kenya, Zambia). Along this continuum lie a number of different CHW sustainability strategies from “subsidies” (Mozambique) to performance-based incentives at co-operatives (Rwanda). Zambia has a strategy of having both voluntary CHWs and paid CHAs. About two-fifths of CHWs are full-time and about the same fraction are salaried. Beyond salaries, few financial incentives are available to CHW program managers. These are primarily transportation allowances, bicycles, per diem payments and/or lunch vouchers during training and monthly meetings. Program managers use some non-financial incentives (e.g. t-shirts, badges) as cost-saving methods to keep CHWs engaged, and also to promote awareness of CHW services in the community.

CHWs perform a broad range of activities related to health including preventive counselling, health education, behaviour change communication and health promotion, as well as screening, treatment and referral for a range of diseases (malaria, tuberculosis, HIV, among others). In addition, they help mobilize communities for vaccinations and other community health activities. They often even assist in areas tangentially related to health, such as following up with school dropouts. However, any single CHW cadre only performs a subset of these activities. About half (11) of the countries in the region are utilizing iCCM as a tool to reduce childhood illness and mortality. Because of the community-based nature of iCCM, it is usually conducted via the lowest level of primary care facilities or through CHW programs. Whether facility-based care may be considered iCCM depends on the health system design and if facilities are serving one or multiple communities.

A single CHW provides health care to a catchment population ranging from 200 to 2,500 people. Populations greater than this are generally seen to fall under a Health Centre. Effective supervision of CHWs by public sector staff in health centres is viewed as an important means of integrating CHWs with the public health system. Despite reportedly detailed supervision strategies, a lack of sufficient, supportive supervision was one of the most mentioned challenges across cadres. It appears that these strategies are not being fully executed as designed.

Although the training, incentives, and activities of the CHW cadres vary greatly among countries, the challenges faced by CHW programs are similar: providing incentives for motivating and retaining CHWs, conducting supervision, coordinating CHW activities with the health system, and maintaining the supply chain for services provided by CHWs. Addressing these challenges must be prioritized if efforts to increase the scope and quality of CHW services are to be successful.

At the global level, CHWs have largely been considered to be a homogeneous class of healthcare worker. A more nuanced differentiation would be helpful to improve policy coordination, strategic planning and implementation of community-based health care. Based on results of the present survey, a post-hoc classification identified four distinct types of CHWs in ESAR countries:

Summary Table: CHW classification model

CHW model name	Services offered			Level of effort	Paid?	Total CHW cadres in classification
	Curative	Preventive	Reproductive & family planning			
Case Manager	iCCM	Yes	Maybe	Most Full-time	Usually	17
Community Liaison	Disease Management	Yes	Maybe	Part-time	Mixed	9
Health Promoter	No	Yes	Usually	Part-time	Rarely	10
Traditional Birth Attendant (TBA)-plus	No	Maybe	Yes	Part-time	Rarely	1

There was only one TBA-plus CHW cadre reported in this study. However, this may be due to the under-reporting of traditional birth attendants, as these are often considered a separate class of healthcare worker rather than a subset of CHWs. Having TBAs engaged in a slightly broader range of reproductive health activities beyond maternal delivery (including family planning) is likely more widespread and would be a low-cost model for expanding CHW care given the high geographic coverage of TBAs in many countries.

In summary, this research documents that CHWs provide a variety of services with a broad range of potential tools. The report presents current training, responsibilities, and the scale of CHW programs in 20 ESAR countries. It also puts forward a potential CHW classification model to improve advocacy for and targeting of appropriate community health interventions (see Summary Table, Table 3 and Annex 5).

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Abbreviations

AC	Agents Communautaires
ACT	Artemisinin-based Combination Therapy
ADDO	Accredited Drug Distribution Outlet
APE	Agentes Polivalentes Elementares
ASC	Agents de Santé Communautaires
ASM	Agents de Santé Maternelle
CBD	Community-based Distributer
CBNP	Community-based Nutrition Program
CHEW	Community Health Extension Worker
CHC	Community Health Committee
CHHC	Community Health Home-based Care
CHW	Community Health Worker
CIDA	Canadian International Development Agency
ESAR	East and Southern Africa Region (of UNICEF)
HEA	Health Education Assistant
HEP	Health Extension Program
HEW	Health Extension Workers
HMIS	Health Management Information System
HSA	Health Surveillance Assistance
iCCM	Integrated Community Case Management (of fever)
IMCI	Integrated Management of Childhood Illness
MDG	Millennium Development Goal
MNHBC	Maternal and Newborn Home-based Care
MoH	Ministry of Health
MoHSS	Ministry of Health and Social Services
NCD	Non-Communicable Disease
NGO	Non-Governmental Organization
ORS	Oral Rehydration Salts
PHC	Primary Health Care
PSI	Population Services International
RDT	Rapid Diagnostic Test
RHM	Rural Health Motivator
TBA	Traditional Birth Attendant
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VHT	Village Health Team
VHW	Village Health Worker
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

Introduction

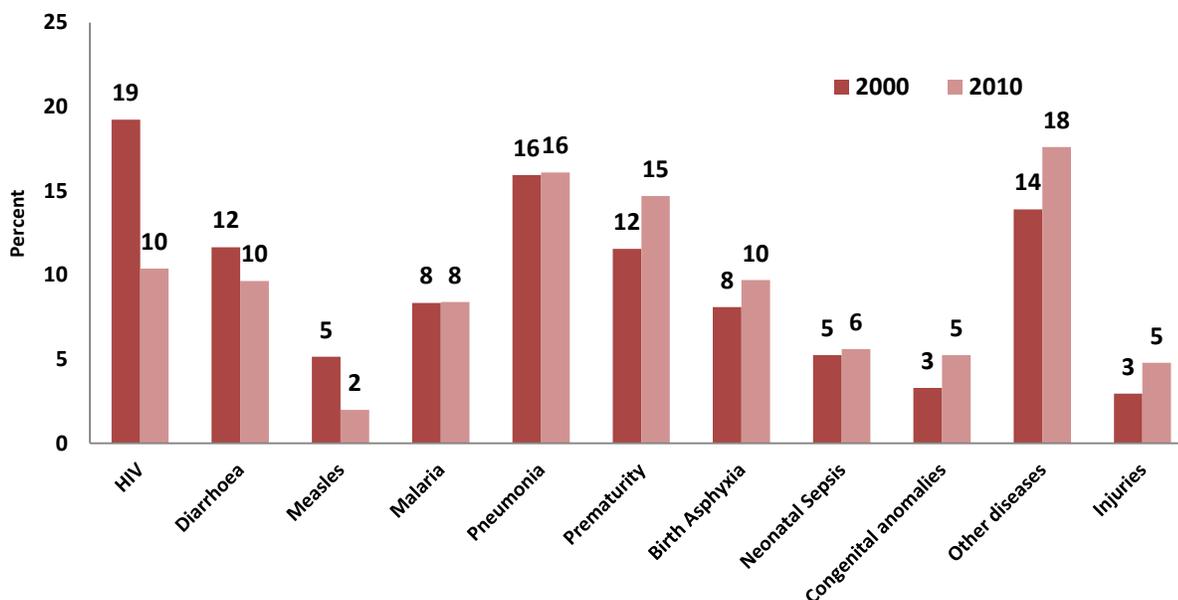
Background

Formal Community Health Worker (CHW) programs have existed in many forms for decades. One of the most famous and successful is China’s barefoot doctor program of the mid-1900s (especially 1965-1981) that brought health services to areas where trained, urban-born doctors were unwilling to settle [WHO 2008]. CHW programs involve people, generally community members, with limited training (compared to full-fledged physicians/nurses) who are charged with providing some aspect of healthcare to the community: prevention, education, screening, and sometimes diagnosis and/or treatment. However, past and current programs vary dramatically in how CHWs are selected, trained, and tasked to deliver services.

The term CHW is used in this report to broadly encompass all individuals providing health services at the community level. This includes, for example, health extension workers (HEWs) formally employed by the public health system, volunteer nutrition counsellors, and traditional birth attendants (TBAs), among others. Based on the definition put forward by Lewin et al (2005), CHW is more explicitly defined as any health worker carrying out functions related to health care delivery for a population under 2,500 people who are trained in some way in the context of the intervention, and who have no formal professional or paraprofessional certificate or tertiary education.

Recently, there has been a resurgence of interest in using CHWs to increase access to healthcare across sub-Saharan Africa in order to accelerate reductions in child mortality. While most East and Southern African (ESAR) countries have reduced child mortality during the past two decades, more than one million children still die each year in this region largely from diseases that could be prevented or treated if healthcare were better accessible. Indeed, of the 1.1 million under-five deaths in this region in 2012, 200,000 (17%) were due to pneumonia, 120,000 (10%) were caused by diarrhoea, and 82,000 (7%) were from malaria [APR 2013].

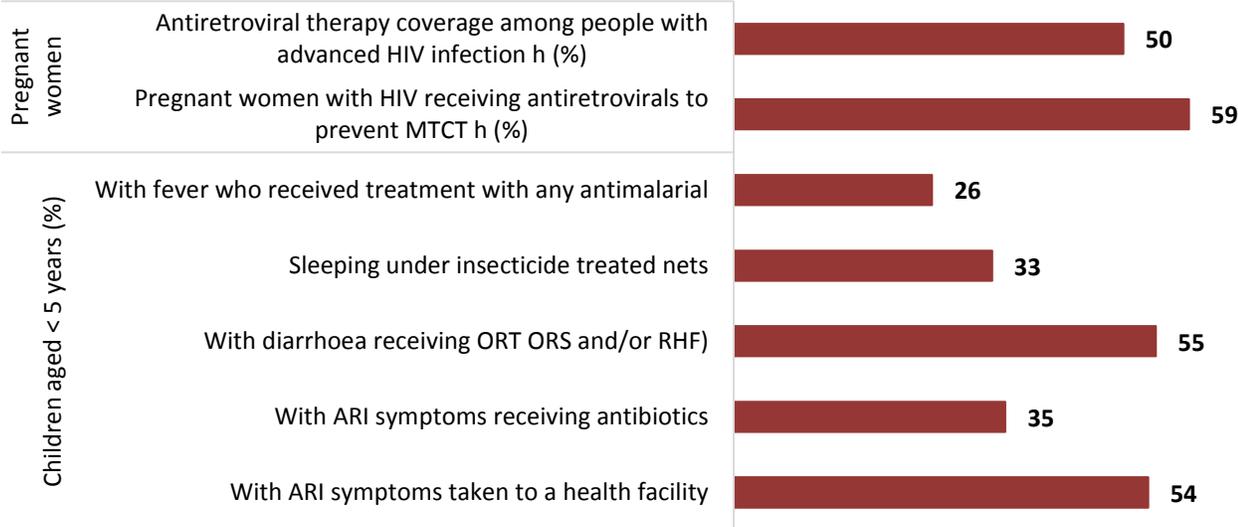
Figure 1: Proportional distribution of child deaths by cause in East and Southern Africa, 2000 and 2010



Source: WHO, 2013; World Health Statistics 2013 Report.

One of the main barriers to further reducing child mortality is continued low coverage of high-impact child survival interventions [UNICEF and WHO 2012]. Indeed, cases of pneumonia, malaria and diarrhoea – the top causes of child mortality in this region – are often not treated according to Integrated Management of Childhood Illness (IMCI) guidelines given limited access to formal healthcare in many communities. Treatment coverage for these illnesses has remained static for more than a decade in a number of ESAR countries [WHO 2013]. The lack of any real progress has led the global community to prioritize extending treatment for pneumonia, malaria and diarrhoea to millions of additional children through integrated community case management (iCCM) approaches [Marsh et al 2008]. ICCM aims to extend access to appropriate treatment for these potentially fatal childhood diseases beyond formal public sector facilities through CHWs. In light of the recent global commitment (*A Promise Renewed*) to eliminate preventable child deaths by 2035, appropriate case management for these diseases at the community has become a top concern [APR 2013].

Figure 2: Coverage of key maternal and child health interventions in East and Southern Africa, 2005-2011
 Proportion of targeted population that received the intervention (%)



Source: WHO 2013 World Health Statistics 2013 Report,

The practical implementation of iCCM includes diagnosing suspected malaria cases (reported fever) using rapid diagnostic tests (RDTs). Positive cases should promptly receive first-line anti-malarial treatment, which is some form of artemisinin-based combination therapy (ACT). Both positive and negative cases should also be screened for pneumonia. Pneumonia classification is based on counting breathing rates using a timer. Where symptoms signify pneumonia (rapid breathing above 50 breaths per minute in children aged 2-12 months or above 40 breaths per minute in children 12-59 months), patients should promptly receive antibiotic treatment, preferably with a five day course of amoxicillin 250mg Dispersible Tablets (DT) [WHO 2011b]. Children classified with both malaria and pneumonia using the above procedures should receive dual treatment with ACT and amoxicillin. Children presenting with diarrhoea should receive oral rehydration salts (ORS) to treat dehydration and zinc tablets to reduce diarrhoea volume and to provide nutritional support [WHO, 2011a]. Severe and complicated emergency cases should be immediately referred to health centers for treatment. Some countries also recommend pre-referral treatment of severe malaria cases with rectal artesunate suppositories through iCCM. As child mortality declines, newborn complications and malnutrition will contribute proportionately more to under-five mortality, and are therefore of growing interest to add to the CHW portfolio of activities in conjunction with iCCM.

There is mounting evidence that community-based healthcare can drastically improve child survival and reduce childhood morbidities. Research has shown that CHWs of various designations, training and supervision within the health system structure are able to successfully manage these three diseases and refer complicated cases to formal health facilities [Degefie et al 2009]. A 2010 supplement of the International Journal of Epidemiology published evidence on iCCM effectiveness and its potential impact on child mortality. Specifically, the following results were highlighted: 1) 70% reduction in under-five mortality from pneumonia managed through iCCM [Theodoratou et al 2010]; 2) 93% reduction in mortality due to pneumonia after community ORS treatment [Munos et al 2010]; 3) zinc treatment can decrease diarrhoea mortality by 23% [Fischer-Walker et al 2010].

Currently the UNICEF regional office for East and Southern Africa (ESAR) provides technical assistance to 21 countries in a variety of health areas. A key aspect of this work is to support approaches that will significantly reduce mortality in children under 5 in order to achieve Millennium Development Goal (MDG) 4, notably through interventions targeting diarrhoea, pneumonia, malaria, malnutrition, and general neonatal care. Indeed, more equitable access to care for these conditions can be achieved through iCCM, CHWs and other non-facility based approaches. However, the multitude of implementers and funders active in this area has made it difficult to ascertain how far each country has moved in scaling up iCCM provision.

Aim

This report aims to examine current community-level provision of health services through CHWs by describing the intended role of CHW cadres in different ESAR countries, thus clarifying their current and potential contributions to national healthcare systems.

Specific objectives

For each of the 20 countries in the East and Southern Africa region that responded to the survey, this study profiled CHW cadres reported by government and UNICEF staff according to type, geographic coverage, gender, and qualifications. Beyond these profiles, the study also assessed CHW roles and responsibilities, including iCCM (treatment of malaria, pneumonia, diarrhoea), newborn care, treatment of acute malnutrition, treatment of HIV, and other promotional, preventative or referral tasks (e.g. health education, cholera management). Finally, information was collected on implementing and funding partners for CHW programs, as well as the relationship between CHW cadres and the formal health system.

In a subset of 9 countries (Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Somalia, South Sudan, Uganda, Zambia), the study also examined the status of national CHW/iCCM plans and guidelines in order to support national expansion of community case management of malaria, pneumonia and diarrhoea. In combination with unpublished country-level work beyond the scope of this report to map current iCCM resources and to identify iCCM financing gaps in these countries at current levels of implementation, findings presented here will be used to further support plans and ongoing advocacy for iCCM expansion through national-scale programs.

Study setting

Map 1: Countries in the UNICEF East and Southern Africa region



Methodology

This study involved a comprehensive literature review followed by a cross-sectional survey administered to UNICEF Country Offices and other key informants in each of the 21 ESAR countries in May-June 2013.

The first phase included a comprehensive literature review to assess current case studies, best practices, international strategies and country implementation of community-level health programs and iCCM. The search was conducted using Google Scholar, Medline, Cochrane Library, as well as websites of key organizations working in this area including:

- World Health Organization (<http://www.who.int/workforcealliance/en/>)
- One Million CHWs program (<http://1millionhealthworkers.org/>)
- Health Care Improvement Project (<http://www.hciproject.org/chw-central>)
- CCM Central (<http://ccmcentral.com>).

