COMMUNITY HEALTH WORKERS DURING THE EBOLA OUTBREAK IN SIERRA LEONE

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Community health workers
during the Ebola outbreak in
Sierra Leone

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Executive Summary

Community health volunteers and community-based MNCH services pre-Ebola

Prior to Ebola, Community health workers (CHWs) in the study areas were providing a range of curative and preventive maternal, newborn and child health (MNCH) services. CHWs most frequently reported assessing, diagnosing and managing cases of pneumonia, malaria and diarrhoea including identifying danger signs that triggered immediate health facility referral; assessing children under five for malnutrition; sensitising community members on the use of ITNs; sensitising pregnant women to register their pregnancies, attend ANC and PNC clinics, deliver at a health facility and exclusively breastfeed their infants until six months old. A number of CHWs stated that they also monitored pregnant women, lactating mothers and newborns for danger signs that would prompt immediate referral to a health facility. Services in the study districts were managed by implementing partners, who coordinated with District Health Management Teams (DHMTs).

Supply chain management was a persistent weakness of the health system in Sierra Leone even before the Ebola outbreak, and stakeholders engaged in the study discussed their concerns about frequent drug shortages and stock-outs. Frequency and quality of supervision varied, and were hampered by limited health staff to carry out supervision. There is also a shortage of data on CHW quality of care or impact of community-based health services.

Traditional birth attendants (TBAs) acted as the link between pregnant women and health facilities, referring them and encouraging attendance for antenatal care, delivery and family planning. Whilst the majority of TBAs reported adherence to the bylaw prohibiting home deliveries, those located in more remote areas confirmed they would perform home deliveries for rapidly progressing labours, if there was no means of transport, or if the woman or her family refused to attend the health facility.

Community health volunteers and delivery of MNCH services during Ebola

Different stakeholders both between and within districts gave varied accounts about whether CHW MNCH service provision (particularly the treatment component of iCCM) continued, was reduced and/or stopped at different stages of the outbreak, and why. Participants gave numerous reasons for the withdrawal or reduction of iCCM services, including CHWs’ fear or lack of confidence in their ability to provide services safely without becoming infected; preoccupation with or reorientation towards Ebola-related activities; lack of support for the continuation of routine services; and because of a clear directive from an implementing partner or supervising health facility. MNH promotional activities were continued in these districts, but CHWs were advised to maintain at a safe distance from community members whilst conducting these activities.

Several months after the start of the outbreak, CHWs were trained on a revised ‘no touch’ iCCM protocol and instructed to continue providing treatment to children without making physical contact with the patient or caregiver, and therefore without the use of rapid diagnostic tests. The policy was widely supported by service providers, yet a number of district- and national-level stakeholders engaged in this study conceded that it had been introduced too late in the response and only after a number of CHWs had died after being infected by Ebola during the course of their work.

Quantitative programme data from the four counties show that iCCM treatments and malnutrition screening declined from the early period of the outbreak in June 2014. However, services did continue at a reduced level. iCCM services started to recover around November 2014, while malnutrition screening continued at
lower levels throughout the period observed. The number of MNH home visits and referrals to health facilities, on the other hand, did not seem to be affected by the outbreak.

Accounts from caregivers and TBAs indicated that TBAs played an important role during the Ebola outbreak, monitoring pregnant women in their communities and accompanying them to the health facility for delivery if possible. As pregnant women started to avoid health facilities in more intensely Ebola-affected areas, TBAs reported that they conducted increased numbers of home deliveries, often without sufficient IPC measures. TBAs also performed deliveries at the local PHU without supervision. Several caregivers confirmed that they had sought the care of traditional healers during the outbreak because they were trusted sources of care in the community, but also reverted to using home-based herbal remedies.

Although the relationship between CHWs and the communities they served was built on a foundation of respect and trust prior to Ebola, the link between CHWs and health facilities led to communities displaying elevated levels of fear and mistrust that resulted in their rejection of CHWs. It should be emphasised, however, that according to many district-level stakeholders, the long established close and trusting relationship between communities and their CHWs was significantly more resilient than the relationship communities had with facility-based health workers. Many caregivers confirmed that they were more likely to seek care from a CHW than present at a PHU or other health centre, a view echoed by CHWs themselves.

**Community health volunteers and Ebola-related work**

Many respondents explained that CHWs were slow to be included in the formal response, and in the early phases of the response, there was no formal coordination of CHWs. As the response became more coordinated, CHWs were utilised for various Ebola response activities. The importance of local or community-level actions in bringing the transmission of Ebola under control was highlighted by many stakeholders. Informally CHWs functioned as ‘caregivers’ in their communities bringing food and water to quarantined families, supporting the sick whilst awaiting the ambulance, and encouraging those who were afraid to attend health facilities. More formally, CHWs primarily contributed to the Surveillance Pillar as contact tracers and ‘case finders’ providing community events based surveillance. They also worked on social mobilisation and community engagement. In reality, CHWs often carried out multiple roles in parallel or even simultaneously.

The response to Ebola resulted in a rapid expansion of actors involved in the community health system. Existing CHWs had their duties expanded and were tasked with new Ebola-related roles, in addition to or in place of their existing MNCH activities. A need for extended coverage, particularly for community-based surveillance, led to the recruitment and training of new CHWs to supplement the existing community-level workforce.

The significant influx of time-limited emergency funds during the outbreak allowed partners to offer CHWs and other ‘Ebola workers’ incentives that were inflated compared with normal scales of remuneration. Stakeholders frequently reported variable payment rates depending on the implementing partner they were working with, and their specific role. Some pre-existing CHWs conducting social mobilisation activities or ‘active case finding’ under the supervision of their regular NGO or the DHMT received no payment, while people specifically recruited for Ebola-related social mobilisation activities or contact tracing by international organisations were reportedly paid SLL 400,000 per month (approximately USD 54). Such disparities in payment not only demoralised some CHWs who were working voluntarily, but led to the politicisation of certain Ebola-related activities.

CHWs faced significant barriers to conducting their duties during the outbreak, including CHWs also faced mistrust and stigma because of their ties to health facilities, lack of support from government and
implementing partners, and an initial lack of training. These led to challenges in carrying out their duties, particularly with regards to the identification and referral of sick individuals to health facilities and to effecting behaviour change within their communities.

Despite these challenges, many stakeholders, including community members, recognised that community surveillance activities conducted by CHWs played a major role in breaking chains of transmission. Several participants suggested that contact tracers who were working in their resident community were more accepted, even if they faced challenges and resistance from community members. In addition to CHWs, securing the support of community leaders was essential for the delivery of community-based Ebola-related services by CHWs, and for effective referrals. Social mobilisation and community engagement had to be conducted not only by CHWs, but also by prominent actors who were trusted sources of information in their communities in ‘peace’ time, including community and religious leaders, teachers, youth groups, women’s groups and local civil society and community based organisations. In most scenarios, local people were more readily trusted than outsiders, and were familiar with local dialects, customs and power dynamics, all of which helped to support effective community engagement. Many stakeholders confirmed, however, that the involvement of community members came too late in the response, and for too long communication for the response was one-directional without facilitating meaningful dialogue with community members.

Despite the trust that communities felt for TBAs, they were rarely included in the formal EVD response, and given concerns about their low literacy levels, many were considered not sufficiently skilled to take on Ebola-related activities. Similarly, traditional healers were sidelined throughout much of the formal response.

Community health volunteers and post-Ebola community-based MNCH programming

CHWs have been acknowledged as a core component of the primary health system in Sierra Leone. A Revised National Community Health Worker Policy (RNCHWP) was formalised in November 2016. A number of key changes were made to the revised programme: CHW coverage of ‘easy’ as well as ‘hard-to-reach’ communities was increased; CHW responsibilities were expanded; the training programme was redesigned; and CHWs are to receive regular remuneration. A key component of the post-Ebola recovery strategy was a renewed focus on community engagement and part of the updated strategic approach to community health included strengthening links between community health and other components of the health sector. As part of the recovery process, renewed support was provided for the formation and (re-) activation of Village Development Committees in an effort to ensure that resilience was built at a community level, and that communities had an equitable role in the design, implementation and accountability of initiatives.

However, a number of national- and district-level stakeholders engaged in the study raised concerns over the expansion of CHW activities without having robust evidence of their effectiveness as a cadre, or a detailed appreciation of the operational challenges that existed in the Sierra Leone context. For example, despite the significant injection of resources during the Ebola outbreak, problems related to the management of iCCM drugs and the supply chain persisted as they had prior to Ebola. Consequently, drug shortages continued to impact both CHW motivation levels, and community perceptions of CHW services. Furthermore, government representatives highlighted that despite the RNCHWP and the provisions it made, some organisations had returned ‘to business as usual’ with implementing partners continuing to run short-term programmes, often in parallel to the formal health system, and which failed to build the capacity of permanent health structures.

To improve the community component of any future emergency response, district- and national-level stakeholders acknowledged the need for an emergency preparedness plan that clearly delineated the roles of CHWs. Several participants stressed the need for a more integrated approach to community-level response.
As a result of different funding timelines, donor conditions, and means of channeling committed funds, the financing landscape remains complex and requires strong coordination strategies. At the time of writing, there remain significant funding gaps, and it is unclear how the ambitious community health policy will be fully funded.

Conclusions

The results of this study demonstrated mixed results in terms of resilience of community-based MNCH services in Sierra Leone. On one hand, there was clearly a sharp drop in iCCM service provision in the early months of the Ebola outbreak. On the other, curative services continued to some degree and MNH services appear to have been largely unaffected. The reduction in services can be attributed partly to directives from the government and implementing partners to cease curative services. When policy was changed and CHWs were directed to restart services and trained on the no touch policy, service provision rebounded, although with variations in service levels, even while the outbreak continued. It is clear that the vast majority of CHWs remained active in their communities and were willing to continue providing health-related services. Although CHWs faced mistrust and stigma because of their ties to health facilities, many were better able to gain the trust of community members because of their longstanding relationships. Respondents at all levels consistently affirmed that CHWs played an integral role in the Ebola response at the community level, carrying out contact tracing, case finding, social mobilisation and community engagement, and informal caregiving to sick community members.

In addition to CHWs, this study showed the importance of engaging other key community members. Engagement of trusted and respected community leaders was crucial to mounting an effective community response to the emergency. Furthermore, TBAs played an important role in supporting maternal health and traditional healers gained increased prominence as trust in health workers diminished. However, TBAs and traditional healers were not adequately supported or engaged in the response. In an emergency, all of these community actors should be immediately engaged in a coordinated response. The establishment of village development committees would further facilitate mobilisation and coordination at the community level.

These findings support the hypothesis that the establishment of strong community-based health services through CHWs, along with engagement of other key community actors, will increase both health system and community resilience in emergencies. Following the Ebola outbreak, stakeholders at all levels have recognised the importance of strong community-based health systems to achieve increased and more equitable coverage of essential MNCH interventions and to improve resilience of health systems and improved response to emergencies. The new national community health policy provides a strong foundation for strengthening the community health system. It is unclear, however, how this policy will be financed. Furthermore, there remain critical service delivery weaknesses, particularly regarding supply chain management and supervision, that were present before, during and after Ebola. There is also a need for rigorous assessments of CHW quality of care and impact of community-based health services. These issues will have to be resolved for the initiative to have a significant impact.

Although the Ebola outbreak and its impact could not have been predicted, we can anticipate that some form of emergency, such as disease outbreak, conflict or natural disaster, will occur again in Sierra Leone. To avoid some of the pitfalls seen during the Ebola outbreak, such as poor coordination of activities and unclear policies, emergency preparedness and response plans should be developed and incorporated into the trainings of CHWs, VDCs, TBAs, traditional healers, health facility staff, and other actors involved in health service delivery. Finally, in an emergency, a balance must be struck between responding to the emergency and continuation of routine services.
<table>
<thead>
<tr>
<th>Acronyms</th>
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<td>ANC</td>
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<td>ARI</td>
<td>Acute respiratory infection</td>
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<tr>
<td>BPEHS</td>
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<td>BRAC</td>
<td>Building Resources Across Communities</td>
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<td>C4D</td>
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<td>CEBS</td>
<td>Community events based surveillance</td>
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<td>CHC</td>
<td>Community health centre</td>
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<td>CHM</td>
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<td>CHW</td>
<td>Community health worker</td>
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<td>CLEA</td>
<td>Community-led Ebola action</td>
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<td>Central medical store</td>
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<td>IP</td>
<td>Implementing partner</td>
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<td>Ministry of Health and Sanitation</td>
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<td>Overseas Development Institute</td>
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<td>ORS</td>
<td>Oral rehydration salts</td>
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<td>PBF</td>
<td>Performance based financing</td>
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<td>Public health unit</td>
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<td>PMS</td>
<td>Procurement and supply management system</td>
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<td>Postnatal care</td>
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<td>Personal protective equipment</td>
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<td>RDT</td>
<td>Rapid diagnostic test</td>
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<td>RNCHWP</td>
<td>Revised National Community Health Worker Policy (2016 – 2020)</td>
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<td>Save the Children</td>
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<td>Social Mobilisation and Action Consortium</td>
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<td>Tuberculosis</td>
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<tr>
<td>TBA</td>
<td>Traditional birth assistant/attendant</td>
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<td>UN</td>
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Introduction

Background and regional context of EVD in West Africa

The epidemic of Ebola Virus Disease (EVD) that began in south-eastern Guinea in December 2013 spread across West Africa affecting thousands of people in Sierra Leone, Guinea and Liberia, in addition to smaller but connected outbreaks globally (Aylward et al 2014). In August 2014, the World Health Organization (WHO) declared Ebola to be a Public Health Emergency of International Concern. Nineteen months later, when the emergency was declared over in March 2016, the cumulative number of confirmed, probable, and suspected EVD cases in the three most affected countries was 28,610 and the number of confirmed deaths was 11,308 (WHO 2016a). Over 16,000 children were registered as having lost at least one of their primary caregivers during the outbreak (UNICEF 2015a). The 2013-2016 outbreak of EVD in West Africa was the largest recorded epidemic since the virus was discovered in 1976 (Bah et al 2014). Unlike previous outbreaks that were largely focused in rural areas, the West African outbreak affected both rural and urban areas, including the capital cities of Freetown, Monrovia and Conakry. Over 90% of reported cases arose from 14 of the three countries’ 67 districts, indicating intense transmission in these areas (Bah et al 2014; Aylward et al 2014).¹

The Humanitarian Policy Group concluded that ‘at best’, the initial response of the national health systems failed to halt the early spread of the disease, and ‘at worst’ contributed to the epidemic reaching record proportions (HPG 2015). The rapid spread of EVD quickly overwhelmed the fragile public health system. Since the first detected positive Ebola case in Sierra Leone in May 2014, 8,706 laboratory confirmed cases and 3,956 deaths have been recorded, plus an additional 5,418 ‘probable and suspected’ Ebola cases (CDC 2016).

