A COMMON ANALYTICAL FRAMEWORK ON FACTORS INFLUENCING PERFORMANCE OF CLOSE-TO-COMMUNITY PROVIDERS

SYNTHESIS OF THE INTER-COUNTRY CONTEXT ANALYSES IN BANGLADESH, ETHIOPIA, INDONESIA, KENYA, MALAWI AND MOZAMBIQUE AND THE INTERNATIONAL LITERATURE REVIEW

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EXECUTIVE SUMMARY

This report presents a synthesis of findings on factors influencing the performance of close-to-community (CTC) providers. It is based on research conducted in six countries: Bangladesh, Ethiopia, Indonesia, Kenya, Malawi and Mozambique, and also on evidence from an international literature review that investigated factors influencing the performance of CTC providers. These studies were carried out as part of the first phase of the REACHOUT consortium — 'Reaching out and linking in: health systems and close-to-community services' — funded by the European Union. This report describes an analytical framework for examining the factors influencing the performance of CTC providers.

Methodology

In the first phase of the REACHOUT study, based on a preliminary reading of literature that included frameworks on the performance of the general health workforce and Community Health Workers (CHWs), we first developed an initial analytical framework on CTC providers' performance. This initial framework guided both the international literature review and the six country context analyses. The former involved an extensive review (qualitative and quantitative peer-reviewed and grey literature). The latter involved a review of the country-specific literature in each of the six study countries and a qualitative exploratory study to assess structures and policies of the health system, broad contextual factors and intervention design factors that form barriers to and facilitators of the performance of CTC providers and services. A comparative analysis of the findings from the six study countries is presented in this report and summarized below. These findings helped test the initial framework and informed the development of a final analytical framework for the REACHOUT study; this process is presented in detail in Chapter 4.

Key findings on factors affecting CTC providers' performance

Broad contextual factors

Socio-cultural and community context factors identified as influencing CTC performance include social and gender roles and norms, traditional beliefs and practices, and stigma and discrimination. Social and gender norms and practices influence willingness to volunteer and attrition and decision-making on the utilization of services and women's mobility, and have a bearing on the effectiveness of CTC interventions. Our study also confirms that traditional beliefs and practices, including the activities of traditional actors such as Traditional Birth Attendants (TBAs), continue to wield major influence on people's health-seeking behaviour. In the context of the largely promotive roles of many CTC providers, TBAs influence the effectiveness of CTC providers and CTC interventions.

Other broad contextual factors are economic factors (which were barriers to beneficiaries' use of services and influence recruitment and attrition), security and environment. Distance, poor road conditions, lack of transport to health facilities and opportunity and indirect costs adversely affect the performance of CTC providers. Similarly, the general safety in the area, particularly in terms of women's safety, also affects their performance.

Health system factors

Our study reaffirms that a conducive and supportive human resources policy and programme environment and related arrangements (such as clarity of roles, opportunities for education and professional development, and mobility) that are coherent with the context, are essential to ensure that CTC providers can or continue to perform well. A wide range of factors related to human resources interact with each other and with the broader context, to influence the performance of CTC providers and the effectiveness of CTC interventions. Thus the clarity of CTC roles is a facilitating factor, while mismatched community expectations, CTC providers originating from elsewhere, heavy workloads, unrealistic targets and limited career opportunities are barriers.

The organisation of service delivery and in particular vertical programming create competition and translate into an allowance-centred system, affecting CTC providers' work priorities. Quality assurance mechanisms, such as accreditation and regulation of training of CTC providers, guidelines for supervision of those providers and referral and protocols influence the professional guidance towards and quality of CTC provider services. Collation of health information data and feedback on this to the CTC provider supervisors provides a basis for feedback on performance of CTC providers. Similarly, arrangements related to logistics and supplies also affect the performance of CTC providers. The lack of or irregularity of supplies essential to service delivery undermines CTC providers' image in the beneficiary communities, and demotivates them, thus undermining their performance, beyond the period of the particular incident.

The ways and means for compensating CTC providers was found to influence their performance. For example, performance-based or output-based incentives could lead to competition among providers or the neglect of unpaid tasks, hampering CTC providers' performance. Our findings show that costs — direct, indirect and opportunity costs — associated with the process of accessing health services by beneficiary communities remain a major factor influencing both the ability of CTC providers to perform their tasks well and the effectiveness of CTC services in general.

Regarding governance arrangements, our study shows that legal provisions around shifting of tasks to lower cadres, and the presence and functionality of accountability, coordination and decision-making processes — both within the health system and between these and beneficiary communities — have a bearing on the performance of CTC providers. When provisions and processes exist and function well, they help CTC providers to perform well; when they do not exist or do not function well, their performance is undermined. Failing to regulate the tasks of CTC providers, such as clinical services, may leave CTC providers vulnerable to legal prosecution. Furthermore, poor coordination and coherence with and competing priorities of various vertical programmes (and the private sector in some contexts) have a negative impact on the performance of CTC providers.

Intervention design factors

Our findings show that a CTC intervention's focus (whether focused on discrete tasks regarding specific services or on a wide range of activities) affects the providers' performance. We found that the former allow for better performance than the latter, and that this is related to the coherence between the profile of the CTC provider and the capacity to absorb roles and responsibilities.

The characteristics appreciated by the community relate to attitudes such as dedication, friendliness and availability. Confidentiality is important, especially where stigma and discrimination play a role. As was outlined under health system factors, clarity of the role and job description is important, and the differences between community expectations and job descriptions lead to demotivation. Multiple roles and tasks, targets being unrealistic, increasing tasks and being recruited by diverse organizations for various tasks enhance the workload of CTC providers and affect their performance. Continuing education, performance appraisal and career opportunities emerged as important.

Across the study countries we found that both financial and non-financial rewards, independently and in concert, act as facilitating factors (and their absence as barriers) for the performance of CTC providers. Lower-than-expected incentives form a barrier, as do inequitable incentives across competing CTC programmes. Explicit community recognition for CTC providers' efforts is a facilitating factor, whereas the lack of logistics to make CTC services effective (such as referral transport) counters community appreciation and constitutes a barrier.

Our findings confirm the importance of adequate supervision as a key emerging theme to address CTC providers' performance. They show that a supervision system with clear responsibilities for each level and the appropriate mechanisms and support needed for implementation is an essential facilitating factor for ensuring the performance of CTC providers and the success of their interventions. Clarity on the lines of supervision across the health system seems to be a facilitator, as is the availability of standard guidelines, supportive (rather than directive) supervision approaches and positive community feedback. Irregular and infrequent supervision, heavy workload of supervisors, lack of supervisor training and lack of transport logistics emerge as barriers.

Our findings reaffirm that both CTC providers and their supervisors find training an important facilitating factor for ensuring performance. This is especially true if it properly addresses the balance between theoretical and practical training, the need for both classroom-based and on-the-job training and the importance of follow-up training.

Similarly, the implementation of quality assurance practices such as availability and use of guidelines and protocols influences quality of care. Community participation in monitoring and evaluation, through feedback on and discussion of monitoring data linked to interventions, improves community support and the performance of CTC providers. Community engagement and community governance form a key element for enhancing the

motivation and performance of CTC providers in the communities they serve. Participation in the recruitment, monitoring and evaluation and possibly supervision of CTC providers is important to generate ownership of, confidence in and acceptance of CTC services; these factors affect CTC providers' motivation and, thereby, their performance.

Our study shows that CTC providers not always often come from the community they serve and are in a position that offers opportunities to mediate between public and local discourse. We also found that the approach to community participation and action and the responsiveness of the health system to local beliefs and practices is important and needs more attention. The potential of strategic stakeholders (such as supportive village leaders and health managers) to support the work of CTC health providers is insufficiently highlighted.

Our findings reaffirm what the international literature on CTC providers has extensively documented — that timely detection of health issues problems and referral to the appropriate level of care is a key role of CTC providers. The importance that CTC providers attach to the referrals they make and whether these bear fruit is also a common theme across the study countries. Our study shows that a well-functioning upstream referral system is critical to the ability of CTC providers to perform well and to meet the expectations of the beneficiary communities; any weaknesses in the upstream referral chain (such as a lack of referral transport facilities) paired with sometimes negative community perceptions regarding the quality of (referral) services undermines the performance and the effectiveness of CTC interventions.

Both in the literature and in the study countries, we found that unless programmes are backed by a well-functioning health system, they are unlikely to add to the effectiveness of CTC services. Such a system is needed, among others, to ensure sufficient resources (for travel, drugs, kits, equipment and other materials), as these are essential to enable and facilitate CTC providers to perform their roles and activities. Wherever and whenever this was a problem, performance was affected.

Reflections on the REACHOUT analytical framework

The literature review and the six country context analyses were designed to both provide in-depth insight into the situation vis-à-vis CTC providers globally and in the study countries and to inform the development and refining of an analytical framework that would form the basis for the next phases of the REACHOUT study. These involve the implementation of two 12-month improvement cycles in each of the six study countries to develop interventions for improving CTC providers' performance. Each study country will adapt this framework to its context while designing and implementing the intervention cycles, and the use of a common framework will allow for a level of comparability during subsequent analysis, through the use of common tools that link back to various outcome measures in the framework.

CONTENTS

ABBREVIATIONS AND ACRONYMS

ANC	Antenatal care
APE	*Agente Polivalente Elementar*
BRAC	BRAC University
CHEW	Community Health Extension Worker
CHW	Community Health Worker
CTC	Close-to-community
ERT	Evidence review team
FGD	Focus group discussion
FWA	Family Welfare Assistant
HBTC	Home based testing and counselling
HEW	Health Extension Worker
HIV	Hunan Immunodeficiency Virus
HRH	Human resources for health
HSA	Health Surveillance Assistants
KIT	Royal Tropical Institute, Amsterdam
LSTM	Liverpool School of Tropical Medicine
M&E	Monitoring and evaluation
NGO	Non-governmental organization
TBA	Traditional Birth Attendant
WHO	World Health Organization

CHAPTER 1 – INTRODUCTION

This report presents the synthesis of our findings on contextual factors influencing the performance of close-to-community (CTC) providers from six countries: Bangladesh, Ethiopia, Indonesia, Kenya, Malawi and Mozambique, and evidence from a literature review that investigated factors influencing the performance of CTC providers. These studies were carried out in the context of the REACHOUT consortium — 'Reaching out and linking in: health systems and close-to-community services' — funded by the European Union.

WHY CTC PROVIDERS AND WHO ARE THEY?

After a decline in the involvement of Community Health Workers (CHWs) in health programmes in the 1980s (Perry & Zulliger 2012; Standing & Chowdhury 2008), health systems are once again turning to the use of CHWs and other front-line health workers (GHWA 2013) to help address the gap in human resources for health (HRH). Their roles include education, counselling, screening and point-of-care testing, treatment, follow-up and data collection. What these approaches have in common is their reliance on staff who live and work at the community level, engaging with people in their own dwellings or workplaces. This provides the potential for CTC services to strengthen the delivery of health services by tailoring services to best meet the needs and realities of individuals and households, and making more appropriate links to the health sector and beyond (GHWA 2013).

There are many types of CTC providers, such as CHWs, informal providers including those providing services from a local traditional perspective, private practitioners such as pharmacists and lay counsellors, and front-line health workers such as midwives and nurses, delivering a wide range of services in different contexts. We used the following definition of CHWs derived from the definition for a Lay Health worker ((Lewin et al. 2010) p2):

> *A CHW is a health worker who carries out promotional, preventive and/or curative health services and who is the first point of contact at community level. A CHW can be based in the community or in a basic primary facility. A CHW has at least a minimum level of training in the context of the intervention that they carry out and not more than two or three years of para-professional training.*

For the definition of the wider range of CTC providers we refer to:

> "*…the wide range of both volunteer and remunerated health providers that work within and among the community"* (Møgedal et al. 2013).

To optimize the potential of CTC providers to improve universal health coverage of primary health care services, especially to the most underserved communities, there is a need to better understand the context and conditions of CTC services.

THE REACHOUT CONSORTIUM

The five-year REACHOUT research project, which started in February 2013, addresses the need to understand the context of and conditions for CTC services. The aim of the entire project is to maximize the equity, effectiveness and efficiency of CTC services in rural areas and urban slums in the six countries mentioned. It provides a unique and timely opportunity to draw lessons on how to improve the performance of CTC providers (that can be translated to other contexts) through the inclusion of multiple contexts that can be researched in a common way over a five-year period. The Royal Tropical Institute (KIT) and the Liverpool School of Tropical Medicine (LSTM) contribute to the development of a generic approach to the studies. The consortium is led by LSTM; apart from KIT, other partners are the James P Grant School of Public Health, BRAC Institute of Global Health, BRAC University (Bangladesh), HHA (Ethiopia), the Eijkman Institute of Molecular Biology (Indonesia), LVCT Health (Kenya), REACH Trust (Malawi) and Universidade Eduardo Mondlane (Mozambique).

REACHOUT consists of four phases:

- conducting a context analysis through an international literature review, six national desk studies and six qualitative studies in the implementation countries, to identify factors that influence the performance of CTC providers and CTC services;
- implementing a one-year improvement cycle in six countries to develop interventions for improving CTC providers' performance and their contribution to CTC services;
- based on the lessons learned during the first improvement cycle, designing and implementing a second implementation cycle to test interventions for further improvement; and
- evaluating the two improvement cycles.

This report is a synthesis of the results of the findings of the international literature review and the context analyses conducted in Bangladesh, Ethiopia, Indonesia, Kenya, Malawi and Mozambique. This synthesis leads to a common analytical framework, to be used as a basis for common methods and analysis of the improvement cycles that will be set up in each country from July 2014 onwards.

REPORT SECTIONS

Chapter 2 summarizes the generic methodology of the literature review, multiple case studies in the six countries and the approach to the inter-country analysis. Chapter 3 synthesizes the results of the country context analyses and literature review, and Chapter 4 presents the implications of the findings for the final common analytical framework. The country reports and report on the literature review (articles forthcoming) are all available on the REACHOUT website: http://www.reachoutconsortium.org. In the next chapters these reports are referred to, with page numbers, in footnotes.

CHAPTER 2 – OBJECTIVES AND METHODOLOGY

This chapter provides an overview of the study objectives, methodology and limitations, as well as how the initial analytical framework was developed.

PURPOSE AND OBJECTIVES

The objectives of the context analysis were:

1. to create an initial framework describing factors affecting CTC providers' performance;
2. to identify, through a systematic literature review and desk study, evidence for interventions which have an impact on the contribution of CTC providers to the delivery of effective, efficient and equitable care;
3. to map the types of CTC providers in each context;
4. to assess structures, policies, strengths and weaknesses of the health system and contextual factors and conditions that form barriers to and facilitators of the performance of CTC providers and services;
5. to synthesize evidence on key barriers and facilitators to be built on in future CTC interventions and identify knowledge gaps to be filled regarding CTC services; and
6. to adapt the initial framework into a common analytical framework for the analysis of the improvement cycles in the next phases of REACHOUT, based on the synthesis of the findings.

METHODOLOGY

In line with the objectives above, we outline the development of the initial analytical framework that guided the literature review and the development of the generic protocol for the context analysis (objective 1). We continue with the overall methodology for the literature review (objective 2), the country-specific CTC provider mapping and qualitative study (objectives 3 and 4), a description of the approach to the synthesis of the factors influencing performance of CTC providers emerging from the findings and drawing implications for the framework (objective 5 and 6). For an overview, see Figure 1.

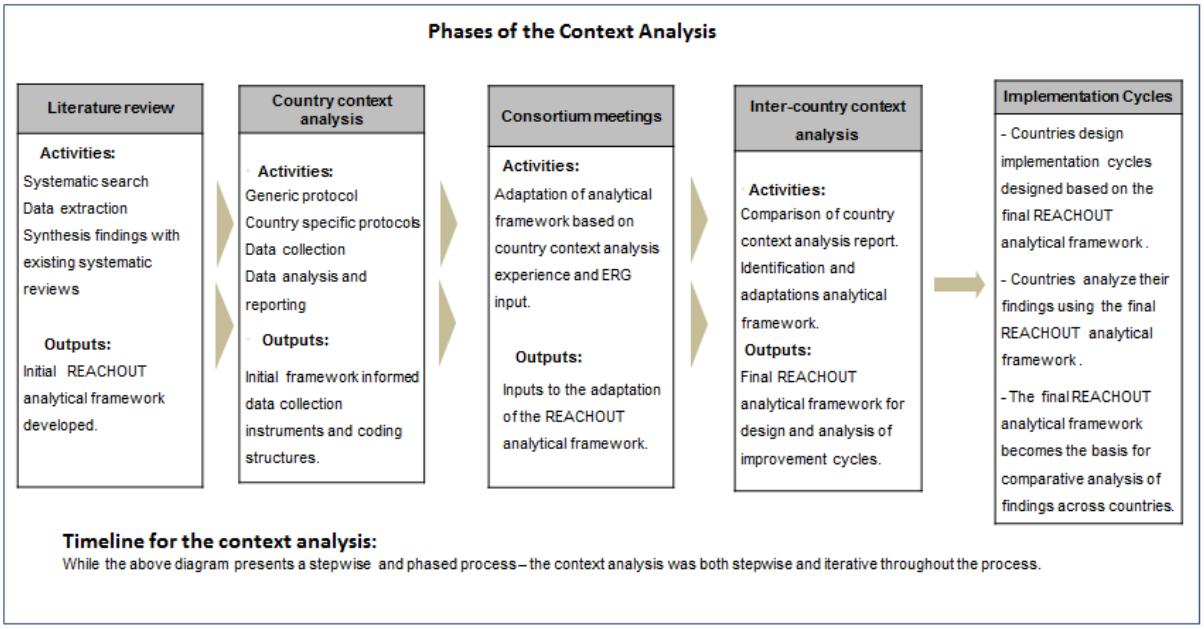


Figure 1. Overview of context analysis and framework development. (ERG = Expert review group)

DEVELOPMENT OF THE INITIAL ANALYTICAL FRAMEWORK

We developed an initial analytical framework on CTC providers' performance to guide the international literature review and the six country context analyses (see Figure 2). This framework was developed based on a preliminary reading of literature that included frameworks on the performance of the general health workforce and CHWs.