The search used the following terms: lay health workers, community health workers, CHWs, health extension workers, community case management, iCCM, home management + {malaria, pneumonia, or tuberculosis}, home health aides. Documents were also supplied by UNICEF ESAR staff providing technical assistance to country programs, which supplemented the website search. These documents included reports, guidelines, peer-reviewed publications, and presentations from country stakeholder meetings.

The second phase included administering a standardized cross-sectional survey with both open- and close-ended questions to the Chief of Health at each of the UNICEF Country Offices in the region. In many cases, UNICEF Country Offices contacted implementing partners in their countries such as Population Services International (PSI), International Red Cross (IRC), Malaria Consortium, Save the Children (Save) and government ministry officials to obtain the requested information. In addition, this survey was also sent to implementing partners known to be conducting relevant activities in these countries directly through their regional and global offices. Requests made to these partners were largely used to corroborate information provided by UNICEF Country Offices, and in some cases, to supplement data where it was unavailable.

The survey was conducted in May-June 2013. Where there was no response to first contact, up to four attempts were made to reach each UNICEF Country Office by email and phone by 30 June 2013 when datasets were closed.

The questionnaire included two tools, which were piloted with the UNICEF Country Office in Kenya, and revised prior to survey implementation during the first week of May 2013. The first tool collected quantitative data through close-ended questions on each CHW program operating in each country on the following topics:

- CHW program design and implementation status
- CHW participant prerequisites
- CHW training time and personnel
- CHW incentives
- CHW activities (including but not limited to iCCM)
- Community Health strategic planning

The second tool, a narrative questionnaire, included open-ended questions that requested detailed qualitative information for each CHW cadre on the following topics:

- Training content
- Supervision and linkages to the public health system
- Monitoring and evaluation (M&E) systems
- Community engagement and feedback
- Program challenges

Responses to each of these tools, along with any implementing partner data, were compared to corroborate responses and analysed both at a country level (Annex 1: Country) and aggregated to the regional level. Country summaries were prepared based on these inputs, and respondents were given the opportunity to review them and clarify or supplement previous contributions.

All respondents were requested to support their responses with relevant research reports, policy documents, training materials, case studies etc. related to community health and iCCM in their countries. A list of these documents, document type, and the language of issue can be found in Annex 6.

Results

Responses were received from 20 of the 21 UNICEF Country Offices in the region (no response from South Africa). Responses were also received from the UNICEF regional team, PSI and Save the Children about their country-level community health projects and donor activities within this region. Based on these responses, ESAR countries are home to 37 distinct CHW cadres, which are analysed in this report.

The level of detail on these CHW cadres known by respondents varied highly between countries. Therefore, portions of this report present information with different denominators in order to highlight only countries/cadres where sufficient detail was provided to analyse a given indicator. Also, in some countries (e.g. Somalia), only a subset of community health programs is discussed due to a lack of information or other circumstances, although respondents were asked to report on all CHW cadres present in their country.

This section of the report presents results at a regional level on key aspects of iCCM policy and implementation. Country-specific findings are included in Annex 1.

Policy

Community health policies supportive of CHWs are regularly incorporated into general health policy and strategy documents at the national level. The most common path to national implementation of CHW programs follows this route: (1) develop a comprehensive health policy (2) translate policy into a strategy and implementation plan and (3) train and deploy CHWs. Most countries have policies that support some form of community healthcare provision whether preventive, promotional, or curative.

At policy and implementation levels, iCCM is often a later stage addition to training and responsibilities in existing CHW programs. About half of ESAR countries have some form of health policy supportive of full or partial iCCM activities as an aspect of community-based care (Table 1). Policy-level iCCM support by the government takes the following forms: (1) comprehensive CHW strategic plan (2) Ministry of Health (MoH) letter allowing CHW provision of antibiotics (3) overall health sector strategy that includes CHW activities (4) guidelines for the referral pathway that includes CHWs, or authorization for operational research into impact of iCCM provision.

Three countries (Ethiopia, Kenya, Mozambique) provided information on existing policies and/or implementation plans for iCCM at the national level. A further six countries (Burundi, Madagascar, Malawi, Rwanda, Uganda, Zambia) have community health or child survival policies and plans that include elements of community-level healthcare provision, which may or may not include iCCM. Angola, Comoros, and South Sudan are reportedly in the process of developing such plans as of June 2013. No policy-related information was available for the remaining countries.

Table 1: iCCM policy and implementation status in ESAR countries

Country	Reported policy support for full iCCM in 2012	Reported policy support for full iCCM in 2013	Implementation status of full iCCM in 2013
Angola	No	In development	No
Botswana	No	Not asked	No
Burundi	No	Partial	Regionally
Comoros	No	In development	No
Eritrea	Yes	Not asked	Yes
Ethiopia	Yes	Full	Yes
Kenya	No	Full	Regionally
Lesotho	No	Not asked	No
Madagascar	Yes	Partial	Yes
Malawi	Yes	Partial	Yes
Mozambique	Yes	Full	Yes
Namibia	Yes	Not asked	No
Rwanda	Yes	Partial	Yes
Somalia	Yes	Not reported	Yes
South Sudan	NA	In development	Yes
Swaziland	No	Not asked	No
Tanzania	No	Not asked	Regionally
Uganda	Yes	Partial	Yes
Zambia	Yes	Partial	Yes
Zimbabwe	No	Not asked	Yes

Notes: Data column 1: Data are derived from the previous UNICEF survey on iCCM published in George et al (2012); Data column 2: This question was only explicitly asked of countries already implementing iCCM, although some others responded to it in expanded briefing notes. Data are as of 30 June 2013.

Funding and implementation

Most CHW programs described here have multiple external funders and are at least partially funded by donors. Only two countries, Angola and Lesotho, are reported to support their CHW program fully through domestic funding. However, about half of the countries listed above provide at least some domestic financial contributions toward their CHW programs.

Major external funders include (listed in order of the number of programs supported): United Nations Children’s Fund (UNICEF) (21), United States Agency for International Development (USAID) (10), World Health Organization (WHO) (6), Canadian International Development Agency (CIDA) (5), Global Fund (4), and the World Bank (3). Most of this funding is time-bound, which means that there is a need for transition planning with respect to implementation. Many programs can be thrown into crisis at the conclusion of funding – they may retain the CHWs for some time, but programs are not sustainable without financing for incentives and further training.

In contrast to CHW funding, implementation of CHW programs shows greater country involvement. Eight CHW cadres are being implemented solely by domestic institutions, although most countries implement programs in partnership with external organizations. Nearly three-quarters of programs are implemented partially by the national MoH. Large funders (UNICEF, USAID, WHO) are also major implementing partners, and are often joined by NGOs that work specifically on the implementation side (e.g. PSI, Save the Children, Malaria Consortium).

Depending on the role of CHWs and country priorities, CHW implementation is often limited geographically and tends to focus on rural communities. While a few countries have organized CHW programs by using a strategy-driven national cadre approach (e.g. Ethiopia, whose health extension program covers 100% of rural communities) most have a targeted regional approach (e.g. Mozambique, whose CHW program targets just 8% of the population). In Malawi iCCM is only implemented in 'hard-to-reach' communities on the assumption that those closer to health facilities would go there to seek care and would not require CHW services. Sub-national CHW implementation does not necessarily lead to a national program, whether due to limited relevance or limited financing. For example, in Angola, there exist several regional CHW programs that have operated for a number of years but are not integrated or coordinated nationally.

Human resources

CHW programs are highly human resource-intensive by the nature of their location at the community level. The smallest sub-national programs reported include several hundred CHWs, but most national programs number in the tens of thousands. Given the scale of these national cadres, human resource managers set standards for entry eligibility into the program, training for candidates, terms of employment, and supervision. These are elaborated in detail below.

Eligibility

Eligibility for candidacy in CHW programs is an area of significant variability among countries and even for multiple CHW cadres within countries. The criteria for eligibility can be subdivided into the following categories: qualifications (academic or skills), age, gender, and geography.

For qualifications, only two cadres have no prerequisites for enrolment, namely Community Home-based Care Volunteers from Botswana and Community Change Agents (CHAs) from Tanzania. The most common qualification-related prerequisites are a minimum educational level (18 cadres) or literacy (17 cadres), although the former could be considered a proxy for the latter. The level of education required varies from completion of primary school to a high school diploma – the latter is generally for cadres tasked with greater responsibilities (e.g. Ethiopia, Namibia, Tanzania, Zambia, Zimbabwe). An outlier cadre in regard to qualifications is the Agentes Polivalentes Elementares (APE) cadre in Mozambique, which was the only cadre to mention mathematics as a required skill.

Age is a prerequisite for fewer programs than qualifications, but most (all but seven) cadres have some age requirement. For the largest number of programs (13), the age requirement is simply having reached 18 years old or the age of maturity. Eight require a minimum age of 20 or 21 and four require an age of at least 25 years. Seven programs have upper age limits ranging from 30 (South Sudan) to 60 (Eritrea) years.

No cadre has a strict gender requirement, although four programs in Kenya, Mozambique, Ethiopia, and Somalia prefer females. Two of these four (Kenya and Mozambique) have minimum quotas to ensure gender representation. In Somalia, married females are strongly preferred to serve as CHWs, although difficulty in recruitment sometimes means that either the marriage or sex criteria are not strictly adhered to. Over 95% of Ethiopia's HEWs are women – the Somali and Afar regions are the only parts of the country where the female-only preference is dropped. Overall, given the nature of much CHW work around female-focused services such as family planning (FP), antenatal care (ANC)/postnatal care (PNC) and neonatal care, a general preference for female workers has been observed but is not always achievable. Organizers of Red Cross volunteers for Kenya stated that despite this preference, the recruitment of women is a challenge. The challenge is most noticeable when CHWs are responsible for multiple villages and thus have to actively move around these areas since women tend to have child-care responsibilities and the male heads of household may in some cases restrict women's movement.

All cadres but two (CHAs in Tanzania and HSAs in Malawi) require CHW candidates to be a resident in and/or elected by the local community. In Malawi, the candidates simply need to be Malawian citizens. Agents de Santé Maternelle (ASMs) in Rwanda have the most extreme limits on geography. Candidates are required to have been born in the village where they are to serve. At the opposite end of the spectrum, a week's residence in the constituent village is sufficient to become a Home Based Care (HBC) volunteer in Botswana.

Training

Guided by CHW and iCCM strategic plans where they exist, pre-service training regimens vary between cadres and countries based on the availability and skills of trainers, the budget for training, and the responsibilities of the CHWs being trained. Beyond pre-service training, many countries also provide in-service trainings to extend or refresh CHW skills.

Information on pre-service training was not available for three of the cadres. Of the remaining cadres surveyed, 17 receive no iCCM training at all, although iCCM is an optional in-service module for further training for some of these cadres. Of the 20 cadres receiving pre-service iCCM training, most cadres receive less than a week of training (only five cadres receive more). The longest training period is for Zambia's Community Health Assistants, who receive 12 months of training, all of which is reported to cover iCCM content. Ethiopia's HEWs also receive 12 months of pre-service training, but just 6 days for iCCM content. iCCM was added to the Ethiopian HEW curriculum in 2010, so HEWs recruited before 2010 receive in-service training on iCCM of an equivalent length. More detailed information on training is available in Annex 1.

Terms of Employment

Like training, CHW incentive schemes are highly variable across countries. About two-fifths of CHW cadres are full-time and about the same fraction are salaried positions. However, these two groups do not fully overlap, and only two of three full-time CHW cadres are paid (Table 2). Note that this table describes the planned incentive structure (only for salaries) for each cadre and in some cases the resources available are less than what was planned.

Beyond salaries, few financial incentives are available to CHW program managers. These are primarily per diem payments and/or lunch vouchers during training and monthly meetings, and transportation allowances. Drug mark-ups or user fees were very rare, and mentioned only by Madagascar. Two countries (Madagascar and Rwanda) mentioned performance-based payments, and some of PSI's sub-national CHW programs have also experimented with this approach, although not in ESAR (Democratic Republic of Congo, Mali, Cameroon).

Program managers use some non-financial incentives (e.g. t-shirts, badges) as cost-saving methods to keep CHWs engaged, and to also promote awareness of CHW services in the community. About half of the CHW cadres receive some form of tangible goods as incentives. These items are most commonly uniforms, hats, bicycles, and other kit items that would make delivering services easier (e.g. boots, flashlight, protective clothing). Two cadres, Rwanda's CHWs and Uganda's Village Health Teams, are provided mobile phones as incentives. A couple of additional cadres mentioned mobile phone use as a means of collecting health data.

After tangible goods, the next most common non-financial incentive is training or priority access to in-service trainings. This allows current CHWs to expand service offerings, get per diem allowances, and perhaps be able to develop into a more sophisticated role in the wider health system. Two programs also mentioned community recognition as a non-financial incentive with ceremonies held or certificates provided to CHWs to acknowledge their contributions.

Table 2: Salary status of CHW cadres across ESAR countries

<i>N = 36 cadres of CHWs</i>	Paid	Unpaid	TOTAL
Full-time	13 36%	4 11%	17 47%
Part-time	4 11%	15 42%	19 53%
TOTAL	17 47%	19 53%	36

Note: Data not available for Tanzanian Community Change Agents (n = 36). Data are as of 30 June 2013.

Supervision

For most cadres, the planned supervisor is a staff member at the lowest formal health facility in each village or region where the CHWs work. The planned frequency of supervision varies and is most commonly conducted either monthly or quarterly. One of the most detailed supervision plans (APEs in Mozambique) states that supervisors should observe five consultations per CHW and provide feedback. When asked about supervision, responses provided by country teams were extensive and detailed. Effective supervision is viewed as an important means of CHW integration within the public health system.

Despite the aforementioned detailed supervision strategies, a lack of sufficient, supportive supervision was one of the most commonly mentioned challenges across cadres. This suggests that the strategies described above are not being fully executed. The reported causes for the lack of supervision include lack of availability and/or capacity of supervisors and/or lack of incentives for both supervisors and CHWs to participate in these supervisory visits. Note that for cadres where recording supervisory visits is tied to incentives for CHWs, it seems to be less of a challenge. In several countries, CHW integration into the public health system is mentioned alongside poor supervision as key challenges to successful community health programs.

Supervisors are best placed to assess CHW performance. However, limitations in supportive supervision described above combined with poor record-keeping (as described in the monitoring and evaluation section) mean that performance assessment is also not a frequently implemented CHW program component. The physical presence of the CHW in the community is often taken as a proxy for delivery of good community-based care. One exception is PSI's program in Malawi where there is strong record keeping and supervisors intervene with weaker CHWs to provide further training, or remove them from the program if performance does not improve.

Services

CHWs perform a broad range of activities including preventive counselling, health education, behaviour change communication and health promotion, as well as screening, treatment and referral for a range of diseases (malaria, pneumonia, diarrhoea, neonatal sepsis, tuberculosis, HIV, among others). In addition, they help mobilize communities for vaccinations and other community health activities. They often even assist in areas tangentially related to health, like following up with school dropouts. However, any single CHW cadre only performs a subset of these activities, the most common of which are described below:

Preventive activities and social mobilization: Prevention and community mobilization are two of the most common CHW activities. Almost all cadres surveyed do some form of community mobilization, counselling or both. This can involve behaviour change communication (BCC), service demand creation, or simply information sharing and advisory activities. 23 cadres help mobilize children for 'Child Health Day' events and 21 cadres participate in immunization campaigns, either by mobilizing participation or delivering immunizations.

About half of CHW cadres surveyed provide family planning services. Of those providing this service, 15 stock some form of prophylaxis and two deliver only education about options. Condoms are the most commonly provided family planning method, followed by oral hormonal contraceptives and injectables. Only Ethiopia's HEWs deliver implants.

In the area of water, sanitation and hygiene (WASH), the most common CHW services include education about safe water sources, storage and treatment of water, as well as instruction in hand washing. CHW participation in community-led treatment and sanitation (CLTS) programs is mentioned by Kenya, Somalia, and Uganda, which is a growing area of interest for CHW involvement.