Despite a decade of health sector reform and capacity-building resulting in genuine gains in maternal and child health in Sierra Leone, the Ebola crisis highlighted persistent weaknesses and vulnerabilities in the national health system: insufficient funding dedicated to the health sector (only 7.5% of the government’s annual budget was spent on healthcare (ODI 2015)); a chronic shortage of skilled healthcare workers; limited access to facility-based care; weak procurement system and supply chain (Jarrah et al. 2014); and widespread lack of confidence in the health system (ODI 2015). The government of Sierra Leone estimated that 3,300 doctors are needed to provide equitable care in Sierra Leone, yet in 2014, there are just 386 doctors nationwide (Government of Sierra Leone 2014). This corresponds to approximately 1.9 doctors, nurses and midwives for every 10,000 people and falls short of the 23 skilled health personnel per 10,000 recommended by the WHO to provide essential maternal and child health services (WHO 2011). The situation is more inequitable in rural areas because the majority of skilled health workers are concentrated in Western Area, comprising Freetown and surrounding areas (MoHS and UNICEF 2014). A 2011 assessment of service availability and readiness surveyed 188 health facilities that provided basic emergency obstetric and newborn care (Government of Sierra Leone 2011). Of the facilities surveyed, none had the full complement of tracer items (e.g. trained staff, emergency transport, equipment and medicines) required to safely provide basic emergency obstetric and newborn care. The average number of tracer items recorded was seven of the key 15. It is estimated that two thirds of the population rely on the 1,185 peripheral health units (PHUs) that exist, yet many of these remain under-resourced to provide essential MNCH services (MoHS and UNICEF 2014). Not only are the services offered through PHUs limited, but access to these facilities remains challenging for many communities. The lack of confidence in the public health system is persistent, particularly as it builds on the post-civil war mistrust in government (Denney et al. 2014).

¹ As of September 2014, the 14 most heavily affected districts were Kambia, Kailahun, Western Area Urban, Bombali, Port Loko, and Kenema (Sierra Leone); Lofa, Montserrado, Bong, and Grand Bassa (Liberia); Guéckédou, Macenta, Conakry, and Boffa (Guinea) (Aylward et al 2014). Two border districts between Guinea and Sierra Leone – Forecariah and Kambia, would later be included as areas of intense transmission.
Whilst the Ebola crisis exacerbated many health system weaknesses, the majority of health facilities remained open in Sierra Leone, albeit with reduced staffing, frequent stock-outs of essential commodities and limited infection prevention and control strategies in place. A rapid health facility survey conducted during the Ebola outbreak reported that only 8% of PHUs were closed or had temporarily closed for a period between June and October 2014 (MoHS and UNICEF 2014). A follow-up primary healthcare system assessment conducted in March 2015, compared PHU service utilisation between October 2013 to January 2014 (pre-Ebola) and October 2014 to January 2015 (during the outbreak). The study indicated that whilst MNCH service utilisation was profoundly affected by the outbreak, different services were affected to various degrees. It reported that institutional deliveries declined by 7% during Ebola as compared to the period immediately prior to the outbreak, but there was a 14% reduction in attendance at routine fourth antenatal care (ANC) visits during the outbreak (MoHS 2015a). The number of children under-five who were treated for malaria reduced by 31%, there was a 17% reduction in the number of children visiting health facilities for their third dose of Penta 5 and mass vaccination campaigns (e.g. for polio and measles) were suspended (ibid.). There was concern that this ‘immunity gap’ would lead to measles and polio outbreaks. Whilst there are marked gaps in accurate maternal and child mortality data from the Ebola period, studies indicate both increased. A 30% rise in the maternal case fatality rate in health facilities was estimated (VSO et al. 2015) and the MoHS projected a 20% increase in under-five child deaths as a result of reduced service utilisation (MoHS 2015a). The observed reduction in MNCH service uptake has been attributed primarily to community mistrust of health workers and health facilities. Many community members avoided health facilities due to their fear of contracting Ebola. This was not an unwarranted concern given that due to inadequate infection prevention control, 295 medical personnel were infected nationally (resulting in 221 deaths) (Government of Sierra Leone 2015) and in Kenema, for example, 18% of Ebola-related deaths occurred as a result of infection transmission in health facilities (MoHS and UNICEF 2014).

In re-building the health system after Ebola, it has been widely acknowledged that strengthening resilience at the community level is critical, and there is a resurgence in interest to use community health workers (CHWs) to deliver primary health services. The work of CHWs in the West African Ebola outbreak has been repeatedly highlighted in recent UN, INGO and governmental reports that advocate for increasing the numbers of CHWs globally to build resilience, strengthen health systems, and provide the capacity to respond to community health needs in future emergencies and disasters (UN 2015; Obilade 2015). Recent investments in CHW recruitment and training across the three countries suggests that a cadre of CHWs should play a key role in strengthening public health systems in the context of chronic human resources constraints. In the post-Ebola health recovery plans drafted by the Governments of Liberia, Sierra Leone and Guinea, however, there are limited details about how to develop and operationalise community-level resilience. This study was carried out to provide detailed information on the work of community-level actors during the Ebola outbreak with the goal of informing efforts to strengthen community health systems and build resilience in future emergencies.

Core objectives and study aims

The purpose of the research was to provide evidence to help inform the Governments of Sierra Leone, Guinea and Liberia as they implement their post-Ebola health recovery plans and strengthen community-level health systems. The study had four key objectives:

- To document the effect of EVD on decreasing the functionality and utilisation of community-based MNCH services.
- To document and assess the intended and actual contribution of CHWs to the EVD response.
- To identify how CHWs could have been more effectively used and supported in the EVD response.
• To determine lessons learnt and recommendations for early recovery, health systems strengthening, and ensuring future resilience of MNCH services.

While CHW roles and activities are diverse, the study concentrated specifically on CHW MNCH interventions. The full range of MNCH interventions were covered, including activities aimed at promoting MNCH or preventing disease with a particular focus on community case management (CCM) of priority childhood diseases. CCM is an equity-focused strategy to deliver lifesaving curative interventions for the most common childhood illnesses, particularly in areas where there is little access to facility-based services. In this report, CCM is used to refer only to the CCM of malaria. Integrated community case management (iCCM) refers to the integrated management of childhood malaria, diarrhoea and pneumonia (WHO and UNICEF 2012).

Report structure and outputs

This report focuses on Sierra Leone. Similar country-specific reports have been produced for Guinea and Liberia.

Following the introduction, the study’s methods are outlined in detail. The research findings are then presented in four substantive chapters arranged chronologically. Chapter 1 focuses on community health workers and community-based MNCH services pre-Ebola. Chapter 2 focuses on the delivery of MNCH services by community health workers during the Ebola outbreak. Chapter 3 focuses on the Ebola-related work conducted by community health workers. Chapter 4 focuses on community health workers and post-Ebola community-base MNCH programming. All chapters are structured according to the eight benchmarks of integrated community case management (iCCM): 1) Coordination and policy; 2) Costing and financing; 3) Human resource management; 4) Supply chain management; 5) Service delivery and referral; 6) Communication and social mobilisation; 7) Supervision and performance quality assurance; and 8) Monitoring and evaluation and health information systems.2 This structure was developed by UNICEF to facilitate the comparison of any one component across the three distinct periods of study (pre-, during, and post-Ebola). Each chapter is preceded by a narrative that presents the personal accounts of participants engaged in the study.

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2 For further details on the eight benchmarks of iCCM refer to McGorman 2012; MCHIP 2013.
Methodology

The research was conducted in line with prevailing ethical principles to protect the rights and welfare of all participants. Permission to undertake the research was granted by the Ministry of Health and Sanitation (MoHS) of Sierra Leone and supported by the UNICEF Country Office in Freetown, Sierra Leone.

Rationale for research site selection – Kenema, Kailahun, Bombali and Tonkolili

In selecting the research sites for the study, three key questions were posed:

• Was the location significantly impacted by Ebola? (Did the location have a high-level of EVD transmission at any period during the 2014-16 outbreak?)
• Did the location have established iCCM (or other community-level MNCH programming) by CHWs prior to the Ebola outbreak?
• Did the location’s population have differential levels of healthcare access? (i.e. did locations include communities that had easy accessibility to health facilities and communities that faced more complex access challenges?)

When selecting counties and specific fieldsites that adhered to the above requirements, the aim was to include urban, peri-urban and rural locations; and to ensure diversity in population groups (ethnicity, religion, gender).

In consultation with the MoHS and in line with the above criteria, four districts were selected: Kenema, Kailahun, Bombali and Tonkolili. Within these districts, specific fieldsites (chiefdoms and communities) were selected in collaboration with country- and district-level UNICEF staff. All the CHW programmes included in the study were supported by UNICEF who provided funding to the implementing partners and technical expertise to the MoHS. The table below outlines key details about the fieldsites and a map of Sierra Leone is presented in Appendix 1.

Data collection

Intensive data collection and in-country fieldwork was conducted over 20 days in May-June 2016 (see Appendix 2). Based upon the rapid review of literature and programme documentation, and building upon a research protocol, a series of methodological tools were developed including semi-structured interview and focus group discussion (FGD) frameworks (see Appendix 3). The tools included a broad spectrum of research questions and probes arranged around six key themes: iCCM programming or other community-based MNCH services provided before, during or after the Ebola outbreak; roles and responsibilities during the EVD response; implementing partner coordination; CHW roles before, during and after the Ebola outbreak; impact of EVD on MNCH service provision; and lessons learnt during the outbreak for strengthening health systems in the future. The key themes were addressed in each interview and focus group and therefore allowed analysis of themes across participant groups and fieldsites. The research was designed to facilitate input from multiple stakeholders using a phased approach, so that issues raised by one group of interlocutors could be discussed with other groups of stakeholders as appropriate. This ensured the collation of in-depth material and the rigour of its validation and triangulation.
Table 1. Fieldsites

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<tbody>
<tr>
<td>Kenema</td>
<td>440,883</td>
<td>6053 [6]</td>
<td>1 hospital 21 CHCs 17 CHPs 44 MCHPs</td>
<td>224</td>
<td>75.4</td>
<td>503</td>
<td>265</td>
<td>02/04/15</td>
<td>Gaura 18,216</td>
<td>Njala CHC - 8.5km</td>
<td>Perri 0 (0)</td>
<td>Yes</td>
<td>Yes</td>
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<td></td>
<td>Nongowa 45,502 Nyankeyama MCHP - 10km</td>
<td>45,502</td>
<td>503</td>
<td>265</td>
<td>02/04/15</td>
<td>Nongowa 45,502</td>
<td>Nyankeyama MCHP - 10km</td>
<td>Nekabo 0 (0)</td>
<td>Yes</td>
<td>Yes</td>
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<td>Kailahun</td>
<td>465,048</td>
<td>3,859 [7]</td>
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<td>84.7</td>
<td>565</td>
<td>228</td>
<td>12/12/14</td>
<td>Jawei 50,779</td>
<td>Bombohun CHC - 0.8km</td>
<td>Daru 34 (29)</td>
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<td>Yes</td>
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<td>Kisi Teng 45,109 Naima MCHP - 1.6km</td>
<td>45,109</td>
<td>503</td>
<td>228</td>
<td>12/12/14</td>
<td>Kisi Teng 45,109</td>
<td>Naima MCHP - 1.6km</td>
<td>Koindu 7 (2)</td>
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<td>Bombali</td>
<td>368,621</td>
<td>7,985 [8]</td>
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<td>68.9</td>
<td>1050</td>
<td>391</td>
<td>13/09/15</td>
<td>Biriwa 47,274</td>
<td>Kapethe CHC - 4km</td>
<td>Kamabai 1 (1)</td>
<td>No</td>
<td>No</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Safroko Limba 31,126 Small Bumbuna MNCP - 3.2km</td>
<td>31,126</td>
<td>503</td>
<td>391</td>
<td>13/09/15</td>
<td>Safroko Limba 31,126</td>
<td>Small Bumbuna MNCP - 3.2km</td>
<td>n/a 47 (38)</td>
<td>No</td>
<td>No [9]</td>
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<tr>
<td>Tonkolili</td>
<td>434,937</td>
<td>7,003 [11]</td>
<td>1 hospital 8 CHCs 9 CHPs 11 MCHPs</td>
<td>113</td>
<td>57.3</td>
<td>459</td>
<td>162</td>
<td>04/09/15</td>
<td>Kohilfa Rowala 66,197</td>
<td>Gbondona MNCP - 6.4km</td>
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<td>Ghonkolenken 67,659 Makere CHC - 9.6km</td>
<td>67,659</td>
<td>503</td>
<td>162</td>
<td>04/09/15</td>
<td>Ghonkolenken 67,659</td>
<td>Makere CHC - 9.6km</td>
<td>Yele 20 (15)</td>
<td>Yes</td>
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9. CHWs interviewed reporting providing community case management for malaria both prior to and post-Ebola, but not ICCM.
10. CHWs interviewed reported providing community case management for malaria both prior to and post-Ebola, but not ICCM.
Informed consent

At the start of each interview and focus group, it was made clear to all potential participants that their involvement was optional and voluntary, and would not affect any future medical services and/or community benefits needed or received. The study’s consent form (see Appendix 4) was explained in detail and read aloud for illiterate participants. The contact details of the UNICEF focal person for the research was provided on each consent form and given to community leaders for their records. A copy of the consent form was given to all participants who requested it. All research participants gave informed consent by signature and/or thumbprint.

Participants and recruitment

Study participants were selected using purposive, non-probability sampling. A total of 184 participants were enrolled across the four districts, and 71 data collection activities undertaken. Forty-six in-depth interviews were conducted with 53 participants, and 25 FGDs were conducted with 131 participants.

At the national level, key informants (policy makers) were selected for informal interview and/or semi-structured interview if they had a detailed knowledge of and/or were involved in community MNCH services either pre- or post-Ebola, and/or with the Ebola response. All 13 national-level interviews were conducted in Freetown with representatives from the MoHS, UNICEF, UNFPA, Save the Children and the International Rescue Committee, the local organisation Restless Development, and the Traditional Healers Union (see further details in Appendix 5).

At the district level, informants selected for interview included a purposive sample of key community MNCH implementing partners; UNICEF staff involved in community-based health services; MoHS District Health Management Team personnel; and representatives from community based organisations (CBOs).

At the community-level, informants selected for semi-structured interviews or focus group discussions included community leaders; caregivers of children under five; CHWs; officers in charge of PHUs; maternal child health aides; community health assistants; community health officers; traditional birth attendants; and EVD survivors.