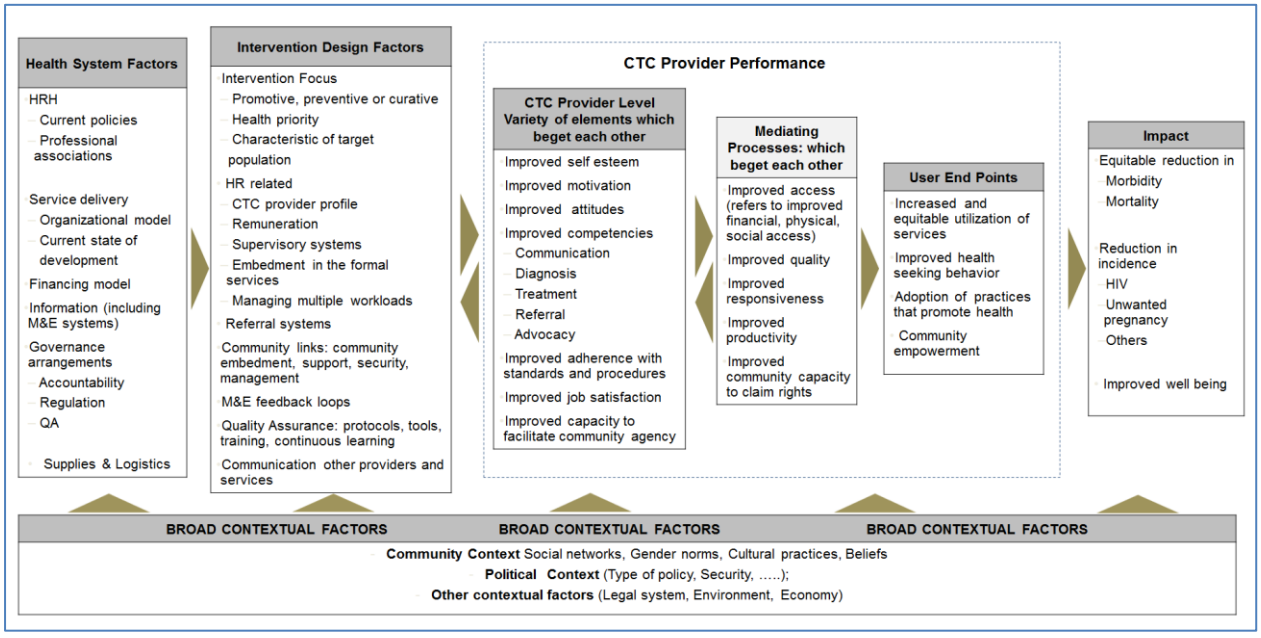


Figure 1. Initial analytical framework (Kok et al. 2014)

The initial framework divided the factors influencing the performance of CTC providers into three broad categories:

- broad contextual factors (box at the bottom in the figure);
- health system factors (box far left); and
- intervention design factors (second box from left).

Factors to the left of the framework diagram have a direct influence on aspects immediately to their right, and either a direct or indirect effect on aspects further to the right, including on impact. For example, regulation of CTC providers' tasks and roles can influence the tasks and roles they are allowed to perform, and the intervention design needs to take this into account. The clarity of roles and the tasks CTC providers perform may influence their competencies and motivation. Broad contextual factors can influence other factors (health system and intervention design factors) but also directly influence CTC providers' performance and impact.

The framework places CTC providers' performance in the centre, as this is the focus of REACHOUT. CTC providers' performance is distinguished across three levels: the first involves changes that occur at the CTC provider level; these changes translate into improved performance in terms of specific user-level end points through a set of mediating processes. Improved CTC provider performance ultimately translates into improved population health and well-being.

OVERVIEW OF EXISTING LITERATURE

Table 1 presents an overview of the different existing frameworks that we used to develop the initial analytical framework.

Table 1. Overview of frameworks that informed the REACHOUT initial analytical framework

Author and date	Key elements	How this informed the REACHOUT initial analytical framework	Key differences from the REACHOUT initial analytical framework
(Chen et al. 2004)	Human resource actions leading to: • Workforce objectives: coverage, motivation, competence • Health system performance: equitable access, efficiency and effectiveness, quality and responsiveness • Health outcomes at population level	Informed the general structure of our initial framework: 1) factors influencing CTC provider performance, 2) CTC provider performance and 3) impact	Chen et al. focused on human resource actions and did not include contextual factors in their framework (like we did). The framework was applicable to health workers in general and did not focus on CTC providers.
(Haines et al. 2007)	Determinants of success for CHW programmes: • National socio-economic and political factors • Community factors	These determinants are captured in the broad contextual and health system factors that could influence CTC provider	We categorized contextual factors together (including socio-economic, political, community and international factors) and separated them

	• Health systems factors • International factors	performance in the initial framework.	from health system factors in the REACHOUT initial analytical framework.
(Kane et al. 2010)	Intervention-related factors contributing to success of CHW programmes: • Selection from within and by the community • Training of CHWs supplemented by on-the-job mentoring • Supervision and mentoring by local formal health services • Rewarding • Clarity of CHW roles • Clear focus of the CHW intervention Outcome measures at the level of the CHW: • Sense of responsiveness and responsibility • Self-efficiency • Confidence • Credibility Motivation	The intervention-related factors informed the development of the box on intervention design factors influencing CTC provider performance. The outcome measures informed the outcome measures at CTC provider level.	We used the intervention design factors and CHW outcome measures to inform our framework, and we added some additional factors from other sources.
(ERT1 2012)	Domains of community support for CHWs: • Provision of access to those who can serve as effective CHWs and access of CHWs to community members • Creation of demand for CHW services • Provision of support for CHWs Facilitation of trust between the community and the CHW	This informed the 'community links' sub-category under intervention design factors in the REACHOUT initial analytical framework.	Community factors not related to the intervention were discussed in the ERT1 paper as well, although less extensively. Therefore, we put community factors also at the base of the REACHOUT initial analytical framework, to present the importance of community context as a broad contextual factor.
(ERT2 2012)	Health system factors influencing CHWs' performance based on the WHO building blocks. Programme factors: • Design elements: such as CHW role, advancement possibilities • Implementation elements: such as training and supervision • Monitoring and evaluation CHW performance: • Cognitive, affective and behavioural changes in	The health system factors were also adopted in the REACHOUT initial analytical framework. The CHW programme factors have been summarized into intervention design factors in our initial framework. Outcomes of CHW	No key differences. We added other factors other sources. ERT2 did not look into contextual factors, which our framework does.

	CHWs • CHW-attributable change in clients' behaviour Change in population health	performance have been distinguished in the same way as was done in the ERT2 paper.	
(Palazuelos et al. 2013)	Essential ingredients for CHW programme: • Supervision • Partners • Incentives • Choice • Education	The five elements of this framework presented by Palazuelos et al. informed the development of the box on intervention design factors in the REACHOUT initial analytical framework.	Palazuelos et al. focused on intervention design. We included health system and broad contextual factors as factors that could influence the performance of CTC providers.

FROM THE LITERATURE TO THE INTIAL FRAMEWORK

We arrived at the initial framework by first relating CTC programmes to the framework presented by Chen et al. (2004), focusing on health workforce strategies for enhancement of the performance of health systems in general. They distinguish human resource actions leading to workforce objectives (coverage, motivation and competence), which are leading to health system performance (equitable access, efficiency and effectiveness; quality and responsiveness), ultimately leading to health outcomes at population level (Chen et al. 2004). These different levels in the management of performance presented by Chen et al. informed the general structure of our initial framework: factors influencing CTC provider performance first two boxes left and CTC provider performance outcomes (the middle part of the figure) and impact (the box to the far right box of the figure).

We reviewed selected studies and documents to identify factors influencing CTC providers' performance. In some of these studies and documents, performance outcome measures were included as well, informing the middle part of our initial framework. The reviewed literature all focused on CHWs.

Haines et al. (2007), in their paper on the potential for CHWs to achieve child survival goals, identified four categories of determinants of success for CHW programmes: national socio-economic and political factors, community factors, health systems factors and international factors (Haines et al. 2007). These determinants are captured in the broad contextual and health system factors that could influence CTC providers' performance in the initial framework.

Kane et al. (2010) conducted a realist review of randomized controlled trials involving CHWs in the delivery of child health interventions in low- and middle-income countries. They identified the following intervention-related factors that positively influence CHWs' performance: selection or election of CHWs from within and by the beneficiary community; training of CHWs on specific tasks targeted at specific situations and supplemented by practical sessions and on-the-job mentoring; supervision and mentoring of CHWs by local formal health services; rewarding of CHWs; clarity of CHW roles; and the focus of the CHW intervention: whether it addressed an unmet need of the beneficiaries (Kane et al. 2010).

These factors were captured in the box on intervention design factors in the initial framework. Outcome measures at the level of the CHW identified in the study were: sense of responsiveness and responsibility, self-efficiency, confidence, credibility and motivation (Kane et al. 2010). These present outcome measures at the level of the CTC provider.

In 2012, the Evidence Review Team (ERT) 1 of the US Government Evidence Summit on CHWs published a paper on community factors that influence CHWs' performance. The team identified four domains of community support: provision of access to those who can serve as effective CHWs and access of CHWs to community members; creation of demand for CHW services; provision of support for CHWs; and facilitation of trust between the community and the CHW. They concentrated on *contextual* community factors, such as community characteristics and power structures, and community factors *related to intervention design*, such as community participation in the selection of CHWs and implementation of the programme (ERT1 2012). Therefore, in our initial framework, community factors are part of the broad contextual factors, but also presented in the box on intervention design factors (community links: embedment, support, security, management).

ERT2 of the US Government Evidence Summit on CHWs identified health system factors influencing CHWs' performance, based on the World Health Organization (WHO) building blocks. These factors at the system level set the environment for CHW programme factors, divided into design elements (e.g. CHW role, advancement possibilities), implementation elements (e.g. training and supervision) and monitoring and evaluation (ERT2 2012). The CHW programme factors have been summarized as intervention design factors in our initial framework. As health system factors present a context in which CTC interventions take place and present preconditions for the functionality of CTC interventions, we have distinguished them from the other factors that could influence CTC providers' performance in our initial framework. The authors unpacked CHWs' performance at three levels: cognitive, affective and behavioural changes in CHWs (e.g. quality of practice, knowledge, self-esteem), CHW-attributable change in clients' behaviour (e.g. health service use and adoption of healthy practices) and CHW-attributable change in population health (e.g. reduction in mortality and morbidity) (ERT2 2012). This informed the outcome measures as presented in our initial framework.

ERT3 of the US Government Evidence Summit on CHWs reviewed the combination of health systems and community support systems for CHW programmes (ERT3 2012). The interrelationships between different types of factors that influence CHWs' performance was stressed once again. We have captured this in the initial framework by the multi-directional arrows between different boxes.

Lastly, we used the 5-SPICE framework of Palazuelos et al. (2013). This framework presents five elements which can serve as essential ingredients for structuring or analysing a CHW programme: supervision (including management plans and structures); partners (especially ownership and stewardship by national programmes, which is a health system factor in our conceptual framework); incentives (which are a key part of the larger theme of motivation

and performance); choice (how CHWs are recruited, screened and selected, and why they choose to take the job); and education (including what CHWs bring to their job, and how they are trained) (Palazuelos et al. 2013).

Many of the literature and documents that we have used to develop our initial framework focused on intervention design factors that influence CHW performance. These issues could be directly adjusted by the intervention design to influence the performance of CTC providers or the broader programme. In addition, the initial review clearly revealed health system factors and broad contextual factors as important separate categories of influencing factors on CTC providers' performance. The initial framework formed the starting point of REACHOUT and was designed to be adjusted further based on findings from the international literature review and the context analyses in the six countries. The adjustments are presented in Chapter 4.

LITERATURE REVIEW[1]

A systematic international literature review was conducted by KIT to identify factors influencing the performance of CTC providers. To address the contribution of CTC providers to effective care, the evidence from existing systematic reviews was synthesized, with a focus on outcomes related to health priorities that are relevant to the REACHOUT countries. The priorities included in the review were maternal, neonatal and child health, HIV, tuberculosis and malaria.

For the identification of factors that form barriers to or are enablers of the performance of CTC providers and related services, we used the draft conceptual framework (see Figure 2). This initial framework formed the basis for data extraction and the categorization of findings; it divides factors influencing CHW performance into three main categories:

- broad contextual factors, including those related to community and political contexts;
- health system factors; and
- intervention design factors.

We included quantitative and qualitative studies that concerned CTC providers working in promotional, preventive or curative primary health care in low- and middle income countries. The studies should have described a factor related to broad contextual factors, health system factors or intervention design. The review covered studies including: CTC providers, their clients and their families/carers, CTC provider supervisors, the wider community, policymakers, programme managers, other (professional) health workers, and any others directly involved in or affected by CTC service provision.

We differentiated CTC provider performance outcome measures at three levels (see Figure 2): CTC provider level, mediating processes and end-user level. The three outcome levels

[1] Kok et al. (2014: 15–20).

that constitute CTC provider performance contribute to the impact on morbidity, mortality, incidence of disease or other conditions, and health status and well-being.

We searched EMBASE, PubMed, Cochrane, CINAHL, POPLINE and NHS-EED for eligible studies. We included English-language studies from 2007 to July 2013.

SELECTION OF STUDIES

Two reviewers independently assessed the titles and abstracts of identified documents to evaluate potential eligibility. In case of diverging opinions, inclusion was discussed until consensus was reached. Persisting disagreements were resolved by seeking a third reviewer's opinion. Full-text papers were assessed by two reviewers out of a team of four.

DATA EXTRACTION AND MANAGEMENT

A data extraction form was developed from the initial conceptual framework. This was piloted through joint assessment of several studies, and adjustments were made to clarify categories and sub-categories of the factors assumed to influence CTC providers' performance (see Figure 2). It also contained a description of the intervention, the study and the outcome measures.

DATA SYNTHESIS

Themes were identified by assessing all data extraction forms. Descriptive analysis of the contents of all included papers was conducted for each category (thematic coding). New (sub-)categories deriving from the literature were added to the framework where needed.

CTC PROVIDER MAPPING[2]

Desk studies were carried out in each of the six countries to identify which CTC provider programmes were implemented in the country, and the challenges and lessons learned regarding these programmes were assessed. Stakeholder consultations were also held to identify the type of CTC providers active in the country. Peer-reviewed and grey literature was reviewed, including donor and governmental reports. In Bangladesh an additional comprehensive mapping of all CTC providers was conducted in three urban slums and one poor rural village in two districts, to identify the diversity of CTC providers and their roles. Different strategies were adopted to conduct the CTC mapping, particularly participatory rural appraisal techniques such as physical mapping, informal group discussions, participant listing and validation of the primary listing for all providers working in the selected slum areas.

[2] See country context analysis reports' desk review methods and methodology of qualitative studies: Sidat et al. (2014: 2–3, 21–24); Nyirenda et al. (2014: 13–14, 25–31); Mireku et al. (2014: 20–21, 45–49); Zerihun et al. (2014: 21–22, 45–51); Nasir et al. (2014:6,19-36); and Gani et al. (2014:6,22-44).

QUALITATIVE EXPLORATION OF CONTEXTUAL FACTORS THAT AFFECT CTC PROVIDERS' PERFORMANCE IN SIX COUNTRIES

We used qualitative methods to assess structures and policies of the health system, broad contextual factors and intervention design factors that form barriers to and facilitators of the performance of CTC providers and services. Qualitative exploratory methods were used to identify conditions for improving the performance of CTC providers in each country. The qualitative study used focus group discussions (FGDs) and semi-structured interviews with CTC providers, policymakers, managers and clients. To facilitate an analysis of common themes and issues in a multi-country study, a framework approach (Gale et al. 2013; Pope et al. 2000; Ritchie & Spencer 2002) was used in combination with a narrative method of enquiry (Riessman 1993). All countries used the initial REACHOUT framework to explore themes and issues in a very open manner. This enabled respondents to narrate ideas, experiences, observations and concepts.

In *Bangladesh* the CTC provider context with respect to sexual and reproductive health was explored through FGDs with community (married) men and women, semi-structured interviews with formal and informal CTC providers and in-depth interviews with clients of menstrual regulation services (Gani et al. 2014).

In *Ethiopia* FGDs and semi-structured interviews were conducted with a range of participants: Health Extension Workers (HEWs), health centre heads, delivery case team leaders, *kebele* (ward: smallest administrative unit) administrators, Traditional Birth Attendants (TBAs), maternal health programme coordinators, mothers and community leaders. The study was conducted in six *Woredas* (districts) of Sidama zone, which differed in performance and distance to the capital of the zone (Zerihun et al. 2014).

In *Indonesia* two districts with poor maternal health indicators but contrasting in population size, socio-cultural and district age were selected. In each district two sub-districts were selected, and four villages with varying distance to the sub-district health centre and performing well and poorly in maternal health. FGDs and interviews were held with village midwives, *Posyandu kaders*, TBAs, mothers, men and women (Nasir et al. 2014).

In *Kenya* FGDs and semi-structured interviews were conducted in a rural area and an urban slum with participants identified from those involved or linked to the Community Health Strategy programme at various levels, including service users (clients of CTC and home-based testing and counselling (HBTC) services, service providers (CHWs, Community Health Extension Workers (CHEWs) and HBTC counsellors), health managers and policymakers at national level (Mireku et al. 2014).

In *Malawi* the qualitative study was conducted in two districts. FGDs and semi-structured interviews were used to collect data from mothers with children under five years of age, clinicians, nurses, environmental health officers, traditional leaders, Health Surveillance Assistants (HSAs), officials working for non-governmental organizations (NGOs) in the districts and district council officials (Nyirenda et al. 2014).

In Mozambique semi-structured interviews and FGDs were conducted in two districts of Maputo Province to capture the experiences and perceptions of members of the Provincial Health Directorate, District Health Directorate and Community Health Committees, community leaders, *Agentes Polivalentes Elementares* (APEs — the CHWs) and mothers of children under five years of age (most common clients of CTC providers) (Sidat et al. 2014).

DATA MANAGEMENT AND ANALYSIS

Qualitative data management and analysis was similar for each country. All qualitative instruments were translated into local languages and back into English to ensure that the context-specific instruments included generic questions for comparison between countries. Data were recorded, transcribed and, if relevant, translated into English.

A data analysis workshop facilitated by senior researchers from KIT and LSTM was held in each country. The study team shared experiences from the data collection exercise to identify common themes and problems that may constitute limitations of the study. The coding structure was developed based on the initial framework and modified by reading the transcripts and through the workshop discussions of findings from the interviews and FGDs. All transcripts were subsequently coded using the agreed country coding structure (double coding where appropriate) in the qualitative analysis software Nvivo. Further narrative writing for each theme and sub-theme was based on the development of simple and more complex queries for coded transcripts and applied to the writing of narratives and development of matrixes to triangulate the data.

The framework approach allowed for an element of deductive coding at the analysis stage (Pope et al. 2000). At the same time an inductive process allowed for an incremental addition of themes in the course of data collection and analysis, and for integration of themes into “conditions and consequences” (Corbin & Strauss 2008), which in our study were factors influencing the performance of CTC providers. Issues explored using the REACHOUT initial framework focused on the perceptions and experiences of respondents with CTC programmes related to broad contextual factors, health system structures, policies and practices and intervention design factors that influence CTC providers’ performance.

To finalize the process of data analysis, patterns and connections were identified within and between themes. Country analysis teams held meetings to discuss patterns and connections, looking for suggested relationships of cause and effect. Queries were run in Nvivo to identify similarities and differences in themes and between various participants and geographical areas. Each country held stakeholder meetings to discuss and validate preliminary findings.