Beyond these mainstream preventive and mobilization activities, CHWs are used to deliver insecticide-treated bed nets for malaria prevention in two countries (Burundi and Ethiopia). Ethiopia, Rwanda, Swaziland and Zimbabwe mention that CHWs also register births and deaths. In Kenya, CHWs help conduct verbal autopsies to ascertain the probable causes of death of persons in the community.

iCCM activities: About half (11) of countries in the region are utilizing iCCM as a tool to reduce childhood illness and mortality. Because of the community-based nature of iCCM, it is usually conducted via the lowest level of primary care facilities or through CHW programs. Whether facility-based care can be considered iCCM depends on the health system design and whether facilities are serving one or multiple communities. For example, facilities like Ethiopia's health posts or Tanzania's Accredited Drug Distribution Outlets (ADDOs) where there is one per village could be considered community-based. Given that iCCM is intended to extend the reach of the healthcare system, treatment at formal facilities with a larger catchment population (e.g. more than 2500) could still use the iCCM algorithm for treatment but might be considered as IMCI.

iCCM is implemented using a simplified differential IMCI-based algorithm for care at the community level for all fevers of unknown origin and for management of diarrhoea. However, many countries only partially implement iCCM. For example, in Swaziland and Lesotho, only diarrhoea treatment is provided according to iCCM, although Lesotho CHWs will additionally diagnose and refer pneumonia patients as well. Burundi is piloting CHW provision of partial iCCM at two sites; one site allows for only malaria treatment and at the other site, CHWs may treat both malaria and diarrhoea. iCCM is being fully implemented in the following 11 countries in the region: Ethiopia, Eritrea, Madagascar, Malawi, Mozambique, Rwanda, Somalia, South Sudan, Uganda, Zambia, and Zimbabwe. Full implementation includes patient identification, classification and treatment for diarrhoea, pneumonia and malaria at the community level.

In addition to the 11 countries with full iCCM implementation, Kenya is rolling out a new community health strategy developed in the last year that covers malaria and diarrhoea. In this context, a recent Kenyan policy document designated zinc as an over-the-counter drug, which is a key component of diarrhoea treatment. A pilot project in western Kenya is examining whether antibiotics can be provided appropriately by CHWs. This will inform the decision on whether to add pneumonia to the CHW treatment portfolio.

Tanzania is a new country to the iCCM agenda. Their Community Health Agents have been providing treatment for all three iCCM diseases as part of a pilot project since 2012. Their drug shop accreditation program (ADDOs) may provide an alternative private sector model for iCCM service delivery, and is described further in the Sustainability section below.

Other disease activities: Beyond the three major diseases, iCCM is being incorporated into a community health package that also includes neonatal and malnutrition care. In many countries, CHWs have already been providing home visits for neonates and referring those with any danger signs to facilities. This is on top of their iCCM activities. Such a community health package has been most formalized in Rwanda and Ethiopia, but is also being implemented in Kenya and Zambia and is planned for Somalia.

Countries in Southern Africa have a lower malaria burden and higher HIV and TB rates than other countries in ESAR. In these countries, CHWs do not frequently provide iCCM but instead provide DOTS for TB and education around prevention and screening for these two diseases, as well as some home-based care for affected people. Examples of this are CHWs in Namibia, Zimbabwe, Botswana and Swaziland.

The main reason why these countries (including South Africa, non-respondent to this study) do not implement iCCM through their CHWs is that access to health facilities is thought to be adequate and CHWs are perceived to be unqualified to deliver treatments such as antibiotics. Health sector priority is placed on improving health care delivered at facilities (e.g. IMCI), which are thought to be accessible enough for all people to reach. However, data clearly show that pneumonia and diarrhoea treatment coverage (and anti-malarial use in affected areas) in all upper-middle income ESAR countries, including those of Southern Africa, is still insufficient given their burden of disease. Treatment coverage is also highly inequitable, particularly in South Africa and Namibia, and as a result these countries are not on track to reach MDG4.

Non-communicable diseases (NCDs) are rarely managed by CHWs in ESAR, although a few CHW cadres screen and/or refer patients for treatment of NCDs. Future addition of this treatment area may be an opportunity for cost-savings, especially regarding diseases for which long-term treatment is required like diabetes or hypertension.

Monitoring and evaluation

Profiling CHWs requires the development of a strong monitoring and evaluation (M&E) system to provide an adequate description of their characteristics, activities and performance. Yet M&E of CHW programs face several challenges given the limitations of routine health management information systems (HMIS) in most African countries, especially with regards to its scope (tend to be facility-based in most countries). In some countries, parallel data collection and reporting systems have been established to capture and report CHW numbers and activities, with the main purpose of reporting to donors. Major challenges include: unclear roles, responsibilities and reporting lines of main actors; incoherent data flows; absence of data quality assessments; and weak linkages with the HMIS as well as lack of basic M&E skills by CHWs and supervisors. In addition, the involvement of multiple partners who do not usually have harmonized or comparable tools, indicators and systems further complicates the situation.

Reliable data on preventive and curative services, including on patient numbers, services provided, and treatments delivered can help CHW program management and performance evaluation. Currently, there is significant interest in M&E for CHW programs. However, good monitoring of CHWs and their work is hampered by some of the challenges raised above. Where registers exist and are complete, they tend to be paper-based and rarely integrated with any electronic system. Because of the lack of integration with national systems and low register return rates, it is very difficult to quantify activities or attribute any shift in patient outcomes to CHW activities.

Most CHW cadres have some form of register and/or reporting form (examples of these were collected from Eritrea and Mozambique; see Annex 6). Registers are used to collect data on the number of home visits, services delivered, total referrals and iCCM treatments administered. These registers often tend to be proprietary forms developed by the implementing organization and may not be aligned with health system goals or shared with public sector partners. CHW cadres in Rwanda, Uganda, Zambia and Angola use mobile phones with CHWs for data collection.

In many locations these registers are not checked by supervisors, not completed or not returned regularly, which interrupts longitudinal reporting and introduces bias in data analyses and time trends. Respondents were unsure about the percentages of registers returned to supervisors, and the estimated return rate ranged from 5% to 90%. Countries with paid CHWs where pay was linked to adequate monitoring and return of forms have higher return rates, and those with limited supervision generally did correspondingly less well on data collection. Where register data are missing or inaccurate, their utility in M&E of CHW activities and impacts are limited.

M&E efforts for CHW programs follow a strong movement toward improving M&E of the overall health system. Many countries now have good facility-based HMIS, but integrating community activities data into facility-based systems generally remains weak or lacking altogether. Indeed, significant challenges exist to integrating community-based systems to district or national health information systems in most countries. There are, however, a few exceptions to this situation. In Ethiopia, data from HEWs and the rest of the public sector are integrated and this database is also linked to logistics and commodity supply management mechanisms. In Rwanda, there is a well-functioning community HMIS that is fully integrated into the national facility-based HMIS, which also includes geospatial case mapping. In Mozambique, the government is currently developing a community-level HMIS to link to the operational facility-based system.

Role of the private sector

No private sector groups were reported as delivering community health programs, despite explicit questioning of respondents to supply information about all CHW cadres and iCCM implementers in their country. Furthermore, almost all CHW cadres reported were externally funded rather than self-sustaining. However, the authors are aware of a program of private community health provision being rolled out in Tanzania, described in the following section, which is integrated with the national health strategy. There are likely partial iCCM initiatives delivered through social franchises in some countries that are unreported, perhaps due to a lack of integration between private sector activities and public health system initiatives.

Discussion

Challenges

Although CHW program characteristics in almost every area of their recruitment, training and functions differed across cadres, the challenges mentioned by the various programs were very consistent. The most frequently cited challenge for CHW programs related to incentive structures and the linked issues of motivation and attrition rates. The next most commonly cited challenge was an inconsistent supply chain, stock-outs, and non-availability of commodities. Issues of coordination/harmonization with the rest of the public sector and other actors, as well as CHW supervision came a joint third place. While respondents reported program sustainability as a top challenge for only five of the 37 cadres, this issue is also important to highlight given long-term CHW expectations and the integral role they play in many health systems. We address each of these main challenges individually below:

Coordination

The difficulties we encountered in compiling and reviewing/confirming information from the multitude of agencies (implementers and funders) makes clear one of the major challenges for community health at a global level: coordination. As in any area of interest where the funding and need are both great, there are a variety of groups that believe strongly in their own approach and the need for immediate action. The authors applaud the work of these organizations to address equity and access to healthcare issues.

Beyond individual programs, the challenges of coordinating multiple partners, reporting tools, lines of accountability, and vertical disease-specific programs also exist at a national level. For example, the South Sudanese government was unable to give an initial estimate of the number of community health workers because of the autonomy and lack of transparency of implementing partners. Similarly, it was necessary for the authors to gather information from multiple sources because there was no single agency or department who was aware of all community-level health activities in that country.

Finally, coordination with disease-specific communities is also a major challenge. There are countries reporting a financing shortfall for their iCCM programs where more than half the shortfall is in fact covered by existing malaria-specific commodity funding. The lack of information sharing, particularly between malaria (the best-funded disease community) and iCCM/child health teams, means that resources may be double-counted or not accounted for, and efforts may be duplicated. The onus should be on the malaria community, given its better organization and longer history, to reach out and build these links with iCCM teams to improve coordination and, eventually, health outcomes across different diseases.

Sustainability

Since the Alma Ata declaration, the global health community has been discussing what primary health care and community-based care can achieve. Despite many declarations and international goals, in many countries there is still a dearth of services accessible to communities that could substantially reduce maternal and child mortality. There is also growing consensus that improvements in health outcomes can only be gained with increased and sustained investments to reach these communities through both the public and private sectors.

The impact of training a CHW workforce for a 3-5 year program can only be sustained when that force continues to be trained, supervised, and incentivized to serve their communities. As discussed above, almost all of the cadres reviewed in this report rely partially or completely on external funding, which is extremely unreliable. Without continuity of funding and local ownership, CHW programs are likely to follow donor funding cycles rather than patient need.

The private sector is often thought of as a vehicle for improved financial sustainability in a variety of fields, and the role of private sector organizations (unreported in all countries surveyed) in sustainably supplying iCCM is a topic currently being debated in global public health. In Tanzania, ADDOs are private drug shops at a level lower than pharmacies. These are being developed into village-level dispensaries operating from a fixed location to also provide additional drugs and services. ADDOs provide an option for patients to seek care in the private sector and address medicine stock-out issues at public health facilities. The training and licensing of these shops is donor-funded, but the aim is for ADDOs to subsequently be self-sustaining. Concerns remain about the incentives of ADDO proprietors and the possibility of inappropriate prescriptions driven by profit, but the model is being used in other countries as well (e.g. Liberia).

Regardless of whether community-level services are provided by public or private institutions, challenges around incentives and staff retention remain an obstacle to sustainability. With a clear path for career advancement, CHW attrition should decrease, which would in theory improve the quality of care provided as well as decrease the financial burden linked to recruiting and training replacements.

Demand-side issues, addressed later in this section, also have a role to play in program sustainability – if patients and caregivers do not seek care from CHWs, they will not be seen as necessary components of the health system. Improving patient perceptions of CHW care (such as by ensuring reliable commodity supplies) will likely drive further demand for services and improve the likelihood of sustainability as governments and donors will then also perceive a need for this channel of service delivery.

Incentives

In many countries, public sector health expenditure is lower than required to support all health service provision in the country. Since CHWs are often viewed as non-essential health workers, simply requesting that countries reallocate limited public funds to pay for them is unlikely to succeed. Similarly, donors are often more focused on funding quantifiable items (commodities like drugs or services like maternal deliveries) instead of human resources. Moreover, when donors do fund human resources, there is often a strong focus on supporting perceived ‘high-quality’ health professionals, such as doctors and nurses, rather than CHWs as a form of task shifting. There are also concerns about the quality of care CHWs may provide.

As a result, about half of all CHW cadres are unpaid, including one-third of full-time CHWs. Non-financial incentives may work if CHWs are integrated into a healthcare career ladder and have the possibility of future paid employment, or if they are helped to set up other income-generating ventures. Current non-financial incentives like bicycles and t-shirts undervalue the time of the CHWs and makes programs difficult to sustain. The resulting dropout rates lead to a need for repeated recruitment and training of new CHWs, further driving up costs of such programs. Half of the CHW programs surveyed (both paid and unpaid) raised incentives and retention as a main challenge. This suggests that incentives for CHWs are an issue that the global public health community must resolve as a top priority.

“The tasks we would like to give CHWs responsibility for, are well above volunteer [yet they are unpaid]” –
UNICEF, Burundi.

Supervision

Insufficient supervision was listed as a major challenge to program success and growth for 13 of 37 CHW cadres in the survey. This was often linked to problems of integration with public health facilities (primary health care units) and public sector commodity supply chains. Current supervision practices provide a clear opportunity for change. The means of supervision and the perception of current work overload for supervisors will need to be addressed. If supervisory practices were improved, this could lead to several gains for patients and the healthcare system including:

- **Improved quality of care:** Supervisors will be able to target underperformers for additional training or removal from the program, and overachievers for possible performance-based rewards.
- **Reduced stock-outs:** A 'pull' system where CHWs notify supervisors when their commodity supplies are low would allow for a more consistent service provided to patients.
- **Enhanced adherence to follow up:** Effective supervision and record-keeping (often one of the incentives of supervisory visits) can allow tracking of patients and monitoring of adherence to treatment and referral recommendations from CHWs. Patients needing disease management at the community level could also be recommended to CHWs.

Demand-side challenges

This study has focused mainly on the supply-side of CHW programs, as that is what was assessed through the survey instrument, and the challenges above were all raised by respondents to the survey. However, demand-side factors, such as poor health-seeking behaviour, are one of the major barriers to decreasing infection rates and improving child survival. This is relevant for health promotion, preventive, and curative services, and CHWs have a major role in helping to overcome these challenges through community and caregiver education.

In regards to curative services, caregiver behaviour determines whether or not children get access to treatment early enough in disease progression for current interventions to be effective. A number of studies have shown that health system treatment rates for malaria, pneumonia and diarrhoea in children are well below expected number of cases estimated using epidemiological and demographic data [Collins et al 2013b].

CHWs can further improve service utilization in a number of ways. Health promotion activities, such as long-lasting insecticide-treated bednet (LLIN) distribution and vaccination campaigns, can help CHWs address the cause of disease and decrease its burden in the community. One reason for low rates of care seeking during urgent episodes is the high cost of care [Collins et al 2013a]. CHW programs are an attempt to address care seeking costs through both the provision of free care and its delivery closer to home, which reduces both treatment- and travel-related costs.

CHWs are also an important tool for changing care-seeking behaviour. Through health promotion messaging in the form of behaviour change communication, CHWs may help improve caregivers' awareness of danger signs and convey the importance of prompt care seeking. In Ethiopia, this is taken to an extreme, where HEWs help organize communities into a 'health development army' where identified citizens and families take the lead in modelling good health behaviours and disseminating information.

Recommendations

Moving beyond best practices

Best practices imply that there is one ideal way to design a program. However, in the course of this survey, the authors observed similar program designs very successfully implemented in one country and failing in another. Due to variability in epidemiology, population density, public health system structure, and financing, each country should look at the cases presented here as a portfolio of options for structuring one or several tiers of CHW cadre(s). One attempt at categorizing this portfolio of options is provided in recommendation three below (Table 3). While there is no perfect design for a CHW program, cross-country implementation research on specific aspects of programs, such as incentive structures or integration into health systems, would be highly relevant.

Creating a clear classification of CHWs to improve policy coordination

As this report has shown, there is great variability in CHW qualifications, training, and the roles they are expected to perform in different countries. Based on the activities conducted by CHWs in this study, we propose four models that could be used to frame the possible roles of CHWs in a healthcare system (Table 3 and Annex 5). Each country may implement one or more of these models, depending on their health system design and needs.

Clearly, these are not the only ways to design a CHW program. Instead, this classification scheme is a post-hoc attempt at categorization in order to improve understanding of how CHWs are currently being used. Coordination among various stakeholders, implementers and donors to better define these potential roles will help clarify the types of support required for existing CHW cadres. Indeed, the current inclination of grouping all cadres – no matter their roles or functions – under the nebulous title of CHW can muddy discussions of specific types of support needed across these varied groups.

Table 3: CHW classification model

CHW model name	Services offered			Level of effort	Paid?	Total CHW cadres in classification
	Curative	Preventive	Reproductive & family planning			
Case Manager	iCCM	Yes	Maybe	Most Full-time	Usually	17
Community Liaison	Disease Management	Yes	Maybe	Part-time	Mixed	9
Health Promoter	No	Yes	Usually	Part-time	Rarely	10
Traditional Birth Attendant (TBA)-plus	No	Maybe	Yes	Part-time	Rarely	1

Case Manager model: Case Manager CHWs are those whose activities involve mainly diagnosis and treatment, particularly for the core iCCM diseases of diarrhoea, pneumonia and malaria. Their responsibilities may be extended to detection and treatment of non-communicable diseases, malnutrition, and neonatal care. This class of CHWs is most likely to be well-integrated in the health system and may even supervise other CHWs that have less disease-related activities, such as Health Promoters (see below). Case Manager CHWs are more likely to be paid and full-time, although this is not always the case. Training varies from a couple weeks to a full year. Ethiopia's Health Extension Workers are a good example of Case Managers (a classification of CHW cadres is presented in Annex 5).