The number and distribution of participants by district, activity and stakeholder group, and their demographic details are presented in a series of tables in Appendix 5.

Data transcription and analysis

At the end of data collection, the audio recordings of all interviews and FGDs were transcribed into English. The transcripts were reviewed for accuracy and were cross-referenced with the research team’s fieldnotes. Any areas of inconsistency were resolved after an additional review of the original audio file.

Dominant themes were identified through the systematic review of interviews, FGDs and observations. The occurrence and reoccurrence of salient concepts were labelled and emerging trends critically analysed according to the research objectives. All qualitative data were coded and analysed by hand, and the demographic data of participants was analysed in Excel. A sub-set of data, including all the national stakeholder interviews, were coded and analysed by KR using thematic tables in Excel. Having two researchers code the same data is good practice and facilitated the benchmarking of analysis.
Quantitative data

Routine quantitative data on community-based MNCH activities were obtained from implementing partners in the four study districts. Data on the number of treatments for pneumonia, diarrhea and malaria for children 0-59 months, home visits for antenatal and postnatal care, children screened for malnutrition and community to facility referrals were presented as a monthly trend from January 2013 to December 2015. This allowed for the assessment of changes in the level of service delivery, comparing the year prior to the start of Ebola, through the Ebola outbreak and after the outbreak.

Methodological limitations and data collection challenges

In qualitative research, there is always a risk associated with misinterpretation and the possibility that respondents provide what they perceive to be socially correct answers or withhold sensitive information. Attempts were made to mitigate these risks by the research team working closely together to plan translation styles in advance and decide how to best capture colloquialisms, abstractions, idiomatic expressions and jargon. Careful phraseology was used when posing questions. Sections of narrative were back translated to confirm or clarify participant statements. Participants were encouraged to speak openly, although it is possible that due to the continuation of bylaws prohibiting the use of traditional healers and home deliveries, participants withheld information relating to these practices.

The limited time and resources for this study demanded prioritising engagement with stakeholders at district and community levels. The maximum possible number of interviews and focus group discussions were conducted at each fieldsite given the time and operational constraints. Accessing a number of the fieldsites was challenging due to poor road conditions resulting in lengthy travel times. It was not possible to access remote villages located more than 2.5 hours from the central town. This may have biased responses relating to health seeking behaviour and referral compliance.

The criteria for fieldsite selection that was communicated to NGO implementing partners at the national-level was not always transferred accurately to district-level staff facilitating the research, particularly in Kenema. As a result the selected fieldsites in that district did not meet all the selection criteria. Two fieldsites were visited in Kenema and although CHWs were active in these communities before, during and after the EVD outbreak, they had not been directly affected by EVD. Due to time limitations, further fieldsites in Kenema were not possible. It was therefore agreed to include the second two fieldsites in the analysis to allow comparisons to be drawn between communities that had been highly affected by EVD and those that had not.

While every attempt was made to conduct the FGDs in privacy, in a small number of communities it was challenging to find a private location and in a few instances other community members insisted on observing the FGD. This may have reduced the willingness or ability of some female caregivers to speak openly given the close proximity of male community members and community leaders. The use of a male Research Assistant may have also have affected female caregivers’ willingness to openly discuss maternal health issues. However, the Research Assistant is very experienced in participating in this kind of study, approached the discussions with sensitivity and behaved in a respectful, encouraging and culturally appropriate manner with participants at all times, and his presence was not seen to negatively affect the scope of data collection sessions.

In three FGDs a local community member was required for translation between a local dialect and Krio or English. Every effort was made to select a local translator who would not influence the group discussions (for example, community leaders were avoided and a female community members was selected for caregiver FGDs). The need for exact translation without interpretation or summary was explained in detail to the community translator and the research team checked sections of narrative to ensure accurate translation.
The communities included in the research were selected by INGO/NGO implementing partners and, as per local custom, NGO staff accompanied the research team to make introductions to the community. This may have encouraged communities to overstate their use or support of CHWs. To minimise any potential bias, the NGO implementing partner made introductions between the research team and community, but then left the research site and did not participate in any of the FGDs.

Many of the organisations selected at the national level were not able to speak in detail about community-based MNCH activities or the role of CHWs in the Ebola response. High turnover of staff meant that many key individuals engaged in CHW programmes before or during Ebola were no longer working in-country. Much of the information provided by national and district-level stakeholders relating to the effectiveness of CHW programmes was based on personal opinions rather than an analysis of impact or outcome. This was particularly true of information provided about CHWs during the EVD response when very limited CHW-specific data were collected or analysed.
We were trained by our NGO to treat children aged between two and 59 months who were sick with malaria, diarrhoea or pneumonia, and to assess for malnutrition. We could only treat children who did not have any danger signs. For example, we know it is diarrhoea if the child has had watery toileting at least three times a day, but if this has been happening for more than 14 days, we know it is above our level and we give them a referral ticket to the health facility. Some caregivers will go, others will not go and some will say, ‘I am going tomorrow or the next day’. We follow-up with them to continue to encourage the caregiver to take their child to health facility and sometimes we go with them.

We also assist the DHMT in doing health promotion and sensitisation activities in the community. This includes counselling pregnant women and lactating mothers to visit the health facility, and encouraging six months of exclusive breastfeeding because some people used to think only breastfeeding their children without also giving them hot water would give them stomach ache.

We also promote immunisation campaigns within our communities and encourage our community people not to be fearful to accept the immunisations. Another big role we undertake, is talking about hygiene practices and leading through example.

The community people follow in our footsteps by also keeping our environment clean. We act as role models in the communities, so whenever new health activities are implemented, we would be the first people. For example, we would be the first to take the medicine before the drugs were distributed to the community. Then the community people feel safe and may copy us. Apart from that, we act as health ambassadors and communicate to the community people the information on all health practices that comes from the health facilities.

CHW, Kailahun
1. Community health workers and community-based MNCH services pre-Ebola

Structured around the eight iCCM benchmarking components, this chapter analyses community-based MNCH programming and the work of CHWs before the Ebola outbreak.

1.1 Coordination and policy

Community health and related policies

In 2010 the MoHS introduced the Basic Package of Essential Health Services (BPEHS) that identified a set of services guaranteed to be available across the five levels of Sierra Leone’s health system. The package focused on MNCH services including antenatal care; management of pregnancy-related complications; safe and skilled delivery; immediate post-natal care; family planning; clinics for children under five; integrated management of acute malnutrition; immunisation; and malaria testing and treatment (MoHS 2010). To increase accessibility of these essential health services, the BPEHS included a community-based component outlining the role of CHWs in health promotion; preventative activities; the promotion of health facility utilisation; and case management of pneumonia and malaria and diarrhoea in children under five. In addition the BPEHS specified that traditional birth attendants (TBAs) should be discouraged from performing home deliveries and were required to work under the direct supervision of health workers trained in emergency obstetric and neonatal care at their nearest health facility.

A series of supporting health sector reforms were launched to support the implementation of the BPEHS. The National Health Sector Strategic Plan 2010-2015 was developed with the purpose of providing an operational plan and common strategic framework for the MoHS to improve coordination with all partners (MoHS). To reduce existing financial barriers to accessing essential health services, the Free Health Care Initiative (FHCI) was also introduced in 2010. This made provision for a specific set of essential health services for pregnant women, lactating mothers and children under five free of charge, and included free malaria testing and treatment for the entire population (Government of Sierra Leone 2009) (see box below). A Performance based financing (PBF) mechanism was established in 2011 with the aim of improving PHU staff motivation and efficiency. PBF funds were distributed quarterly commensurate with the attainment of specified MNCH service provision benchmarks. In an effort to increase facility-based deliveries, a bylaw was also introduced at the chiefdom-level prohibiting home deliveries. Such bylaws are commonly used in Sierra Leone and widely accepted by communities.

Impact evaluation of FHCI on maternal and child health outcomes

A recent independent evaluation of the FHCI concluded that while the FHCI was an important contributor to improvements in coverage of MNCH services, the data provided mixed results on whether increased coverage translated into improvements in both maternal and child health (OPM 2016). Health facility-based births increased from 36% in 2004-2009 to 57% in 2010-2013, with a similar rise in the rate of skilled attendance at birth. However, the decline in maternal mortality that was observed came with broad uncertainty intervals making it difficult to draw any definitive conclusions on whether the FHCI resulted in fewer maternal deaths. The FHCI’s contribution to improvements in child health outcomes were clearer, with increased coverage of vaccinations, use of insecticide-treated bed nets (ITNs) by under-fives, and treatment for acute respiratory tract infections, malaria and diarrhoea (Statistics Sierra Leone 2014). There was a significant decline in child mortality from 194 per 1000 live births (2003-2008) to 156 per 1000 live births (2008-2013).
Recognising the need for harmonisation and coordination of the community-based component of the BPEHS, the MoHS developed, with the support of UNICEF and other partners, the National Community Health Worker Policy (NCHWP) in 2012. The NCHWP was the basis of the national CHW programme and defined standards for the roles, responsibilities, selection criteria, training, supervision and reporting for CHWs in Sierra Leone. The policy outlined that CHWs were expected to provide a comprehensive package of services around two key components: community-based MNH activities and ICCM. Importantly, the NCHWP also outlined the responsibilities of different actors in the coordination and implementation of the policy. The policy stated that CHWs ‘Should be members of the communities where they work, should be selected by the communities, should be answerable to the communities for their activities, should be supported by the health system but not necessarily a part of its organisation, and have shorter training than professional workers’ (MoHS 2012a). To be recognised as a CHW by the MoHS, candidates were required to successfully complete a standardised 10 day training course consisting of six modules, a pre-test, post-test, and an end of training evaluation (discussed further in the section on human resources below).

Prior to 2012, Sierra Leone’s cadre of community-based health workers had primarily developed under a fragmented, ‘vertical’ organisational structure. Their selection criteria, level of training, provision of services and supervision were largely determined by the programmatic priorities of donors and individual INGOs and their funding. Consequently, a heterogeneous cadre of workers, often providing different community-based services emerged. Categories of CHWs included social mobilisers, blue flag volunteers5, community drug distributors4, community-based distributors of contraceptives, community-based providers under the national malaria control programme, Red Cross volunteers, community-owned resource persons and TBAs. The lack of a comprehensive map of hard-to-reach communities and weak communication and coordination between local, district and national levels, and between CHW programme implementers and DHMTs resulted in an unequal distribution of community-based services across the country that did not necessary cover communities most in need. Reliance on time-bound external donor funds and vulnerability to changing donor priorities meant that CHW services were not always sustained over time. Ultimately these conditions rendered it impossible to systematically bring CHW services to scale nationally (MoHS 2012a).

To overcome these challenges and ensure implementation and scale-up of the national CHW programme in accordance with the NCHWP, the National Community Health Strategy 2012 (NCHS) was developed by the MoHS with support from partners. It served as guidance document and identified additional bottlenecks that prevented the effective provision of community health services in Sierra Leone. Identified issues included:

- Difficulty recruiting CHWs from hard to reach areas satisfying the minimum selection criteria
- Lack of transparency in the CHW selection process
- Inadequate numbers of trained CHWs in hard to reach communities
- Weak links between CHWs and the formal health system
- CHWs who lacked an adequate foundation of previous education, training and skills to be effective
- No structured CHW motivation and incentive system contributing to a loss of CHWs to other development activities
- Weak infrastructure for the distribution of supplies leading to inadequate essential supplies to CHWs

\[\text{Blue flag volunteers are trained by NGOs (e.g. Oxfam) to provide community sensitisation on health and hygiene and occasionally have been given additional responsibilities. For example during the cholera outbreak of 2013, blue flag volunteers ran oral hydration points and reported suspected cases (Oxfam 2013).} \]

\[\text{Community drug distributors provide medicines for neglected tropical diseases and illnesses such as malaria at the community-level. In 2006 the WHO released guidelines promoting the distribution of antibiotics and anti-malarials by Community drug distributors in an effort to reduce child mortality by increasing access to medicines within communities.} \]

\[\text{Inclusion of TBAs is particularly important in Sierra Leone given their close relationship with expecting women and lactating mothers. Many TBAs are connected to secret societies that may influence decision-making during pregnancy. Although beliefs vary across the country, many communities believe that childbirth should only occur in the presence of women. Consequently, TBAs still play an important role in deliveries.} \]
• Negative cultural beliefs and practices affecting the utilisation of MNCH services and lack of knowledge on available services from PHUs (for example family planning) and CHWs
• Late referral of sick children by CHWs due to limited skills and no system of feeding back to CHWs regarding the referrals they initiated
• Lack of alignment or integration of CHW data into the HMIS
• Weak supervision, monitoring and evaluation of CHWs activities
• A lack of gender mainstreaming in community health activities.

In response to these challenges, the NCHS stipulated a series of 13 key objectives, each with a corresponding strategy and associated activities (MoHS 2012b). These objectives are discussed under each relevant component of the iCCM benchmarking.

Coordination

Prior to Ebola, the process of aligning existing vertical CHW programming under the national CHW programme guided by the NCHS, had commenced. This process was led by the MoHS and DHMTs with support from UNICEF and selected key implementing partners. It was intended that the comprehensive package of MNCH services would be introduced in a phased manner and that districts would implement the MNH component first before adding on iCCM. The MNH component included antenatal and postnatal home visits and health facility referral for pregnant and postpartum women and newborns with danger signs. The iCCM component focused on malaria, diarrhoea and pneumonia for children aged 2-59 months. By 2014, Sierra Leone’s national CHW programme led by the MoHS included over 10,000 CHWs nationwide and was supported by UNICEF in 11 of the country’s 13 districts (not Western Area and Bonthe), with iCCM being implemented in six of these.

Partial or full implementation of the programme’s comprehensive package of services was implemented by the District Health Management Team (DHMT) working with one selected NGO partner in each district (except in the Western Area where the DHMT worked with multiple implementing partners). Whilst some smaller NGO-supported CHW programmes were reportedly folded into this structure, others continued to run vertical programmes, implementing their own CHW training, services, supervision and incentive policies. In Kenema, for example, the International Rescue Committee (IRC) was selected to support the implementation of the national CHW programme and worked with 1,093 CHWs across the district’s 16 chiefdoms, whilst BRAC and GOAL continued to implement smaller CHW programmes outside the newly established national community health system (see box below). Stakeholders noted that the fragmented coverage and persistent variations in programming were problematic, but it was unclear whether the MoHS intended that all CHW programming be bought under the remit of the NCHWP as part of the national CHW programme with oversight from DHMTs.