QUALITY ASSURANCE COUNTRY CONTEXT ANALSYIS

Quality assurance of the country context analyses was conducted through:

- development of a generic protocol that was discussed and adapted during a methodology workshop with all principal investigators and main researchers from all countries;
- fully adapted protocol review between each country and KIT/LSTM senior researchers;
- to ensure data quality, the ability of the interviewers and FGD facilitators was vital. Training workshops were conducted by senior qualitative researchers in all countries. During the researchers' training, key terms were translated into the local language and back by others to confirm that terms were understood in the same way, the creation of a safe environment, respect and sensitivity were emphasized and the researchers' probing ability was central to the training;
- oversight for field-testing and supervision during fieldwork was conducted by a field manager. Quality assurance procedures were applied, such as checking recordings, keeping field notes etc., as well as debriefing sessions;
- all FGDs and interviews were digitally recorded, transcribed and checked with original recordings of a particular transcriber by a person not involved in the transcribing;
- data validity was judged via triangulation (comparing and contrasting results from FGDs and in-depth interviews and answers from different groups of respondents) and the mixed-methods approach (comparing and contrasting results from desk review and primary data), as well as during a preliminary data validation workshop with the participation of key stakeholders; and
- to ensure that data were interpreted from a multi-disciplinary perspective, a group of local experts with various professional backgrounds was included in data analysis, as well as a scientist from LSTM and one from KIT with a background in social science, health and gender, in addition to the stakeholders, which contributed multiple, different perspectives. A field visit during or prior to the analysis workshop assisted in providing some understanding of the specific local context.

LIMITATIONS COUNTRY CONTEXT ANALSYIS[3]

Each country experienced its own specific limitations, which have been described fully in the context analysis reports. In summary these were:

- Due to language-related challenges, despite the preparation of materials and training of data collectors, some data contents may have been lost during translation and transcription. This applied to all countries.
- There may be gaps in the data for the following reasons:

[3] This section is based on findings from Kok et al. (2014); Sidat et al. (2014); Nyirenda et al. (2014); Mireku et al. (2014); Zerihun et al. (2014); Nasir et al. (2014); and Gani et al. (2014).

- identification of experienced qualitative data collectors was problematic in Indonesia, Kenya and Ethiopia. Additional interviews were conducted in addition to the training to build in a learning component in the field;
- for Ethiopia only male interviewers could be identified, which meant that women and TBAs could have been hesitant to express their opinions; in Malawi some of the CTC providers, NGO and government officials, and health workers were not willing to participate because the compensation was felt to be inadequate. The implication is that issues affecting health-seeking behaviour may have gaps;
- in Bangladesh the focus on menstrual regulation is sensitive, and privacy could not always be provided, which may mean that some reasons for using services were missed; and
- in all rural areas respondents were recruited from villages that could be reached by four-wheel drive. The implication is that maybe that perspectives of communities that are far away and difficult to reach were missed.

SYNTHESIS OF INTER-COUNTRY AND LITERATURE FINDINGS

To synthesize evidence on factors influencing CTC providers' performance to be built on in future CTC interventions, a secondary analysis of the country desk studies, qualitative study results and international literature review was conducted using the following process:

- The findings of all six country reports were analysed and summarized in a matrix that was then shared, refined and discussed with each country and among countries during a consortium workshop (November 2013).
- The detailed country reports were analysed by a team of four KIT researchers, who identified themes and issues that were categorized under broad contextual factors, health system factors and intervention design factors, as in the initial REACHOUT framework (see Figure 1). Each researcher read all country reports, and a first synthesis of findings was presented to all country researchers during a consortium workshop (March 2014), discussed and further refined, and gaps and implications for the analytical framework were identified.
- The four researchers in the KIT team built on the feedback received. Teams of two researchers synthesized the data under each factor by conducting a secondary analysis of the findings provided in the country reports and literature review. Researchers reviewed the reports in pairs and cross-checked the themes and issues emerging under each factor. This formed the basis for the synthesis of findings presented in Chapter 3. The draft report was reviewed and commented on by all KIT and LSTM researchers and all country principal investigators, and adapted on the basis of this.
- The results were then related back to the existing REACHOUT preliminary analytical framework, and adaptations were made on the basis of the synthesis of the findings presented in Chapter 3. Comments from all principal investigators and senior researchers were received and integrated into the final analytical framework presented in Chapter 4.

QUALITY ASSURANCE FOR THE INTER-COUNTRY ANALYSIS

In addition to the quality assurance mechanisms in each country, the following processes were used to ensure quality of the inter-country analysis:

- Researchers from multi-disciplinary backgrounds, such as medical doctors, social scientists, gender and health, and public health specialists with varied field experience took part in the analysis to ensure that interpretation of data was provided from various perspectives.
- The consortium meetings allowed for exchange and discussion between a group of experienced researchers involved in the implementation of the research from all countries involved, representing different contexts and disciplines. They confirmed, commented on and added to the initial and second presentation of themes and issues derived from the six country reports and the final analysis of the data during two consortium meetings. A field visit to Maputo, as part of one consortium meeting, enabled the researchers to receive feedback on issues pertinent to the findings, thus further enhancing the trustworthiness of some of the findings.
- All implementing country researchers had in-depth experience in one country, while three KIT and three LSTM researchers conducted field visits and were fully involved in the analysis of the data in two different countries each.
- Trustworthiness of the data was further enhanced by triangulating the data emerging from the country reports with the international literature.
- The final framework evolved during the research process in response to emerging findings and further informed the ongoing data analysis in the countries. The final analysis was conducted by integrating the data that emerged into the REACHOUT framework. Initially this was done by four KIT researchers, then critically reviewed and complemented by the LSTM and implementing country researchers.

LIMITATIONS

Conducting the study in different settings in six countries presents challenges. On the one hand, there is a focus on appropriate context-specific elements; on the other hand, the inter-country analysis focuses on common elements. A generic protocol and tools for data collection were developed and adapted with countries during consortium meetings. This common methodology enabled issues to be investigated in a similar way. Nevertheless, each context also set its own priorities, and similar issues were not investigated in the same depth in all countries.

This has implications for the similarities and differences found between countries. Some differences are clearly linked to a specific context — for example, if CTC providers are selected and employed by the government (not the community), it influences the acceptance of the CTC providers by the community. We cannot always explain whether negative differences are inherent in the focus of the research in each country or an actual

difference. We, therefore, report negative differences only if we have a logical explanation for why this difference occurred, and concentrate on similarities that influence performance.

Not all countries have the same health focus, and the way and degree to which the CTC providers are embedded in the health systems differ between countries. In addition, the type of CTC providers as a primary and secondary focus also differs by country and includes volunteers with no training, trained CHWs with or without salary, professional midwives (Indonesia) and informal providers in the private for-profit sector (Bangladesh).

The literature review assessed available reviews on all health subjects and included various types of CTC providers, but only English-language reviews from 2007 until July 2013 were covered. In general, the literature review generated insufficient information and evidence on recruitment, characteristics and precise supervision and quality assurance structures. It was not always clear from the studies whether incentives were related to the programme under research or to the research itself, which could have distorted findings of this literature review. The broad range of literature available on CTC providers led us to use a search strategy that employed specific terms to better focus the search results and implied doing more hand-searching than was foreseen. It is possible that we have missed some important references.

ETHICAL CLEARANCE

Ethical clearance was obtained from the Research Ethics Committee at KIT for the generic protocol, and each country obtained ethical clearance from the local ethics committee.

CHAPTER 3 – SYNTHESIS OF FINDINGS FROM SIX COUNTRIES AND LITERATURE REVIEW

INTRODUCTION

The results are specific to factors influencing the performance of CTC providers and are presented here under the broad headings of the initial analytical framework: broad contextual factors, health system factors and intervention design factors. The synthesis of the findings and the themes we present are based on the results of the country context analyses and the literature review. The sections start with a synthesis of the findings from the literature with a reference to the countries to which the text applies, and then discuss effects on performance. We conclude by confirming and contrasting these findings with the findings in the literature review. The factors presented in this chapter are then concluded in Chapter 4, and the initial REACHOUT framework is adapted on the basis of the findings in this chapter and the discussions held during the consortium meetings.

TYPOLOGY OF CTC PROVIDERS[4]

The typology of the CTC providers on which the six countries reported differed in: programme focus, the degree of integration in the health system, catchment area, selection and recruitment, training and supervision, remuneration, incentives and supplies. See Annex 1 for a table with a brief overview of the typology of CTC providers and some programme design features in each country, based on CTC provider mappings and desk reviews.

The differences and commonalities can be described as follows: the CTC programmes presented in the study country overviews started between 1965 and 1980 and initiated new programmes or revitalized existing ones at the beginning of the 21st century.

Each programme had its unique features, and no two were the same. However, some common features could be distinguished between countries. Some of the CTC providers, such as the HSAs in Malawi, the HEWs in Ethiopia, the Family Welfare Assistants (FWAs) and the *Shasthya Kormi* (health workers) in Bangladesh, the CHEWs in Kenya and the village midwives in Indonesia, were all formal cadres employed by the Ministry of Health.

The training that different cadres of CTC providers received varied greatly. For example, the professional village midwives in Indonesia received three years of training, while the training lasted one year for the HEWs in Ethiopia and 12 weeks for the HSAs in Malawi. The *kaders* in Indonesia received one week of training, if they received any at all.

The APEs (literally translated: 'providers of multiple elementary services') in Mozambique, the CHWs in Kenya, the *kaders* in Indonesia, the *Shasthya Shebikas* (health volunteers) in

[4] This section is based on findings from Sidat et al. (2014: 4, 27); Nyirenda et al. (2014: 14 – 19); Mireku et al. (2014: 34-41); Zerihun et al. (2014: 24-29); Nasir et al. (2014: 24–29); and Gani et al. (2014: 6, 30–45).

Bangladesh and the Community Health Promoters in Ethiopia were volunteers, functioning within the health system with no salary but a varied range of incentives.

The number and complexity of CTC providers differed by country. In each country informal providers, such as drug distributors, (independently operating) TBAs and traditional healers operated next to the more formalized CTC providers, and Indonesia and Ethiopia included collaboration with the cadre of TBAs in their study. A survey carried out in three urban and one rural study sites in Bangladesh illustrated the wide variety of CTC providers operating in the communities, stating "*There were 74 CTC providers per 10,000 population in the four selected study areas*" (Gani et al., 2014: 6), and on average across the study areas 70% of the CTC providers were informal providers. Bangladesh included a special focus on the role of the informal providers related to menstrual regulation in its qualitative study.

The selection and recruitment of various CTC providers differed as well. Professional cadres were selected by the government, volunteers were mostly selected with the involvement of the villages, and salaried CHWs were sometimes selected by the villages, sometimes by the health office and sometimes by both.

BROAD CONTEXTUAL FACTORS

The country context analysis identified socio-cultural community context, including social and gender roles and norms, traditional beliefs and practices, stigma and discrimination and other contextual factors such as economic factors, influencing recruitment and attrition, security and geography. These factors were confirmed by the literature review, as is shown by the following synthesis of findings.

SOCIO-CULTURAL AND COMMUNITY CONTEXT

The factors identified as socio-cultural and wider community context were gender roles and relationships and other factors such as traditional beliefs, stigma and discrimination.

GENDER ROLES AND RELATIONS[5]

Sex, gender roles and relations and experience of being a CTC provider

The sex of the CTC provider and the ways in which gender roles and relations influenced their performance and interactions with women, men, girls and boys emerged as factors in the inter-country analysis. For example, CTC providers influenced performance and the effect on the utilization of services in various ways, depending on gender norms and relationships and the type of services provided. In Indonesia and Ethiopia the CTC providers were all female, and the CHWs in Kenya were mostly female. In Kenya and Malawi, attrition of male volunteers in both urban and rural areas was attributed to the gender role of men

[5] This section is based on findings from Kok et al. (2014: 40–44); Sidat et al. (2014: 17, 54, 56); Mireku et al. (2014: 80, 81, 101-102); Zerihun et al. (2014: 32, 53, 57); Nasir et al. (2014: 70-73); Nyirenda et al. (2014: 20); and Gani et al. (2014: 114).

as bread winners, which made it difficult for them to commit to a voluntary role. In the rural areas in Kenya and Malawi, attrition of female volunteers was attributed to marriage, which resulted in women moving out of the village. In Malawi the HSAs are male and female, but males are more likely to be in supervisory positions, and TBAs are female. In Bangladesh most CHWs are female, given that maternal and child health programmes in the country are primarily targeting women.

In Mozambique the APEs are mostly male, although the policy suggests selecting females. Diverse explanations have been given for why this disparity occurs, and from informal discussions with key informants we discovered that one possible explanation is that the requirement to follow a four-month training course is maybe more difficult for women to comply with.

Gender roles and relations shape interactions between CTC providers, individuals and communities

In all countries female providers were perceived as being a facilitator for pregnant women to access facilities and for home visits. For example, in Ethiopia women appreciated that they could discuss issues with a female HEW. In Malawi a woman revealing that she was pregnant — for purposes of follow-up by CTC providers — was considered a taboo in some communities. In Mozambique and Malawi cultural norms formed a barrier to male APEs and HSAs, respectively, visiting females in their homes. However, male CTC providers were not always rejected. For example, in Malawi some pregnant women were motivated to disclose their pregnancies through benefits such as iron tablets and mosquito nets, irrespective of the sex of the provider. In some communities in Indonesia male TBAs were practising.

The sex of the provider was not the only influence on acceptability. For example, in Bangladesh it was revealed that menstrual regulation is a stigmatized and sensitive issue faced by women, who make decisions based on discussions with trusted friends in the community. In all countries, decision-making pathways with respect to service providers are shaped by levels of trust (e.g. perceptions on confidentiality of service providers), cost and reputation with respect to quality.

Gendered power relations shape health responses in diverse ways within communities

The utilization of services and the uptake of referral are influenced by decision-making in the family and community. Barriers to utilization related to intra-household, family and community decision-making emerged in particular related to maternal and neonatal health services in Ethiopia, Kenya and Indonesia. In Bangladesh a lack of male involvement is perceived as a barrier to women seeking menstrual regulation and sexual and reproductive health services. The issue of husbands forming a barrier to the use of family planning was identified in Ethiopia, Malawi, Kenya and Indonesia. However, women use their agency to bypass their husbands and seek care in secret (for family planning), and some stand up to their husbands. From the perspective of autonomy, it is important that women make their own decisions, but when women need support, husbands as breadwinners play an important role as a decision-making factor for women's health-seeking behaviour in all

countries. Decision-making for delivery emerged as more complex, involving female elders such as older women in the family in all countries, but was explored in more depth in Indonesia and Ethiopia.

Village heads and village health committees were reported to play an important role in influencing the selection and recruitment of CTC providers in all countries, and their influence on encouraging husbands to enable their wives to use maternal and newborn health services emerged in particular from Indonesia and Ethiopia. In Malawi most CHW services mainly target women and children, and having specific male-targeted services could improve male involvement in CHW programmes.

The international literature review confirmed the above findings overall and identified additional social and gender roles, norms and practices that influence the performance of CTC providers and the effectiveness of CTC interventions. The literature identified that social and gender norms and practices such as inheritance, polygamy and male sexual and reproductive entitlements have a bearing on the effectiveness of CTC interventions around sexual health and HIV.

A number of studies from the literature review discussed the influence of socio-cultural customs and relationships. In many societies the husband and mother-in-law are the primary decision-makers, both having their own distinct domain over which they control decision-making; involving them in the education process enhances coverage of reproductive and maternal health services. A study from Bangladesh adds a shift in agency under the influence of the expanding urban environment, where women in a community of garment workers have greater mobility and make their own decisions about termination of pregnancy.

OTHER FACTORS[6]

Traditional beliefs and practices

Traditional beliefs and practices influence health-seeking behaviour and have an effect on the outcomes of the work of the CHWs, such as utilization of services by the interventions' target populations.

In all countries the use of traditional healers, TBAs and other informal providers is common practice. For example, in Bangladesh a survey conducted among the CTC provider study population in three urban slums and one rural area during the country context analysis showed that 68% of CTC providers are informal providers, including traditional healers (22%), traditional (untrained) birth attendants (19%), allopathic drug sellers (13%), village doctors (12%) and informal homeopaths (4%). Traditional healers are consulted for specific

[6] This section is based on findings from Kok et al. (2014: 41 - 46, 49); Sidat et al. (2014 : 28 – 30, 40 - -46, 54, 61, 82, 84,); Nyirenda et al. (2014: 18 – 19, 32 – 33, 40, 58, 73); Mireku et al. (2014: 21, 31, 38, 36–37, 54, 55, 57, 59, 76, 88); Zerihun et al. (2014: 16, 25, 43, 49, 52 – 53, 70, 72, 78); Nasir et al. (2014: 28, 31 - 33, 55, 54 – 56, 66 – 69, 71, 86); and Gani et al. (2014: 39, 48, 66, 71, 88, 98, 114 - 115).

health issues on the basis of traditional beliefs linked to the aetiology of the disease and how this should be cured.

In all countries TBAs play an important role in providing care for pregnant women, during and after delivery. TBAs continue to conduct deliveries, although the policies have changed, and some shifts towards referral of deliveries were observed. For example, in Kenya 28% of deliveries are assisted by TBAs, and only 44% are supervised by health professionals. In Bangladesh, TBAs conduct menstrual regulation, and pregnant women who fear evils spirits and miscarriage consult traditional healers and TBAs. In Malawi, the roles of TBAs have changed over the years. Presently, TBAs are not allowed to preside over deliveries, instead, they are supposed to refer pregnant women to health facilities. Despite the ban, many TBAs were still assisting women with deliveries due to two major reasons. First, deliveries are a source of income for the TBAs considering that their new role of referring pregnant women to health facilities was not accompanied by any incentives. Second, many women faced challenges to access health facilities, as such, TBAs were the last resort, and women feel freer with TBAs, who are reported to take care of women with a miscarriage as well as a smooth delivery. In Indonesia and Ethiopia reasons for using TBAs are: the proximity of the TBA to the woman, both psychologically and culturally; the lack of responsiveness to local practices in health facilities; prior experience with a normal delivery; and the assumption that if all is well during antenatal care, then the delivery will be normal. The use of TBAs is not exclusive; most women will use TBAs and also village midwives for antenatal care.

Our findings from the international literature review confirm that traditional beliefs and practices, including traditional actors such as TBAs, continue to wield major influence on people's health-seeking behaviour and, in the context of the largely promotive roles of many CTC providers, have an impact on the effectiveness of CTC providers and interventions.

Stigma and discrimination

Cultural and religious norms and values influence stigma associated with, for example, health issues such as HIV (Kenya, Malawi and Ethiopia), menstrual regulation in Bangladesh or unmarried pregnant women visiting a health facility (Indonesia). Stigma influences the willingness of clients to seek services or talk about those issues that might make them vulnerable to stigma and discrimination. The degree of stigmatization and the factors influencing this, such as, for example, religion, are very context-specific. For example, in Bangladesh menstrual regulation is from a religious perspective strongly considered a sin in some communities but is provided in other communities with no religious opposition. Various ways in which CTC programmes address this include, for example, a strong focus on training of CTC providers in Mozambique and Kenya, and the forming of volunteer support groups of people living with HIV/AIDS in Malawi. However, while accepting well-trained counsellors who maintain confidentiality, communities may still fear stigma when treated by somebody from their own community, as was reported in Kenya.