Community Liaison model: Community Liaison CHWs are less treatment-oriented than Case Managers but still retain a lot of disease-oriented work. This may be ongoing disease management, such as directly observed therapy – short-course (DOTS) for tuberculosis patients, or referral and screening for some/all of the iCCM diseases. There are both paid and unpaid cadres in this category, and they are likely to be working part-time.

In general, Southern African countries approach community health strategy with the belief that access to health facilities is sufficient. Therefore, CHWs are generally a source of health promotion and referral to facilities rather than a treatment source in this approach. CHW cadres in Southern African countries like Botswana, Namibia and Lesotho are examples of this model.

Health Promoter model: Health Promoter CHWs focus on education and counselling activities. Typical utilization of such CHWs occurs during Child Health Days and immunization campaigns where they work to mobilize community participation. They often also provide WASH- or family planning-related education. In general, Health Promoters do little or no disease management, and are more likely to be part-time and unpaid. The four Angolan CHW cadres fall into this category.

TBA+ model: CHW cadres of the traditional birth attendant-plus (TBA+) model are the least common type. However, it is an important model because, unlike the other models, it leverages on existing cadres already operating at community level, potentially saving time and improving retention. The TBA+ CHWs, in addition to delivery-related services, are generally trained to provide antenatal care, postnatal care, breastfeeding promotion, infant nutrition, as well as to identify sepsis and general danger signs in newborns. They are part-time workers with some non-financial incentives from employers, but often are paid by patients. Namibia's cadre of volunteer community-based maternal and newborn care workers are the one example of this model encountered in the study.

Robust monitoring and evaluation of ongoing programs

M&E provides information that can be used to improve future planning and adjust implementation to achieve better program results. Currently, there is a lack of reliable data on CHW programs, which was exemplified through data collection for this study. Indeed, there were several inconsistencies between information entered in data collection tool and the narrative descriptions provided by the same informants. For example, in many cases, data are available on the number of CHWs trained but not on the number currently in the field, or the number in the field exceeded the estimate of those trained. Indeed, robust M&E systems to monitor CHW supplies, activities and performance could not only serve as an early warning for underperforming regions or employees for targeted follow up, but could also underpin the implementation of a performance-based incentive scheme to reward good performance.

Coordinating and collaborating among implementers and financiers

The best way to improve coordination on CHW projects supported or implemented by multiple partners is for Ministries of Health to take ownership. With the guidance of a strong national strategy for community health and implementation plans, external organizations can contribute clearly defined components as part of an overall national strategy to achieve targets for health improvements. This would also allow governments to have a clearer idea of the overall financial needs and gaps of their CHW program. At the same time, improved iCCM-commodity gap analysis would alleviate duplicative efforts, which is currently an issue between disease areas and funders, and could increase the efficacy of advocacy for iCCM funding.

At the international level, donors could consider requirements for implementer participation in an annual community health forum to improve coordination among implementers. The fragmentation of the malaria community more than a decade ago compared with today's relatively coordinated global malaria response is an example that might provide some lessons for the iCCM community.

Increasing domestic funding for iCCM and CHW programs

In line with recommendation four above, domestic ownership should go beyond the design of strategy and implementation plans. Some of the most successful CHW cadres in this region, such as Ethiopia's HEWs and Zambia's CHAs, are supported by domestic funds and donor financing both channelled through a national strategic plan. The greatest advantage of domestic financing is that programs may be planned for and sustained over the long run. Beyond that, domestic financing gives governments control of program decisions, which would become more challenging if they were not financiers. We recognize that for many countries this will require a reprioritization of health sector funds and may only be achieved over time through economic gains. Still, this should remain the aspiration for financing CHW and iCCM programs.

Leveraging the new Global Fund model to drive increase in community iCCM

The uncertainty and change inherent in the new Global Fund model presents an opportunity for the expansion of iCCM-driven community health programs. CHWs often deal with all of the Global Fund's priority diseases, and the new model asks countries to approach the process by thinking about their need on a comprehensive level rather than starting from a disease-specific lens. This means that health system strengthening efforts, such as expanding Case Manager CHW models, could be a fundamental part of improving diagnosis, treatment and adherence for target diseases. Since national malaria strategic plans will be used as the foundation of concept notes in the new Global Fund model, this is the vehicle through which an iCCM plan can be considered for Global Fund financing. Integration of malaria and iCCM plans is the ideal scenario. However, if this cannot be achieved, it is essential that these two areas have at least clear linkages between their strategic plans.

Further Research

Community health programs have been part of the public health debate and a topic of research for decades. However, there continue to be gaps in important aspects of community-based care, such as the continued monitoring of CHW cadres, their responsibilities, and financial support. This work is a preliminary attempt to address the issues surrounding a large and important public health topic.

Maintaining current and accurate information on the data points collected here would be a relevant course of continued research. A major challenge of research on community-based health programs is coordination and validation of data received from various agencies that maintain this information. The multiple monitoring tools used to gather data for this study often elicited contradictory information, as did responses from different groups operating within the same country. Validating the information collected is a first challenge, followed by establishing mechanisms to update the results accurately and regularly so that they remain relevant, which is another area of future work.

As UNICEF is a major supporter of community-level health provision in many countries, there are other studies being conducted by UNICEF that will be able to build on this work. One of these is a research project with a similar methodology used here to update the George et al (2011) study across all sub-Saharan African countries. The second is a systematic evidence review that is drawing contributions from UNICEF, PSI, Save the Children, Malaria Consortium, Management Sciences for Health, John Snow International, the Gates Foundation, and the Canadian International Development Agency. The culmination of this work is expected to lead to several research and policy papers along with a high-level symposium held in March, 2014. Sharing this report as a reference for those research programs would be a major step towards coordinating community health efforts and sharing experiences at the international level.

Beyond these efforts to coordinate community health research, operational research on human resources issues highlighted in this paper is a major opportunity. Best practices can be defined in terms of supervision of CHWs, looking into the nature and frequency of engagement with both, formal health care facilities and the community. Research on CHW motivation, incentives (both planned and implemented), and retention could highlight the models that are viable and sustainable in the long term. Training material can be harmonized for courses of different lengths, and ensuring that key concepts are covered is essential to providing good care, regardless of the type of CHW cadre or their services.

Implementation techniques to effectively expand the mandate of disease-specific CHWs (e.g. providers of the Home Management of Malaria program) to treat other diseases under iCCM also need testing. This could also include the expansion of malaria-treating CHWs to cover pre-referral severe malaria treatment as well. Such expansion activities are likely to become more common as policymakers seek to broaden the scope of existing programs, especially from traditional iCCM into neonatal and malnutrition care. This is currently being tested in Zambia and Madagascar where pneumonia has been added to the diseases managed by CHWs currently treating only malaria.

In summary, this report provides a foundation on which to build a more extensive CHW monitoring program. This can be used to fuel analysis of existing programs in order to build a clearer understanding of policy needs for community-based healthcare and to provide a portfolio of options for countries ready to begin implementing CHW programs.

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Annexes

Annex 1: Country findings

Angola

Angola's public health indicators are very poor with high levels of malnutrition and about 30% malaria prevalence. The population of 20 million is heavily skewed toward younger cohorts (almost 50% are under 15 years of age), and nearly 8 million live more than 5km from a health facility.

	Cadre			
	CHWs	Voluntaries	CHWs, Uhayele	Leader, Pastoral da Criança
# of members	3045	1211	315	15000
% population covered	unknown	unknown	unknown	unknown
Population served by 1 CHW	100	30-170	150-200	10
Districts active / planned	6 / 9	2 / 2	2 / 8	16 / 18
Total number of districts nationwide	18	18	18	18

There is increasing interest in developing a national policy and strategy for community-level care, especially given the disproportionate number of children under five years old. This is still in research phases and various approaches to iCCM introduction are being assessed. One way this approach has been measured is through a qualitative research study on CHWs and TBAs and their beneficiaries. Below are the following main results:

- High integration is desirable between CHW/TBAs and the beneficiaries at the community level
- The beneficiaries are satisfied with the services delivered by CHW and TBAs
- Increased coverage of the essential interventions carried out by CHW and TBAs would be appreciated
- Improved household and community practices for children and maternal health are needed (adding emphasis to the importance of health promotion and education activities)

The main challenges to implementation of community care are the lack of supportive and frequent supervision, lack of incentives, as well as unclear link between public health services and CHW/TBAs. The next steps for Angola are to define a national policy toward community health, assess CHW financial and human resource needs for this national strategy, and then start implementation.

Below is a summary of the CHW cadres in Angola:

Government CHWs: The government CHW program has been in operation since 2007 in six municipalities. CHWs are trained for 40 days on health promotion and prevention services. Their main responsibilities are to map families in the project area, follow pregnant women and children under five on health status, and provide health education and referral services. They do not, however, carry drugs or commodities. These full-time workers are given a monthly salary of just over \$US 40 (4000 kwanzas). Despite the government's involvement in this program, the lack of a national community health strategy to define CHW roles, training, and incentives does contribute to a disconnect between CHWs and the public health system, in terms of supervision or referral.

Voluntaries (Africare): This program is largely similar to the government CHW program but is operated by Africare, an NGO working in two municipalities. The training for this cadre is an add-on of four days to the government CHW program. Despite this coordination in training, one of the major challenges is a lack of overall coordination between the two programs. Monitoring or reporting data is largely unavailable for this program.

CHWs (ASMOSMID): This cadre is trained for 3 months and supervised by the NGO ASMOSMID, which operates in two municipalities and plans to reach eight municipalities in the future. To date, only 315 CHWs in this cadre are operational, each of which serves 150-200 families in the community. Similar to other cadres, they do not prescribe drugs and largely provide preventive and health promotion services. Their incentives are more than double those of the government CHWs at about \$US 90 (9000 kwanza), which is completely through donor funds. There is very little linkage of this CHW cadre to the public health system.

Leader – Pastoral da Criança: This group is quite different from the others since it is linked to the Catholic Church and each of the Leaders serves just 10 families. The training is both classroom (3 months) and experiential (2 weeks) before they begin to serve as Leaders. Their focus is on antenatal care, postnatal care and nutritional support. This group includes about 15,000 employees in 16 provinces and is the largest in number and scope. The Leaders are part-time (50%) unsalaried volunteers with no prerequisites other than residency in the community they serve and literacy in Portuguese. As with other cadres, monitoring data are limited and coordination with the public health system is almost non-existent.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Government CHWs	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-		ANC, child care	
	Screening	✓	-	-	-	-	-		
	Referral	-	-	-	-	-			
Voluntaries, Africare	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	WASH	Ed
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	-			
ASMOSMID CHWs	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	ANC, child care	Ed
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	-			
Leaders, Pastoral da Criança	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	ANC, NUT, WASH	Ed
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	-			

Botswana

Generally, Southern African countries (including Botswana) have taken less interest in community-based healthcare because of presumed accessibility to formal health facilities. For that reason and because malaria prevalence is low, strengthening primary care at facilities has been prioritized. Still, Botswana has two CHW cadres: Health Education Assistants (HEAs) and Community Health Home-based Care (CHHC) Volunteers.

	Cadre	
	Health Education Assistants	Community Home-based Care Volunteers
# of members	696	3500
% of population covered	85%	unknown
Population served by 1 CHW	2874	unknown
Districts active / planned	28 / 28	unknown
Total number of districts nationwide	28	28

Health Education Assistants: HEAs are full-time, salaried positions as a part of the Growth Monitoring and Promotion program. They provide information on care-seeking, prevention, family planning, and referral services. They provide ORS and zinc for diarrhoea treatment, and refer patients with other conditions to public facilities for treatment. Until recently, HEAs received 19 weeks of training, but that has been expanded to a full year's training of theory and practice. They link to the public health system through the Health Education Officer on the District Health Management Team. Feedback from the community is received through Kgotla meetings, as well as more formally through Village Development and Village Health Committees.

CHHC Volunteers: CHHCs are part-time volunteers with a minimal salary. They receive one week of training on HIV/AIDS and tuberculosis medication administration, palliative care, nutritional support, basic nursing services, "Care of Carers", and are expected to provide home visits three days a week for three hours a day. Like the HEAs, they also provide ORS and zinc for diarrhoea treatment. They report through both the HEAs in their community and to a primary care centre nurse. These reports may be written, if possible, or oral for those CHHC volunteers who are illiterate. For both groups, iCCM contributions are minimal, although they provide some screening services around all the core diseases, as is common in Southern Africa.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Health education assistants	Diagnosis	-	-	-	-	Home visits			
	Treatment	-	-	ORS, zinc	-	-			
	Screening	✓	✓	✓	✓	-	Ed	-	-
	Referral	-	-	-	-	-			
Community Home-based Care volunteers	Diagnosis	-	-	-	-	Home visits			
	Treatment	-	-	-	-	-	Ed	BN, WASH, NUT, ANC, PNC, NN care, FP	Ed
	Screening	✓	✓	✓	✓	-			
	Referral	-	-	-	-	-			

Burundi

The recent Plan de Développement Sanitaire PNDS II 2011-2015 has helped to align community health activities and strategy in a country that had been recently fragmented by civil war. Unlike other countries where CHWs are expanding their portfolio from malaria to fever community management, and eventually to nutrition and neonatal health services, Burundi's nutrition agenda is driving their movement for community-based care. This is because Burundi is the nation with the highest stunting levels globally (58% of children under-five, and rising to 71% in Ngozi province). This makes nutritional support a strategic priority to address at the community level.

The model of community health driven by nutritional interventions will be of interest to many countries, especially those looking beyond the fever-focused model of community care. Burundi is in the process of organizing a baseline survey to understand current levels of disease and treatment seeking in order to estimate potential iCCM impact in pilot districts.

There are many challenges to implementation of community health in Burundi, despite its small population size and large network of health facilities. One of the major challenges is a lack of community-level trust related to recent ethnic conflict. In fact, there is currently a separate CHW system for the Batwa population since these people do not otherwise have access to health facilities. This experience might shift the conception of CHWs to something almost parallel to the health system – it remains to be seen.

	Cadre		
	ASCs, national	ASCs, PECADOM	ASCs, Kibuye
# of members	5816	unknown	273
% of population covered	100%	3%	2%
Population served by 1 CHW	~1000	~1000	~1000
Districts active / planned	45 / 45	2 / 2 (pilot)	1/1 (pilot)
Total number of districts nationwide	45	45	45

Agents de Santé Communautaires (ASC): Since 2011, the nationwide government ASC program has been managed by the Ministry of Health and involves only part-time volunteers. Prerequisites include reaching an age of at least 20 years and completion of primary school. Currently, there is one ASC per district (colline) but the program aims to expand to one ASC per sub-colline, requiring about double the number of ASCs. Supervision is provided by Techniciens de Promotion de la Santé (about 130 nationally), but is irregular due to transportation and capacity issues, as well as external funding dependency. Community IMCI occurs in 9 of 17 provinces but only for key family practices, and does not include case management.

ASC subgroups are piloting malaria case management in two districts since 2011 (with support from USAID) and in a third district since 2012 (with support from Concern). iCCM for malaria and diarrhoea is at a pilot stage in one other district (with support from UNICEF). There is a possibility of geographic extension and the addition of pneumonia to iCCM since the government provisionally accepted that component very recently. Burundi's government and the UNICEF Country Office organized an iCCM advocacy and strategic planning meeting in September 2013 that highlighted results from pilot districts and iCCM practices in other countries.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
ASCs, national	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	✓	✓
	Screening	-	-	-	✓	-			
	Referral	-	-	-	✓	-			
ASCs, PECADOM	Diagnosis	✓	-	-	-	-			
	Treatment	Oral	-	-	-	-	-	✓	✓
	Screening	✓	-	-	✓	-			
	Referral	✓	-	-	✓	-			
ASCs, Kibuye	Diagnosis	✓	-	✓	-	-			
	Treatment	Oral	-	ORS/zinc	-	-	-	✓	✓
	Screening	✓	-	✓	✓	-			
	Referral	✓	-	✓	✓	-			

Comoros

Comoros is in the very early stages of developing a community health plan, which is primarily motivated by interest from the Ministry of Health in achieving Millennium Development Goals 4 and 5. There are seven priority areas for CHWs to contribute to achieving these targets and country priorities including:

- Bednet utilization promotion
- Handwashing promotion
- Immunization mobilization
- ANC/skilled birth attendants/PMTCT activities
- Breastfeeding and nutritional support for infants
- Treatment-seeking and referral services for malaria, pneumonia and diarrhoea

UNICEF has been collaborating with the Ministry of Health on this issue since January 2013, and in May 2013 there was a stakeholder workshop to discuss the experience of community health and CHWs in Comoros. The planning process is ongoing and has included developing materials and plans for CHW training, remuneration, supervision, and monitoring in order to harmonize CHW activities with the broader health system.