A key objective outlined in the NCHS was ‘strengthened partnerships and coordination’ between community health stakeholders including the MoHS, DHMTs, and implementing and technical partners. In order to harmonise CHW activities in the national CHW programme, coordination mechanisms including a national steering committee and technical working groups were established. In some districts, the DHMT developed a close collaborative relationship with key partners prior to the Ebola outbreak, and assumed greater levels of responsibility over the CHWs working under the national CHW programme. In Kailahun, for example, one DHMT representative explained, ‘We are responsible for policy making, we are responsible for training of CHWs under the NGO implementing partner, we are responsible for distribution of drugs, and we do supervision alongside the NGO implementing partner staff and all the rest’. In contrast, DHMTs in other districts were less involved in CHW programming, and as a DHMT representative from Tonkolili concluded, ‘The DHMT was not much involved. It was more or less the IRC that was actually trying to introduce iCCM to the district… Most of the CHW activities actually were manned by IRC although they did jointly go on supervision with the DHMT’.
CHW programming in the study districts prior to Ebola

Kenema
In 2010, the International Rescue Committee (IRC) integrated iCCM for malaria, diarrhoea and pneumonia in children aged 2-59 months into their existing CHW programming. Following the launch of the NCHWP in 2012, the IRC became the key implementing partner under the national CHW programme. Using the MoHS 10-day training package (discussed further below), and working with the DHMT, the IRC trained 1,093 CHWs to cover hard-to-reach communities across all 16 chiefdoms in Kenema. The trained CHWs then started to provide the complete comprehensive package of MNCH services outlined in the NCHWP. Other NGOs not engaged in this research also had active CHW programmes in Kenema prior to the EVD outbreak including BRAC and GOAL. These programmes operated in parallel to the national CHW programme. BRAC’s CHWs visited target communities to deliver health promotion activities. GOAL’s CHW programme covered one chiefdom with hygiene and sanitation promotional activities. Whilst BRAC and GOAL kept the DHMT informed of their CHW activities, the DHTM was not more substantively involved with these programmes and did not consider them under DHMT oversight.

Kailahun
In 2013, Save the Children was selected as an implementing partner of the national CHW programme in Kailahun and, in collaboration with the DHMT, trained 800 CHWs (and 55 peer supervisors) using the MoHS 10-day training course. These CHWs were deployed every three miles, and covered between two and four villages across the district’s 14 chiefdoms to provide the comprehensive package of MNCH services outlined in the NCHWP.

Bombali
In 2014, World Hope International began working under the national CHW programme for the phased introduction of the comprehensive package of MNCH services outlined in the NCHWP. In collaboration with the DHMT they trained 750 CHWs on the MNH component. Other partners not directly engaged in this study also supported CHWs prior to the Ebola outbreak. The Global Fund, for example, supported CHWs to provide community case management for malaria as part of the National Malaria Control Programme, and BRAC and Health Poverty Action implemented small vertical CHW programmes providing MNCH promotion.

Tonkolili
In 2013, the IRC began working with CHWs in Tonkolili after taking over CARE’s CHW programme to provide MNH promotion. Subsequently, they became the key implementing partner under the national CHW programme and trained approximately 1,000 CHWs using the MoHS standard 10-day training course. Immediately prior to the Ebola outbreak, the trained CHWs provided the comprehensive package of MNCH services including both MNH promotion and iCCM across all 11 chiefdoms in Tonkolili.

Implementing partners described their remit as implementing the MoHS NCHWP, and emphasised their efforts to work alongside the DHMT, involving them in training and supervision, and through sharing the monthly CHW reports. The quality of communication between the DHMTs and implementing partners was not clear, however, and stakeholders engaged in the study tended to equate information sharing to collaboration and coordination. A Representative from the DHMT in Bombali suggested that because CHW activities in their district (including those under the national CHW programme) included only health promotion activities and not case management with drug administration, their limited oversight was acceptable and they were satisfied with ‘just being kept informed’. Overall DHMTs had little engagement with CHWs working with NGOs that implemented vertical CHW programming in their district, and in some instances were not aware of the services being provided.

Despite efforts to improve coordination between stakeholders, the highly decentralised nature of CHW programming, limited resources and the on-going weakness of links between multiple actors at different levels made it challenging for the MoHS to exercise control. Prior to the Ebola outbreak CHWs were widely perceived...
to be a fragmented cadre that fell under the auspices of a range of implementing partners. In line with this, CHWs described themselves as being primarily accountable to the organisation that supported them with a monthly stipend or other non-financial incentives.

There was also a notable level of disconnect between policy and practice. While national and district-level stakeholders engaged in this study were aware of the NCHWP, many continued to define all community-based workers as CHWs, regardless of whether an individual had graduated from the formal NCHWP training. The definition of a CHW as outlined in the NCHWP had not been widely adopted. In one district, the DHMT defined CWHs even more broadly to also include TBAs and PHU-based maternal and child health aids.

Similarly, according to national-level stakeholders, the operationalisation of the NCHWP had not always matched responsibilities ‘outlined on paper’. According to the NCHWP, the MoHS was to ‘own the CHW function’ and assume responsibility for ensuring a constant supply of commodities (e.g. iCCM drugs for CHWs), supervise the implementation of the national CHW programme (including administrative support and the provision of basic equipment), and use CHW data to monitor the programme’s outputs and impacts. MoHS representatives suggested, however, that prior to the Ebola outbreak, CHWs were afforded little recognition within the formal health system and were not prioritised for resources by the MoHS.

Roles of community health actors and their relationship to community health workers

Primary health unit health workers

According to a number of district-level stakeholders, task-shifting malaria, diarrhoea and pneumonia case management to CHWs was initially met with limited support from some PHUs. It was reported that some PHU officers in-charge (OICs) were concerned that CHWs would take over the work and responsibilities of PHU health workers. District-level stakeholders recalled there had been (and in some cases there still was) a reluctance by some PHU OICs to provide CHWs with their monthly supply of iCCM drugs, particularly as the PHU drug supply was limited and there were frequent stock-outs at the facility-level. In developing a constructive relationship between the different cadres of health workers at PHUs, district-level stakeholders outlined the importance of sensitising PHU staff on the role of CHWs and ensure that ‘ranking’ was well understood. They also commented that the effective implementation of the UNICEF-supported CHW programme was highly dependent on the PHU OICs perceiving CHWs to be an asset. To some degree this did start to happen prior to the Ebola outbreak, but the fact that CHWs continued to see themselves under the leadership of their respective INGO may have limited collaboration and their full integration into the health system.

Traditional birth attendants

The 2010 BPEHS defined a new role for TBAs encouraging them to take a non-delivery role as ‘maternal health promoters’ or ‘advocates for reproductive health within the community’. In this capacity, they were to act as the link between pregnant women and health facilities, referring them and encouraging attendance for antenatal care, delivery and family planning. In this role, TBAs often personally accompanied women and provided psychosocial support through childbirth. Whilst the majority of TBAs reported adherence to the bylaw prohibiting home deliveries, those located in more remote areas confirmed they would perform home deliveries for rapidly progressing labours, if there was no means of transport, or if the woman or her family refused to attend the health facility. TBAs often reported having to perform deliveries en route to a health facility. As one concluded, ‘I have no choice but to serve my people’.
Serving their community was a core value amongst TBAs. Many acknowledged the benefits of facility-based deliveries (‘We are happy about it because before there was no delivery bed in the community, but now we can find it at the health facility, we used to deliver on the ground’) but none suggested that deliveries performed by trained health workers were safer than the deliveries they performed at the community level, often with no or limited training and resources. In addition, some TBAs requested delivery kits and drugs for use in their communities, indicating they still considered themselves to have an active role in deliveries. As one TBA in Bombali stated, ‘We need support for our work and we need capacity so that we can do safe home deliveries’.

TBAs and CHWs frequently reported that they worked ‘hand-in-hand’ and perceived their roles as being distinct but complimentary. Sick children were considered firmly under the purview of CHWs and TBAs would refer such cases to them for assessment and management. However, because many CHWs were male it was unacceptable for them to directly interact with pregnant women, whereas female TBAs were more appropriate and accepted. As one male CHW confirmed, ‘If there is any problem for her [the pregnant woman] to talk to me, I will include the TBA who will be able to talk and counsel her and she will give me correct information’. Because of their higher literacy skills, CHWs kept the records of all deliveries and provided oversight to the TBAs to encourage facility-based deliveries. Another CHW explained, ‘In my own community if there is a pregnant woman in delivery pain, the TBA will come to inform me and I will also inform the town chiefs about the pregnancy and we will take that pregnant woman to the health facility at any hour, just for us to avoid home delivery’. Both district- and national-level stakeholders suggested that the reduction in home deliveries was due to the combined efforts of TBAs and CHWs, but again there had been no formal evaluation of the drivers contributing to increased numbers of facility births.

The NCHWP stipulated that to be recognised as a CHW, TBAs, like all other community-based workers, would be required to successfully complete the 10-day CHW training course. The NCHWP did not explicitly acknowledge the unique role of TBAs in maternal health promotion or the importance of maintaining this cadre of community-based workers. Although the BPEHS had defined a new role for TBAs, district or national level policy-makers appeared to have given little consideration to incentivising them. Since TBAs had previously received modest payments for performing deliveries, many expressed frustration at the lack of compensation they received as ‘maternal health promoters’.

According to some MoHS and DHMT representatives, TBAs were supposed to be remunerated for referring a pregnant woman to a facility through the performance based financing (PBF) scheme, but other district-level stakeholders confirmed that this was not possible since only health workers on the government payroll were entitled to receive PBF funds. None of the TBAs engaged in this study reported having received PBF incentives. As one TBA in Tonkolili concluded,

\[
\text{We are working for our community people and we don’t want them to perish during pregnancy. We really want the government to compensate us for the work we are doing. We find it very difficult to get food to eat, and we are leaving all of our busy schedules to do the TBAs’ work. We are really happy to do the work and if we stop doing it, we are just punishing our people and we don’t want to see them suffering.}
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Limited structural support was given to TBAs, not only in terms of incentive, but also with regards to training, supervision and material resources. Whilst some TBAs reported that they had received informal ‘on the job’ training in safe birthing practices by MCH aids, district and national-level stakeholders suggested that high levels of illiteracy amongst TBAs was a limiting factor in their capacity for more formal training. Some were concerned that further training in obstetric care would encourage TBAs to return to performing home deliveries and diminish the link between the community and health facility.
Traditional healers

Whilst the roles of CHWs and TBAs were relatively well defined in MoHS policy, traditional healers were largely excluded from government policy, despite being a large and highly active cadre of community-based providers. In an interview for this study, a senior representative from the National Traditional Healers’ Union, which has organisational representation at district- and chiefdom-level, reported that 63,000 traditional healers had been registered since 2007. Traditional healers were not engaged within the health system and did not formally interact with CHWs prior to EVD. Many expressed frustration at what they considered to be neglect by the government.

Traditional healers learnt their skills through apprenticeship rather than formal training, ‘If you want to be a traditional healer you can go to somebody who has experience, somebody who is a senior traditional healer. So from there, by observation while living with that person, you will also become a traditional healer’. When discussing their work, traditional healers engaged in this study frequently identified themselves as the preferred first point of contact for sick people in their communities before EVD. They worked independently, treating both children and adults for a range of conditions, and both healers and community members confirmed that they were better placed to treat certain ‘local’ or ‘spiritual’ conditions than ‘English doctors’ (trained health workers).

In interviews and FGDs, community members generally denied that they attended traditional healers for sickness or during pregnancy even prior to EVD, but this may have been a consequence of the bylaw prohibiting the use of traditional healers still being in place during data collection. A few community members did discuss their use of traditional healers more openly, and emphasised that people would seek multiple forms of care in order to secure a cure. Traditional healers also played an important role in providing palliative care for patients who had returned from a health facility with either an untreatable condition, or a treatable condition that the facility was not equipped to effectively manage.

National-level stakeholders frequently articulated concerns regarding the popularity and influence of traditional healers at the community level, but district-level stakeholders suggested they had noticed a reduction in the use of traditional healers since the introduction of iCCM, when CHWs started encouraging caregivers to seek care primarily from them.

Village Development Committees and Village Health Committees

Although the NCHWP briefly mentioned Village Health Committees (VHCs) and Village Development Committees (VDCs), it did not make any distinction between the two structures in terms of their composition or roles, nor did supporting community health documents reviewed such as the Community Health Strategy 2012 (MoHS 2012b). The NCHWP suggested that community leaders and structures including the VDC were considered important partners for CHWs, ‘Prioritising, promoting and/or providing prompt and adequate treatment and referrals; prioritising preventative measures and providing oversight of CHWs’. The NCHWP did not clarify the role of VDCs in ‘providing’ treatment and referrals. According to a UNICEF stakeholder the role of VDCs included leading on the selection of their local CHWs in consultation with community members; ensuring that CHWs did not receive any fees for services from their communities; and strengthening the link between CHWs and their communities. In terms of VHCs, the NCHWP simply stated that VHCs should be engaged in the selection of CHWs (discussed later).

At the community-level, clear distinctions were not made between VDCs and VHCs. Such structures were reported to be active within some communities included in this study prior to the Ebola outbreak, but the extent of their activities often depended on a community leader being motivated to ‘champion’ community
development, health and accountability. Community leaders in one village in Kailahun reported that their VDC was comprised of ‘TBAs, a ward committee member, pastor, imam, the women’s leader, chiefdom councillors, chiefs and others’. They were involved with building latrines and maintaining the roads, but also met regularly to discuss the running of their local health facility and to assist with its maintenance and cleaning. Several district-level stakeholders suggested that VDCs were often inactive unless there was NGO support for a specific project that required the VDC to be activated, and some community members suggested that VDCs would be more engaged if they were better incentivised.

Community leaders

Community leaders engaged in the study often reported how they supported the work of CHWs by assisting with patient transport to health facilities, organising household contributions for the cost of treatment, arranging for women and children to go for vaccinations, and sensitising their communities on issues including hygiene, sanitation and malaria prevention. Community leaders played an important function brokering relations between the community and CHWs. It was notable that community leaders identified their community health-related roles as falling under their auspices as community leaders rather than as members of a Community Health Committee.

CHWs strongly emphasised the need for community leaders to advocate for them, informing the community about their activities and exercising authority to support CHWs in MNCH-related matters. As one CHW in Kailahun affirmed, ‘The chief is going to be your ambassador and has to introduce you to the community, so if ever they don’t want to respect you, they will have to respect you’. Community leaders also enforced the community bylaws, including the prohibition of home deliveries.

1.2 Costing and financing

Prior to 2012, funds were particularly scarce for CHW programmes in Sierra Leone and sourced entirely from external donors. It was common for INGOs to pool funds from different donors to run a single CHW programme.