The international literature also found some references on the influence of stigma on health seeking behaviour regarding HIV related services of clients in Ethiopia and Kenya and in Uganda for family planning related services.

Reaching the most vulnerable

In all countries the review of policies in the desk studies showed that the main aim of establishing a CTC programme was to improve universal health coverage by bringing primary health care services closer to the communities and forming links between the health facility and the community. In all six countries, reaching the poorest groups with least access to services was the aim of developing CTC programmes. The factors emerging from the country context analysis in all countries that influence the ability of a programme to reach the most underserved communities also depend on the closeness of the CTC provider to the client, geographically and culturally, the type of services provided, and at what cost.

Reaching the most vulnerable can mean many things. In all countries, CTC providers are based in the poorest rural and urban communities with the least accessible health services. Reaching communities in rural areas emerged as being more straightforward than in slum areas. In slum areas in Kenya and Bangladesh clients were much more mobile, making follow-up more difficult.

The international literature review confirmed that most CTC providers provide services to people in remote and economically deprived populations and that most CTC providers come from a modest social and economic background.

Social hierarchies

The important role of village leaders in the selection and recruitment of communities was reported in all countries as a factor that could limit participation — for example, in Kenya; it also emerges as a factor that facilitates community engagement — for example, in Indonesia.

From the international literature review it emerged that social hierarchies could also form a barrier to CHW performance. From India, it was reported that female community-based distributors face challenges in influencing the behaviour of women with a significantly lower social status. In another setting in India Accredited Social Health Activists were in demand by all castes and religious groups. In northern Nigeria social hierarchies are very strong and limit the level of community participation, with the community following the decisions of its leaders. However, participation at such a low level is still important and effective in education for and distribution of misoprostol to women.

OTHER CONTEXTUAL FACTORS[7]

Economic factors

[7] This section is based on findings from Kok et al. (2014: 42-46, 49, 50, 52, 66); Sidat et al. (2014: 28–30); Nyirenda et al. (2014: 32, 33, 38, 40, 58, 73, 77); Mireku et al. (2014: 21, 32, 38, 40, 55–57, 59, 65, 73); Zerihun et al. (2014: 32, 72, 73); Nasir et al. (2014: 28, 33, 55, 65 81, 86); and Gani et al. (2014: 48, 71, 114–115).

Kenya reported that CTC providers from socio-economically deprived groups put greater pressure on financial drivers, and insufficient remuneration causes greater attrition. Malawi showed that poor remuneration and unfavourable economic conditions influence satisfaction with payment. Farming and other business activities in addition to work as a CTC provider leads to a poorer quality of services. CTC providers in Malawi are also drawing attention to the opportunity costs of volunteering. In Bangladesh the market economy and a less regulated health service contribute to the plurality of CTC providers. Mozambique reported that the dependency on NGOs after the civil war led to an uncoordinated parallel system which it was able to change after the economy stabilized. This enabled a functioning health system in which the involvement of NGOs in APE programmes was regulated. All country studies showed the importance of financial remuneration influencing performance and attrition and causing inequity between CTC providers; this is further discussed under incentives under intervention design factors.

The literature review confirmed the above findings. From this review it emerged that the economic context and its influence on the performance of CTC providers relates mainly to livelihoods, willingness to volunteer and to compensation for services rendered. The lack of an exit strategy for CTC providers when a programme stops paying incentives and deteriorating economic conditions cause economic hardship. The literature review found that differences in salaries between different types of CHWs result in demotivation. The labour market was reported to influence the retention of volunteers, particularly in situations where there is high unemployment or fewer opportunities. Other studies reported that volunteers are unlikely to continue as volunteers without being remunerated. Poverty of the community can cause distress to CHWs (because they see their clients suffering) and could prevent people from seeking health services, and this has an effect on the performance of CTC services.

Environment

The factors emerging from the country context analysis that influence the ability of a programme to reach the most underserved communities also depend on the closeness of the CTC provider to the client, geographically and culturally. Barriers to service utilization include distance, poor road conditions, a lack of transport to health facilities and a lack of availability of transportation (including the cost of transportation). Indirect costs were well documented in the desk reviews and emerged in all countries as important factors influencing the utilization of services in the qualitative studies.

The literature review confirmed that poor infrastructure due to geographical factors, leading to poor transportation and communication, could influence the performance of CTC providers. This could also influence their clients' health-seeking behaviour and thus have a bearing on the effectiveness of CTC interventions at large.

Safety and security

Security was reported as a concern of CTC providers in Ethiopia, Indonesia, Malawi and Mozambique. The issue did not emerge as a common concern in all places. In Mozambique

theft of the equipment emerged as a concern in one place that was visited by consortium members. In Bangladesh insecurity was mentioned during the survey (under 'other issues') by 3.3% of respondents. In Indonesia village midwives mentioned the isolation of birthing huts and the security of housing as concerns, and in Kenya security and the risk of sexual harassment was raised in the urban slum area.

The literature review resulted in a few references to the influence of conflict and the security situation on CTC providers' performance. Conflict and security were reported in the literature to influence the motivation of CTC providers in Papua New Guinea and Myanmar.

HEALTH SYSTEM FACTORS

HUMAN RESOURCES FOR HEALTH[8]

Human resources for health policies

General human resources policies could have an effect on CHW performance; they define the space in which programmes and interventions can operate in terms of incentives, working conditions, training and career perspectives. We found that these issues were best defined in national policies in the countries where CTC providers had some formal status or were civil servants (Ethiopia, Kenya, Indonesia and Malawi).

We found that all study countries, except Bangladesh, had an explicit national policy on CTC providers. However, BRAC has its own policy on CHWs. Bangladesh has a pluralistic health provider system, and there is a revival of interest in the potential of (voluntary and paid, formal and informal) CTC providers to fill critical gaps in human resources for health (HRH). In Malawi HSAs have been formalized within the health sector and are considered key to the delivery of the essential health package; HSAs have also recently received a salary raise. In Ethiopia HEWs are also a cadre paid by the health system. In Mozambique and Kenya, although CHWs are volunteers, a policy framework within which the CHW programmes can operate is available.

Guidelines for basic entitlements for CTC providers

The existence of HRH policies does not automatically mean that the rights of all CTC providers are fully covered. In both Ethiopia and Malawi basic entitlements such as leave and complaints mechanisms for CTC providers were found to be non-existent. In these countries, CTC providers receive allowances, in addition to their salary, when attending training or meetings. We found that when there are no guidelines or procedure to oversee this, resulting in fragmentation in allowances, NGOs competing with each other for CTC providers' attendance, and non-transparent selection criteria regarding attendance of these

[8] This section is based on findings from Kok et al. (2014: 50–52); Sidat et al. (2014: 33–37); Nyirenda et al. (2014: 15, 20, 41-42); Mireku et al. (2014: 22-25); Zerihun et al. (2014: 20-21, 64-65); Nasir et al. (2014: 88); and Gani et al. (2014: 23–29).

meetings and training, the providers feel demotivated, and their performance suffers (Ethiopia, Malawi).

The international literature review also found that having a policy on CHWs is important, but that embedding CTC providers within the health system and the provisions available for CTC providers are even more important for improving performance.

HRH policies do not always correspond with needs on the ground

In Ethiopia, Malawi and Indonesia we found that there is a lack of policies for TBAs, other than being not allowed to perform deliveries, and that this was problematic, given their major role in supporting women through pregnancy and childbirth. For example, some HEWs (Ethiopia) and HSAs (Malawi) still worked together with TBAs who support deliveries, but legally it was not allowed. This put CTC providers in a difficult position: their accountability towards the community, on the one hand, and the government and its laws on the other, are sometimes at odds with each other. These tensions hinder their ability to perform.

Inadequate human resources

Inadequate HRH influence the performance of CTC providers in all six countries. In some instances, as in Kenya, CTC providers experience an increased workload because of the shortage of staff (they take on additional facility-based responsibilities, neglecting their community work). At the same time, the number of CTC providers is also inadequate (reported by both CTC providers and community members in Kenya and Mozambique). This leads at times to CTC providers having to cover a catchment area bigger than the recommended size stated in the policy documents, thus undermining their performance. These finding were confirmed by the literature.

Clarity on roles

Although (government) CTC providers' job descriptions were available in most of the countries (Ethiopia, Malawi, Kenya, Mozambique and Indonesia, and for certain CTC providers also in Bangladesh), CTC providers' roles and responsibilities often appear unclear to relevant stakeholders. This could negatively influence CTC providers' performance. In most of the countries CTC providers' roles and responsibilities are extensive (Ethiopia, Malawi, Kenya) and not always well known by the CTC provider themselves — for example, because of continuous changes in the job description (Malawi). In Kenya the context analysis found that the community is not adequately aware of the CTC providers' role and that of others in the CHS, which hampers community support and participation. Especially the role of CHEWs in Kenya is unclear, possibly because the community is not involved in their selection, as is the case with CHWs. In Mozambique, Kenya, Malawi and Ethiopia the community sometimes requests specific curative services from CTC providers, while this is not part of their job description. This tendency was also found for other countries in the international literature review. This could lead to CTC providers being unable to fulfil community expectations regarding their tasks, with frustration for both the CTC providers and the community as a result. Therefore, besides ensuring that CTC providers know their

job description, the health system should make efforts — via community meetings, for example — to clarify CTC providers' tasks and responsibilities with the community. In addition, in some instances, other health workers need to be updated about the job descriptions of CTC providers as well. Some managers and facility-based providers in Malawi were found not to know the exact tasks and responsibilities of HSAs, which could have led to unrealistic expectations from the side of the health system.

Our findings illustrate how a wide range of HRH-related factors interact with each other, and with the broader context, to influence the performance of CTC providers and the effectiveness of CTC interventions. Our findings also demonstrate that a conducive and supportive policy environment, and clear human resource management arrangements that are coherent with the context, are essential to ensure that CTC providers can or continue to perform well.

HEALTH SERVICE DELIVERY[9]

Vertical programming

A strongly emerging theme in several countries was the influence of vertical programming. In Malawi vertical programming leads to the involvement of CTC providers in many different programmes. This creates competition between programmes to attract CTC providers with allowances; and in terms of practice, this translates into an allowance-centred system wherein the primary concern of the CTC providers becomes the allowances, and not the work. This hampers the performance of programmes, as activities seldom take place unless an extra allowance is paid to the CTC providers and community members involved. In Bangladesh and Kenya too, distortion of service provision due to competing priorities of various NGOs was reported. In Kenya NGOs select community units based on their focus area rather than need. The literature review found that in Ethiopia a lack of coordination between vertical programmes and among various NGOs results in overlap between different (ad hoc) trainings, negatively influencing the time HEWs invest in their communities.

In Bangladesh, Mozambique and Malawi vertical programming leads to a lack of harmonization of types of CTC providers, with different NGOs providing different training for CTC providers. As a consequence the CTC providers have different roles and responsibilities; this sometimes results in duplication of activities and conflicting priorities and interventions. To resolve some of the problems generated by the presence of multiple competing NGOs, the Mozambican Ministry of Health signed a Code of Conduct with donor agencies and NGOs. These agreements are aligned with the Sector Wide Approach, which seeks to achieve better-coordinated external support to the national health services. The Ministry of Health also revisited its APEs programme and developed one called the Revitalized APEs Programme, where NGOs' roles within the programme are clearer and better coordinated

[9] This section is based on findings from Kok et al. (2014: 50–52); Sidat et al. (2014: 6, 12); Nyirenda et al. (2014: 76); Mireku et al. (2014: 59-61); Zerihun et al. (2014: 11); and Gani et al. (2014: 37-38).

nationwide (funding of training for new APEs, support for APE programme implementation etc.).

Other influences on services delivery

Quality assurance mechanisms, such as accreditation and regulation of training of CTC providers, guidelines for supervision of those providers and referral and protocols, influence the professional guidance and quality of CTC provider services. Collation of health information data and feedback of this data to the CTC provider supervisors provides a basis for feedback on performance of CTC providers.

FINANCING[10]

Financing CTC services

Financing for CTC services is done through the government and local and international donors. In Bangladesh, and for some types of CTC providers in Kenya (Community-Based Distribution Agents), CTC providers sell commodities as a way of generating income. Bangladesh has a wide range of informal CTC providers who compete with each other (to get clients for their income). Some models used for financing CTC services affect the performance of CTC providers. For example, the payment of allowances is dependent on meeting targets, which might result in some CHWs 'fixing' the data they report to gain the allowance (Kenya). The international literature review also found that performance-based or output-based incentives could lead to competition or the neglect of unpaid tasks, hampering CTC providers' performance. These potential side-effects of output-based incentives need to be taken into account when designing CTC programmes or interventions.

In Bangladesh it appears that, due to clients' preconceived notions and their unfavourable experiences with formal providers in terms of quality of care and costs, most people in the study areas seek treatment from informal providers for minimal-cost options.

Cost of health care

The cost of services can be a barrier to CTC providers' performance in terms of end-user-level outcomes such as utilization and uptake of referral. CTC services are generally free of charge in Kenya, Mozambique, Malawi, Indonesia and Ethiopia. Even though most CTC services are free of charge, we found some constraints. In Ethiopia, costs related to receiving maternal health care at hospitals hampers the performance of CTC providers, particularly when patients have to be referred to higher-level facilities for care. Similarly, in Ethiopia, while hospitals are obliged to provide free delivery services to those who have a 'poorest of the poor' letter from their *Kebele* administration, many respondents described that they do not have access to the required documentation. Also, ambulances are provided

[10] This section is based on findings from Kok et al. (2014: 50–52); Nyirenda et al. (2014: 42, 76); Mireku et al. (2014: 27, 73, 92); Zerihun et al. (2014: 20-21, 55, 58); Nasir et al. (2014: 35); and Gani et al. (2014: 83, 101-102).

free of charge to take women to deliver at health centres or hospitals, but in reality fuel costs are sometimes sought from the referred client. The same was found in Indonesia, where opportunity costs, such as costs for accommodation for family members who accompany the woman, were also mentioned as hindering health-seeking behaviour. Indonesia has an insurance scheme (Jamkesmas) that covers maternal health services, including delivery. This improves access to health facilities, but many communities are not familiar with how the scheme works, and the bureaucracy and reimbursement of the scheme remain a problem. The costs of private CTC providers also increase out-of-pocket expenses for women.

Costs — direct, indirect and opportunity costs — associated with the process of accessing health services remain a major factor influencing both the ability of CTC providers to perform their tasks well and the effectiveness of CTC services at large.

Sustainability

In countries where NGOs are providing funding for CTC services, the sustainability and income security of CTC providers may be endangered (Maes & Kalofonos 2013) due to the lack of an exit strategy. Especially CHWs are vulnerable to the discontinuation of programmes, which affects their motivation and attrition. Dependency on donor funding was mentioned, mainly by key informants, in Kenya, Malawi and Mozambique. In Malawi volunteer CHWs were reported to leave once funding is over and start looking for opportunities with other NGOs coming in. In this way, CTC programmes encounter problems regarding sustainability. In these three countries, exit strategies were reported to be not available or not implemented.

GOVERNANCE[11]

Legal environment

All countries except Bangladesh have a policy regulating the tasks of CTC providers. However, the legality of the services provided by the CTC providers shows two sides. One is the demand from the community for such services even though they are not (yet) legalized. See, for example, the questioning of the legality of clinical services provided by CTC providers in Mozambique and Malawi, and the use of illegal services for menstrual regulation where legal services are available but not accessible enough for poor urban slum-dwellers in Bangladesh. CTC providers may not have the competencies to deliver the services and/or be legally covered in case of medical error affecting the clients they serve while answering a demand.

The international literature review found that policies about what CTC providers may and may not do could protect CTC providers and also ensure their performance. For example, in Zambia, Nepal and Bangladesh clear guidelines allow all CTC providers to provide HIV testing

[11] This section is based on findings from Kok et al. (2014: 50–52); Sidat et al. (2014: 41-42, 53); Nyirenda et al. (2014: 15, 40, 67-68); Mireku et al. (2014: 25, 58-60, 63); Zerihun et al. (2014: 20, 76-80); Nasir et al. (2014: 36, 73-74); and Gani et al. (2014: 8, 22-23).

and counselling services and to prescribe certain medicines; in Nigeria they could prescribe Misoprostol for the prevention of post-partum haemorrhage. Wherever there are clear guidelines about tasks and task-shifting to lower cadres, and attention is paid to the legal provisions for the same, workers are able to perform well and carry out their tasks.

Accountability structures

In Mozambique, Ethiopia and Kenya (and to a lesser extent in Malawi, Indonesia and Bangladesh) CTC service delivery structures were found to be well-designed and with active community participation, making CHWs not only accountable to the health system but to the community as well. For example, in Kenya the Community Health Committees and Facility Health Committees are actively involved in the CTC services.

It was found that accountability structures are not always operational due to challenges related to budgets, human resources, geography and ethnic diversity. For example, in Kenya, despite all community structures that potentially promote participation, the awareness of the community about the current policy changes of the Community Health Strategy, which includes the CHW programme, is low. Community dialogue meetings are seldom held. In Malawi, accountability towards the community is supposed to take place via the involvement of Village Health Committees, but these are often not functional. By contrast, in Mozambique these community structures are functional. The international literature review did not find a lot of evidence on accountability structures. Generally, it was discussed that community structures and insights could be important to improve CTC services.

Many types of informal CTC providers operate in Bangladesh, often as individuals (71%). It is difficult to coordinate these informal CTC providers in a systematic way. There is limited accountability of both formal and informal services to the community. There is also limited coordination and communication between the informal and formal sectors: this has led to CTC providers not being used to their full potential.

In many settings there is a drive to professionalize CTC programmes and to embed them in the health system. This could have implications for the role of communities and the way that CTC providers feel accountable towards the community.

Coordination structures

Weak coordination structures were reported to hamper CTC providers' performance in Kenya and Malawi. This, again, has to do with the existence of vertical programmes. In Kenya and Malawi insufficient integration and coordination of various NGO priorities and focus were reported to cause duplication and gaps of services and inequities in conditions for CHWs. In Bangladesh a limited regulation of the health services was reported, with a plurality of providers working in parallel with little or no coordination. Mozambique used to face problems associated with many NGOs working in parallel, but now the government has taken more control to address this. Differences between material incentives may still exist, but only among provinces; within one province CTC providers will receive the same

incentives. The importance of the private sector was especially reported in Bangladesh, and in Indonesia as part of the midwifery services. In other countries the plurality of informal providers in the community was reported as well. In Bangladesh it is estimated that less than 20% of the curative health services are offered to the general population with the help of public-sector providers. A diverse range of private providers includes traditional healers, semi- and unqualified doctors known as 'quacks', qualified doctors working privately and health services delivered by NGOs. This situation requires advance communication, coordination and referral mechanisms.

Decentralization

In Kenya and Indonesia health system devolution (one form of decentralization) of decision-making and funding is taking place, and it is uncertain how this would affect CTC programmes. According to our respondents, the effect of devolution on CTC providers' (programme) performance would mainly depend on the buy-in or commitment of the responsible government level regarding CTC programmes. For example, in Kenya this led to some counties making funding available for the community strategy, and others not. The literature found some examples of decentralization leading to poor programme management and ad hoc activities because of a low capacity at lower levels.