Eritrea

Eritrea has developed a strong community health program in recent years. The CHW program was first piloted in 2005. Since this time, demand for CHW services has greatly increased and HMIS data shows declines in both mortality and morbidity from diarrhoea and pneumonia. The program is owned and funded at the national level by the Ministry of Health with UNICEF and WHO providing technical assistance contributions. The community volunteers program began in 2006 and supports primarily health education and promotion activities. A gap analysis assessing the funding and scope required to achieve universal iCCM in Eritrea would be beneficial to ongoing efforts for iCCM advocacy and planning at global levels as well.

	Cadre	
	CHWs	Community volunteers
# of members	800	2968
% of population covered	65%	85%
Population served by 1 CHW	500	20 – 50 HHs
Districts active / planned	38 / 58	58 / 58
Total number of districts nationwide	58	58

Community Health Workers: Two CHW cadres work collaboratively with CHWs overseeing the Community Volunteers (CVs). The 800 CHWs are trained in the full iCCM package: assessment, classification and treatment of pneumonia, diarrhoea, malaria and malnutrition with ACTs, antibiotics, and ORS/zinc. CHWs receive two weeks of training, ten days of which is in iCCM. However, they work only part-time and are unsalaried. They maintain a daily reporting log and a monthly summary. Supervision is conducted by a health worker from the nearest facility, but is often interrupted by fuel shortages.

Community Volunteers: The CVs were introduced in 2006. There are about 3000 nationally that serve in all districts. CVs are trained for 5 days in nutrition screening, infant feeding, education, oedema screening, WASH, and health promotion activities. They serve on a part-time and unpaid basis. CVs report every 1-2 months to health facilities regarding the number of children screened as moderately and severely malnourished, and more than 90% of reports are returned. Lack of incentives for this part-time, unsalaried cadre is a major challenge, as is the lack of links to the public health system.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
CHWs	Diagnosis	✓	✓	✓	-	-	-	BN, WASH, NUT	✓
	Treatment	oral	oral	ORS/zinc	-	-			
	Screening	✓	✓	✓	✓	-			
	Referral	✓	✓	✓	-	-			
Community volunteers	Diagnosis	-	-	-	✓	-	-	WASH, NUT	Hand wash
	Treatment	-	-	-	✓	-			
	Screening	-	-	-	✓	-			
	Referral	-	-	-	✓	-			

Ethiopia

The Health Extension Program has been operational in Ethiopia since 2004, and has steadily expanded the set of CHW services provided. Health Extension Workers (HEWs) are the backbone of the program, and provide health promotion, preventive, and curative health services in pairs at Health Posts (HPs). Five HPs are subsidiary to each of the major primary care unit, Health Centres, which can serve about 25,000 people. In parallel with the expansion of HEWs, the number of HPs was also increased. The ultimate goal is to have one HP providing fundamental services in each village (kebele) staffed by two HEWs.

	Cadre
	Health Extension Workers
# of members	34,000
% of population covered	100%
Population served by 1 CHW	500
Districts active / planned	831 / 831
Total number of districts nationwide	831

Health Extension Workers: There are now approximately 34,000 HEWs in Ethiopia, each of which is a full-time, salaried employee of the public sector (earning about \$US 80 per month). Prerequisites include high school plus one year of education (level 3 certificate), and only females are allowed in many districts, except the Somali and Afar regions. The HEW basic training consists of one year including: preventive and curative aspects of nutrition, child health, disease prevention, hygiene, malaria prevention, case management and referral services for emergency and severe cases. Further training opportunities are provided every two to three years, along with the possibility for promotion in the public health system.

This is the most extensive CHW cadre in ESAR countries found in the course of this research. The impact on burden of disease since the inception of the program is proportionally large, with notable reductions in malaria cases and mortality. Management of malaria has been a part of the program from its start, which has expanded to include diarrhoea and now pneumonia in 2011/2012 (based on both community feedback and international evidence). However, there remain challenges to the program including a low demand for services and a weak supply chain that inhibits their full benefit to communities.

Ethiopia is also a strong promoter of CHW integration into the broader health system and its data collection mechanisms. iCCM indicators have been added to the HMIS and are monitored on an ongoing basis.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Health Extension Workers	Diagnosis	✓	✓	✓	-	-	Injectable, condoms, implants	Bed nets, WASH, NUT, ANC, PNC, newborn care, FP, HIV prevention	✓
	Treatment	Oral / rectal	oral	ORS/zinc	SAM	sepsis			
	Screening	✓	✓	✓	✓	-			
	Referral	✓	✓	✓	-	-			

Kenya

The community health system in Kenya started in 2006, but iCCM was added only recently. In 2012, Kenya decided to include iCCM in their national community health approach and began to quantify the related financial and human resource needs. While some CHWs had conducted partial iCCM (particularly case management for malaria), there is currently an ongoing pilot to assess if CHWs should be allowed to also prescribe antibiotics for pneumonia. In October 2012, zinc was also made an over-the-counter drug, and thus, the CHW scope of treatment options expanded.

	Cadre	
	Community Health Extension Workers	Community Health Workers
# of members	4028	59,810
% of population covered	29%	29%
Population served by 1 CHW	2500	500
Districts active / planned	47 / 47	47 / 47
Total number of districts nationwide	47	47

Community Health Extension Workers: The current plan includes Community Health Extension Workers (CHEWs) as the foundation of community care, and serving at Community Health Units after 2-3 years of training. The aim is to increase CHEWs from 4,028 to about 25,000 nationally in the next several years. However, as these are recipients of a tertiary diploma in nursing or a related field, they would normally be beyond the scope of this review. They are the foundation of the community health program and link health facilities to the community, participating in health facility management meetings.

Community Health Workers: The CHEWs train and supervise CHW cadres, which now totals about 60,000 (covering 30% of the population). This part-time cadre is targeted to increase to 260,000 by 2017. CHWs receive a training of 10 days, with iCCM as a secondary booster module offered after some period of service. CHWs provide ACT/RDT for malaria, ORS/zinc for diarrhoea and family planning services. Policymakers will determine whether or not to include antibiotics in this package soon.

Community Health Committees: The Community Health Committee (CHC) is trained in seven days over a two-week period. CHC helps ensure community issues are articulated at the facility level and that facilities receive community support in primary health care service delivery at the community level. They also participate in monthly performance meetings with CHWs and CHEWs, and lead quarterly community dialogues regarding services provided. However, they are unpaid and receive no meeting allowance, so motivation is often low.

There are many challenges including: CHW incentives are low (\$US 25 per month) and have yet to be delivered (except by some NGOs). Commodities for CHW drug kits are not often available. Thus, retention and appropriate care provision are a challenge. At the CHEW level, the service scheme policy has yet to be finalized and numbers are still low. Additionally, service utilization at the community level is still low, perhaps due to low availability of staff and commodities for the above reasons, or due to poor awareness of services provided.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Community Health Extension Workers	Diagnosis	✓	✓	✓	-	-	Oral, male & female condoms	BN, WASH, NUT, ANC, PNC, NN care, FP	✓
	Treatment	oral / rectal	-	ORS/zinc	-	-			
CHWs	Screening	✓	✓	✓	✓	✓	Oral, male & female condoms	BN, WASH, NUT, ANC, PNC, NN care, FP	✓
	Referral	✓	✓	✓	✓	✓			
	Diagnosis	✓	✓	✓	-	-			
	Treatment	oral	-	ORS/zinc	-	-			

Lesotho

Lesotho is a small, land-locked, mountainous country in Southern Africa with significant water and diamond resources. However, 40% of the population lives below the poverty line, and Lesotho has a long-lived community health program that has been operational in some form since 1974. This is owned by the national government, and implemented in partnership with WHO, UNICEF, EGPAF, MSF, PIH, UNFPA, WFP, and World Vision. Since it is fully funded by the national government, it is less dependent on aid cycles than CHW programs in other countries.

	Cadre
	Village Health Workers
# of members	6,000
% of population covered	unknown
Population served by 1 CHW	unknown
Districts active / planned	10/10
Total number of districts nationwide	10

Village Health Workers (VHWs): VHWs are trained by public health nurses and nurse clinicians over 14 days in health promotion and education, MNCH community based care, environmental health issues, childhood illnesses, and nutritional support (including breastfeeding). Five training days are dedicated to iCCM content.

VHWs are a cadre of 6,000 members made up of both VHWs and TBAs who have expanded services to incorporate other aspects of primary health care. Each of these cadres are part-time, unsalaried staff that each serve about 10 households. The Ministry of Health is currently conducting a survey to assess coverage since VHWs that have retired, migrated or died are not regularly tracked. This exposes a weakness in the supervisory links with the public health system. HIV/AIDS is prevalent in about 20% of the population, which has had a major impact on the numbers of VHWs. The difficult terrain (Lesotho is entirely above 1000m elevation) also makes it difficult for VHWs to cover all villages.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Village Health Workers	Diagnosis	-	✓	✓	✓	-		WASH, NUT,	
	Treatment	-	-	ORS/zinc	-	-	Oral, condoms	ANC, PNC,	Ed
	Screening	-	-	✓	✓	✓		FP, NN	
	Referral	-	✓	✓	✓	✓		CARE, BF	

Madagascar

Madagascar is a country that has shown significant declines in child mortality in recent years, despite 60% of the population living more than 5km from the nearest health facility. In children under age five, pneumonia prevalence is 3%, malaria prevalence is 1.5%, and diarrhoea prevalence is 8%, which represents a great reduction over the past 15 years. Still, these diseases continue to cause a large share of child deaths in the country.

Madagascar's community health worker program is being implemented by a large consortium of partners (UNICEF, WHO, PACT, and many church groups), which is coordinated at the national level and co-funded by the government, USAID, Global Fund, and World Bank. The target for this program was universal coverage by 2012, but this was not achieved and coverage remains below one-third to date.

	Cadre
	Agents Communautaire
# of members	11,449
% of population covered	29%
Population served by 1 CHW	110-180 children under 5
Districts active / planned	32 / 112
Total number of districts nationwide	112

Agents Communautaire (AC): ACs are required to have at least 5 years of primary education and be 25 – 45 years old. Training is provided by health workers from the local Basic Health Centre. Five of the eight training days involve iCCM, and ACs are then qualified to screen, diagnose, treat and refer the major diseases. They are a volunteer, part-time CHW cadre paid only for training days and may also collect drug mark-ups from patients. Some performance-based financial incentives also exist, though these are only given to a subset of ACs. Coordination of activities is a major challenge since this is a mixed group of implementers and community-based partners. There is also a lack of commodities and regular incentives after the initial training, which leads to CHW demotivation.

There is also a cadre of nutrition CHWs trained in nutrition sensitization, growth monitoring, infant and child feeding, maternal nutrition, exclusive and early breastfeeding, home visits, nutritional cooking demonstrations, community nutrition dialogues, and MUAC screening (middle upper arm circumference). They have limited links to the public health system, although they might refer malnourished children to facilities. ACs report directly to the National Nutrition Office under the Prime Minister's office. This program was supported for many years by the World Bank but no longer receives external funding. A mapping was recently conducted to show where ACs are operational, but authors were unable to obtain this document during the study. In theory, ACs receive a monthly stipend, but they had not received any funds in the eight months before the survey was conducted. They are not catalogued here.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Agents Communautaire	Diagnosis	✓	✓	✓	✓	Home visits			
	Treatment	oral	oral	ORS/Zinc	-	-	Lifecycle approach	-	✓
	Screening	✓	✓	✓	✓	-			
	Referral	✓	✓	✓	✓	-			

Malawi

Based on current trends, Malawi is expected to meet MDG 4, and is one of the few sub-Saharan Africa countries on target to do so. Malaria prevalence remains high (43% of children under 5) but has been reduced through major net campaigns, among other activities. Confirmed diagnosis of malaria with RDTs is now policy, although community caregivers do not carry these commodities to date.

	Cadre
	Health Surveillance Assistants
# of members	10,192
% of population covered	46%
Population served by 1 CHW	~1400
Districts active / planned	10 / 10
Total number of districts nationwide	28

Health Surveillance Assistants (HSAs): Since 2008, iCCM has been carried out across parts of all districts primarily through a large CIDA-funded program implemented by Save the Children, PSI and UNICEF. This is also partially funded by contributions from the Ministry of Health, WHO, and USAID. HSAs are targeted to cover 40% of the population living more than 5km from a health facility. To date, about 10,200 HSAs have been trained and are actively working. Training is 12 weeks consisting of a wide range of health education and promotion components, followed by 6 days of iCCM training in all three diseases (malaria, diarrhoea, pneumonia).

HSAs are a full-time cadre paid about \$US 85 per month, and are supervised under the District Health Environmental Office at least quarterly. They interact with and get feedback from the community through Village Health Committees, although there is not a fixed schedule for these interactions. The biggest challenges for the program have been commodity stock-outs, inconsistent supervision, and a lack of deployment policy encouraging HSAs to be based in more remote areas of the country.

The CIDA-funded program that supported this work ended its initial term in May 2013, and at the time of the study, there was an anticipated shortfall of funding and material resources. Some of this shortfall will be made up by the RAcE (Rapid Access Expansion) 2015 program. RAcE aims to catalyse iCCM scale-up in four districts (Ntchisi, Dedza, Ntcheu and Mzimba North) in Malawi, and to also include an additional set of interventions. Still, there is concern that the 15,000 HSA target may not be reached, and sustainability remains an issue.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Health Surveillance Assistants	Diagnosis	✓	✓	✓	-	-	Oral, condoms, injectables	FP, WASH, NUT, ANC, PMTCT, PNC	✓
	Treatment	oral	oral	ORS/zinc	-	-			
	Screening	-	-	-	✓	-			
	Referral	✓	✓	✓	-	-			

Mozambique

Since 2010, Mozambique has implemented the Agentes Polivalentes Elementares (APE) community health program with financial support from UNICEF, USAID, World Bank, CIDA, and WHO. About one-third of the population has no health facility within 45 minutes walking distance, so the role of community case management is very important. It is also estimated that 40% of pneumonia, diarrhoea and malaria cases are treated at the community level [AMREF, UNICEF 2012].

	Cadre
	Agentes Polivalentes Elementares
# of members	1,213
% of population covered	8%
Population served by 1 CHW	~1250 (500 – 2000)
Districts active / planned	51 / 133
Total number of districts nationwide	148

Agentes Polivalentes Elementares (APEs): Prerequisites include literacy in both Portuguese and mathematics, reaching age 18, and election by their communities. The national requirement calls for women to make up half of all APEs. APEs are a cadre trained by public health workers for 16 weeks; two weeks involve iCCM. The training focuses on the following three areas: health promotion (child health and reproductive health); prevention of common diseases including hygiene and environmental health; and community case management and first aid. To date, 1213 APEs have been trained and deployed to 51 of the 133 non-urban districts of Mozambique, with a total of 3447 APEs expected by the end of 2015.

The APEs work part-time but it is not stipulated what portion of their time should be spent on community health work. They are paid a monthly stipend of \$US 40, and in theory are supervised monthly by the clinical officer of the referral facility. These supervision visits are an opportunity for ongoing training since the supervisor is expected to observe five of the APE's cases during that time. It is also the duty of the supervisor to contact the community for any feedback. There is no formal standard mechanism for community engagement, although some communities do have a community health council.

Challenges to the APE program include insufficient funding for incentives, as well as commodity stock-outs. In addition, the large group of funders and implementers require active harmonization work. In Mozambique, although there are many CHW cadres, APEs are the only ones trained in iCCM and functions in a comprehensive manner. For other cadres, there is no centralized system of training, supply, deployment and supervision.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
	Diagnosis	✓	✓	✓	✓	✓			
Agentes Polivalentes Elementares	Treatment	oral, rectal	oral	ORS/zinc	-	-	-	ANC, immunization, NUT, NN care, FP, WASH, malaria prevention	✓
	Screening	-	-	-	✓	-			
	Referral	✓	✓	✓	✓	✓			

Namibia

Namibia has a population of just over 2 million, and is one of the countries most afflicted by HIV/AIDS. About 15% of the population is infected with the virus. This has had the well-documented impact of reducing the workforce and leaving a large population of orphans. Additionally, two thirds of the country is a high-transmission zone for malaria. Large portions of the country are desert and the population density is low. Compounded with that, there are about 600 doctors in the country and they are concentrated in the private sector in urban areas, so the role of community health workers is significant. Namibia has five cadres of CHWs but few of them provide treatment. Most of their work is helping to identify danger signs and referring patients to health facilities, in addition to long-term supervision of HIV/AIDS and tuberculosis treatment.