The funding model did not change after the introduction of the NCHWP in 2012. It did not include a plan for government financing of CHW activities beyond stating the need for DHMTs to include a budget line for supervision of CHWs in their Local Council Health Plans. Dependency on donor funds to finance CHW activities led to an inherent uncertainty about the longer-term sustainability of interventions, and this influenced programmatic planning and implementation of quality control activities. In Kenema, for example, the IRC could only conduct sporadic refresher training as there was no dedicated budget line for this activity due to limited funds. Budgetary constraints also restricted the capacity of partners to undertake supportive supervision.

A comprehensive costing of iCCM programmes in Sierra Leone is outside the scope of this study, but a report detailing the costing an iCCM programme implemented by the IRC in Kono in 2012 is indicative (Jarrah, Z et al. 2014). The programme implemented free treatment for pneumonia, diarrhoea and presumptive malaria through the deployment of 840 CHWs, each with an average catchment population of 38 children between 2 and 59 months old. Each CHW saw on average 2.3 cases of childhood pneumonia, diarrhoea or malaria per week. The report estimated that actual iCCM coverage for malaria was 38% of expected cases, 28% for diarrhoea and 122% for pneumonia (the lack of distinction between pneumonia and upper respiratory tract infection led to over treatment by CHWs). The average cost per capita (2-59 months) was USD 10.20, and the cost per iCCM service was USD 3.27 for malaria, USD 3.32 for diarrhoea, USD 3.45 for pneumonia and USD 1.08 for referrals. Data were not available to compare these iCCM service costs with the cost of treatment for these
conditions at a health facility, including the cost of treating more advanced forms of each illness. Initial programme start-up costs were not reported, but to train and equip one new CHW was estimated to cost USD 365. Based on the services provided in 2012, the programmes’ recurrent costs including medicines, management, supervision, meetings, trainings and programme overheads was USD 322,123 per year, plus an additional USD 19,714 to train and replace CHWs lost to attrition (estimated to be 7% yearly). The recurrent costs did not include CHW incentives, since CHWs worked on a voluntary basis. It was estimated that the high overhead, management and supervision costs would drop significantly in the scenario that the programme was entirely taken over by the government but no plans were in place for this transition.

1.3 Human resource management

Community health worker selection and distribution

The 2012 NCHWP stipulated that CHWs should be ‘Selected by the community that he/she serves, [the selection should be] led by the Village Health Committees and should reflect the linguistic and cultural diversity of the population served’. The policy also outlined key characteristics that a CHW should have including being honest and respected; willing to serve voluntarily; resident and willing to work in the village; available to perform CHW tasks; interested in health and development issues; fit to provide services; at least 18 year old; and preferably literate. According to implementing partners and community leaders engaged in this study, the selection of all CHWs in their constituencies was done with these criteria in mind. As a representative from one implementing partner in Kenema explained,

*The community people...identify their own CHW. We don’t go and tell them, ‘give X as a CHW’. They sit down together and as a consensus they agree, and we tell them just the guidelines. Once they agree on that person, they really confide in that person. So that is why they have respect for them.*

There was broad consensus that community selection of CHWs was integral to CHW programme effectiveness since it helped to foster trust and respect for CHWs. One implementing partner suggested they had encouraged communities to select TBAs to be trained as CHWs to ensure that ‘We don’t only have CHWs, but we have CHWs that are passionate about women’s work’. Whilst some partners explained that TBAs were ‘fully engaged’ with PHUs and CHWs, others were concerned that health reforms prior to Ebola risked marginalising TBAs.

There was also supposed to be a level of reciprocity in that community members helped farm a CHWs land to ensure they had time to provide health services to the community. As one community leader in Tonkolili explained, ‘We have good working relationship because he is always available to us at any time. He is doing a personal sacrifice for us and we are helping him to do his farm work’. In many villages, however, CHWs reported that this was not the case, and they received little community support to displace routine household or farming duties.

In terms of coverage and distribution, the NCHWP recommended that one CHW should serve a population of between 100-500 people. Implementing partners working under the national CHW programme who were engaged in this study reported that whilst attempts had been made to meet this target in their respective districts, it was not always possible due to resource limitations. Under the national CHW programme, CHWs were deployed in ‘hard-to-reach’ villages across each district, with priority given to villages located at the far reach of a PHU catchment area. Some CHWs were responsible for covering more than one village, and therefore had to provide services to communities where they were not resident. A number of CHWs suggested that gaining community respect was more dependent on the support of local leaders than being resident in the village, whilst as one CHW reported ‘Sometimes the other surrounding villages will respect you more than your
residential village’. The relationship between the level of respect held for a CHW and the utilisation of their services remains unclear.

Training

In each of the four study districts, the selected implementing partners confirmed that prior to the Ebola outbreak, they had trained their CHWs using the MoHS standardised 10-day training protocol (MoHS, 2012c). The training covered all possible CHW activities outlined in the NCHWP (as listed below), but it was unclear whether all CHWs were required to provide all of these activities.

- Community sensitisation and health promotion activities related to:
  - Use of ITNs
  - Hygiene and sanitation practices
  - Skilled antenatal, birthing and postnatal care
  - Exclusive breast feeding from 0-6 months
  - Adequate nutrition for children over 6 months
  - Utilisation of immunisation services

- Provision of integrated community case management (iCCM) for the treatment for diarrhoea, malaria and pneumonia for children under-five.

- Screening and referral for:
  - Acute malnutrition
  - Family planning methods

- Recognition of and referral for danger signs in pregnant and post-natal women and under-five children.

- Distribution of essential medicines including folate, deworming tablets, vitamin A, oral rehydration salts and ivermectin.

- Reporting vital events including births, deaths, outbreaks or epidemics.

Training was cascaded from the MoHS to the implementing partners and DHMTs down to the PHU OICs who then trained the CHWs. The majority of stakeholders were concerned that the training was too short, particularly the iCCM component. There were also concerns that the training was not sufficiently responsive to the wide variations in CHWs’ abilities and backgrounds. Stakeholders suggested possible improvements for CHW training, including re-orientating the modules up to allow for practical skills-based training, consolidating knowledge and practice in the community under supervision and in between class-room based teaching.

In addition to their initial training, the NCHWP stipulated that ‘CHWs will receive integrated refresher trainings twice every year’. Implementing partners confirmed that lack of funding had made it difficult to meet the refresher training requirements outlined by the policy. Most CHWs who participated in this study had only received one refresher training on iCCM since their initial training prior to Ebola, and emphasised that this was insufficient. As one CHW in Bombali reported, ‘We aren’t 100%. We have errors in areas like hand washing and sensitisation. Not all CHWs know how to do hand washing… and some CHWs don’t know how to talk to other people and demonstrate sanitation activities’.

Few of the TBAs included in this study had received formal training for either maternal health promotion activities or birthing care. Most TBAs reported they had learnt birthing skills as apprentices working under older TBAs in their villages. Since being attached to PHUs, however, some TBAs had received informal ‘on the job’ training on both maternal health promotion and safe birthing practices from the MCH Aid appointed to supervise them. Whether they received such training was highly dependant on the MCH Aid, and some TBAs
reported that having accompanied a labouring women to the PHU they had not always been allowed to accompany her into the delivery room.

Incentives

The NCHWP stated that CHWs are volunteers but recommended that they receive a standard minimum motivation package including basic requirements to carry out CHW functions (uniform, ID, bag and drug container, registers and information education and communication (IEC) materials). They should also be provided with a lunch and travel allowance for outreach and PHU visits, and access to government income generating schemes, credit schemes and microfinance and credit schemes; community rewards such as assistance with farm work; free health care for CHWs and their immediate family and competitions with prizes for the best performing CHW (MoHS 2012a).

CHWs tended to have been provided the basic requirements to carry out their activities including rain gear, flash lights, ID cards, back packs and registers, ARI timers and MUAC measures by the IP under which they worked. CHWs across all four districts received between SLL 10,000 and 15,000 per month (approximately USD 1.30 to USD 2) in travel allowance. Peer supervisors received SLL 100,000 per month (approximately USD 13.50) and a bicycle, although these were highly unsuitable for the rough terrain. CHW work environments were however more disabling than facilitative with many CHWs incurring travel costs relating to their CHW activities far in excess of the travel allowance they received. As one CHW asserted, ‘Imagine you have to spend SLL 40,000 [USD 5.40] when you are given SLL 15,000 [USD 2]. It is a big challenge. If you don’t have money you will walk about six miles to come’. The travel allowance was not scaled to each CHW’s travel distance so the financial impact was greater for those living a greater distance from their PHU. In some cases, CHWs were required to visit the PHU a second time each month to receive their incentive. CHWs also faced challenges related to prioritising their CHW activities above working on their farms without any financial compensation, behaviour often questioned by their dependents. In some villages, community leaders reported that they had organised groups to assist their CHW’s with farm work, but this was not a standard practice.

While the majority of CHWs reported feeling frustrated with the lack of financial incentives they had been afforded, others considered the lack of non-financial motivation (including the provision of adequate supplies to effectively conduct their duties) to be most demoralising. As one CHW recalled,

At the initial training, they told us that there is no payment for this job as we are volunteers, so it was a surprise to us when we received our transportation reimbursement. The only promise that they made to us was that there would be a regular supply of drugs, but that didn’t work so well. We already built hope in the minds of the community people that we are going to be supplying them drugs on a regular basis. Through the wrong promises, we failed the community and later the community people started losing confidence in us. Our morality declined in the communities and it was a major disappointment. But to be honest, they told us at the beginning that there is no pay for the job.

A 2014 study of CHWs providing community-based MNCH that was conducted by Save the Children in Kailahun and Pujehun reported that whilst the majority of CHWs were dissatisfied with the level of financial compensation they received, they were primarily motivated by factors including job satisfaction; supportive supervision; health system support; intrinsic motivation (altruism and self motivation); community support and recognition; confidence in their skills and knowledge; and self efficacy (Adomakoh, 2014). According to this study, 127 of 1800 (7%) trained CHWs had left their post between 2010 and 2013, although this was not an adequate indicator for longer-term CHW retention patterns.
While some national and regional-level stakeholders expressed concern over CHW motivation prior to the Ebola outbreak, implementing partners reported that they had not encountered significant problems with the motivation of CHWs, reflecting the results of the Save the Children study. Rather they considered it a matter of fairness that CHWs should be provided with incentives to do their work, but did concede that sustainability of CHW work was uncertain without some level of incentive. Other incentives mentioned by implementing partners included ensuring CHWs were prioritised for any paid work opportunities that arose (e.g. vaccine campaigns), and supporting CHWs to complete higher health education.

Availability of community health workers

CHWs were generally reported by their own communities to be available at any time of the day or night for CHW related activities, ‘Whenever we knock at his door during the night hour, he is ready to open his door and attend to us’. Non-resident CHWs were considered much less available or accessible. Peer supervisors also mentioned CHWs were often working on their farms during the day and not available for supervision when they visited.

1.4 Supply chain management

Supply chain management was a persistent weakness of the health system in Sierra Leone even before the Ebola outbreak, and stakeholders engaged in the study discussed their concerns about frequent drug shortages and stock-outs. The NCHWP stated that the MoHS was responsible for ensuring CHWs had a ‘Constant supply of first line ACTs [artemisinin-based combination therapy], first line antibiotics, ORS [oral rehydration salts] and zinc’, yet no further details were provided about the operationalisation of this commitment.

When the NCHWP was first introduced, UNICEF had procured and supplied three-months of iCCM drugs directly to their collaborating implementing partners to distribute to their CHWs. During this period, CHWs reported having had adequate supplies of iCCM drugs. The supply of iCCM drugs for all UNICEF-supported CHW programmes was subsequently integrated into the national Procurement and Supply Management System (PMS). The National Pharmaceutical Procurement Unit, established in 2013 became responsible for the procurement of the Free Health Care Initiative (FHCI) drugs that included medicines for iCCM. A push mechanism was used from the Central Medical Store (CMS) to supply the PHUs with medicines listed in the Free Health Care Initiative. From the CMS in Freetown the combined FHCI drugs were transported to the District Medical Stores (DMS) managed locally by the DHMT. The DHMT was responsible for providing drugs to the PHUs on a quarterly basis. It was the responsibility of the PHU OICs to distribute 30% of the ACTs, first line antibiotics (amoxicillin or cotrimoxazole), ORS and zinc received in each supply to the CHW peer supervisors, who then distributed it to the CHWs after they had completed and submitted their monthly reports at PHU meetings.

With regards to this system, stakeholders reported problems at all level of the supply chain and confirmed that as a consequence, stock-outs at the community level were common. At the time of data collection, for example, stakeholders reported a national stock-out of zinc. Many suggested that the calculation of national and district drug requirements were inaccurate and resulted in the under-supply of some essential medicines and the over-supply of others that expired before they were used. Sub-contractors were hired to transport the drugs from the CMS to the DMS but there were often delays due to poor management, a lack of financial motivation and difficult road conditions. In turn, the DHMT lacked vehicles to transport the drugs on to the PHUs, and implementing partners often had to provide logistical support. As a representative from one implementing partner explained,
They [the DHMT] rely on partners. They will ask us ‘If you’re going this way...’ or we will tell them ‘We are going this way if you have any supplies or drugs for the PHU we are happy to take it’. But most of the time, if we are not around, most of the PHU staff won’t have access to drugs unless they come for it. And when they come for it, it’s only on motorcycles and if it’s a box they will only be able to take a few.

If a PHU had insufficient supplies, the OICs would often choose to keep as much medication at the centre as possible, rather than supply the CHWs with iCCM drugs. Many CHWs in the study reported that because of this, they often did not have the necessary medication for periods of several months and were forced to refer sick children to health facilities who were actually suitable for community-based treatment.

Their lack of drugs influenced community perceptions about CHWs. In one area, community leaders referred to their CHW as providers of ‘first aid’. Caregivers were unsure about his role and rather than being seen as a front-line provider, he was seen only to make referrals to the PHU (discussed further below). Other caregivers reported being asked to purchase FHCI drugs when the PHU had a stock-out and suggested ‘If the government gives them [CHWs] more drugs, we will trust them much. But if they are without drugs, we will go to the health facility’. Across the study sites, community members emphasised the need for CHWs and PHUs to be better supplied with essential medication and suggested this as a key recommendation for improving health care provision at the local level.

Many national and district level stakeholders were frustrated by the inefficiency of supply chain management. A number of suggestions were forwarded, however, including procurement of larger quantities of essential drugs, adopting a pull system, allocating CHW iCCM medicine before it was transported to the PHUs, or delivering iCCM medicines directly from the DMS to CHWs. In Kenema, a representative from the DMO reported that they had implemented a pull system at the community level that had reduced stock-outs for CHWs. Implementing partners in two districts mentioned they maintained a parallel drug supply to ‘buffer’ the PMS supply system to CHWs during stock-outs.