Political commitment

Political decisions may influence the tasks of the CTC providers such as the provision of clinical services in Mozambique, the delivery of family planning services by the Ministry of Health in Guatemala, and the support provided to CTC programmes. In India deterioration of drug distribution centres was reported to have been influenced by local politics in selecting the Village Health Groups.

LOGISTICS AND SUPPLIES[12]

The need for a well-functioning system for logistics and supplies (such as drugs, kits) has been recognized as helping CTC providers perform better; however, the context analysis found that many constraints related to logistics and supplies adversely affect the performance of CTC providers in all countries. Regular stock-outs of supplies, drugs or test kits were reported in Mozambique, Ethiopia, Indonesia, Bangladesh and Kenya. Due to a lack of electricity, water and communication in health posts, some HEWs in Ethiopia do not have a proper working space and lack appropriate housing. They are also said to be unable to provide maternal health services due to the absence of a water supply, an examination bed and equipment. Large distances between communities and facilities also hamper proper reporting and collection of subsidies by APEs in Mozambique. A lack of transport (for CTC providers and patients) was reported in all countries. While constrained health budgets generally contributed to inadequate supplies, the shortage or lack of basic supplies such as

[12] This section is based on findings from Kok et al. (2014: 54, 70–71, 77); Gani et al. (2014: 111–112); Sidat et al. (2014: 44, 48); Mireku et al. (2014: 29–30, 57–60); Nyirenda et al. (2014: 21, 38, 54–56, 68); Zerihun et al. (2014: 39, 58–59, 71); and Nasir et al. (2014: 62–63).

reporting forms and pens in countries like Malawi reflected the depth and breadth of general health system challenges. All these constraints in logistics and supplies lead to the demotivation of CTC providers and an unreliable image of them in the community.

INTERVENTION DESIGN FACTORS

INTERVENTION FOCUS[13]

In this section we examine whether and to what extent a CTC intervention's focus affects the performance of CTC services. Some interventions identified in our country reviews focus on discrete tasks or specific types of services, while others have a wide range of activities (promotive, preventive and/or curative across a series of potential health issues).

In most case review countries, CTC providers refer to how their expanding portfolio of work, while often satisfying to them, sometimes hinders their ability to perform effectively. This is due to both formal health system policies and informal expectations of beneficiary communities. However, in countries where CTC providers' roles are rather broad and contain a wide range of activities and tasks (for example, HEWs in Ethiopia have 16 service packages to deliver, while the APEs in Mozambique also have a range of services to provide that is currently under discussion to be expanded and HSAs in Malawi have more than 22 official tasks), CTC providers end up focusing on and prioritizing a limited set of activities and tasks. Respondents also raised concerns related to the capacities of CTC providers to absorb broader roles and responsibilities, and its effect on their performance.

One of our respondents, a CTC coordinator, summed it up as follows:

> *"…[Given CTC provider] capacity… [they] cannot… treat adults with one year of training. (…) Activities which should be delivered with nurses and health officers are being carried out by them at health post level. I don't believe that one year of training will give them a general knowledge and make them adequate enough to deliver all these services, which need to be managed by nurses and health officers."* (Zerihun et al., 2014: 97)

A CTC services coordinator in Indonesia echoed this as follows:

> *"The point is, they usually become the bearer of every programme in the village."* (Nasir et al., 2014: 53)

These findings are consistent with findings about CHWs from the international literature review, which describe the tension between the programmatic temptation to keep expanding the scope of tasks assigned to CTC providers and the absorption capacities of these cadres. They also confirm the literature finding that CHWs perform better when the interventions they deliver are focused and have a limited scope.

[13] This section is based on findings from Kok et al. (2014: 54, 70); Gani et al. (2014: 30–40, 61–64); Sidat et al. (2014: 13, 17, 35); Mireku et al. (2014: 30–35); Nyirenda et al. (2014: 14–21); Zerihun et al. (2014: 24, 61); and Nasir et al. (2014: 19–21, 30–34).

HUMAN RESOURCES MANAGEMENT[14]

Human resources-related aspects influencing CTC providers' performance that emerged across the six countries include CTC provider characteristics (profile and role), selection and recruitment, workload, career opportunities, incentives, supervision and training.

Profile and role

Characteristics described as desirable (at programme implementation level) for CTC providers vary across contexts. There is a general preference for women and married people. Sometimes males are also in demand, such as in Kenya, for HBTC and family planning services, and Ethiopia. In Ethiopia it was, however, also reported that some female clients would only use HEW services if these are female, as for cultural reasons they are not comfortable with male providers. In Mozambique women are preferred as APEs for gender reasons in view of the tasks assigned to them — for example, providing maternal health services for female clients. However, the number of female candidates remains lower than desired due to other socio-cultural gender-related issues, such as partners' feelings about spending time away from their homes for training and visiting community households on their own. In Bangladesh informal CTC providers are better accepted by communities than formal ones, as they more often live in the community they serve, deliver services more flexibly, are felt to be more accessible socio-culturally and in terms of cost, and are seen as better able to establish relationships of trust.

When roles assigned to CHWs are unclear or keep changing, performance suffers. In Kenya CHEWs have the double role of providing services but also supervising CHWs, and the expected workload is not clearly defined or guided; this leads to prioritizing facility-based service delivery over community-based work, and sometimes legal implications (Malawi). Performance is also affected when providers have to spend time on what they feel are non-core tasks, such as record-keeping (Ethiopia).

More importantly, sometimes there is a mismatch between community expectations and the more formal job description stated by the programme or health system (Mozambique, Ethiopia). In Mozambique many communities expect more curative services than the average of 20% defined by the APEs' job description. APEs feel this creates tension with communities, over how to address such diverging demands, and with their supervisors.

An important factor influencing the appreciation of CTC providers by the community, emerging from all reports, is the attitude of the providers. For example, the attitudes of providers have an important effect on the utilization of services, as emerged from a comparison between well-performing and poorly performing villages in Indonesia. Appreciation is often linked to being available and caring — see, for example, the following

[14] This section is based on findings from Kok et al. (2014: 46–48, 50, 54, 70–71, 81); Gani et al. (2014: 30–38, 41–43, 78–90, 99–100, 109–110); Sidat et al. (2014: 14, 15, 31–33, 39–42, 56–57); Mireku et al. (2014: 20–27, 35–37, 51–52, 69–70); Nyirenda et al. (2014: 69, 74–77); Zerihun et al. (2014: 24–28, 36, 52–58, 65, 68–69); and Nasir et al. (2014: 24–28, 51 55, 58, 76).

quote by a *kader* from a well-performing village in Indonesia. When asked why people respect the village midwife, a *kader* in a semi-structured interview stated that:

> *"Because without looking at the status of the person she will help. She also has a baby at home, but she still helps. She never made the people feel desperate and always is ready to serve. I think this is because she doesn't feel it as merely her task, but she loves the people..."* (Nasir et al., 2014: 77)

Selection and recruitment

CTC providers are usually, but not always, expected to originate from the community in which they would serve and are mostly recruited from among the community members. In cases where CHWs from elsewhere are stationed in communities from which they did not originate, this is seen as problematic. In Indonesia midwives were placed in villages that are not their own and then encounter issues around having their own houses elsewhere, their partner's willingness to relocate and schooling options for children.

Selection criteria for CTC providers are mostly aimed at characteristics that community members appreciate in providers. Characteristics such as humility, respect for the community, responsibility, love for their neighbours, dedication and listening to the community emerged as central criteria for eligibility identified by the communities in Mozambique. In Bangladesh, the government-recruited FWAs, Family Welfare Visitors and Health Assistants follow rules and regulations and have a fixed salary; NGOs also have standard processes of recruitment but then pay attention to what they feel the communities expect. In Malawi, HSAs are recruited by Ministry of Health through district health offices, while community health volunteers used by NGOs and sometimes by government are selected through community meetings. In most cases NGOs and government use the same volunteers who are named variously depending on the task at hand. As such, recruitment is more to do with identifying people who are already active volunteers than selecting new ones.

Workload

Workload is felt to be heavy in almost all settings (except Mozambique), to the extent that it undermines performance. Apart from the general lack of human resources, one of the reasons for the heavy workload could originate from the job description itself: in Malawi the HSAs' job description includes 'any other duties as indicated by the manager'. As a result, there is a mismatch between the priorities as indicated in the job description and the tasks as actually undertaken by HSAs. Almost all the Indonesian midwives express worries about the increase in their workload and the multiple activities they are performing in addition to midwifery. In Bangladesh most formal CTC providers employed by the government and NGOs complain about their workload (informal providers do not see workload as a problem) and report that it may affect the quality of care. This is even more problematic if targets are unclear or unrealistic (Bangladesh for formal CTC providers, Ethiopia, Kenya). The majority of HEWs in Ethiopia believe that they are overloaded with assigned tasks, and this was reported as a demotivating factor. In Kenya, while the number of households assigned to a

CHW is clearly stipulated in the policy, this does not account for the population density and the geography of the area, influencing the feasibility of reaching targets and leading to major differences in workload. HSAs in Malawi are in turn also supervisors of other (volunteer) CTC providers and have difficulties doing actual supervision due to their heavy workload.

Related to workload is the issue of balancing between CTC providers' work and private time. CHWs sometimes need personal time to secure their own livelihood (Kenya), depending on their remuneration and incentives as CTC providers which vary across recruiting NGOs. The diversity in recruiting organizations and working for several different programmes or NGOs at the same time also leads to large workload differences among CHWs (Ethiopia, Kenya, and Mozambique). In Malawi, many HSAs were involved in other income generating activities such as farming to supplement their income and sometimes such pursuits compromised the quality of work they provided

Career opportunities

Continued education and career advancement opportunities surfaced in many countries (Bangladesh, Ethiopia, Indonesia, Malawi) and were reported to be important for CTC providers and their supervisors. Refresher training was, however, found to be absent in many settings. In Bangladesh a culture of neglect, or only short training with little follow-up and no refresher courses (continuous education) was reported, except for CHWs related to BRAC. Despite BRAC's emphasis on managing its own CHWs, drop-outs and turnover of staff continue to be a challenge. Indonesian midwives find it difficult to keep their skills up to date, due to irregular in-service training and the selection system of who could attend when training is held. In Ethiopia HEWs have upgrading opportunities but only for a select few, and even these have no secure prospect of a more advanced position.

Perceived differences in career opportunities as compared to other government employees were reported to be demotivating. In Bangladesh no career opportunities exist for government-employed CTC providers, as is the case for Kenyan and Indonesian CHWs. In Ethiopia HEWs could opt for career advancement, but we found there were few opportunities available, as the entrance test generally does not fit HEWs' competencies, and, once they complete the course, most HEWs go back to their original placement without any change in responsibilities or salary. In Malawi career development opportunities were recently expanded for HSAs, who manage to obtain a secondary school certificate Such HSAs can further their studies through own initiatives by applying for admission to colleges

Mostly, the above issues also emerged from the international literature review, confirming the need for well-defined roles for CTC providers. Community expectations regarding curative services were found incompatible with most CTC providers' tasks. Increased task-shifting towards CTC providers and increased workloads were identified as affecting performance; the need for career prospects was highlighted. We did not find many sources discussing recruitment and selection strategies and how this affects performance.

The findings mentioned above demonstrate that a conducive and supportive programme environment and human resource management arrangements (e.g. clarity of roles, opportunities for education and professional development, and mobility) that are coherent with the context are essential to ensure that CTC providers can or continue to perform well. They further illustrate how a number of human resources-related factors interact with each other, with the broader context and with the health system context, to influence the performance of CTC providers and the effectiveness of CTC interventions. Clarity of CTC roles is a facilitating factor, while unmatched community expectations, CTC providers originating from elsewhere, heavy workloads, unrealistic targets and limited career opportunities are barriers.

INCENTIVES[15]

Incentives were identified as being an important factor affecting the performance of CTC providers and of CTC services across all study settings. What was considered the most important incentive varied from context to context.

The inter-country synthesis identified that, across the six study countries, financial incentives in the form of salaries and allowances are important. This was expressed both through the appreciation of the salaries HEWs and HSAs received in Ethiopia and Malawi, and the small monthly stipend CTC providers received elsewhere, but also through the disappointment expressed when CTC providers do not receive any or receive very little financial reward for their work. The importance of financial incentives was affirmed by CTC providers themselves, by their supervisors and also by the beneficiary communities — albeit for different reasons at times.

In Bangladesh, Indonesia, Kenya and Mozambique (volunteer) CHWs are supposed to receive a monthly stipend. Despite the existence of policies on CHW stipends, CHWs reported receiving minimal monetary incentives or none at all and are sometimes forced to use their own resources to be able to do their job, leading to demotivation. In Bangladesh formal CTC providers are paid in different ways depending on whether they work with the government or certain NGOs (some of which pay a fixed monthly amount), while payments by other NGOs including BRAC are performance-based.

A comparison across the study countries showed that whether CTC providers are remunerated or not influences performance in many ways. While it directly motivates CTC providers to perform better and allows them to dedicate themselves to their jobs, financial incentives also serve to create and reinforce accountability relationships, both between CTC providers and their supervisors within the health system and between CTC providers and beneficiary communities. On the other hand, wherever monetary compensation of CTC providers is expected but where administrative problems cause partial or delayed

[15] This section is based on findings from Kok et al. (2014: 44–45, 55–59, 79); Gani et al. (2014: 97–99, 110); Sidat et al. (2014: 16, 44–47); Mireku et al. (2014: 37–38, 70–73); Nyirenda et al. (2014: 40–59, 70–73, 76); Zerihun et al. (2014: 35, 61–65); and Nasir et al. (2014: 28–29, 58–62).

disbursements, the accountability relationships with those in the formal health system come under stress, thus undermining the effectiveness of the CTC services.

It appears that when different vertical programmes (in the public sector), public and NGO programmes or NGOs between them compete with each other for the CTC providers' time and effort, using competing financial and non-financial incentives, it disturbs the functioning of the CTC providers: by distorting their priorities and by distorting the incentive structures and underlying motivational processes. The discrepancy in (monthly and incidental) allowances paid to CTC providers causes inequitable situations in Kenya, Bangladesh and Malawi. Ultimately, this undermines the effectiveness of CTC interventions. The fact that such inequities were not reported by Indonesia, Ethiopia and Mozambique may be related to the payment of volunteer CTC providers by the government in the three countries, and the lack of a substantial NGO presence in the study sites in Indonesia and a policy especially initiated to prevent inequities between APEs in Mozambique.

In situations where CTC providers receive some form of monetary compensation, we found that they feel that what they receive is far below the efforts they put in and far below what they deserve; this was the case across the study countries, although with some exceptions. Some also feel that their compensation is unfair relative to other cadres in the health system, as expressed by a facility-based HEW in Ethiopia:

> *"[This means] we do more than other government employees do, but the payment discourages me a lot. …Yes, you know the reason why most HEWs are leaving their work and being hired in other NGOs and other places is because the government is paying a small amount of money."* (Zerihun et al., 2014: 82)

While CTC providers did not explicitly mention how these feelings affect their performance, it is reasonable to infer that in the long run, unless they are addressed, these issues will adversely affect their performance as providers and the effectiveness of CTC services. Financial incentives are particularly important in contexts where the CTC providers come from poorer socio-economic contexts and where this job is their primary source of income.

Across the six study countries, non-financial incentives came across as very important factors affecting CTC providers' performance. We found a hierarchy of non-financial incentives in operation. These include CTC providers receiving gifts in the form of food, phone credits and other goods from the beneficiary community; CTC providers view these as being symbolic of the appreciation accorded to them by the beneficiaries. In Indonesia the desire to help other people and to serve the community is also an important intrinsic motivation mentioned by many village midwives:

> *"Since primary school I have always had a dream to help people. So I dream of being a doctor. I cannot be a doctor because going to medical school is expensive. So I became a midwife. I like to serve the people around me."* (Nasir et al., 2014: 60)

Non-financial incentives provided by the formal health services include mobile phones, phone credits, bicycles and motorcycles — as a means to better do their work — and these

material incentives reinforce the sense of importance of CTC services, for CTC providers and beneficiary communities alike. For CTC providers, seeing themselves as being useful to their communities and being valued and appreciated by these beneficiary communities serves as a major incentive and intrinsic motivational factor (Ethiopia). In Bangladesh, where we sought the views of a wide variety of formal and informal CTC providers, being appreciated, recognized and valued by the beneficiary community was reported as being much more important than the monetary gains that providers make through providing these services. Female community health volunteers are treated as important members of the community and often referred to as 'doctor sister' (*daktakr apa*). In some cases, informal providers (drugstore salespeople, village doctors, *dais*, *kabirajs*) receive gifts that reflect the recognition of their relationship with the community. In Malawi, uniforms and pushbikes were some of the major non-financial incentives for HSAs as well as community volunteers

Our findings provide indications that, whenever CTC interventions systematically foster these non-financial incentives for CTC providers, their intrinsic motivation and performance improves. Conversely, when the intervention design is such that it either does include these non-financial incentives or somehow counters their effect, the performance of CTC providers is hampered and programme effectiveness undermined. The latter was seen in Malawi, where the CTC intervention design does not cater for the long distances that providers have to travel to deliver their services, and in Ethiopia and Mozambique, where providers' expectations regarding transport for referrals are not met. Elsewhere, CTC providers' expectations related to professional growth are not catered for (Malawi, Ethiopia). These design lacunae seem to act as disincentives for CTC providers.

The international literature review confirmed the above findings. It showed that in most contexts CTC providers expect some form of incentive, and that what form these incentives should take varies from setting to setting. Many of the organizations with which CTC providers work also find this desirable and ethical. It also confirmed the above country study findings that CTC providers mostly feel that the monetary compensation they receive is not in line with their efforts and that this is a more important factor in poor socio-economic contexts.

Our literature review and the country findings were also consistent in reporting that CTC providers report experiencing a heightened sense of self-worth, confidence and self-efficacy as a result of the training they receive, the work they do, the difference they make and the acknowledgement and respect they receive for it.

This section demonstrates that both financial and non-financial rewards, independently and in concert, act as facilitating factors (and their absence as barriers) for the performance of CTC providers. Lower-than-expected incentives are a barrier to performance, as are inequitable incentives across competing CTC programmes. Explicit community recognition for CTC providers' efforts are a facilitating factor; the lack of logistics to make CTC services effective (such as referral transport) counters community appreciation and constitutes a barrier.

SUPERVISION SYSTEMS[16]

Supervision emerged as an important factor influencing CTC providers' performance across all countries. Supervision is seen as a factor improving performance — for example, in Ethiopia, where HEWs interviewed mentioned that supervision motivates them to work hard, and that they consider supervision as a recognition and acknowledgment of their work. There were similar findings in Bangladesh (for formal providers), Indonesia (for supervision of *kaders* by midwives) and Kenya. Expectedly, supervisees in Ethiopia consider a lack of supervision to be demotivating.