	Cadre				
	Volunteer Community-based maternal and newborn care	Health Extension Workers	TB / HIV Field Promoters	Lifestyle Ambassadors	Home-based Care Providers
# of members	unknown	26	unknown	unknown	unknown
% of population covered	unknown	unknown	unknown	unknown	unknown
Population served by 1 CHW	unknown	50 – 100 Households	20 – 30 Households	50 – 60 people	unknown
Districts active / planned	4 / 4	1 / 35	unknown	unknown	unknown
Total number of districts nationwide	35	35	35	35	35

Volunteer Community-based Maternal and Newborn Care: This volunteer force is required to be literate in English, and is trained for five days by UNICEF and the Ministry of Health and Social Services (MoHSS) staff on maternal and neonatal health. This includes aspects of ANC and PNC, as well as breastfeeding. They provide home visits and screen for low-birth weight and postpartum complications. They are active in just four of the 35 districts nationally.

Health Extension Workers: This is the most ‘empowered’ CHW cadre in Namibia, which addresses malaria, pneumonia, diarrhoea, malnutrition, neonatal health, HIV/AIDS, and tuberculosis in addition to providing family planning and health promotion services. They are trained for six months in theory and practice at the beginning of their tenure. However, even this group only prescribes ORS/zinc, paracetamol and condoms as commodities for distribution. This is currently a one-year pilot program, which should be taken over by the MoHSS by mid-2013 and HEWs will then be paid public sector employees. There are expectations to scale up to about 4,000 HEWs, which would be about one per 500 people. Currently, HEWs receive a stipend of about \$US 100 per month during the pilot phase. The current funding is for the financial year of 2013/2014, and 2014/2015 onwards is secured through the MoHSS medium term expenditure framework (MTEF 2013/14 – 2014/15).

TB/HIV Promoters: This is a full-time workforce that receives 2-3 days training and about \$US 100-150 per month to focus on health education, referral, and tuberculosis treatment defaulters follow-up. They are closely linked with their local health facility, and receive information on TB treatment defaulters for tracing and follow-up, and often serve on the health facility committees. They also provide DOTS and are the community-link for ongoing TB treatment. Unfortunately, the data collection tools used by the Promoters are not integrated into the national information systems and the lack of funding for allowances means that attrition is an issue.

Lifestyle Ambassadors: This group receives 2-3 days training, like the Promoters above, but the focus here is more on HIV/AIDS. This is a health system-initiated volunteer community cadre to assist with health promotion for HIV, tuberculosis, and malaria programs, which means that their links to the public system are strong. Like the other groups, attrition due to a lack of sustainable funding is an issue, as well as an overlap of responsibilities with other groups of HIV volunteers and a lack of a clear role in the system.

Home-based Care (HBC) Providers: The HBC Providers receive 3-5 days training and have responsibilities similar to other HIV community volunteers. They are trained primarily on how to care for people living with AIDS who are bedridden, and how to assist them with income generating activities. The MoHSS provides the standard HBC kit for these part-time volunteers, who are afflicted with the same issues of lack of funding for allowances, insufficient supervision, and non-integrated data collection tools.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoe a	Nutrition	Neonatal	FP	Counselling	WASH
Volunteer Community-based Maternal and Newborn Care	Diagnosis	-	-	-	-	Home visits		ANC, PNC, Neonatal	
	Treatment	-	-	-	-	-			
	Screening	-	-	-	-	-	Condoms	Care, FP	-
	Referral	-	-	-	-	✓			
Health Extension Workers	Diagnosis	-	-	-	-	Home visits		ANC, PNC, Neonatal	
	Treatment	-	-	ORS/zinc	-	-	Condoms	Care, FP	-
	Screening	Ed	Ed	-	MUAC	-			
	Referral	✓	-	-	✓	✓			
TB / HIV Promoters	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-			
	Screening	Ed	-	-	-	-	-	-	-
	Referral	✓	-	-	-	-			
Lifestyle Ambassadors	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-			
	Screening	Ed	-	-	-	-	-	-	-
	Referral	✓	-	-	-	-			
Home-based Care Providers	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-			
	Screening	-	-	-	-	-	-	-	-
	Referral	-	-	-	-	-			

Community health workers in Namibia are commonly temporary and uncoordinated. Recruitment by local NGOs and government ministries has historically been driven by funding and project time frames, although the HEW program is a welcome change. The CHWs are commonly trained on smaller scales and different content by different NGOs, and are sometimes retrained within the same areas on the same programs. Incentives are often not very attractive or competitive. Coordination of community health volunteers remains a huge challenge due to lack of a comprehensive community level strategy with various NGOs and institutions utilizing and training CHWs for short-term approaches.

Rwanda

Following the 1994 genocide, the public health system has been rebuilding and today more than 10% of GDP is spent on health, which is an impressive portion compared to most countries in the region. 85% of the population in Rwanda is covered by a health mutuelle, or a cooperative-based microinsurance. This includes both an annual fee and a small user fee each time one seeks care. The community health program in Rwanda began in 1995, and was intended to be the first level of entry into the health system operating at the village level. Since then, the responsibilities of the CHWs have been evolving to home-based management of malaria in 2004 and further to full iCCM in 2008. RDTs have been introduced through CHWs since 2009, and they are now full-fledged.

CHWs are divided into different cadres although they largely receive the same ~9 days of training. The umudugudu (village) is the basic level for community care, each of which hosts three CHWs (the male and female making up the binome and one ASM). They are then managed by someone selected from within the group of binomes reporting to the health centre for the area. All CHWs are full-time and unsalaried, although they are eligible for performance-based payments and receive telephones and free calling as part of their incentives. All CHWs are organized into cooperatives, and 70% of PBF income is invested there for income-generating activities such as animal/crop farming and small crafts like basket-making.

	Cadre
	Community Health Workers
# of members	45,000
% of population covered	100%
Population served by 1 CHW	100 – 150 (50 households)
Districts active / planned	30 / 30
Total number of districts nationwide	30

Agents de Santé Maternelle (ASM): ASMs are a female cadre in charge of maternal and child health. Their training includes behaviour change communication, maternal/child health, nutrition and rapid SMS to report on indicators via cell phone, which is linked to the RapidSMS databank, in addition to their paper record-keeping.

Binome: Binomes are made up of a CHW pair (one male and one female). Binome CHWs are trained in iCCM (malaria, pneumonia, diarrhoea, CBNP, CBP on contraceptives); sensitization & referral of NCD cases, TB (sensitization, referral and DOTS). Outside of medical support, they also conduct home visits, BCC on key family practices, psychosocial support, performance-based financing and cooperative management in their respective villages. They report immediately via RapidSMS like the ASMs, as well as through the mUbuguzima database.

Cell Coordinator: Cell Coordinators are selected from within the CHW cadres. There are two per cell, one ASM and one binome. They receive training on monitoring supplies, supervision of CHWs, and monthly reporting on CHWs activities and supplies at the cell level. Each must have primary 6 level of education and is tested (passed exam with at least 85%) for capacity before enrolment. They report to the President of the CHW cooperative and Community Health supervisor at HF level.

Challenges common across the CHW programs include inaccessibility to mothers and children during nights, inadequate budget for refresher training and supervision, and a lack of supplies, equipment and protective materials. However, this program is largely a success, and has been rolled out nationally. The goals now involve capacity building at the cooperative level to increase local financing and make the program more sustainable.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
ASM	Diagnosis	-	-	-	-	Home visits			
	Treatment	-	-	-	-	-	-	ANC, PNC, BF	-
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	✓			
Binome	Diagnosis	✓	✓	✓	-	-			
	Treatment	oral	oral	ORS / zinc	-	-	✓	WASH, FP	✓
	Screening	-	-	-	-	-			
	Referral	✓	✓	✓	-	-			

Somalia

In Somalia, two decades of insecurity and government vacuum has meant that public health systems and staff are largely ineffective or non-existent. Small programs implementing interventions at a community level have been introduced in several areas, but this has not been systematic or coordinated and is driven by the interests of the implementing agency rather than the communities. Detailed public information on these programs is lacking. Currently, UNICEF's Country Office is gathering information on existing community-level programs in Somalia as well as success stories from abroad in order to facilitate a harmonized approach nationally to community healthcare. Introducing basic health promotion and prevention skills to community members will also help to facilitate resilience should external aid be secured in the future.

Somalia is a state with some of the largest gender inequities in the world, across all of the three administrative zones (South Central, Somaliland, and Puntland). Beyond gender, barriers to obtaining appropriate healthcare include distance to a functioning facility, cost of care, and poor understanding of health needs and care-seeking.

	Cadre
	Village Health Workers
# of members	400
% of population covered	70%
Population served by 1 CHW	700 - 900
Districts active / planned	5 / 98
Total number of districts nationwide	98

Village Health Workers (VHWs): Since 2011, VHWs have been trained and deployed by WHO and UNICEF in the South Central zones. The Training of Trainers was conducted in April 2012 for about 50 trainers, and during the remainder of 2012, UNICEF trained about 225 VHWs and WHO about 300 in selected districts. This training included iCCM and nutrition. The goal for the next five years is to have 9,000 VHWs trained and active across the country, providing preventive care where no health facilities are present. This, however, is contingent on funding and the results of the coordination study above. They are developing a community-based HMIS to integrate with the existing, operational facility-based HMIS.

In 2013, major supply issues of drugs and commodities for the VHW programs occurred. This is primarily driven by the instability in Somalia, which means that all commodities are shipped via neighbouring states with better infrastructure (primarily Kenya). Items for the VHW kits come from a variety of sources but according to Kenyan customs regulations cannot be repackaged in-country. These issues have inhibited the expansion of services to maternal and neonatal areas, which are now targeted for 2014 assuming supply becomes more consistent.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Village Health Workers	Diagnosis	✓	✓	✓	✓	✓			
	Treatment	oral, rectal	amox	ORS/zinc	-	-			
	Screening	-	-	-	✓	-	-	✓	Assist CLTS
	Referral	✓	✓	✓	-	✓			

South Africa

No information provided.

South Sudan

One of the world's newest nations, South Sudan has a population of about 12 million people, half of whom live at least 5km from a health facility. South Sudan has a series of health challenges: 70% of the country is malaria endemic, and malaria and diarrhoea each are prevalent in about one-third of children under five. South Sudan also faces a myriad of challenges in setting up a government and infrastructure, and community health is one aspect of this.

Community health programs have to date been primarily managed and implemented by NGOs (e.g. PSI, IRC, Save the Children), and supported by external funds from CIDA and UNICEF. As a newly independent country, the Ministry of Health continues to set priorities and is moving toward taking a more active coordinating role between these programs. However, at the time of this survey, the government was unable to provide information on the total number of CHWs in the country.

	Cadre
	Community Based Distributors
# of members	4000
% of population covered	50%
Population served by 1 CHW	40 Households
Districts active / planned	32 / 79
Total number of districts nationwide	79

Community Based Distributors (CBDs): Prerequisites include some intermediate school attendance, less than 30 years of age, and selection by their own resident communities with guidance from the County Health and Save the Children project staff. CBDs are given a 7-day training in iCCM as part of a 9-month training course. Each iCCM training session targets an average of 15 to 20 CBDs to ensure a manageable group. After training, CBDs become full-time volunteers who receive in-kind incentives.

CBD supervisors are implementing NGO staff, not public sector employees. This is because of the understaffing in the catchment health facilities. The health facilities remain the referral point for under five children with danger signs. In addition, facilities are the re-stocking points for iCCM drugs. Monthly treatment reports from CBDs are shared with the health facility officer in-charge. Community feedback is provided through open quarterly meetings with community members, opinion leaders, and the CBDs.

Challenges remain for the CBD program, the largest of which is integration with the public sector system to ensure that the program is sustainable, locally owned, and operational in the areas where it is most needed. In addition, CBD literacy is limited, which inhibits data collection and reporting, as well as the use of written reference materials. Stock-outs remain an issue for this group, as well as accessibility during the extreme weather events (floods and droughts).

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Community Based Distributors	Diagnosis	✓	✓	✓	-	-			
	Treatment	Oral, rectal	Oral	ORS/Zinc	-	-	-	-	-
	Screening	-	-	-	-	-			
	Referral	✓	✓	✓	-	-			

Swaziland

Swaziland is a landlocked Southern African country hugely affected by HIV/AIDS, with over a quarter of the population estimated to be infected. This epidemic continues to have a huge impact on the economy and health in the country, which has one of the lowest life expectancies in the world. Tuberculosis presents another communicable disease challenge, especially when compounded with HIV/AIDS.

Cadre	
Rural Health Motivators	
# of members	5200
% of population covered	80%
Population served by 1 CHW	120 (20 Households)
Districts active / planned	4 / 4
Total number of districts nationwide	4

Rural Health Motivators (RHMs): This program has been in operation in some form since 1976 and is fully implemented by the national government. However, it is funded by a large group of partners in addition to the government contribution: ICAP, UNICEF, WHO, National Emergency Response Council on HIV/AIDS (NERCHA), SAFAIDS, World Vision, World Bank.

Prerequisites include completion of primary school, age of at least 25 years, and literacy in the local language (siSwati). Training is a 12-week program run by Ministry of Health focusing on primary care (disease prevention, control and management, hygiene, sanitation, water safety, immunization, growth monitoring, health education, maternal health and family planning promotion). Given the high HIV/AIDS burden, RHMs are also trained in referral and promotion of treatment adherence for HIV and tuberculosis, as well as community development and income generation activities appropriate for these patients. When completed, RHMs serve full-time and earn a monthly stipend of \$US 50.

RHMs are supervised by their trainers who are nurses based at the public health units in all four regions. The RHM trainers meet with the RHMs on monthly basis at their constituencies (Tinkhundla centers). The supervisory meetings also provide an opportunity for the supervisors to refill the RHM kits and provide their monthly stipend. However, supportive supervision is lacking because of both human resources and transportation issues for supervisors, and both supplies and incentives are seen to be insufficient.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Rural Health Motivators	Diagnosis	-	-	✓	-	-			
	Treatment	-	-	ORS/zinc	-	-			
	Screening	-	-	✓	✓	Ed	Condoms	✓	Hand washing
	Referral	✓	✓	✓	✓	✓			

Tanzania

Tanzania is in the midst of rethinking its strategic approach to primary health. The country has a long history of activism in community health initiatives dating back to the 1970s Alma Ata barefoot doctors, but has not been leading in this area. In 2000, the Clinical Officer cadre was established and today every village has a dispensary. In August 2012 there was a summit dedicated to CHW initiatives. Movement toward a sustainable CHW program has commenced in the policy arena and will follow soon in practice.

The latest plans by MoHSW is to establish a health dispensary in every village across the country, with two trained staff to provide curative diagnosis and treatment services. These staff are trained on iCCM, and this is the first example where IMCI services are available at village level (at approximately 2 health staff per 2,500 people). These health staff are equivalent to the HEWs in Ethiopia, but they spend most of the time within the dispensaries rather than at household level.

There are a number of CHWs cadres, but government prioritizes the village level dispensary plan. As a result the future status of the CHWs described below remains unclear.

	Cadre		
	Community Health Agents	HBC Community volunteers	Community Change Agents
# of members	110	12,000	unknown
% of population covered	(pilot)	35%	unknown
Population served by 1 CHW	unknown	unknown	unknown
Districts active / planned	3 / 3	136 / 136	unknown
Total number of districts nationwide	136	136	136

Community Health Agents (CHAs): The CHA program is a pilot project in three districts. CHAs perform full iCCM after undergoing a 9-month training conducted by the Training Centre for International Health. This program covers reproductive and child health (including iCCM), and is both institution- and field-based training.

Following training, CHAs are a full-time workforce receiving \$US 180 per month, and supervised by public health system staff in the local dispensary or health facility. At the local level, accountability is to the supervisor and to the Village Social Services Committee for any required action. There is a national HMIS that exists and some of the data collected by CHAs is entered into that system on a monthly basis.