1.5 Service delivery and referral

Standard guidelines on iCCM service delivery to children under five years of age and the identification of danger signs requiring timely referral to a health facility were outlined in the CHW iCCM protocol and included in the MoHS standardised 10-day CHW training course (MoHS 2012c). The NCHWP also outlined that all CHWs should receive standardised IEC materials and job aids. Prior to Ebola three of the four districts included in this study (Kenema, Kailahun and Tonkolili) had begun implementing iCCM in line with the standard service delivery and referral guidelines.

In terms of service delivery, CHWs most frequently reported assessing, diagnosing and managing cases of pneumonia, malaria and diarrhoea including identifying danger signs that triggered immediate health facility referral; assessing children under five for malnutrition; sensitising community members on the use of ITNs; sensitising pregnant women to register their pregnancies, attend ANC and PNC clinics, deliver at a health facility and exclusively breastfeed their infants until six months old. Some CHWs reported working with TBAs on these activities. A number of CHWs in Kenema and Bombali stated that they also monitored pregnant women, lactating mothers and newborns for danger signs that would prompt immediate referral to a health facility. One CHW in Kenema also suggested that they sensitised adolescent girls and women on family planning options available at the health facility.

CHWs frequently expressed confidence in their competency levels and activities in the community, particularly in relation to iCCM, although it could not be determined how accurate their self-assessment was. Notably, CHWs requested additional training to use rapid diagnostic testing (RDT) to improve their diagnostic accuracy
for malaria and highlighted issues of drug supply (as discussed above), limited transport and lack of financial incentives as factors that hampered their effective service delivery.

Care seeking by the population

In districts where iCCM was implemented prior to Ebola, the perceptions caregivers shared about the services provided by CHWs were varied. In many communities, caregivers appeared well informed about CHW services and the system of referral, and reported that they would first seek care from the CHW if their child was sick. As one caregiver in Kailahun explained, ‘If my child is sick I will first go to the CHW and he will give me medicine, but then if there is no improvement, he will refer us to the health facility’. As outlined above, in some communities where CHWs did not have a routine supply of medication, CHWs were considered to primarily provide first aid before referring the child to a PHU for treatment. In communities that did not have a resident CHW, caregivers had less knowledge about and experience of their services.

With regards to MNH, many caregivers reported that CHWs provided advice most commonly related to the promotion of registering pregnancies, attendance at ANC and PNC clinics, facility-based deliveries and exclusive breastfeeding. Some caregivers had also been monitored by CHWs during their pregnancy. In one focus group in Kenema a caregiver confirmed,

The CHW will take you to the health facility if you are pregnant and suffering from a headache or if you are bleeding. As a pregnant woman you should go to the CHW and they will take you to the health facility as the bleeding is dangerous for a pregnant woman. Don’t do anything, but go to them directly and they will take you to the health facility. Thirdly, if you have any external pains you should complain to them and they always advise us not to engage in difficult works during pregnancy. We are following their advice.

Despite this, many caregivers confirmed their perception that TBAs were more understanding of pregnancy-related matters than CHWs. Many women would preferentially seek personal health advice from their local TBA who was likely to encourage them to attend a health facility for ANC and delivery, and in many cases accompanied them.

Referral system and compliance

Across the study districts, CHWs would refer children to the local PHU (often presenting them with a referral ticket) after they had identified key danger signs in the child’s condition, if the child had not improved after 24 hours of community-based treatment, or if they did not have the medicine available to treat the child themselves. One CHW listed ‘The danger point for us to refer to a health facility are: when the child has a cough for 21 days; chest in-drawing; bloody diarrhoea for 14 days; convulsions; unusual sleeping, are danger points for us to refer to the health facility’. Another CHW confirmed,

We CHWs have a cut-off point. We have danger signs, but if we don’t see any of those danger signs, we will gain confidence to treat the patient. But if there are any of those danger signs like diarrhoea for seven days, convulsions, not breast-feeding, we will not treat them but refer them to the health facility.

Many caregivers acknowledged that onwards referral was positive, ‘It is good for them [CHWs] to refer you when they have realised that your problem is above them because they don’t want your problem to grow worse’, but many barriers to referral compliance were reported. These included distance from home to health facility, poor road conditions, limited transport and the cost of transport. The cost of services provided at the health facility and a perception of poor quality care also caused community members to be reluctant to seek care outside the community. Stakeholders described several community-based strategies that had been
adopted to facilitate referral, including the CHW accompanying the caregiver and child to the facility, and the community pooling funds to pay for transport, but the impact of such initiatives remained unclear. These challenges were the same for both child and maternal health care. There was broad awareness that pregnant women would be referred by either a CHW or TBA, and compliance with facility-based deliveries appeared to be high, with many community members reiterating the bylaw as a key motivating factor (rather than a concern for clean and safe delivery). However, due to lack of birth planning, and both financial and non-financial access barriers, a high number of roadside and community deliveries were acknowledged. As one caregiver in Kenema concluded,

*A pregnant woman is not supposed to sit on a motorcycle. She will definitely deliver on the road. They can carry you in a hammock but if they delay, your life will be on danger. During the raining season the river will come up and nobody will be able to take a pregnant woman through that river. We are now tired of walking. That is why we want a health facility in this village, to avoid those complications in deliveries.*

1.6 Communication and social mobilisation

The NCHWP outlined the key community sensitisation and health promotion activities to be conducted by CHWs. These included:

- **Community sensitisation and advocacy for:**
  - Mobilising communities for environmental sanitation and hygiene practices
  - Setting up and supporting a community-owned emergency referral system and fund
  - Adolescent sexual and reproductive health
  - Child protection issues
  - Use of scheduled outreach services
  - Linking with VDCs

- **Home visits to promote:**
  - The use of insecticide treated bed-nets
  - Birth preparedness for pregnant women
  - Skilled postnatal care for women and newborns
  - Initiation of breastfeeding within the first hour of delivery and appropriate temperature control for the newborn
  - Exclusive breastfeeding for children up to six months
  - Adequate nutrition for children 6-11 months
  - Timely utilisation of immunisation services
  - Building capacity for family members to appropriately care for newborns, children under five, pregnant women and other vulnerable persons
  - Building capacity for family members to recognise and act on danger signs for pre/post-natal women, newborns and children under five.

The MoHS standardised ten-day training included a module on communication for behaviour change and the appropriate use of IEC materials for the above issues (MoHS 2012c). It also included training on how to identify the most vulnerable households. As one CHW in Kenema recounted,

*For pregnant women, we were registering them at community level in the first three months pregnancy, we sensitised them with the danger signs and symptoms of pregnancy and if they saw any of those signs, they would inform us and we would refer them to the health facility. Three months before delivery, we would visit her again to know her health status and ask her where is she going to deliver, and we will advise her to deliver in the health facility. For lactating mothers after delivering in this health facility, we would visit them in their*
communities to know the status of the child and the mother. If there are any danger signs and symptoms from the child, we will refer them immediately to the health facility.

MNCH promotion and sensitisation activities were frequently highlighted by stakeholders as key activities undertaken by CHWs, yet in practice, there were variations in how such activities were conducted and which activities were focused on. For example, CHWs in Kailahun reported visiting lactating mothers on the ‘first, second and seventh day’ after delivery, whilst in Tonkolili CHWs reported making just one visit the day after delivery. Some CHWs suggest that their visits were primarily to promote breast-feeding whilst others described checking for danger signs, although usually only for the newborn child. Caregiver awareness of key MNCH practices appeared aligned to the main sensitisation activities discussed by CHWs, although there was tendency for caregivers to repeat the ‘rules’ rather than express a deeper understanding of the key actions. There was scant documentation that evaluated the impact of CHW MNCH health promotion activities, and it is not clear whether it resulted in improved community knowledge or positive behaviour change.

1.7 Supervision and performance quality assurance

The NCHWP outlined a multi-level supervision structure for CHWs with the purpose of assisting CHWs to ‘Provide better services to their communities and build their skills and knowledge and to assess and improve the quality of CHW implementation’. CHWs were to be supervised at four different points: i) once per month by the officer in charge of the PHU to which they were linked; ii) by a CHW who was a trained peer supervisor and reported to the PHU-based supervisor; iii) zonal supervisors; and iv) the council through its chief level structures (MoHS 2012a).

In each district, the supervision structure for CHWs working under the national CHW programme primarily included PHU OICs, peer supervisors, the DHMT (although their role was not specifically mentioned in the NCHWP) and the implementing partner. Stakeholders voiced concerns over the regularity and quality of CHW supervision. The shortage of health workers at PHUs limited their capacity to provide outreach supervision, particularly as peer supervisors in some districts were responsible for supervising 20-30 CHWs per month, frequently without provision of adequate transport. While the majority of CHWs reported regular attendance at monthly PHU meetings, having to fund travel that was far in excess of their monthly incentive threatened the sustainability of monthly meetings. A CHW in Kailahun commented,

The implementing partner expects some peer supervisors to cover more than 20 catchment communities on foot, so do you expect those peer supervisors can visit more than two communities per month? And for one village he or she will have to pay more than SLL 5,000 [USD 0.66] in transport to go and return. The peer supervisors only meet with us by luck.

The quality of supervision was also variable and different supervisory methods were reported. For example, some PHU supervisors focused primarily on accounting for the CHW’s monthly drug supply. Others attested to providing elements of supportive supervision: using CHW reports for mentoring purposes; providing informal refresher trainings; and discussing challenges faced by the CHWs. Peer supervision tended to focus on completing a standardised supervision check-list and ensuring the CHW’s register of activities was up to date. Some PHUs reported that they observed CHW practices and aimed to provide constructive feedback as part of their supervision activities. Supervision provided by the DHMT and implementing partners rarely involved direct supervision of CHWs and was more orientated around programmatic challenges.

Establishing robust reporting mechanisms had been a priority of stakeholders involved in the national CHW programme in each district (discussed below). It remained unclear, however, whether the data captured in
CHW reports was regularly or systematically used to monitor CHW performance quality by peer or PHU supervisors at the community level, and by implementing partners and the DHMT at the district level.

In attempting to trace quality of care assessments, only one study was identified, an assessment of quality of care for iCCM conducted by the IRC in Kono district in 2012 (IRC 2012). Thirty-three randomly selected CHWs were evaluated on their ability to assess a sick child, classify their condition, use a RDT, manage a referral, provide appropriate treatment, and counsel the caregivers. In terms of assessing the child, 84% of the CHWs asked the child’s age and length of their illness, but only 8% enquired about all relevant symptoms (diarrhoea, cough and fever), and 16% checked for danger signs. Overall 79% of the CHWs correctly classified the child’s illness and made the correct treatment decision but only 53% correctly administered the first dose of treatment for the caregiver, and just 50% correctly classified convulsion as a danger sign that required pre-referral anti-malarial treatment. The assessment identified CHWs’ referral management as a major quality concern. Of the children requiring referral, just 53% of CHWs made the correct referral decision and in only 38% of cases did CHWs provide pre-referral treatment. ‘Home care’ messaging provided by CHWs to caregivers was also assessed (including hand washing; increased fluid intake; completing treatment; advice on where to bring the child if their condition did not improve; use of bednets; completing immunisation; and safe food and water storage). Only 44% of CHWs provided three or more of these ‘home care’ messages.

1.8 Monitoring and evaluation, and health information systems

Standard CHW treatment registers and report forms, developed by UNICEF, were used by all CHWs working under the national CHW programme in each district. CHWs used the register to record their monthly MNCH activities, drug usage, and pregnancies, births and deaths in their catchment populations. With the assistance of their peer supervisors, monthly report forms were completed and submitted to the PHU OIC at their monthly meetings. The OIC was then responsible for compiling the reports from all the CHWs into a single report to be sent to the implementing partner and DHMT. The OIC also integrated iCCM data into their regular PHU reporting form that was sent to the DHMT and MoHS and linked directly into HMIS. CHWs affirmed that they usually submitted their reports on time each month, but various district and national-level stakeholders suggested that the completeness and accuracy of reporting had been a problem, although the quality had improved with increased supervisory support.

In line with the NCHWP, the process of harmonising the monitoring and evaluation of CHW programming and integrating CHW data into the HMIS had started prior to Ebola. Two standard sets of community health indicators had been developed by MoHS and UNICEF for monthly reporting. The first set recorded ‘district capacity’ for CHW programme implementation, and the second set recorded CHW service utilisation. A representative from UNICEF explained,

[The first set is] for example, the number of CHWs that the district has, the number of supervisions conducted for CHWs, the number of households and children under-five reached by CHWs, the kinds of training provided for CHWs, and how many have been trained this month and so on. [The second set] is how many children have been treated for pneumonia, diarrhoea, malaria, how many mothers have been reached for antenatal home visits and postnatal home visits, how many newborns have been referred for identified complications.

Some of the CHW service utilisation indicators were included in the HMIS through the monthly HMIS reports from each PHU.

The NCHWP stated, ‘Monitoring data is often collected and never used. The most important step at district and national levels is to review the data, interpret it, and use the information to improve the CHW implementation’. According to a UNICEF representative, the expectation under the national CHW programme was that the
implementing partner and DHMT in each district jointly analysed community health data to identify ‘trends and bottlenecks for action’. At the district level, partners confirmed that they did attempt to use data to improve programme implementation, although only one categorical example was shared, in relation to identifying and filling gaps in drug supply. UNICEF’s input was to ensure data quality and to support the MoHS in analysing national-level data disaggregated by district. The results were then presented to the implementing partners and DHMTs for action. A number of concerns were raised by implementing partner representatives, however, that whilst significant resources were invested in data collection, in practice data were not being used to inform evidence-based decision-making. As one stakeholder concluded,

I think CHW programmes are really different from any sort of clinical care programmes. I don’t know how well that was really understood. I think that it’s never been a very data-driven programme at the Ministry. I think that was one of the big weaknesses with the CHW programme. From our perspective, when UNICEF took over there was a lot of data being collected and I would have liked to see UNICEF play more of a role in creating a platform for that data to be looked at by the implementing partners and the MoHS, instead of just collecting it and presenting it in a table by quarter. There was no analysis and I felt like that was a really big lost opportunity in terms of how people could have learned. I felt like there was a lot of data requests that were coming in from UNICEF that I didn’t think were really going to add that much in terms of our understanding of the CHW programme – they were just output based. Then there was no analysis of data to look at treatment levels or to look at coverage for example.