While some sort of supervisory system is usually part of the health system or programme (except for informal providers in Bangladesh), we identified shortfalls that hamper CTC providers' performance in all study countries; this emerged as a key theme. Sometimes the system exists on paper but is not implemented, as reported by certain CTC provider cadres in Bangladesh, Indonesia and Kenya, or only very irregularly (Ethiopia, Malawi, Mozambique). In Kenya supervisors at both the community and health system level do not have clear guidelines, except for those engaged by vertical NGO programmes, resulting in inconsistencies in the methods and frequency of supervision. There are many different types of supervisors, both from the community and the health system, leading to a lack of clarity regarding supervisory roles. For example, in Kenya it was found that the supervisors at both the community and health system level do not have clear guidelines, resulting in inconsistencies in the methods and frequency of supervision.

In Mozambique major constraints are the timely allocation of funding, the heavy workload of the (scarce) health workers in the formal public health sector responsible for supervision (particularly in distal health facilities) and the lack of availability of transport. Such constraints lead to some APEs having received only two supervisory visits over a period of two years.

As to how and when supervision can constitute a facilitating factor of or barrier to CTC providers' performance, a number of issues surfaced. In many cases, a higher frequency of supervisory visits is welcomed (Indonesia, Mozambique). The priority assigned to supervision within the programme is sometimes seen as a factor determining the nature and quality of the supervision, thereby influencing CTC providers' performance (Indonesia, Malawi). A lack of coordination on supervision among the various levels and sections of the system is seen as a barrier (Kenya, Malawi). Clarity on the lines of supervision is felt to be a facilitator (Ethiopia, Malawi), while unclear or absent supervision structures influence CTC providers' performance negatively (Kenya, Indonesia). The availability of standardized procedures, guidelines and tools is seen as helpful (Kenya for HBTC), and the lack thereof as problematic (Indonesia, Kenya for CHWs).

[16] This section is based on findings from Kok et al. (2014: 44, 49, 55, 60–66, 81–82); Gani et al. (2014: 90–93, 110–111); Sidat et al. (2014: 16, 47–48, 57); Mireku et al. (2014: 22–25, 39, 73–75); Nyirenda et al. (2014: 63–70, 76); Zerihun et al. (2014: 27–28, 36, 66–68); and Nasir et al. (2014: 29, 63–64).

The heavy workload of designated supervisors is often seen as a barrier, as their inability to spend (enough) time on their supervisory tasks affects the quality of supervision (Kenya, Malawi, Mozambique). Similarly, a lack of resources needed for adequate transport to enable supervision is a barrier in all countries. In Mozambique supervisory visits are often postponed (from monthly to quarterly), due to a lack of physical (vehicles) and financial resources (for fuel, supervisor allowances), in combination with long distances and difficult access to communities. On the other hand, where resources are available for supervisor allowances, supervision is sometimes driven by the need for additional income for supervisors, rather than supervisee or programme needs (Malawi).

The nature of supervision is strongly felt to make a difference. In most countries, the fact that supervisors are directive (focusing on fault-finding, blaming, providing only negative feedback; as mentioned in Ethiopia, Indonesia, Malawi and Mozambique), rather than supportive (focusing on constructive feedback, problem-solving, learning; as reported by some NGOs in Bangladesh, HBTC in Kenya) is seen by supervised CTC providers as a problem. In the case of Ethiopia, HEWs mentioned that supervisors are looking for mistakes, instead of acknowledging their strengths and addressing their weaknesses. A lack of feedback during or after supervision is also seen as a problematic, as it reduces learning and opportunities to make improvements (Ethiopia, Kenya, Malawi, Mozambique).

A lack of supervisor training was identified as a barrier to quality supervision and linked to CTC providers' performance (Ethiopia, Kenya, Malawi). In Ethiopia the limited skills and knowledge among HEW supervisors are seen as weaknesses. Standardized training of supervisors and Community Health Committee members accompanied by harmonized guidelines and standard operating procedures for supervision are seen as necessary as part of a broader quality assurance package for the CTC strategy.

Communities are involved in a supervisory role in several instances (Kenya, Malawi, Mozambique). Sometimes this is appreciated (Mozambique), while in Malawi some HSAs complain that, sometimes, their district health supervisors leave supervision to village chiefs, who they feel are not able to provide meaningful supervision. In other countries, even if communities are not involved in a supervisory role, positive community feedback is considered a motivator by CTC providers in Kenya and Indonesia (and lack thereof a demotivator).

Our literature review found similar findings in terms of supervision being built into the design of CTC programmes, including community involvement and the importance of community supervision. The nature of supervision (constructive or fault-finding) was discussed at large but without reference to how this affects performance. The review also dwelled on aspects that did not emerge from our country case studies, such as discussing the background and position of supervisors (often there was more than one) and performance appraisal (albeit with few studies and no clear outcomes). A great variety in the frequency of supervision, from weekly to monthly and less (even though practice often varied), was noted; however, no clear link with performance was mentioned.

Findings in this section confirm the importance of adequate supervision as a key emerging theme to address CTC providers' performance. They show that a supervision system with clear responsibilities for each level and mechanisms and support needed for implementation is an essential facilitating factor for ensuring the performance of CTC providers and the success of CTC interventions. Clarity on the lines of supervision across the health system seems to be a facilitator, as are the availability of standard guidelines, supportive (rather than directive) supervision approaches and positive community feedback. Irregular and infrequent supervision, a heavy workload of supervisors, lack of supervisor training and lack of transport logistics emerged as barriers.

TRAINING[17]

CTC providers across the board feel they needed better training. Their understanding of what this constitutes varies from country to country, as do their reasons. What emerged in terms of training content and process was that CTC providers want formal training across the spectrum of their roles and tasks; that the duration of the formal training matters (complex tasks require longer training); and that, when these aspects are not addressed, their confidence and their ability to perform suffer. CTC providers in all countries also reported the importance of on-the-job training — but some also warned that focusing on this only was not enough, emphasizing the importance of a practical orientation of training (all countries). When the latter is the case, it works for them and contributes to their performance. Conversely, when trainings are largely theoretical, it hinders their work (Ethiopia).

Across the study countries, CTC providers and other actors reported that follow-up trainings or refresher trainings are important for refreshing knowledge and clarifying task-related issues (Bangladesh, Ethiopia, Kenya, Malawi). CTC providers and other actors also want training to focus beyond just technical aspects and cover the development of communication and negotiation skills and also aspects related to the engagement of communities (Kenya) and reporting (Indonesia).

A common feature across several countries is the desire of CTC providers to learn more about the curative aspects of their role (Kenya, Malawi, Mozambique); they ascribed this to their desire to being able to better meet the expectations of the communities they serve. This could also be seen as the CTC providers' wish and attempt to move closer to the role the community assigns them and to which they probably aspire — being the 'doctor' in residence. This desire for an expansion of their roles and capacities is in many ways counter-intuitive to the constant refrain around the ever burgeoning workload and the CTC providers' dissatisfaction with it.

[17] This section is based on findings from Kok et al. (2014: 67–69, 81); Gani et al. (2014: 64, 90–91, 111); Sidat et al. (2014: 14–16, 42–44, 50–51); Mireku et al. (2014: 38–39, 68–69); Nyirenda et al. (2014: 48–51, 71–72); Zerihun et al. (2014: 74–76); and Nasir et al. (2014: 25–26, 56–58).

Our study showed that CTC providers view and expect the many training courses (of varying quality) they attend as serving many purposes: as a means to be able to do their job better (all countries), as a stepping stone to further educational attainment (Mozambique, Ethiopia) and as a means for professional development — i.e. to be more formally installed within the health system (Ethiopia, Mozambique). Our study showed that if trainings do not meet at least some of these needs, and if they are organized in an inconvenient location, they elicit little interest and are not effective. While it was seldom made explicit, we could see that continuing education is also seen to serve opportunities other than capacity-building (all countries): as a means to get a break from the routine, as a reward or as a source of (sometimes generous) per diems (Malawi). As an exception, traditional healers (*Kabirajs*) in Bangladesh, who either receive their training from other healers or 'from God', sometimes tellingly reject the utility of any training. Bangladeshi formal CTC providers (from both the government and NGOs) receive formal training and refreshers, while most informal providers never receive any training, except for a few (for example, drugstore salespeople, TBAs).

The international body of knowledge on the subject we reviewed is consistent with the above findings. Based on the literature and the study countries we can conclude that CTC providers and their supervisors generally find training an important facilitating factor for performance. This is especially true if it properly addresses the balance between theoretical and practical training, the need for both classroom-based and on-the-job training and the importance of follow-up training. These are not surprising findings, as they have been documented extensively in the human resources literature at large.

QUALITY ASSURANCE[18]

Many aspects which are of relevance to the discussion on quality assurance processes and their impact on CTC providers' performance and on the effectiveness of CTC services at large have been covered in earlier sections where findings related to training, supervision, referral and embedment in the health system are discussed. While all these have an important, albeit indirect, quality assurance function to play, respondents pointed out that such quality assurance activities and processes are only effective if they occur in the context of a well-functioning health system. For example, respondents in Indonesia and Mozambique referred to the lack of supplies to provide services and stock-outs of drugs and materials as hindering factors. It also emerged from all countries that, unless the larger health system to which the CTC providers are a major entry point and to which they refer clients works well, quality assurance and service improvement efforts will have limited impact. The same applies for ensuring that guidelines for service delivery and continuing education are implemented.

[18] This section is based on findings from Kok et al. (2014: 54–55, 67–69); Gani et al. (2014: 39–40, 104–107); Sidat et al. (2014: 35–37, 50–52, 58); Mireku et al. (2014: 27–29, 40–41, 73–75, 77–80); Nyirenda et al. (2014: 51, 76); Zerihun et al. (2014: 37, 59–60, 73–74); and Nasir et al. (2014: 29).

That said, there were positive comments by beneficiary communities across all study countries about the quality of services provided by the CTC providers. As expected, the comments refer less to the technical quality of the care they provide, and more to the perceived quality of care.

Our international literature review also found that quality assurance of CTC providers' performance was found to be important and to have several dimensions, linked to human resource management, training, supervision and the availability and use of guidelines and protocols. This combined with our country studies reaffirms the importance of establishing or improving quality assurance systems for CTC interventions, with the insight that, unless these processes are backed by a well-functioning health system, they are unlikely to add to the effectiveness of CTC services.

Monitoring and evaluation

Systems for monitoring progress and evaluating outcomes are in place in all programmes and countries. In Kenya CHWs and CHEWs document their work in standardized national tools, village registers and community registers. Data are compiled by CHEWs and used during community dialogue days and other community meetings for discussions on priority problems. Still, these systems are sometimes described as weak (Bangladesh (formal CTC providers employed by the government), Mozambique) — for example, due to a lack of capacity at district level to use data, or due to (too) hybrid approaches caused by each NGO having its own system and reporting forms (Kenya, Malawi). Also, stock-outs of data collection tools hamper data collection, as do the limited educational levels of some CHWs (Kenya). Where data are collected and submitted, it sometimes remains unclear whether and how they are used to inform managers on the health status of the community, and even whether they are entered into the health information system at all (Mozambique).

Countries consistently reported the importance of having 'monitoring and evaluation (M&E) feedback loops' — i.e. feedback by higher levels on the nature, importance and implications of M&E data and reports to those at lower levels who collect and present the data. Sometimes this feature was well described in the M&E system design (Mozambique). In several countries this works well for some cadres: in Kenya data are communicated back via facility chalkboards and dialogue days; in Ethiopia NGOs provide feedback to HEWs; and in Indonesia midwives provide feedback on reports to *kaders,* and midwife coordinators do the same for midwives, during monthly meetings. In Kenya, however, it was also reported that community information does not reach district or national levels, and that utilization of data beyond the community units is poor.

Generally, CTC providers in most countries reported that they seldom receive feedback on the data they submit. Often, feedback loops are seen as non-functional due to logistics and transport challenges, lack of CTC provider training, lack of health system capacity and poor commitment to making necessary resources available, thereby hindering CTC providers' performance (Bangladesh, Indonesia (for feedback from district level), Mozambique). Also, CTC providers sometimes do not know much about the purpose of collecting and sending

data (Mozambique). Where processes for feedback exist and are implemented, however, they could improve CTC providers' performance, as was reported in Ethiopia.

The literature findings on M&E were scarce; they mentioned the role of M&E and the importance of proper feedback loops, but without any indication as to how performance would be influenced. No reference was made to the importance of feedback loops.

COMMUNITY LINKS[19]

Community engagement

Embedding CTC providers in the communities they serve and community engagement with CTC programmes are important to generate ownership, which was reported to stimulate trust and acceptance and in turn constitute important motivating factors. The design and implementation of guidelines for the selection of providers involving beneficiary communities emerged as an important point from the country studies; this served as a starting point for community governance of CTC programmes.

In many countries policy and practice of involving beneficiary communities in the recruitment and selection process for CTC provider candidates indeed exist (Indonesia, Kenya, Mozambique), but not always or only nominally (Bangladesh for formal providers, Ethiopia). In Indonesia and Kenya both aspects were noted: some CTC providers (*kaders*, CHWs) are community members and are recruited by the community, while others (midwives, CHEWs) are professionals selected and employed by the health system, with no community involvement. In Kenya this is viewed as a lack of community ownership. A lack of involvement of the wider community (and not just the village leaders) in the selection of CTC providers leads to the rejection of providers and resentment about their activities and the resources associated with this role in Kenya and Indonesia. In Indonesia community meetings are attended by village heads, community members, including Family Welfare Society members, and others, and selection is by consensus. The head of *Puskesmas* and midwives are involved in suggesting candidates; so, apart from the village leaders, others are also involved in selecting the *kaders*.

In addition, the importance of community support for improving security for providers coming from outside the community to live in the village and the protection for female CTC providers from sexual harassment was also mentioned and may influence the performance of CTC providers.

Only sometimes do community governance roles take the form of holding CTC providers accountable, as community members take part in supervision (Mozambique) or, in Kenya, in monitoring progress through 'dialogue days'. The effectiveness of governance structures and community engagement that give meaning to the aim of representing communities and

[19] This section is based on findings from Kok et al. (2014: 43–50, 70–71, 82); Gani et al. (2014: 95–101, 107–108); Sidat et al. (2014: 35–37, 50–52, 58); Mireku et al. (2014: 41–43, 64–68); Nyirenda et al. (2014: 56, 67, 74); Zerihun et al. (2014: 33–34, 52–58); and Nasir et al. (2014: 55–56).

representation of more marginalized and vulnerable groups emerged as an important issue in Kenya and Malawi.

The importance of training community members, supervisors and managers in the design and implementation of a community engagement strategy emerged from Kenya, Ethiopia, and Malawi as a factor affecting CTC providers' performance and service effectiveness.

The above findings are in line with what we found in the literature — i.e. the importance of community ownership, its trust in and respect towards CTC providers, its role in enhancing security and the opportunity to strengthen accountability.

This section, therefore, shows that embedding CTC programmes in and engaging with the community, through its participation in the recruitment and possibly the supervision of CTC providers, are key elements to establishing community ownership and enabling providers' performance. They emerged as important issues in Ethiopia, Kenya, Indonesia and Malawi, and as strengths in Mozambique and Bangladesh.

Approaches to community awareness and social change

In all countries health education, health promotion or community mobilization was mentioned as the most important part of the CTC providers' role. However, in Bangladesh 45% of the CTC providers included in a survey have not received any formal health education training, while in Kenya the ability of CTC providers to enter into an effective dialogue with community members and develop action plans is sometimes lacking. In Indonesia health promotion was identified as not very effective, requiring more training and materials. On a positive note, in Ethiopia, a project on maternal, newborn and child health and nutrition that involves the community in identification, analysis, planning, implementation and evaluation shows improved utilization of maternal and newborn health services. Implementation is undertaken at *Woreda* level, with CTC providers being trained on the principles, methods and approaches of participatory community action and learning.

CTC providers are mostly based in the communities and as such have intimate exposure to and gain an understanding of interpersonal relationships in households and the community. The CTC providers across our country studies described the decision-making processes within households in detail, as well as gender norms, roles, values, beliefs and practices. They would often critique traditional beliefs and practices from a learned public health discourse or explain the importance of social and behaviour change from a community perspective. However, their ability to reflect and initiate change in social and gender norms and values appears limited, which is understandable given that they have internalized the same norms, values and belief systems as the communities in which they work (and often were raised). Only a few approaches were reported that enable CTC providers to reflect on their own norms and values, beyond the suggestions that women should utilize services more and that action plans should be developed to overcome barriers to accessing services, and these were not always successfully implemented or not put into practice at all (Kenya and Mozambique). This prevents CTC providers from acting as agents of social change.

Our literature review did not yield any significant findings regarding the role of CTC programmes in this field. Based on the country case studies it appears that the potential of CTC providers to act as agent of social change is thus underutilized. To generate sustainable change, training and support to enable CTC providers to carry out this role need more attention.

REFERRAL SYSTEM[20]

In the study countries whenever and wherever the referral process works well, this improves the effectiveness of CTC services. Findings show that better management of referral processes could help strengthen the performance of CTC providers and the effectiveness of CTC services at large. Study participants identified various bottlenecks, almost all of which were related to either the intervention design or the management processes within the interventions. In all countries, key bottlenecks hampering the referral process (from CTC providers to health facilities) are the long distances to facilities and the lack of transport for clients in need. For example, in Ethiopia, Kenya and Malawi, CTC providers reported that beneficiary communities expect them to not merely tell them where to go and when, but also to facilitate and support the actual process of transfer; they feel that the lack or unreliability of resources for transporting clients is a major factor hindering their performance. Not only do they feel they failed; the clients and community also let them know their disappointment.

Conversely, whenever and wherever the referred patients are treated well at higher levels of care, the CTC providers' credibility with the communities they serve improves, and this helps them do their work better. On the other hand, CTC providers reported that if the beneficiary communities have a negative perception or have had bad experiences in terms of the quality of care at higher levels of care, including regarding whether they were treated with cordiality and dignity, the CTC providers' standing with the beneficiary community suffers, and this undermines their performance. In Ethiopia, Bangladesh and Indonesia referral is sometimes not followed up by clients because of the unfriendly attitude of higher-level health staff, as perceived by the clients. CTC providers feel that they are bearing the brunt of any failure of the health system and are at the front line to ensure that a referral comes to fruition. This uncertainty regarding the unreliability of the upward referral chain undermines their credibility in the communities they serve and affects their performance.

In Kenya the system has a feedback system from the facility to the CHW, which is not the case in Bangladesh (government sector), Malawi and Mozambique. In Ethiopia a system exists but lacks implementation. Evidence from the study countries showed that, while having formal processes and formal feedback loops helps, their mere presence is not sufficient to make the referral processes work. On the contrary, we found that CTC

[20] This section is based on findings from Kok et al. (2014: 37, 50, 65–66); Gani et al. (2014: 43, 100–104); Sidat et al. (2014: 48–49, 58); Mireku et al. (2014: 75–77, 82); Nyirenda et al. (2014: 34–38); Zerihun et al. (2014: 36–37, 69–73); and Nasir et al. (2014: 34–35).

providers are less concerned about receiving formal feedback than with the ability of the higher-level facilities to provide the required services in a respectful and dignified manner.