Unfortunately, public sector issues have hindered program success. The existing public sector supply chain has not effectively delivered supplies to this cadre on a timely basis, and has not been integrated into the public system. Finally, the patients that they refer to facilities often do not attend because they doubt the quality of care and availability of supplies there.

HBC Community volunteers: This program is funded by PEPFAR, CDC and USAID, and was initiated in 1996. The cadre is 12,000 strong (a national scale-up would require about 26,000). It is made up of literate men and women selected from the community and trained for 21 days in care and activism around chronic illness, WASH, provision of palliative care and links to the social welfare system.

This is a full-time, volunteer force receiving bicycles as incentives. They are linked to health facilities in the service area, which are then linked to District and Regional HBC coordinators at the corresponding facilities. In theory, these assist with referral and ensuring drugs and commodities move down the supply chain. They should also provide supportive supervision of HBC volunteers. In practice, supply chain issues remain and attrition in this cadre is high due to a lack of incentives.

Community Change Agents: This group is funded by the Global Fund and the President's Malaria Initiative/USAID and are housed under the National Malaria Control Program. They are involved in community mobilization around malaria treatment and prevention, assist with national campaigns, and provide referral services for other diseases. Unfortunately, information available on this cadre was limited due to lack of response from the managing program personnel.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Community Health Agents	Diagnosis	✓	✓	✓	-	Home visits			
	Treatment	oral	oral	ORS / Zinc	-	-	Oral	✓	✓
	Screening	-	-	-	-	-			
	Referral	✓	✓	✓	✓	✓			
HBC Community volunteers	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	ANC, PNC, WASH, NUT	✓
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	-			
Community change agents	Diagnosis	-	-	-	-	-			
	Treatment	-	-	-	-	-	-	-	-
	Screening	-	-	-	-	-			
	Referral	✓	✓	✓	✓	✓			

Uganda

Diarrhoea, malaria and pneumonia remain the major childhood illnesses in Uganda and contribute approximately 20% each to total child mortality. For each of these diseases, it is estimated by the government that 40% are diagnosed and treated through community case management. The Village Health Team (VHT) program began in 2002 and iCCM has had a partial rollout since 2010. VHTs cover 65 of 112 districts, of those just less than half (35) have any iCCM and about a third (28) have full iCCM implemented at this point.

Cadre	
Village Health Teams	
# of members	8,000 iCCM VHTs Other VHTs unknown
% of population covered	unknown
Population served by 1 CHW	20 – 30 households
Districts active / planned	65 active 35 with any iCCM 28 with full iCCM 112 planned
Total number of districts nationwide	112

Village Health Teams (VHTs): The major CHW cadre in Uganda is VHTs. National estimates for all VHTs were not available, but those VHTs providing iCCM number about 8,000. Implementation plans call for each village to be staffed with four or five VHTs, of whom two are trained in iCCM. Basic training is five days covering health promotion, prevention, community mobilization and danger signs for referral. The iCCM component is an additional six-day module on screening, diagnosis, classification and treatment of the three diseases. VHTs are selected by the community and prerequisites are simply age over 18, literacy in at least the local language, and a willingness to volunteer. Political figures are ineligible.

VHTs are sometimes referred to as Health Centre I in Uganda because they are intended to be the first point of access to the system. They are supervised by and refer patients to Health Centres II, a basic PHC facility at the parish level offering EPI, ANC, outpatient curative services, pharmacy and a basic lab.

Since external partners primarily fund VHTs, coordination and sustainability are major concerns, and much of the implementation and monitoring is vertical rather than integrated with the national program. As with many of the other national programs described in this report (volunteer and otherwise), dissatisfaction with the incentives provided is an issue leading to demotivation and attrition in this workforce. Finally, supply stock-outs are also a frequent problem, which means that VHTs trained and deployed may not be able to provide the full range of services intended.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Village Health Teams	Diagnosis	✓	✓	✓	-	-	Condoms, injectables	WASH, NUT, ANC, PNC, NN	CLTS
	Treatment	oral, rectal	oral	ORS/zinc	-	-			
	Screening	✓	✓	-	✓	✓			
	Referral	✓	✓	✓	-	✓			

Zambia

Malaria is currently well controlled in Zambia, while pneumonia and diarrhoea show slight decreases in incidence in children under five. Zambia's government is taking an active role in the management of community health, co-funding and implementing both national CHW programs, along with UNICEF, Malaria Consortium, UK's Department for International Development (DfID) and CHAI. ICCM was first initiated in 2010 in a phased approach, and is now fully implemented by those CHWs who have been trained.

	Cadre	
	Community Health Assistants	Volunteer CHWs
# of members	307	2525
% of population covered	6%	45%
Population served by 1 CHW	2 CHAs in one Health Post (~1700)	1000
Districts active / planned	47 / 72	39 / 72
Total number of districts nationwide (as of Aug 2011)	72	72

Community Health Assistants (CHAs): CHAs are similar to CHEWs in other countries in that they are based in a facility rather than providing services in the community. CHAs are planned to serve in pairs at health posts, and each health post serves about 3500 people. This group of high school graduates receives 12 months of training and then serves in a full-time capacity with a monthly salary of \$US 100. In addition to healthcare provision, CHAs also oversee the work of all CHW cadres in their catchment area. The current numbers, 307, are about one-sixth of what is planned, but funds for scale up are currently inadequate and the project is time limited to 2015.

Volunteer CHWs: This cadre has been in existence for a long time, receiving 6 weeks of training and undertaking mainly promotion and referral activities. Since 2010, they have been at the fore of the iCCM work in Zambia. About 2,525 strong, they receive six days of additional training in iCCM after the mandatory 6-week basic training in health promotion, malnutrition, and danger signs related to the three major childhood diseases. They are trained and supervised by the health system employees (including CHAs). Prerequisites include an age of 18-45 years and literacy. This is a full-time, unpaid cadre receiving bicycles, gumboots and t-shirts as incentives.

Safe Motherhood Action Groups: These are volunteer female groups in rural health centre catchment areas to promote ANC, PNC, and family planning in their communities, and are trained following national guidelines.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Community Health Assistants	Diagnosis	✓	✓	✓	✓	-			
	Treatment	oral / rectal	oral	ORS/Zn	✓	✓	✓	✓	✓
	Screening	✓	✓	✓	✓	✓			
	Referral	✓	✓	✓	✓	✓			
Volunteers CHWs	Diagnosis	✓	✓	✓	-	-			
	Treatment	oral	oral	ORS/Zn	-	-	-	✓	✓
	Screening	✓	✓	✓	✓	-			
	Referral	✓	✓	✓	✓	-			

There are some other various groups of community health volunteers working in specific regions, primarily on health promotion related to specific diseases (nutrition, HIV/AIDS, reproductive health, tuberculosis). These are all trained and supported by NGOs for short-term deployments but are not national groups. Like many other programs in the region, Zambia's program suffers across the board from regular commodity stock-outs and worker attrition due to insufficient or non-existent incentives.

Zimbabwe

Due to the near-collapse of the health system, health statistics are often unavailable, but life expectancy is one of the lowest in the world. Infant and maternal mortality has also risen over the last fifteen years, which makes the role of community health even more important.

	Cadre		
	Village Health Workers	Community-based Distributors	Community-based Secondary caregiver
# of members	11,000	unknown	17,015
% of population covered	70%	unknown	45%
Population served by 1 CHW	600	600	20
Districts active / planned	60 / 60	60 / 60	60/60
Number of districts nationwide	60	60	60

Village Health Workers (VHWs): VHWs are a full-time cadre elected by the community with no requirements beyond literacy. Their training is eight weeks classroom-based and 12 weeks field-based and focuses on health promotion, treatment of minor ailments and referral, although ongoing training modules include malaria and diarrhoea treatment (antibiotics for pneumonia are not included). VHWs are a full-time cadre receiving about \$US 14 each month.

Community-based Distributors (CBDs): Basic training is also eight weeks, focusing mostly on health promotion related to family planning and referral, as well as sexually transmitted disease (especially HIV/AIDS) prevention, testing and treatment options. CBDs are managed by the National Family Planning Council, and selected by the community. Prerequisites include at least 18 years of age and completion of O-level education. CBDs are a full-time cadre and receive a pension, a bicycle and drug kits as incentives, but do not have a regular salary.

Community-based secondary caregivers provide care and support to people with chronic and terminal illnesses including HIV and have been part of the community health system since 1989. Prerequisites include reaching age 25 and selection by the community. They receive a 10-day training that covers basic facts about HIV, HIV treatment and adherence, counselling, nutrition, hygiene, mental health, reporting, referrals and establishing support groups for people living with the HIV. Nurses at the local facility refer clients to them, and act as supervisors.

Cadre		iCCM activities					Other activities		
		Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal	FP	Counselling	WASH
Village Health Workers	Diagnosis	✓	✓	✓	-	Home visits	-	ANC, PNC, NN	✓
	Treatment	oral	-	✓	-	-			
	Screening	✓	-	-	✓	-			
	Referral	✓	✓	✓	✓	✓			
Community-based Distributors	Diagnosis	-	-	-	-	-	Oral, condoms	PNC, FP	✓
	Treatment	-	-	-	-	-			
	Screening	-	-	-	-	-			
	Referral	-	-	-	-	-			
Community-based Secondary caregiver	Diagnosis	-	-	✓	-	Home visits	Oral, condoms, injectables	HIV, nutrition, ANC (PMTCT), PNC	✓
	Treatment	-	-	ORS	-	-			
	Screening	-	-	-	-	-			
	Referral	✓	✓	✓	✓	✓			

Issues for community-based healthcare services include data collection for monitoring and reporting. Improved data availability would help mitigate problems related to inadequate supplies, which is the second major challenge of these programs. Retention continues to be an obstacle given low salaries among those paid.

Annex 2: Cadre profiles in ESAR countries

Country	Cadre name	# of members	% of population covered	Population served by 1 CHW	Districts active / Districts planned	Total number of districts nationwide
Angola	CHWs	3045	Unknown	100	6/9	18
Angola	Voluntaries	1211	Unknown	30-170	2/2	18
Angola	CHWs, Uhayele	315	Unknown	150-200	2/8	18
Angola	Leader, Pastoral da Criança	15000	Unknown	10	16 / 18	18
Botswana	Health Education Assistants	696	85%	2874	28 / 28	28
Botswana	Community Home-based Care Volunteers	3500	Unknown	Unknown	Unknown	28
Burundi	ASCs, national	5816	100%	~1000	45 / 45	45
Burundi	ASCs, PECADOM	Unknown	3%	~1000	2 / 2 (pilot)	45
Burundi	ASCs, Kibuye	273	2%	~1000	1/1 (pilot)	45
Comoros	Agents de Sante Communautaire	434	Unknown	2 per village	17 / 17	17
Eritrea	CHWs	800	65%	500	38 / 58	58
Eritrea	Community volunteers	2968	85%	20 – 50 HHs	58 / 58	58
Ethiopia	Health Extension Workers	34,000	100%	500	831 / 831	831
Kenya	Community Health Extension Workers	4,028	29%	2500	47 / 47	47
Kenya	Community Health Workers	59,810	29%	500	47 / 47	47
Lesotho	Village Health Workers	6,000	Unknown	Unknown	10/10	10
Madagascar	Agents Communautaire	11,449	29%	110-180 children under 5	32 / 112	112
Malawi	Health Surveillance Assistants	10,192	46%	~1400	10/10	28
Mozambique	Agentes Polivalentes Elementares	1,213	20%	~1250	51/144	144
Namibia	Volunteer Community-based maternal and newborn care	Unknown	Unknown	Unknown	4/4	35
Namibia	Health Extension Workers	26	Unknown	50 – 100 Households	1/35	35
Namibia	TB / HIV Field Promoters	Unknown	Unknown	20 – 30 Households	Unknown	35
Namibia	Lifestyle Ambassadors	Unknown	Unknown	50 – 60 people	Unknown	35
Namibia	Home-based Care Providers	Unknown	Unknown	Unknown	Unknown	35
Rwanda	Community Health Workers	45,000	100%	100 – 150	30/30	30
Somalia	Village Health Workers	400	70%	700 - 900	5/98	98

Country	Cadre name	# of members	% of population covered	Population served by 1 CHW	Districts active / Districts planned	Total number of districts nationwide
South Sudan	Community Based Distributors	4000	50%	40 Households	32 / 79	79
Swaziland	Rural Health Motivators	5200	80%	120	4/4	4
Tanzania	Community Health Agents	110	(pilot)	Unknown	3-Mar	136
Tanzania	HBC Community volunteers	12,000	35%	Unknown	136 / 136	136
Tanzania	Community Change Agents	Unknown	Unknown	Unknown	Unknown	136
Uganda	Village Health Teams	8000 iCCM VHTs (other unknown)	Unknown	20-30 households	65 active; 35 with any iCCM; 28 with full iCCM)/ 112 planned	112
Zambia	Community Health Assistants	307	6%	2 CHAs in one Health Post (~1700)	47 / 72	72
Zambia	Volunteer CHWs	2525	45%	1000	39 / 72	72
Zimbabwe	Village Health Workers	11,000	70%	600	60 / 60	60
Zimbabwe	Community-based Distributors	Unknown	Unknown	600	60 / 60	60
Zimbabwe	Community-based Secondary caregiver	17,015	45%	20	60/60	60

Annex 3: CHW disease-related activities in ESAR countries

Country	Cadre name	Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal Health	HIV/AIDS	TB	Upper Resp. Infection	Non-Comm. Diseases	Other (list)
Angola	CHWs	N	N	N	N	N	N	N	N	N	N
Angola	Voluntaries	N	N	N	N	N	N	N	N	N	N
Angola	CHWs, Uhayele	N	N	N	N	N	N	N	N	N	N
Angola	Leader, Pastoral da Criança	N	N	N	N	N	N	N	N	N	N
Botswana	Health Education Assistants	R	R	R	R	Home visits/R	R	R	R	R	N
Botswana	Community Home-based Care Volunteers	R	R	R	R	Home visits/R	R	R	R	R	N
Burundi	ASCs, national	N	N	N	S/R	N	N	N	N	N	N
Burundi	ASCs, PECADOM	S/R/D/T	N	N	S/R	N	N	N	N	N	N
Burundi	ASCs, Kibuye	S/R/D/T	N	S/R/D/T	S/R	N	N	N	N	N	N
Comoros	ASCs	S / R / T	N	S / R / T	S / R	N	N	N	N	N	N
Eritrea	CHWs	Y	Y	Y	S	N	N	N	N	N	N
Eritrea	Community volunteers	N	N	N	Y	N	N	N	N	N	N
Ethiopia	Health Extension Workers	Y	T	T	T	T (sepsis)	R	DOTS/R	D/T	R/follow up	N
Kenya	Community Health Extension Workers	Y	Y	Y	Y	Y	Y	Y	Y	N	N
Kenya	Community Health Workers	Y	Y	Y	Y	Y	Y	Y	N	N	N
Lesotho	Village Health Workers	N	D/R	S/R/D/T	S/R/D	S/R	S/R	S/R	N	R	N
Madagascar	Agents Communautaire	S/R/D/T	S/R/D/T	S/R/D/T	S/R/D	Home visits/R	N	S/R	N	N	N
Malawi	Health Surveillance Assistants	S/R/T	S/R/T	S/R/T	S	N	N	S/R	S/R	S/R	Eye infection
Mozambique	Agentes Polivalentes Elementares	R/D/T	R/D/T	R/D/T	S/D	R/D	N	N	S/D/T/R	N	N
Namibia	Volunteer Community-based maternal and newborn care	N	N	N	N	Home visits/R	N	N	N	N	N
Namibia	Health Extension Workers	Ed/R	Ed	T	S (MUAC) / R	Home visits/R	Ed/R	Ed/R	N	N	N
Namibia	TB / HIV Field Promoters	Ed/R	N	N	N	N	Ed/R	DOTS	N	N	N
Namibia	Lifestyle Ambassadors	Ed/R	N	N	N	N	Ed/R	Ed/R/DOT S	N	N	N