In terms of CHW programme evaluation in Sierra Leone, a single impact evaluation was highlighted by one INGO representative. The evaluation conducted by the IRC in Kono district focused on the impact of iCCM between 2010 and 2013. It reported no significant difference in the source of care for children under-five between 2010 and 2013, no significant difference in prevalence of illness amongst children under-five and no significant difference in under-five mortality (Miller et al. 2014). Despite these results and the lack of routine monitoring and evaluation, national- and district-level stakeholders frequently suggested that, based on their experience, CHWs had had a significant impact on increasing facility-based deliveries and reducing maternal and under five mortality.
At first, some of the PHU OICs were afraid of giving drugs to the CHWs because they didn’t want them to be infected with Ebola. But later we were trained to continue our work using the ‘no touch’ policy, and the OICs began giving us our drug supply again. We were trained to not touch the patients and just ask the mother to tell us what happened to the child.

But during Ebola time, if their child had a fever, most mothers were very afraid of visiting the CHWs because they thought the CHWs would refer them directly to a health facility or the Ebola treatment unit. But we sensitised and encouraged them not to fear us and bring any sick child to us so we can treat them using the ‘no touch’ policy.

In the end, my community was happy that I was with them. With community leaders I called together our people and told them about sickness prevention, sanitation, to sleep under bed nets, to take their children during immunisation time. I also gave advice to the pregnant women that if they see any signs of bleeding, swollen face or if they have a fever they should go to the health facility. But it was very difficult when we were under quarantined because all our farm products were damaged, so people had no means of paying for transport or anything else.

CHW Peer Supervisor, Tonkolili
2. Community health workers and delivery of MNCH services during Ebola

This chapter focuses on the MNCH services that CHWs provided during the Ebola outbreak. It discusses how MNCH activities were affected differently in each of the study’s focal districts, and the effect of the ‘no touch’ policy on the implementation of community-based activities. Again, the analysis is structured around the eight benchmarking components.

2.1 Coordination and policy

As the number of Ebola cases increased across Sierra Leone, the focus of coordination shifted at the district-level from regular health programming (including community-based MNCH services) to focus on coordination of the Ebola response. In Kailahun, for example, district stakeholders explained that the regular national CHW programme review meetings held between the DHMT and implementing partners had ceased during the outbreak when the DHMT became ‘Solely involved in the eradication of Ebola’. From early in the outbreak, however, CHWs were recognised by implementing partners, the DHMT and PHU OICs as being at high-risk of exposure to Ebola, a risk compounded by limited training in infection prevention and control prior to the outbreak. Despite this, the MoHS did not call for a nationwide cessation of CHW MNCH services (including the higher risk iCCM activities). Rather, representatives from the DHMTs and implementing partners reported that during the first six months of the outbreak, they made independent decisions about whether to continue or halt iCCM activities, mainly in relation to the Ebola caseload in the district where they operated. Stakeholders presented multiple perspectives and contradictions about if, why and when CHWs stopped providing iCCM during the outbreak, and a retrospective analysis of iCCM services during this period was therefore challenging.

In Kailahun and Kenema, two of the first Ebola affected districts in Sierra Leone (with cases being reported from May 2014), district-level stakeholders confirmed that CHWs were initially instructed by the DHMT and implementing partners to stop providing any community-based treatment and instead refer all patients to the appropriate PHU. MNH promotional activities were continued in these districts, but CHWs were advised to maintain at a safe distance from community members whilst conducting these activities. Representatives from the key implementing partner in Kenema, explained that when an increase in under-five deaths was reported during the first few months of the outbreak, CHWs were instructed to continue providing treatment to children without making physical contact with the patient or caregiver, and therefore without the use of rapid diagnostic tests (RDTs). Prior to Ebola, CHWs in Bombali had only been implementing the MNH promotion component of the national CHW programme’s package of services. In June 2014, when the first Ebola cases were reported in the district, the DHMT and PHU OICs advised CHWs to continue their regular MNH activities but to avoid contact with community members, and to immediately alert the PHU OIC if they identified any sick community members. In Tonkolili, the first Ebola case was reported in August 2014 and the IRC initially instructed their CHWs to stop the treatment component of iCCM and refer all patients directly to health facilities. MNH activities were continued, however. A representative from the IRC confirmed, ‘For home visits the CHWs were advised not to go into the house of that person. They come, they stand outside, they greet, they ask how they are doing and they give their health talks’. iCCM was not officially re-started in Tonkolili until after training on the ‘no touch’ policy discussed below.

Quantitative programme data from the four counties (Figure 1) show that iCCM treatments and malnutrition screening declined from the early period of the outbreak in June 2014. However, services did continue at a reduced level. iCCM services started to recover around November 2014, while malnutrition screening continued at lower levels throughout the period observed. The number of MNH home visits and referrals to health facilities, on the other hand, did not seem to be affected by the outbreak.
As the outbreak persisted, the low utilisation of PHUs became increasingly evident and underscored the need for community-based health services. In November 2014, five months after Ebola had first been reported in Sierra Leone, the MoHS and partners implemented a mass drug administration of anti-malarials in the areas hardest hit by the outbreak (including Bombali, Kambia, Koinadugu, Moyamba, Port Loko and Tonkolili and Western Area, both urban and rural) covering more than 2.7 million people (Aregawi et al. 2016). Although malaria morbidity and febrile cases were reduced, the effect diminished in a matter of weeks (ibid.). The drive to re-introduce iCCM for malaria, diarrhoea and pneumonia in children under five was a more targeted strategy that commenced in December 2014.

To ensure CHWs were protected from potential EVD exposure and infection, the WHO and UNICEF in collaboration with the MoHS, developed and integrated the ‘no touch’ policy into the CHW’s iCCM and community-based MNH guidelines. During the outbreak the ‘no touch’ policy in the context of health service provision meant that health workers assessed and managed patients without physical contact. The iCCM guidelines that were modified to include the ‘no touch’ policy stipulated that patients were to be treated presumptively for diarrhoea, malaria or pneumonia (or referred to the appropriate health facility) based on reported symptoms and signs and without the provider touching either the child or caregiver (MoHS 2014). The policy was widely supported by service providers, yet a number of district- and national-level stakeholders engaged in this study conceded that it had been introduced too late in the response and only after a number of CHWs had died after being infected by Ebola during the course of their work. In Kailahun, for example, stakeholders reported that four CHWs had been infected with Ebola and died early in the response, but there had been no further cases of CHW infections after the ‘no touch’ policy was introduced in their district.

It was notable that many stakeholders engaged in the study considered the ‘no touch’ policy to have been a general infection prevention control (IPC) strategy that all Ebola response workers, health workers and community members were encouraged to adopt during the outbreak. For many the ‘no touch’ policy meant maintaining a safe distance from other people at all times, in both work-related and social situations. Thus,
people avoided shaking hands when greeting each other and stopped sharing food or eating from the same communal dish. They were told to refrain from providing physical care for loved ones who were sick, and were instructed not to touch a dead body.

Roles of other community health actors

Traditional birth attendants

Accounts from caregivers and TBAs indicated that TBAs played an important role during the Ebola outbreak, monitoring pregnant women in their communities and accompanying them to the health facility for delivery if possible. As pregnant women started to avoid health facilities in more intensely Ebola-affected areas, TBAs reported that they conducted increased numbers of home deliveries, often without sufficient IPC measures. In Bombali, for example, one TBA engaged in the study recounted that she performed seven deliveries during the outbreak even without having gloves, the most basic protection, ‘We have been working before without hand gloves so we weren’t afraid of anything and we are sacrificing for our community people’. TBAs also performed deliveries at the local PHU without supervision. As one TBA in Tonkolili explained, ‘The health workers were afraid of touching the pregnant women for delivery and they ordered the TBAs to do the delivery in the health facility. They provided delivery equipment to us. Because the women are our community people, they expect that we deliver them because they are our family members’. TBAs in Tonkolili reported that later in the response, they had received training from PHU OICs and INGOs on personal protection and the ‘no touch’ policy, and were provided with necessary IPC materials although they did not receive incentives for working. In contrast, TBAs in Bombali received neither training nor personal protective equipment at any stage during the outbreak.

Traditional healers

Traditional healers play an important role in Sierra Leone’s pluralistic community-based health system, particularly in rural areas. They were regarded as having a high-risk profile and as one traditional healer explained, ‘Traditional healers believe that it is only God that can make them sick. So they are not afraid of touching any sick people’. With limited infection prevention control measures, authorities perceived traditional healers could be ‘super-spreaders’, and in response the government called for a cessation of all traditional healing practices, bolstered by a prohibiting bylaw. A series of trainings sought to educate traditional healers on Ebola warning signs, encourage them to avoid physical contact with any client, call the 117 Ebola Hotline, and refer all sick people directly to health facilities. Traditional healers engaged in the study claimed that these practices were widely adopted, despite the resulting loss of livelihood. They highlighted their frustration, however, they were not incorporated and utilised in the response more quickly, despite often being the first point of contact for the sick, and having positive relations with and access to communities due to the trust and respect afforded them.

Several caregivers confirmed that they had sought the care of traditional healers during the outbreak because they were trusted sources of care in the community, but also reverted to using home-based herbal remedies. These actions enabled them to avoid health facilities which were seen to be dangerous, avoid contact with health workers or response workers who they distrusted, and overcome access barriers (including during quarantine).
2.2 Costing and financing

Save the Children reported that no additional funding for the national CHW programme was made available during the outbreak, although funds were mobilised specifically to cover the training of CHWs on IPC and later on MNCH service protocols under the ‘no touch’ policy. Further data about the costing and financing of CHW MNCH activities during the Ebola outbreak was not made available during the study.

2.3 Human resource management

Training

In all four study districts, implementing partners reported that even before Ebola entered their districts, they had mobilised CHWs, often in collaboration with the DHMT, to train them on EVD, the signs and symptoms of infection, and IPC measures. In Kenema, the IRC suggested that approximately two months after the outbreak started in the district, they also gave their CHWs brief trainings on how to continue iCCM (including treatment) without physical contact with patients, although specific details of this training were not discussed.

It was not until late 2014 that training developed by UNICEF, the WHO and MoHS on the iCCM guidelines that integrated the ‘no touch policy’ was cascaded from the MoHS to the DHMTs and down to the PHU level. By April 2015, 9,715 CHWs had been trained on the ‘no touch policy’ (UNICEF 2015b). This standard training included instruction on first screening any sick child for Ebola and referring any suspect Ebola case based on symptoms and/or signs (fever plus any three of the other key Ebola symptoms or signs), or any history indicating exposure to Ebola (e.g. being breastfed by a sick woman, having contact with a dead body or attending a funeral) (MoHS 2014). The training also included assessment of a sick child for malaria, pneumonia and diarrhoea based on observation alone (i.e. without touching the sick child or caregiver); assessment for malnutrition without touch including instructing caregivers to take mid-upper arm circumference measurements (MUAC); checking for danger signs requiring immediate referral; and if there was no suspicion of Ebola, providing presumptive treatment of fever with ACT, treatment of diarrhoea with ORS and zinc, and treatment of pneumonia with amoxicillin. CHWs were instructed to immediately refer any child treated for malaria or diarrhoea whose symptoms had not improved within 48 hours with the suspicion of Ebola (MoHS 2014)

Despite this training, participants of the study including CHWs, MoHS and DHMT representatives, and NGO workers displayed significant variations in their interpretation and understanding of the ‘no touch’ policy as it related to the iCCM guidelines. A number of CHWs in Kenema and Tonkolili reported that the ‘no touch’ policy meant treatment of children under five without physical contact between the provider and the child or caregiver, and without the use of RDTs. As one CHW in Tonkolili explained, ‘We treat but we don’t touch. We place the medicines somewhere and ask the mother to take it, and I explain to her how to give the dosage and she will continue to treat the child’. Some CHWs in Kailahun considered it to mean no physical contact with the child or caregiver, and referral of all patients to the PHU regardless of symptoms or signs. There was also great uncertainty about the correct management of fever. Some CHWs reported that they referred all fever cases to the PHUs, whilst others treated fevers presumptively as malaria and would only refer if there had been no symptomatic improvement after 24-48 hours. A number of CHWs in Kenema and Tonkolili confirmed that they would refer any child exhibiting a fever plus two or three Ebola signs or symptoms (for example diarrhea or vomiting) and only treat a fever presumptively in the community if these criteria were not met. These variable interpretations of the iCCM guidelines under the ‘no touch’ policy were problematic. Treating children with a fever presumptively risked missing an Ebola case (particularly if any danger signs were not excluded first), yet referring all fever cases risked a significant number of malaria cases being suspected as Ebola cases, with patients placed at increased nosocomial risk of Ebola infection whilst they were at holding centres or PHUs.
Although many CHWs in the study reported that they regained confidence to deliver iCCM after receiving training on the ‘no touch’ policy, many were concerned over their ability to accurately assess a child through observation at a distance. As one CHW in Tonkolili reported, ‘The caregiver was telling us the condition of their child and we could give them drugs based on their explanation, but it was difficult to diagnose the actual sickness the child was suffering from’. Another CHW in Kenema explained,

It affected us negatively because before Ebola, we used to touch the children and observe their temperature with the back of our hand to see if they had a fever, if it was malaria. But during Ebola, they condemned our services and said we shouldn’t touch any person. We weren’t testing the sick children to know the kind of sickness they had.

Some CHWs confirmed that they wanted to be trained in the use of PPE so they could have continued providing iCCM with touch, whilst others confirmed that even if they had been trained in the use of PPE, they would still have preferred to refer all patients to the health facility, for their own safety. District stakeholders also expressed concerned about the capacity of CHWs to strictly adhere to PPE protocols in the community context, and about the level of safe community-level waste management that would have been required.

**Incentives**

District stakeholders across the study sites reported that the payment of regular monthly incentives (SLL 15,000, approximately USD 2) to CHWs continued during the outbreak. In Bombali, World Hope International provided additional motivational incentives by giving their CHWs T-shirts and caps printed with a ‘no touch’ slogan to both recognise the role of CHWs within their communities and give greater visibility to a key Ebola prevention message. The majority of implementing partners engaged in this study concluded that with sufficient training and support, CHWs were willing to continue their regular activities during the Ebola outbreak, motivated by a commitment to their communities and a desire to contribute to ‘A cause larger than themselves’.

In Kailahun, CHWs reported that their regular monthly incentives (and supervision) provided by the implementing partner ceased for several months during the outbreak (an account that contrasts with the information provided by the partner). A number of CHWs admitted they had been demoralised by this lack of support (primarily the lack of supervision), but reported to have continued community-based activities. The view shared by one CHW was representative of many,

Because we the CHWs are volunteers and we volunteer to save lives, so with or without payment, we were doing this job by engaging and sacrificing ourselves for our communities. Our community members appointed us to be their CHWs, so with or without support, we worked for our communities, with the exception of drugs distributions.