Our findings reaffirm what the international literature on CTC providers has extensively documented: that timely detection of health problems and referral to the appropriate level of care is a key role of CTC providers. The importance that CTC providers attach to the referrals they make and whether these bear fruit is also a common theme. Both our study findings and the international literature review show that a well-functioning upstream referral system is critical to the ability of CTC providers to perform well and to meet the expectations of the beneficiary communities; any weaknesses in the upstream referral chain (such as a lack of referral transport facilities), paired with sometimes negative community perceptions regarding the quality of referral services, undermines the performance and effectiveness of CTC interventions.

COORDINATION AND COMMUNICATION AMONG PROVIDERS[21]

Communication and coordination among various organizations (government, NGOs, faith-based organizations) working with CTC providers were found to be important factors influencing CTC providers' performance. This is particularly so whenever and wherever CTC providers have multiple task areas and lines of reporting; in circumstances where CTC providers are part of multiple vertical programmes or work with multiple NGOs, good communication and coordination are more important. When they are not well organized, CTC providers' performance suffers (as our evidence from Bangladesh, Indonesia, Malawi, Kenya and Mozambique shows). When programmes compete with each other for CTC providers' time and effort, they disturb their effectiveness by distorting their priorities, the incentive structures and the underlying motivational processes.

The quality of coordination and communication among various cadres of CTC providers also has a bearing on the performance of CTC services. For instance, in Indonesia we found that coordination among various cadres of CTC providers (*kaders*, TBAs and village midwives) was challenging. Where midwives are able to act as a link between the other cadres and the formal system, the performance of CTC services is better than when village midwives do not play this role. In Mozambique the revitalization of the APE programme provides insights into the ways various actors may cooperate operationally. The revitalization involved clarification of the roles of various actors (for example, coordination and agreement between the Ministry of Health and NGOs on which organization would work where and on the recruitment of health workers from the health system). These coordination activities help to clarify roles, expectations and ways of functioning, and this helps improve the effectiveness of CTC services. In Bangladesh communication between informal and formal CTC providers was found to be deficient, although its consequences are not always clear.

[21] This section is based on findings from Kok et al. (2014: 51); Gani et al. (2014: 65, 93–95); Sidat et al. (2014: 33–35, 55); Mireku et al. (2014: 39–40, 60–64, 81); Nyirenda et al. (2014: 21, 76); Zerihun et al. (2014: 37–38, 78–82); and Nasir et al. (2014: 73–75).

This, however, is a complex issue, and others have reported the damage these informal providers wreak (misdiagnosis, mistreatment, unnecessary treatment, misinformation, delays and unnecessary costs) on trusting and unsuspecting patients. Bangladesh continues to grapple with how best to reconcile the livelihood needs of these essentially poor and often illiterate providers, who often ask for training but mostly remain outside any formal intervention, and the safety and quality of care concerns of the populations they purport to serve.

These findings are consistent with our literature review and are also intuitive: better coordination and communication produce better results, in terms of provider motivation and performance and in terms of successful referral and community satisfaction. The important finding of interest is thus that the effectiveness of many CTC services continues to be hampered by weak coordination and communication processes — among cadres, among organizations and actors, and between services and beneficiary populations.

RESOURCES AND LOGISTICS[22]

The availability of resources is a requirement to enable and facilitate certain aspects of the CTC provider's role and activities. The general need for a well-functioning system for logistics and supplies was addressed in the section on health system factors. Specific issues regarding CTC programme design were found, for example, in Mozambique, where there are problems with the timely supply of APEs' drugs and supplies kits, partly due to logistical issues and partly because APEs are entitled to only one kit a month and resupply is of a kit and not of particular items that might run out before the end of a month. Large distances between communities and facilities also hamper proper reporting and the collection of subsidies by APEs. A lack of health education materials was reported in Mozambique (pictorial albums) and Indonesia. A lack of materials deemed necessary for CTC providers (such as gumboots) was also often reported.

A recurring finding related to resource constraints is the absence of sufficient budget to cover the cost of travel for a variety of activities such as home visits, report submission, collection of materials and supervision (Indonesia, Malawi, Mozambique). This is challenging for APEs in Mozambique, as not submitting a report for such reason would imply not receiving their medicine and supplies kit or their monthly allowance. In Malawi transportation is made available to HSAs by means of bicycles, but they break down, and repair costs are challenging for them, which negatively affects the delivery of services in hard-to-reach areas.

The importance of having the resources and logistics in place to allow effective functioning of CTC programmes was also found in the literature review, with reference to drug supply, equipment and adequate facilities.

[22] This section is based on findings from Kok et al. (2014: 54, 70–71, 77); Gani et al. (2014: 111–112); Sidat et al. (2014: 44, 48); Mireku et al. (2014: 29–30, 57–60); Nyirenda et al. (2014: 21, 38, 54–56, 68); Zerihun et al. (2014: 39, 58–59, 71); and Nasir et al. (2014: 62–63).

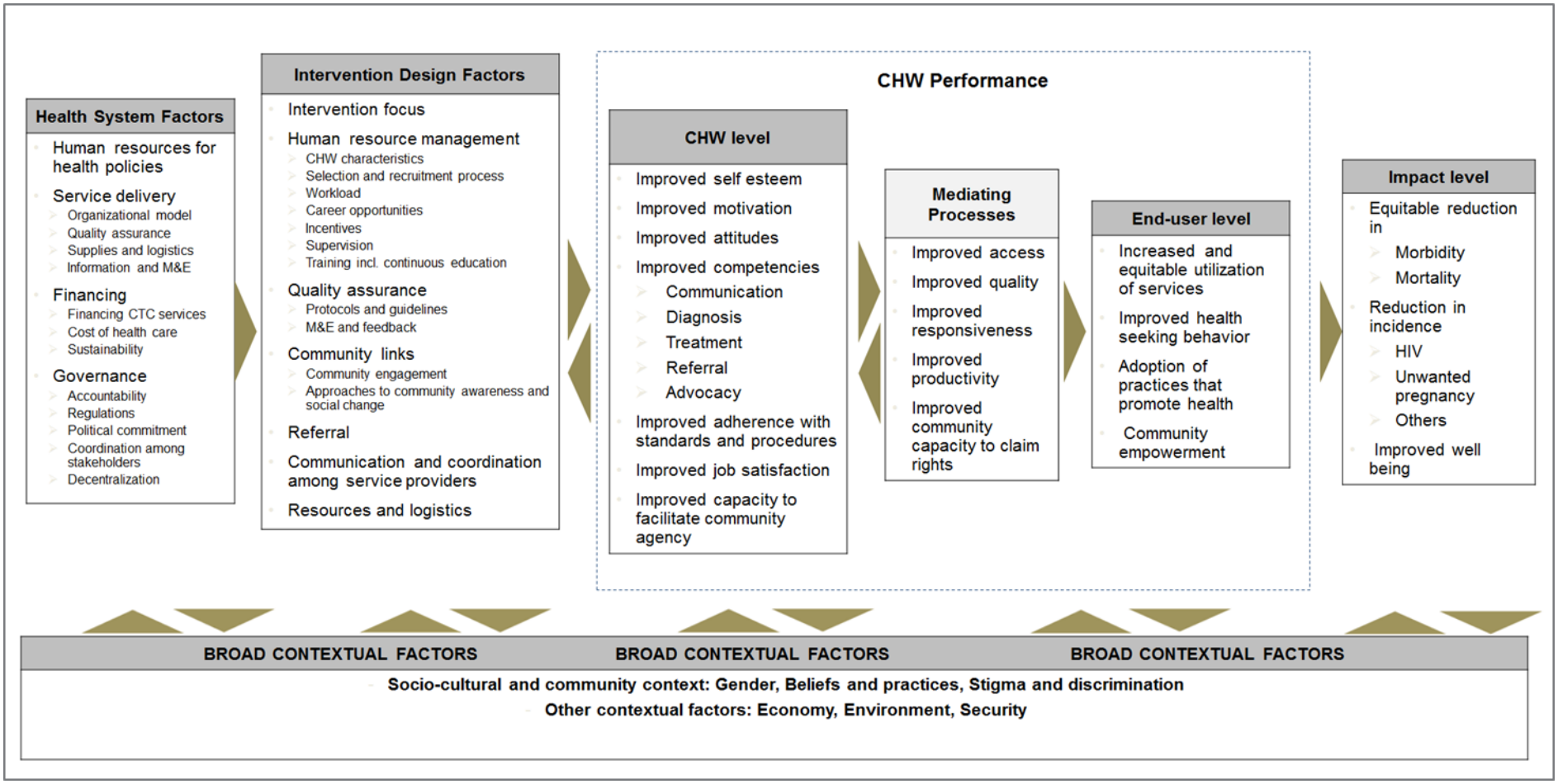
CHAPTER 4 – ANALYTICAL FRAMEWORK

This chapter presents the implications of all the findings of the first phase of REACHOUT, which were presented in Chapter 3, and the outcomes of discussions during the consortium meetings, and brings them together in a common analytical framework on factors that influence the performance of CTC providers.

The literature review and the six country context analysis reports do not provide major reasons for changing the three domains influencing CTC providers' performance — broad contextual, health system and intervention design factors — although changes have been made to sub-categories. In this chapter we present adaptations to the sub-categories of the three domains in our initial framework in the light of findings from the research and new insights from the literature, and present our final REACHOUT framework (Figure 3).

The differences between the initial framework and the final framework are shown for each major factor.

Figure 2. Final REACHOUT framework



BROAD CONTEXTUAL FACTORS

The broad contextual factors presented at the base of the framework, categorized as community context, political context and other contextual factors, were confirmed by the international literature review and the context analyses in all countries, but how these factors are presented in the final framework has been adapted (see Figure 4). We have changed the heading of 'community context' to 'socio-cultural and community context' to do justice to the fact that social and cultural factors influence the community context but are also broader than that.

Figure 3. Broad contextual factors: initial and final framework

We found that the policy factors identified all relate to the health system and that it was more useful to place them all together under health system factors. Other contextual factors entail the economy, environment and security. Community engagement through various community governance structures and the processes and approach to community education are directly related to how interventions are designed and as such discussed under intervention design factors. Another emerging factor can be summarized as environment; this covers geography, distances travelled and climate as well as other interacting factors that could influence CTC providers' performance.

In summary, we identify the following sub-categories under broad contextual factors:

- socio-cultural and community context; and
- other contextual factors.

SOCIO-CULTURAL AND COMMUNITY CONTEXT

Gender and cultural factors influence CTC programmes in various ways. Social gender roles and norms influence intra-household decision-making and the mobility of younger and older women and, thus, affect access to services. Women's agency can counteract some of the powerful influence of husbands and extended families. The sex of the provider can influence access to services and thus utilization as an end point factor. Gender also influences the ability to perform a CTC job (mobility, possibility to interact with the opposite sex) and the willingness to volunteer, as the voluntary nature and the type of job (caring, women's health issues) may deter men from taking on the job.

Traditional beliefs, practices and religion influence health-seeking behaviour and thus the end-user outcomes of the CTC providers' performance. Social, gender and cultural factors play a role in the community context in which CTC providers are operating. The factors that influence the ability of CTC providers to deal with this are captured under community links under intervention design factors.

The influence of disease-related stigma and discrimination affects opportunities to reach vulnerable groups. The ability to reach vulnerable groups is also influenced by the social networks of which CTC providers are part, and social and cultural norms, values and health practices can be important influences on the ability of CTC providers to reach special groups. Social hierarchies were identified as an additional factor with the potential to be both a barrier to community participation and also a facilitator of CTC providers' performance.

OTHER CONTEXTUAL FACTORS

Economic factors and employment conditions experienced by providers were initially not clearly identified in the framework but emerged from the international literature review and the findings of the country context analyses. The labour market influences the willingness of CTC providers to volunteer, and a failure to sustain financial or material compensation for their work leads to an inability among CTC providers to provide for their family; this is particularly exacerbated in situations of poverty and/or when there is an economic crisis in the area. The discrepancy between monthly allowances paid to CTC providers and incidental allowances paid by various NGOs can cause inequitable situations, and discrepancies between financial incentives and what is needed for family upkeep in an economy where prices are rising can negatively affect satisfaction and motivation.

Environment

Challenges to access services due to geography (distance, difficult terrain), combined with limited transport options, were a recurring theme in all country context analyses and the literature review, and we observed that this may lead to inequalities as populations in need remain without services. In some settings climate (especially flooding) is hindering CTC providers' performance.

Safety

Safety and security emerged as issues that are important to consider for all staff, and especially among female staff in Ethiopia, Indonesia, Malawi and Kenya, which influence the motivation of CTC providers. Supportive relationships with the community may help to prevent sexual harassment and address other safety concerns that make CTC providers feel safer.

HEALTH SYSTEM FACTORS

The initial framework contained six factors related to health systems that could have an influence on CTC providers' performance. These factors were related to the WHO building

blocks. The factors mentioned as broad headings (HRH, service delivery, financing model, information, governance arrangements and logistics and supplies) have been confirmed by the international literature review and the findings of the context analyses in the six countries as important elements of a health system and as preconditions for the effectiveness, efficiency and equity of a CTC programme. However, the direct relevance and the depth of the evidence varied for each factor.

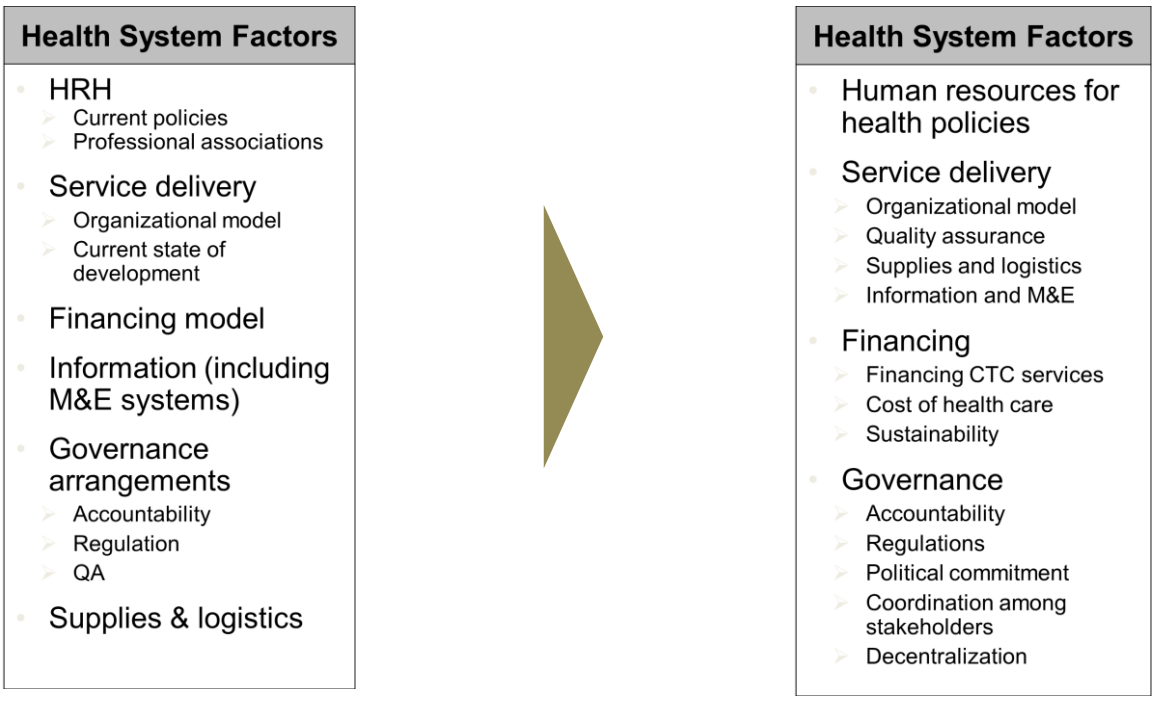


Figure 4. Health systems factors: initial and final framework

Therefore, as shown in Figure 5, we have combined some factors and remain with the following four main health system factors in the final analytical framework:

- HRH policies;
- service delivery;
- financing; and
- governance.

Human resources for health policies

Human resources policies and provisions were often found to be preconditions for the functionality of CTC programmes. The recognition of CTC providers as a cadre embedded in national human resource policies was found to be important, as it sets the context for what CTC provider interventions could look like with regard to incentives, continuous education and supervision structures. Clarity on CTC providers' roles (among the CTC providers themselves, other health staff and the community) is also key, to avoid unrealistic expectations and demotivation of CTC providers. The development of guidelines for training and procedures is essential for guiding training, supervision and quality. Our research did not come across the effect of professional associations. Only one study (Daniels et al., 2012)

indicated that it is difficult to organize CTC providers as a collective group or body, but failed to point towards any effect on their performance.

Service delivery

A strongly emerging theme, as part of the organisational structure in several countries, was the influence of vertical programming (see also under governance the importance of coordination). Vertical programming leads to the involvement of CTC providers in many different programmes. This could create competition and translate into an allowance-centred system affecting priorities for work set by CTC providers. The organisation of the private sector has implications for coordination and referral mechanisms. Other factors with a bearing on CTC providers' performance can be summarized as service delivery (supplies and logistics are now made part of this). CTC providers gain credibility if they are part of a well-functioning health system with sufficient (human) resources, in which they are properly embedded with good links with other health staff. A lack of equipment, supplies and infrastructure could hinder CTC providers' performance. Quality assurance mechanisms, such as accreditation and regulation of training of CTC providers, guidelines for supervision of those providers and referral and protocols, influence the professional guidance and quality of CTC services. Collation of health information data and feedback of these data to the CTC providers' supervisors provides a basis for feedback on the performance of CTC providers.

Financing

The ways and means of compensating CTC providers were also found to influence their performance. The costs of CTC services could have an influence on service utilization. Performance- or output-based incentives could lead to the neglect of tasks that are not paid. CTC providers who are dependent on income from selling commodities could face competition, and this could lead to demotivation. The costs of referral services could also influence the performance of CTC programmes. For example, community members sometimes choose not to follow up on referral, because of costs of referral transport and hospital care. The lack of exit strategies for the ending of donor funding for programmes endangers sustainability.

Governance

The last main category of health system factors as identified during the context analysis is the governance structure. Devolution of decision-making was reported as an influence on whether and how CTC programmes are funded and implemented and could, therefore, have an influence on CTC providers' performance, but no details on the possible effect were found. Failing to regulate the tasks of CTC providers, such as clinical services, may leave CTC providers vulnerable to legal prosecution. Accountability structures for volunteer cadres may be challenging but important for monitoring and influencing CTC performance. Accountability structures making CTC providers not only accountable to the health system, but to the community as well, affected community support and CTC provider performance.

Coordination of various efforts to provide CTC programmes by various organizations and the existence of various vertical programmes in which different types of CTC providers are involved could lead to problems in terms of fragmentation in salaries, dependency on allowances and double efforts, leading to demotivation among CTC providers and the inefficiency of programmes. Top-down coordination structures could also hinder CTC providers' performance. Political commitment may influence the planning and regulation of CTC provider tasks.