Country	Cadre name	Malaria	Pneumonia	Diarrhoea	Nutrition	Neonatal Health	HIV/AIDS	TB	Upper Resp. Infection	Non-Comm. Diseases	Other (list)
Namibia	Home-based Care Providers	N	N	N	N	N	Ed/R	Ed/R	N	N	N
Rwanda	Community Health Workers	R/D/T	R/D/T	R/D/T	N	N	N	S/DOts	N	N	N
Somalia	Village Health Workers	R/D/T	R/D/T	R/D/T	S/R	(planned)	N	N	N	N	N
South Sudan	Community Based Distributors	R/D/T	R/D/T	R/D/T	N	N	N	N	N	N	N
Swaziland	Rural Health Motivators	R	R	S/R/D/T	S/R	Ed/R	Ed/R	Ed/R	R	R	N
Tanzania	Community Health Agents	R/D/T	R/D/T	R/D/T	R/D	R	N	N	N	N	N
Tanzania	HBC Community volunteers	N	N	N	R	R	R	R	N	N	N
Tanzania	Community Change Agents	R	R	R	R	R	R	R	R	R	N
Uganda	Village Health Teams	S/R/D/T	S/R/D/T	R/D/T	S	S/R	N	N	N	N	N
Zambia	Community Health Assistants	Y	Y	Y	Y	Y	Y	Y	Y	N	N
Zambia	Volunteer CHWs	Y	Y	Y	Y	N	N	N	N	N	N
Zimbabwe	Village Health Workers	S/R/D/T	R/D	R/D/T	n/a	Home visits/R	R	R/DOts	N	N	N
Zimbabwe	Community-based Distributors	N	N	N	N	N	R	N	N	Breast cancer screening	N
Zimbabwe	Community-based Secondary caregiver	R	R	R/D/T	R	Home visits/R	R	R/DOts	R	Supportive care for diabetes, cancer, stroke	N

S = Screening, R = Referral, D = Diagnosis, T = Treatment, Ed = Education

Y = Yes (conducts some activities of this type, details not provided), N = provides no activities of this type

Annex 4: CHW non-disease activities in ESAR countries

Country	Cadre name	Community mobilization	Family Planning	Counselling	WASH	Child Health Days	Immunization	Birth/Death registration	Bed Net distribution	Other (list)
Angola	CHWs	N	N	ANC, Child care	N	Y	Y	N	N	N
Angola	Voluntaries	N	N	WASH	Ed	Y	Y	N	N	N
Angola	CHWs, Uhayele	N	N	ANC, Child care	Ed	Y	Y	N	N	N
Angola	Leader, Pastoral da Criança	BCC, EPI	N	ANC, NUT, WASH	Ed	Y	Y	N	N	N
Botswana	Health Education Assistants	Weighing, counselling	Ed	N	N	Y	N	N	N	Vegetable gardening for income
Botswana	Community Home-based Care Volunteers	N	Counselling	BN, WASH, NUT, ANC, PNC, NN care, FP	Ed	Y	N	N	N	N
Burundi	ASCs, national	Health Promotion	N	Y	Y	Y	N	N	N	N
Burundi	ASCs, PECADOM	Comm action / dialogue	N	Y	Y	N	N	N	N	N
Burundi	ASCs, Kibuye	N	N	Y	Kit dist.	N	Y	N	Y	N
Comoros	ASCs	Y	Y	Y	Y	Y	Unknown	N	N	N
Eritrea	CHWs	Health promotion, FP campaign	N	BN, WASH, NUT	Hand washing, latrines, HH water treatment	N	N	N	N	N
Eritrea	Community volunteers	Health promotion, demand for HIV prevention and support groups for PLWHIV	N	NUT, WASH	Hand washing	N	N	N	N	Follow up MAM/SAM defaulters
Ethiopia	Health Extension Workers	HIV HCT	Injectable, condoms, implants	Bed nets, WASH, NUT, ANC, PNC, NN care, FP, HIV prevention	Hand washing, latrine construction, safe water source, storage	Y	Y	Y	Y	School dropouts, supporting Health Dev't Army

Country	Cadre name	Community mobilization	Family Planning	Counselling	WASH	Child Health Days	Immunization	Birth/Death registration	Bed Net distribution	Other (list)
Kenya	Community Health Extension Workers	Comm dialogue /action, malezi bora	Oral, male condoms	BN, WASH, NUT, ANC, PNC, NN care, FP	CLTS, water treatment, protection of sources	Y	Y	Y	N	Supervise CHWs, verbal autopsy, Comm Annual Ops plan
Kenya	Community Health Workers	Comm dialogue /action, malezi bora	Oral, male condoms	BN, WASH, NUT, ANC, PNC, NN care, FP	CLTS, water treatment, protection of sources	Y	Y	Y	N	OVCs, school dropouts, defaulter tracing, verbal autopsy
Lesotho	Village Health Workers	Public gatherings	Oral, condoms	WASH, NUT, ANC, PNC, FP, NN care, BF	Promotion, Ed	Y	Y	N	N	Tracking lost to follow up, home visits for ANC/PNC
Madagascar	Agents Communautaire	N	N	Life cycle approach	Hygiene and sanitation promotion	Y	N	N	N	N
Malawi	Health Surveillance Assistants	Comm dialogue, training village health committees	Oral, condoms, injectable	FP, WASH, NUT, ANC, PMTCT, PNC	Y	Y	Y	N	N	Link with NGOs, CBOs comm programs
Mozambique	Agentes Polivalentes Elementares	Y	N	ANC, NUT, NN care, FP, WASH, malaria prevention, imm.	Y	Y	N	N	N	N
Namibia	Volunteer Community-based maternal and newborn care	EPI	Y	ANC, PNC, NN care, FP	N	N	N	N	N	N
Namibia	Health Extension Workers	EPI	Y	ANC, PNC, NN care, FP	N	N	Y	N	N	HIV prevention social welfare and disability
Namibia	TB / HIV Field Promoters	TB, HIV/AIDS, Malaria	N	N	N	N	N	N	N	N
Namibia	Lifestyle Ambassadors	TB, HIV/AIDS, Malaria	N	N	N	N	N	N	N	N
Namibia	Home-based Care Providers	Hygiene, bed sore care at home	N	N	N	Y	Y	N	N	N

Country	Cadre name	Community mobilization	Family Planning	Counselling	WASH	Child Health Days	Immunization	Birth/Death registration	Bed Net distribution	Other (list)
Rwanda	Community Health Workers	Y	Y	WASH, FP, CBNP, key family practices	Y	N	N	Y	N	MNCH outreach
Somalia	Village Health Workers	Planned	N	Y	Assist/advocate CLTS	N	N	N	N	Home visits
South Sudan	Community Based Distributors	Comm sensitization	N	N	N	N	Y	N	N	Home visits
Swaziland	Rural Health Motivators	Ed	Condoms	Y	Hand washing	Y	Y	Y	N	EPI defaulters, psychosocial support
Tanzania	Community Health Agents	Y	Y	Y	Y	Y	Y	N	N	N
Tanzania	HBC Community volunteers	Y	N	ANC, PNC, WASH, NUT	Y	Y	Y	N	N	N
Tanzania	Community Change Agents	Y	N	N	N	Y	Y	N	N	N
Uganda	Village Health Teams	Y	Condoms, injectable	WASH, NUT, ANC, PNC, NN care	CLTS	N	N	N	N	Pregnancy mapping, BF support
Zambia	Community Health Assistants	Y	Y	Y	Y	N	N	N	N	N
Zambia	Volunteer CHWs	Y	N	Y	Y	Y	Y	N	N	N
Zimbabwe	Village Health Workers	MNCH, HIV prevention, Comm dialogue / action, malezi bora	Oral, condoms, injectable	ANC, PNC, NN care	Hygiene, safe water	Y	Y	N	N	N
Zimbabwe	Community-based Distributors	FP, HIV, Comm dialogue / action, malezi bora	Oral, condoms	PNC, FP	N	Y	Y	N	N	N
Zimbabwe	Community-based Secondary caregiver	HIV prevention, food security, OVC care, Comm dialogue / action, malezi bora	Oral, condoms, injectables	HIV prevention/treatment, NUT, FP, ANC, PMTCT, PNC	Hygiene, safe water, waste disposal	Y	Y	Y	N	N

Annex 5: CHW implementers, funders and classification

Country	Cadre	Implementing partners	Funders	Cadre classification
Angola	CHWs	MoH, Luanda Provincial Health Directorate	National government	Health Promoters
Angola	Voluntaries	Africare	n/a	Health Promoters
Angola	CHWs, Uhayele	AMOSMID	Provincial government – Huambo	Health Promoters
Angola	Leader, Pastoral da Criança	Catholic Church	n/a	Health Promoters
Botswana	Health Education Assistants	UNICEF	n/a	Health Promoters
Botswana	Community Home-based Care Volunteers	n/a	n/a	Community Liaisons
Burundi	ASCs, national	MoH	World Bank, UNICEF, GAVI, EU, MoH	Health Promoters
Burundi	ASCs, PECADOM	Pathfinder/MSH	USAID	Community Liaisons
Burundi	ASCs, Kibuye	World Relief	UNICEF, World Relief	Case Managers
Comoros	ASCs	MoH, UNICEF, UNFPA	National government, UNICEF, WHO, UNFPA	Case Managers
Eritrea	CHWs	MoH, UNICEF, WHO	MoH, UNICEF, WHO	Case Managers
Eritrea	Community volunteers	MoH, UNICEF, WHO	MoH, UNICEF, WHO	Community Liaisons
Ethiopia	Health Extension Workers	MoH	MoH, UNICEF, CIDA, USAID	Case Managers
Kenya	Community Health Extension Workers	MoH, UNICEF, MCHIP, USAID partners, AMREF	MoH, UNICEF, MCHIP, USAID partners, AMREF	Case Managers
Kenya	Community Health Workers	MoH, UNICEF, MCHIP, USAID partners, AMREF	MoH, UNICEF, MCHIP, USAID partners, AMREF	Case Managers
Lesotho	Village Health Workers	MoH, UNICEF, WHO, EGPAF, MSF, PIH, UNFPA, WFP, World Vision	MoH	Community Liaisons
Madagascar	Agents Communautaire	MOH, UNICEF, WHO, PACT Madagascar, Association Intercooperation Madagascar, SALFA (Lutheran Church), EKAR (Catholic Church), SAF FJKM (Protestant Church)	Global Fund (Round 9)	Case Managers
Malawi	Health Surveillance Assistants	MoH, UNICEF	CIDA	Case Managers
Mozambique	Agentes Polivalentes Elementares	MoH, UNICEF, Malaria Consortium, Save, World Vision, HelpAge, Gorongosa National Park	MoH, UNICEF, World Bank, USAID, WHO, CIDA	Case Managers
Namibia	Volunteer Community-based maternal and newborn care	MoHSS, UNICEF	UNICEF	TBA-plus
Namibia	Health Extension Workers	MoHSS, UNICEF, USAID, C-CHANGE	MoHSS, UNICEF, USAID	Community Liaisons
Namibia	TB / HIV Field Promoters	MoHSS, Red Cross, DAPP, Project Hope, CoHENA, Joanita	Red Cross, Project Hope, CoHENA, Joanita	Community Liaisons
Namibia	Lifestyle Ambassadors	MoHSS, UNFPA	MoHSS, UNFPA	Health Promoters

Country	Cadre	Implementing partners	Funders	Cadre classification
Namibia	Home-based Care Providers	MoHSS, NGOs for TB/HIV/AIDS	MoHSS, Global Fund	Community Liaisons
Rwanda	Community Health Workers	CONCERN, World Vision, Vision for a Nation, IRC, World Relief, PIH, Government of Rwanda	UNICEF, PIH, USAID, Gov't of Rwanda	Case Managers
Somalia	Village Health Workers	WHO, UNICEF	Swiss + a variety of others	Case Managers
South Sudan	Community Based Distributors	PSI, ARC, IRC, Malaria Consortium, Save, MoH	CIDA, UNICEF	Case Managers
Swaziland	Rural Health Motivators	MoH	National Government, ICAP, UNICEF, WHO, National Emergency Response Council on HIV/AIDS (NERCHA), SAFAIDS, World Vision, World Bank	Community Liaisons
Tanzania	Community Health Agents	IHI, SOLIDAR MED	Doris Duke Charitable Foundation, COMIC RELIEF	Case Managers
Tanzania	HBC Community volunteers	MoHSW National Aids Control Program	PEPFAR, CDC, USAID	Health Promoters
Tanzania	Community Change Agents	MoHSW National Malaria Control Program, PSI, Tanzania Alliance of NGOs Against Malaria	Global Fund, USAID (PMI)	Health Promoters
Uganda	Village Health Teams	Malaria Consortium, PACE, IRC, World Vision, MoH (Districts), Save the Children	National Government, DFID, UNICEF, WHO, CIDA	Case Managers
Zambia	Community Health Assistants	MoH	GoZ, DFID, CHAI, UNICEF	Case Managers
Zambia	Volunteer CHWs	MoH	MoH, UNICEF, CHAI (GF), Malaria Consortium	Case Managers
Zimbabwe	Village Health Workers	MOCHW, UNICEF, WHO	UNICEF, Global Fund	Case Managers
Zimbabwe	Community-based Distributors	MOHCW, ZNFPC	UNFPA, PSI, PSZ	Health Promoters
Zimbabwe	Community-based Secondary caregiver	MOHCW, NAC, NGOs	Global Fund, National AIDS Council, NGOs	Community Liaisons

Annex 6: CHW documents collected from countries

Country	Document Type	File name	Language
Angola	Research Report	"Um conceito em debate": Documentação e avaliação da efectividade de experiencias com Agentes Comunitarios de Saude e Parteiras Tradicionais em Angola	Portuguese
Burundi	Training Plan	Guide Enseignant de l'ASC Français, rapport final 2012	French
Burundi	Strategic Plan	Manuel des procedures Janvier 2012	French
Burundi	Strategic Plan	Orientations stratégiques version définitive Janvier 2012	French
Burundi	Project Report	Rapport final ASC	French
Eritrea	Project Report	c-IMNCI assessment report 2009 draft	English
Eritrea	User Guide	CHW IMCI chart book-English Ver_7	English
Eritrea	Training Manual	CHW Manual revised 2008	Tigrinya
Eritrea	Reporting form	CHW Monthly activity reporting form 2009.pdf	Tigrinya
Eritrea	Training manual	VHC Trainer Manual	Tigrinya
Eritrea	User Guide	CPD guide	Tigrinya
Eritrea	Reporting form	Recording form Tigrinya colour	Tigrinya
Eritrea	Referral form	Referral slip front and back	Tigrinya
Ethiopia	Work Plan	Ethiopia National Implementation Plan for Community-based Case Management of CCM 11 Mar draft 1	English
Kenya	Policy Document	ICCM FRAMEWORK and PLAN OF ACTION-EDITION 1-MARCH 1	English
Kenya	M&E plan	iCCM M&E Plan-Gideon-10-05-2013	English
Kenya	Policy Document	Provision of AL to CHWs Nyanza	English
Kenya	Policy Document	Zinc letter	English
Kenya	Policy Document	Zinc OTC	English
Kenya	Work Plan	Annual workplan-DCAH-c-IMCI FY 2013-2014	English
Madagascar	Strategic Plan	Guide de MEO PCIMEc	French
Madagascar	Policy Document	PNSC version finale	French
Madagascar	Policy Document	Politique Nationale de Sante-Mcar-juin2005	French

Country	Document Type	File name	Language
Madagascar	Policy Document	Txt-Instruct Santé Commun-PNSC	French
Mozambique	Policy Document	Moz_APES iCCM policy document	Portuguese
Mozambique	Work Plan	Moz_Operational guideline	Portuguese
Mozambique	Reporting form	Moz_register book	Portuguese
Mozambique	Reporting form	Moz_Reporting tools	Portuguese
Mozambique	Drug kit	Mozambique APE drug Kit	Portuguese
Rwanda	Presentation	1mCHW Presentation 4-11-13	English
Rwanda	Policy Document	Community_Health__policy_English_Janvier_2009final	English
Rwanda	Presentation	Evolution CHP	English
Somalia	Drug kit	treatment_boxes_EN_print Update DEC 2012	English
Somalia	Other	Vacancy Announcement - Harmonization of Public Health Community Strategy_ FINAL	English
Somalia	Training Manual	VHWs_EN_print Update DEC 2012	English
Uganda	Training Manual	ICCM facilitator's Guide	English
Uganda	Work Plan	ICCM Implementation Guidelines	English
Uganda	User Guide	ICCM Sick Child Job Aids	English
Uganda	Strategic Plan	Uganda Strategy for Child Survival	English
Zambia	Strategic Plan	Zambia NCHW Strategy-August- 2010 Final	English
Zambia	User Guide	210911 MOH Final SMAG Manual	English
Zambia	User Guide	CHW manual 4th edition	English
Zambia	Work Plan	Final CHA Program Implementation guideline 12 Sept 2012	English
IFRC	User Guide	BCC toolkit_volunteers	English
IFRC	Training Manual	BCC_Trainers manual	English
IFRC	Work Plan	Implementation guide_2009	English