INTERVENTION DESIGN FACTORS

The intervention design factors represent, as expected, a wide range of aspects that could influence CTC providers' performance. The reverse arrow (from CTC provider performance towards intervention design factors) could be maintained, although the literature does not show many examples in which interventions were adjusted as a result of changes in CTC providers' performance.

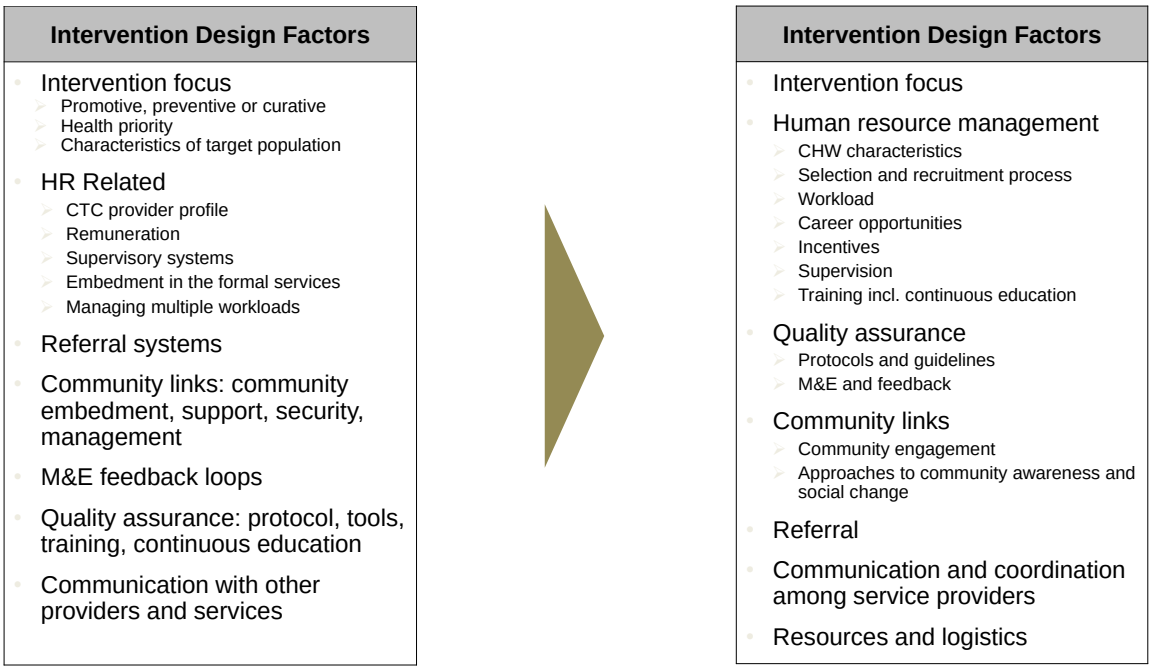


Figure 5. Intervention design factors: initial and final framework

The international literature review and the six country context analyses confirmed the categories of the preliminary intervention design factors. However, as shown in Figure 6, some adjustments have been made in the organization (M&E was brought under quality assurance; resources and logistics was included as a new category), and some sub-categories have been changed and added (under human resources and community links). The following main categories have been identified (sub-categories are presented in the text below and in the final framework):

- intervention focus;
- human resource management;

- quality assurance;
- community links;
- referral;
- communication and coordination among service providers; and
- resources and logistics.

Intervention focus

The country studies confirm that CTC providers may perform better when they have a well-defined and specific focus. CTC providers and key informants refer to the expanding portfolio of their work, and this sometimes hinders CTC providers' ability to perform. Their ability is also influenced by the number and type of tasks and the training and support they receive. Clinical services are generally more appreciated than promotional activities. An additional aspect is time spent on the job linked to a better performance. The ability to reach hard-to-reach populations also depends on carefully outlining the characteristics of the target population and identifying strategies to support CTC providers to reach these groups.

Human resource management

The studies and literature confirm the importance of certain characteristics of CTC providers. The characteristics appreciated by the community relate to attitudes such as dedication, friendliness and availability. The gender of CTC providers affects their performance and service utilization — as was mentioned under broad contextual factors — and needs to be taken into account in the design of CTC interventions. CTC providers' confidentiality is important, especially where stigma and discrimination play a role. As was outlined under health system factors, clarity of the role and job description is important, and the differences between community expectations and job descriptions lead to demotivation. Multiple roles and tasks, targets being unrealistic, increasing tasks and being recruited by diverse organizations for various tasks enhance the workload of CTC providers and affect their performance. Continuing education, performance appraisal and career opportunities emerged as important. The selection of CTC providers differed by setting, with a large involvement of the health system in settings where CTC providers had established links with the health systems and received a salary, and a large involvement of the community in settings with voluntary CTC providers. From the international literature, the selection of CTC providers with the involvement of both the health system and the community was advised, as it could guarantee that CHWs have the necessary skills and represent different groups, and it could also improve linkages between CHWs and both sides.

The motivation of CTC providers is heavily influenced by financial considerations, such as salaries, monthly stipend and allowances; and non-financial incentives, such as materials such as bicycles, uniforms and raincoats; respect, appreciation by the community and other providers; and increased confidence and feelings of self-worth through improved skills and knowledge. Fairness and timeliness of the payments and supplies and the combination of

financial and non-financial incentives play an important role as well. The lack of non-financial incentives such as recognition and appreciation and the lack of opportunities for personal growth for CTC providers are detrimental to CTC programmes. Although these are not intervention design factors as such, certain features can be built into CTC interventions or programmes to enable these kinds of non-financial incentives. Allowances linked to specific tasks influence priority setting and improve performance in these areas but can reduce performance in others. The interplay of financial and non-financial incentives and the effects on attrition and performance are complex and require more research. Intrinsic motivation plays an important role in the CTC providers' willingness to become and stay as a volunteer.

Supervisory systems for CTC providers differ but are in general not well organized. While the formal sector has some kind of a supervisory system, there remains no supervision mechanism for the informal sector. The literature is often lacking information about the precise structure and implementation of supervision and identifies the frequency and location of supervision as important factors influencing CTC providers' performance. Supervision is described as enhancing motivation by enhancing their credibility and recognition. A lack of skills and the egotism of supervisors are described as demotivating, while a lack of guidelines can hinder supervision. Another constraint identified is a lack of transport for supervision, whereas clear lines of supervision are a facilitator.

CTC providers want better initial and refresher training to be able to carry out their tasks. The requirements differ by country and programme, but the location and duration of training matters, with complex tasks requiring more training. The nature of training was found to be important. Only theoretical training hinders performance, and practical training and adaptation to local context are required. Training is seen as a deserved break and a source of allowances. The friendly environment of the training centres, the nature of the relationships between trainers and trainees, and highly qualified trainers are particularly noted as having a positive impact on the learning process and motivation.

Quality assurance

Supervision and training are parts of human resource management that directly affect the quality of CTC services. Continuous learning, the availability of job aides and sharing of experiences were described as important for updating competencies and solving problems, but implementation is often lacking. In addition, an important intervention design factor influencing CTC providers' performance that emerged is the availability and implementation of guidelines and manuals. Community accountability structures (see also community links below), enabling community monitoring and the assessment of providers improves social accountability and increases the demand for quality services, and feedback from the community motivates providers. A lack of supplies of monitoring tools, district management capacity and the use of data by communities and the health system could demotivate CTC providers. Feedback loops improve CTC providers' performance. However, these loops for

feedback often do not work because of a lack of logistics, transport and training for CTC providers.

Community links

Community ownership stimulates trust and appreciation, which constitute important motivating factors for CTC providers. Community ownership is stimulated by engagement of the community in the selection and recruitment of CTC providers. A lack of community engagement creates resentment in the community and is demotivating. Community engagement through involvement in supervision and M&E enhances ownership. Community structures that govern social accountability processes and community involvement facilitate or hinder the extent to which CTC providers are embedded in the community, the safety of CTC providers and their equipment and community support.

Promotive and preventive activities make up the largest part of CTC providers' tasks, and most providers come from the communities they serve. This puts them in a position where their experience, observations and understanding of local norms, values, beliefs and practices mediate between public health and local discourses. Approaches to community education and social change that involve community dialogue and the development of action plans are more effective in generating change in health-seeking behaviour which influences the utilization of health care services. Sustainable social change requires critical reflection on norms and values, which is difficult for CTC providers to initiate unless they are appropriately trained and supported. The importance of the responsiveness of health system to local beliefs and practices needs more attention. The potential of strategic stakeholders (such as supportive village leaders and health managers) to support the work of CTC health providers is insufficiently highlighted.

Referral

Timely detection of health problems and referral to appropriate levels of care are a key role of CTC providers in all contexts. Factors that hinder referral are ineffective management of referral, lack of transport, costs at the next level of care and the attitudes and reputation of referral facilities. Feedback loops from the referral system to the CHWs are not in place in all contexts; however, CTC providers are less concerned about the feedback loops and more concerned about the facilities providing necessary services in a respectful and dignified manner.

Coordination and communication among service providers

The lack of good coordination and communication between and among CTC providers influences their performance. Coordination that improves the clarity of the roles of various actors, expectations and ways of functioning helps to improve performance.

Resources and logistics

Insufficient planning and budgeting results in a lack of resources for supplies, transport, home visits, learning and education materials and refresher training, and constantly hinders performance.

Reflections on the REACHOUT analytical framework

The literature review and the six country context analyses were designed to provide in-depth insight into the situation vis-à-vis CTC providers both globally and in the study countries. The country studies were designed to be built on in the next phases of the REACHOUT study, and this synthesis informed the further development of an analytical framework. The choice of the focus areas for the intervention cycle was informed by the context analysis, in-country stakeholder meetings and consortium meetings. The analytical framework addresses all potential factors and goes beyond the focus areas chosen by the countries. The REACHOUT analytical framework and its process of development serve as the common basis for guiding the next phases of REACHOUT research. These involve the implementation of two 12-month improvement cycles in each of the six study countries to develop interventions for improving the performance of CTC providers. Each study country will adapt this framework to its context while designing and implementing the intervention cycles, and use of a common framework will allow for comparability in all subsequent analysis.

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ANNEX 1

TABLE 1. TYPOLOGY OF CTC PROVIDERS AND SOME PROGRAMME DESIGN FEATURES IN BANGLADESH, ETHIOPIA, INDONESIA.

Design Feature	**Bangladesh**			**Ethiopia**		**Indonesia**		
General features								
Programme start	1977	2002	1965	2004		1989		
Name of community Agent	*Shasthya Shebika* (SS,Health Volunteer)	*Shasthya Kormi* (SK, Health Worker)	Family Welfare Assistant (FWA)	Health Extension Worker (HEW)	Community Health Promoter (CHP)	Village midwives	*Posyandu kaders* (Community Health Volunteer)	Traditional Birth Attendant (TBA)
Standing category	General CTC PROVIDER	General CTC PROVIDER	Specialised CTC PROVIDER	General CTC PROVIDER	Advocate or instructor	CTC provider	Specialised CTC provider	Specialised CTC PROVIDER
Programme focus area	Essential Health Care programme consisting of water and sanitation, immunization, health and nutrition education, family planning and basic curative services for both adults and children		Primary healthcare management, Immunization, Family planning	Four major components, including 16 packages: disease prevention and control (HIV/AIDS, tuberculosis, first aid); family health (maternal and child health, family planning, immunization, nutrition, adolescent health); hygiene and environmental sanitation (excreta disposal, solid and liquid waste disposal, water supply and safety measures, food hygiene and safety measures, healthy home environment, control of insects and rodents, personal hygiene); health education and communication		Maternal health: delivery care, antenatal and postnatal care	Weighing of infants, health promotion: nutrition advice and diarrhoea control	Assisting in home deliveries

Catchment area covered	Each SS covers 250-300 households in plain area; 100 households in hilly area; approximately 10-30 households per day	25 households per day	Responsible for conducting home visits for approximately 1200-2500 eligible couples (catchment area varies depending on the demographic profile and number of staffs)	Every Health Post has two HEWs, serving a population of 5,000	Clusters 100-250	1- 3 villages 500-1500 people	1 village	Mostly 1 village; sometimes on request fromfamily a TBA might attend pregnant women in another village from a different sub-district
Health service responsibilities	Give health education, motivation, and mobilization regarding services	In addition to supervision of *SS,* they conduct monthly health forums, ante and post-natal care; carry out immunization programmes	Reproductive health services – Primary healthcare management, family planning, antenatal and postnatal care, prevention and control of communicable disease, refer pregnant women with delivery complications, support menstrual regulation, ligation etc.	Curative, promotive and preventive services	Advocacy and sensitisation	Antenatal care, point of care tests, postnatal care	Mobilisation and support	Health education, partner with midwives
Selection and recruitment								
Gender	Female	Female	Female	Female	Female and male	Female	female and male	Female
Selection criteria	Female, socially acceptable, age 25 to	Must be married, acceptable to the	Have passed Secondary School	High school graduates,	Committed local residents	Trained Midwives	Willingness to volunteer,	Traditionally in place

	35 years, married, youngest child's age above five years, eager to do work, preferably educated, not living near a local health care facility or big bazaar.	community and have passed Secondary School Certificate exams	Certificate exams, age 25 to 45, live in the assigned community, respected by the community.	residents of *Kebele* of service			literate	
Recruitment process	Suggestions put forward by the credit and development group formed by poor women and sanctioned by the BRAC office.	Selected from locality by BRAC staff	Recruited by the Civil Surgeon Office and can be recruited by the Directorate General of Family Planning office at the district office.	Recruited by *Woreda* health office with involvement of the *Kebele*administrator and sometimes a recruitment committee consisting of community members		Selection and placement by two government programs: a) Civil service programme through District Health Office and Central government; B)contract based employment through District Health Office	Selection by , village elders, family welfare movement and village head. Increasing involvement of village midwives in selection process.	N/A
Training and supervision								
Supervision responsibilities	No	Supervise SS	No	Supervise CHPs	No	Oversight of volunteers	No	No
Initial training	2 weeks	18 days basic training at BRAC Regional Office	6 weeks of basic training provided from DGFP office	1 year	Few days	Nursing academy 3 years	Non-formal: a one week orientation training of the work they are expected to do	Non-formal; through mentoring

Additional training	Once per month for one day refresher	Once per month for one day refresher	Ad hoc refresher trainings	On-job training related to local interventions	Intervention focused updates	In service training offered	On the job. Learning by doing	Through mentoring
Supervision structure	10-12 SSs supervised by one SK for regular internal evaluation	Programme organiser and *Upazila* or Area Programme Manager supervise SK on a regular basis; Medical officers provide overall technical supervision	Family Planning Inspector supervises all FWAs within one union at a monthly basis including the regular household visits by the FWAs; Health Inspectors (HI)s supervise on training and knowledge skills of FWAs	Supervised by supervisors from the Health Centre and *Woreda* health office, monthly	Informal and irregular, by HEWs	Formally supervised by midwife coordinator at PHCFrequency: once a month	None	None
Remuneration and supplies								
Salary	No	Yes	Yes	Yes	No	Yes	No	No
Incentives from health system	Performance-based. Pregnancy identification (Tk.30), Bringing mothers for delivery (Tk.100), providing emergency neonatal care (Tk.100), refer (Tk.100), and ensuring birth weight (Tk.30), DOTS for tuberculosis patients (Tk. 500)	No	No	Some programmes give airtime	Ad hoc per diem when campaigns are conducted	Transport; incentive per antenatal care, delivery assisted and postnatal care	Allowance varying from 5-20 Euros per month	Gifts in kind, incentives for referral to facility delivery

Supplies	Sanitary napkin, delivery kits, family planningcommodities (pill, condom), and medicines for basic curative services	None	Family planning commodities (pill, condom), and medicines for basic curative services	Basic Kit	Information, Education and Communication materials	Midwifery kit, tests	Uniform, Information, Education and Communication materials	None

TABLE 1B. TYPOLOGY OF CTC PROVIDERS AND SOME PROGRAMME DESIGN FEATURES IN KENYA, MALAWI AND MOZAMBIQUE

Design Feature	Kenya		Malawi		Mozambique
General features					
Programme start	2006	1980s	1992		1978 and Revitalised in 2013
Name of community Agent	Community Health Extension Worker (CHEW)	Community Health Worker (CHW)	Health Surveillance Assistant (HSA)	Volunteer	*Agent Polivalente Elementar* (APE)
Standing category	General CTC PROVIDER	General CTC PROVIDER	General CTC PROVIDER	Advocate or instructor	General CTC PROVIDER
Programme focus area	Disease prevention and control, family health services and hygiene and environmental sanitation		Community health, family health, environmental health, prevention and control of communicable diseases and management and administration		Child health, diagnose and treat malaria, diarrhoea, chest infections
Catchment area covered	5,000 population	20 households (or 100 population)	1,000 population	Variable but often not determined	5,000 population
Health service responsibilities	Curative, promotive and preventive services. Six age cohorts – includes pregnant women	Mobilisation, referral, follow up, basic treatment	Essential health package, curative and preventive services, supervision of village health committees	Information, Education and Communication, growth monitoring, referrals to health facilities	Promotive and preventive services, limited curative services
Selection and recruitment					
Gender	Male and female	Male and female	Male and female	Male and female	Male and female (71% male)
Selection criteria	Minimum of certificate in a health-related	Respected and literate community resident,	At least completed primary school, preferably secondary	Willingness to volunteer	Being aged 18 or over, being a resident and active member of the community and well respected by fellow community members, having minimal literacy (able to

	course	approachable and able to motivate others, good example in health and development, and willing to volunteer	school		read and write in Portuguese) and numeracy (able to perform basic arithmetic calculations). Preference was given to women candidates (although in practice more men are selected for reasons yet to be better studied).
Recruitment process	Trained health professionals	Committed local residents	Interviewed and recruited by government health system		Community selection process
Training and supervision					
Supervision responsibilities	Oversight of CHWs	No	Oversight of volunteers	No	No
Initial training	6 weeks training	6 weeks training or 3 10-days training	12 weeks training	None, ad hoc for campaigns or activities	Four months residential training
Additional training	On need basis – not clearly defined in policy	Quarterly refresher updates	Ad hoc for campaigns of NGO activities	Ad hoc for campaigns of NGO activities	Ad hoc refreshers
Supervision structure	Supervised by district focal person	Supervised by CHEWs in a 1-25 ratio	Supervised by Environmental Health Officers and Community Nurses	Ad hoc by HSAs	Supervised by facility-based health care workers and district and provincial supervisors
Remuneration and supplies					
Salary	Yes	No	Yes	No	Yes (described as an allowance or subsidy)
Incentives from health system	Motorbikes and fuel (standard but not uniformly	Bicycles (standard but not uniformly distributed)	Some programmes give bikes, t-shirts, airtime	Some programmes give t-shirts or other goods	Uniforms, flashlight, backpack. Some programmes give airtime, bikes.

	distributed) Some programmes give airtime	Others are non-monetary and not standard e.g. t-shirts, badges, and bags			
Supplies	Custodians of the kit	Basic kit	Uniform, weighing scale, Information, Education and Communication materials and others depending on district/ NGOs involved	None	Custodians of the kit that includes gloves, bandages, antibiotics, ORS, malaria tests and treatment