Motivating CHWs through non-financial incentives, particularly through supervision, was seen by implementing partners to be a key component of their work with CHWs during the outbreak. As a representative from one implementing partner in Tonkolili explained,

What kept the CHWs motivated to work was our commitment and our relationship with them, because we didn’t move away. I remember when Ebola started there was a letter from the county director that said, whoever thinks he is not safe can take a holiday and leave without pay, and wait until after Ebola and then they can come back to their job. So I called a meeting. I talked to our staff. Every staff was committed and said ‘This is our country. We have nowhere to go. We will continue to work’. So when our staff were willing to stay,
**they continued working in the communities and building good relationships with the CHWs. They were there to talk to the CHWs to motivate them to continue to conduct their regular activities.**

### 2.4 Supply chain management

There were mixed reports from stakeholders regarding whether iCCM drugs were regularly distributed to CHWs during the outbreak, intentionally withheld or simply not available for distribution from PHUs (usually due to stock-outs, or in some cases due to PHU closures). A number of CHWs in Tonkolili explained that the PHU to which they were attached stopped providing them with medicines until after they had been trained on the iCCM guidelines under the ‘no touch’ policy. Other CHWs in Kailahun suggested that even after receiving training on the ‘no touch’ policy, they were still not provided with drugs or equipment, and this frustrated their efforts to provide community-level services.

There were also varied accounts across districts relating to the quality of the iCCM drug supply chain during the outbreak. District stakeholders in Kailahun and Kenema reported that pre-existing problems with the supply chain continued to persist during the outbreak and in Tonkolili, DHMT representatives concluded that such problems were exacerbated during the outbreak, since all resources were concentrated on specific Ebola-related activities. A number of stakeholders noted that because the level of iCCM service provision reduced significantly during Ebola, the demand for drugs decreased and many CHWs did not receive routine supplies. As one caregiver in Kailahun recounted, ‘We came to the CHW but they did not have drugs. At that time of night it was too late for us to take the child to the health facility and there was no transport on the road. The baby died at around 6am’.

Districts adopted different approaches to supplying PPE for routine CHW activities. In Kailahun, implementing partner representatives explained that a conscious decision had been made to not provide CHWs with PPE materials (including gloves) to avoid ‘tempting’ CHWs to touch patients. In contrast, implementing partner representatives in Kenema reported that PHUs provided their affiliated CHWs with gloves and face-masks, suggesting that this gave CHWs confidence and served as motivation for continued service provision.

### 2.5 Service delivery and referral

Different stakeholders both between and within districts gave varied accounts about whether CHW MNCH service provision (particularly the treatment component of iCCM) continued, was reduced and/or stopped at different stages of the outbreak, and why. Many district stakeholders reported that iCCM ceased for between one and three months at the start of the outbreak in each district, but it was challenging to build an accurate picture of service provision through the qualitative analysis of participant’s retrospective narratives (particularly in relation to the period between September and December 2014, before the formal introduction of the iCCM guidelines that incorporated a ‘no touch’ approach). Participants gave numerous reasons for the withdrawal or reduction of iCCM services, including CHWs’ fear or lack of confidence in their ability to provide services safely without becoming infected; preoccupation with or reorientation towards Ebola-related activities; lack of support for the continuation of routine services; and because of a clear directive from an implementing partner or PHU. As a representative from one implementing partner suggested, ‘If a PHU OIC had died and the PHU was closed, CHWs were not given supervision or drug supplies, so iCCM stopped, whilst in other non-affected chiefdoms iCCM continued’. The box below summarises CHW MNCH services in the study’s four focal districts during the Ebola outbreak.

CHWs expressed mixed attitudes towards the provision of iCCM during the outbreak. As some CHWs asserted, in communities that had been minimally or not directly affected by Ebola, they used a ‘no touch’ approach to
iCCM even before receiving formal training later in the outbreak. Other CHWs commented that they ‘felt safer’ by not offering community-based treatment during Ebola, and suggested that even if they had made treatment available, caregivers would not have utilised their services due to widespread fear and mistrust of health workers. CHWs who did continue to offer iCCM (as per the ‘no touch’ policy) also reported reduced service utilisation for these same reasons. In Kenema, where CHWs did provide iCCM during the outbreak, one CHW explained,

The worst challenge was that the children were suffering from fever and whenever their parents saw us in the community they would hide their sick children. Nobody would complain about being sick to you because they believed that if you were aware of their sick people you would refer them. They were answering us differently – even though their appearance looked like they were sick, they pretended as if they were better. The community people were denying sickness and there was not a good relationship between us.

According to CHWs, community fear not only affected the utilisation of iCCM services, but also had a negative impact on how receptive caregivers’ were to health promotion activities. This was indicative of the depth of mistrust that developed between communities, CHWs and the broader health system. As another CHW in Kenema recalled,

There was lot of community fear. Even when we attempted to distribute bed nets some community members were saying that there were special drugs in the nets that would kill them if they used it. They were not accepting the soap we used to give to them. They also rejected the food we supplied, at least at first, by saying it is Ebola food and was drugged.

Other CHWs, particularly in quarantined communities and in Bombali (where CHWs had not yet been trained in iCCM before the outbreak), felt ‘disempowered’ and ‘frustrated’ that they could not provide community-based treatment, particularly because they felt that caregivers were more likely to seek care from them than present at a PHU during the outbreak. Some discussed scenarios in which they had been criticised for referring sick children rather than treating them in the community. CHWs who had worked in quarantined communities explained that roadblocks isolating the community had prevented them from accessing health facilities and reported that this had led to child deaths in their communities.

Since PHU staff (particularly PHU OICs) had key supervisory roles and supplied CHWs with iCCM drugs, when PHUs closed during the outbreak, even for short periods of time (although usually for between one and three months), iCCM service provision was disrupted. In addition, PHU closures forced CHWs to refer sick children, pregnant women or lactating mothers to more central health facilities, often located significant distances from their home villages. The geographical barrier, lack of transport, and particularly fear associated with less familiar central hospitals (known as magnets for Ebola cases), served to deter many community members from complying with referrals and in some cases led to fatal delays in care. The majority of PHUs, however, remained open throughout the outbreak (as discussed above). Across all districts, stakeholders reported that health workers accepted referrals made by CHWs and, in some locations, prioritised these patients. In turn, CHWs who accompanied patients to a health facility were a valuable source of information during Ebola screening since they could often provide additional information about the patient’s recent history, potential Ebola signs and symptoms, and risk factors that the patient may not have been willing to disclose.
**CHW MNCH services per district during the Ebola outbreak**

**Kenema**
Located in the southeast and bordering Liberia, Kenema was the first district in Sierra Leone to report a confirmed case of Ebola in late May 2014. Both the DHMT and IRC reported that for the first one to two months of the outbreak, CHWs were instructed to stop all community-based treatment of children under five, but routine MNH activities were continued. District-level partners trained CHWs on how to continue iCCM without coming into physical contact with the child or caregiver. CHWs reported that they avoided physical contact and stopped using RDTs, and started presumptively treating sick children. CHWs confirmed that they did continue MNH activities including antenatal and postnatal home visits to promote maternal and newborn health, and health facility referrals for pregnant or postpartum women and newborns showing danger signs.

**Kailahun**
Kailahun borders with Liberia, the prefecture Guéckéédou in Guinea (the origin of the first Ebola case in the West African outbreak) and Kenema district. According to WHO data, Kailahun reported its first Ebola case just days after Kenema in May 2014. Save the Children confirmed that early in the outbreak four CHWs contracted Ebola and died as a result of ‘treating fever by touch’. Consequently, for approximately the first three months of the outbreak, CHWs were instructed by the DHMT and Save the Children to refer all patients to the PHU without iCCM treatment. District-level representatives suggested that, in practice, the continuation of iCCM activities over the course of the outbreak varied by PHU, ‘Whether it [iCCM] continued or not was based on the way the outbreak affected each PHU. For instance, in some PHUs, the OIC was dead. So there was no one to supply drugs to CHWs or to monitor their activities. So the CHWs were not actively involved in their roles and responsibilities. We have specific chiefdoms that were not directly affected by the Ebola outbreak, and where the PHU OICs were working, so the CHWs actually continued their activities’. District stakeholders also confirmed that MNH activities continued throughout the outbreak, although at a reduced rate.

**Bombali**
The northern district of Bombali shares a border with five other districts in Sierra Leone and neighbouring Guinea. According to WHO data, the first cases of Ebola were reported in Bombali in June 2014. Prior to the outbreak, CHWs in Bombali had been trained and were providing MNH services under the national CHW programme but iCCM had yet to be introduced. During the initial phase of the outbreak, World Hope International reported that CHWs continued their regular MNH activities although at a reduced level (likely due to a combination of community avoidance of CHWs, reduced supervision of regular services and a focus on Ebola-related activities). From early in the response, the DHMT and PHU OICs advised CHWs to avoid contact with community members during interactions and to immediately alert them of any sick community members. CHWs confirmed that they followed these guidelines, although they were not formally trained on MNH guidelines with the integrated ‘no touch’ policy until later in 2014 (as discussed above).

**Tonkolili**
According to WHO data, Tonkolili, located in central Sierra Leone, reported its first cases of Ebola in August 2014. CHWs had received training on iCCM under the national CHW programme only a few months before the Ebola outbreak reached Tonkolili. The IRC, who implemented the programme and provided the training, confirmed that they had initially instructed CHWs to stop iCCM entirely, although they were later trained on iCCM using the ‘no touch’ policy to facilitate community-based treatment for children under five. CHWs reported different patterns of service provision, before and even after training on the ‘no touch’ policy. Some continued to treat without touching, whilst others stated that they strictly referred all patients and stopped treatment completely for the duration of the outbreak. Again, this suggests multiple interpretations of the ‘no touch’ approach. Whilst CHW behaviours changed over time and in relation to both the outbreak and response, it is also evident that a range of practices were adopted at any given time despite the roll-out of official policies that aimed to standardise safe behaviour.
Care seeking

As highlighted above, many district-level stakeholders and CHWs reported that care-seeking from CHWs for MNCH services (particularly in Ebola-affected communities) reduced significantly during the outbreak. Although the relationship between CHWs and the communities they served was built on a foundation of respect and trust prior to Ebola, the link between CHWs and health facilities (and therefore government authorities of whom people were historically suspicious) led to communities displaying elevated levels of fear and mistrust that resulted in their rejection of CHWs. As one CHW in Bombali explained, ‘As long as you are part of the health system the community will blame you and say that you are conspiring with the health workers to kill their relatives for money’. A district-level representative in Kenema explained,

Some community members looked at the CHWs almost as health workers at that time, because they knew the CHWs were identifying the sick and referring them. They were saying ‘you have come to kill us’. Community members looked at the CHWs not as their family members but more as health workers fishing out the sick. So, they weren’t well liked at that time in some of the communities. Some communities did appreciate them though, because due to their work, they had limited numbers of Ebola cases.

Caregivers in Kailahun and Kenema (particularly in communities more heavily affected by Ebola) avoided their CHWs and used traditional remedies or sought care from drug peddlers. As one caregiver in Kailahun recalled, ‘We were afraid of using all medicines from the health facility and the CHWs because we heard that there was an Ebola tablet and if you drink it you will have Ebola. So we were using the traditional herbs instead’. Caregivers were also afraid of what they perceived to be indiscriminate referral to health facilities or Ebola treatment units (further discussed below). As another caregiver in Kailahun reported, ‘We were afraid of the CHWs because we thought that they would refer us to the health facility and we didn’t want the health workers to tell us that we have Ebola, so we used the traditional herbs to cure our sick children’.

It should be emphasised, however, that according to many district-level stakeholders, the long established close and trusting relationship between communities and their CHWs was significantly more resilient than the relationship communities had with facility-based health workers. Many caregivers confirmed that they were more likely to seek care from a CHW than present at a PHU or other health centre, a view echoed by CHWs themselves. In two villages in Tonkolili, however, community members confirmed that despite their fear, they remained in contact with their CHW because of the bylaws (also discussed further below). Both villages had been severely affected by the outbreak: seven people had been infected in one community, and in the other, 20 people had been infected of whom 15 had died. Both villages had been placed under quarantine and the bylaws strictly enforced. It was an offense to not immediately report a sick person to a CHW or health worker, and cases of family members being fined large sums of money or taken to court because they had not complied with the bylaws were reported. In a village in Bombali that had also been placed under quarantine, community members argued that the MoHS ‘should have distributed drugs to CHWs for community use’ stressing that the CHW was the only accessible source of care at that time.

Withdrawal of community-based services or lack of capacity to provide services had a significant impact on how communities perceived CHWs. In some areas where CHWs provided iCCM with ‘no touch’, communities thought the quality of care was compromised. As one caregiver in Tonkolili explained, ‘We were not happy with the ‘no touch’ policy because he [the CHW] was not touching our sick children like before [the outbreak]’. This had implications for CHW service utilisation, and as another caregiver concluded, ‘We weren’t seeking care from the CHWs because of their ‘no touch’ policy’. CHWs also reported that the ‘no touch’ policy affected their relationship with community members. As one CHW in Bombali explained, ‘If you greet someone without shaking his or her hand, he or she will grow offended so at the most basic level, the ‘no touch’ policy came with some challenges’.
Referral compliance

Caregivers and pregnant women who did engage with CHWs during the Ebola outbreak were often either reluctant or non-compliant with health facility referrals. A dominant reason for this was concern over nosocomial Ebola infection at health facilities. As one caregiver in Kailahun explained, ‘They should have separated patients who are very sick from those who aren’t too sick so that the worst patients would not transfer the sickness to the other not-so-sick patients’. Another frequently reported reason for referral non-compliance was the fear that health workers were intentionally infecting people with Ebola. As another caregiver in Kailahun explained, ‘We would not visit the health facility because if you took your baby to the health facility they would put the both of you under the Ebola net [a ITN that was thought to be impregnated with Ebola] and you could be infected with Ebola within that process’. The repeated experience of community members being ‘taken away’ to a health facility (a hospital or ETU) never to return also created fear of referral and non-compliance amongst many caregivers and pregnant women. This was particularly evident during the earlier phases of the response, but fuelled rumours throughout the outbreak. As one CHW in Bombali commented, ‘People were afraid of going to the hospital to deliver because they were saying if you go to the hospital you will die. So most women delivered here [in the community] during the outbreak’. Another CHW in a different village in Bombali reported, ‘The mothers were also afraid of taking their children to the health facility because of the fear of Ebola. If they go to the health facility, they think the health workers would say their child has Ebola’. As may be expected, CHWs reported that referral non-compliance was both less frequent and less problematic in villages that were not directly affected by Ebola.

Caregiver perceptions and experiences of poor quality care at health facilities, often related to limited drug supplies and the adoption of the ‘no touch’ policy also influenced people decision to avoid health facilities. As one caregiver in Kailahun recalled, ‘I saw a pregnant woman in delivery pain without the health workers attending to her until she died. Many of these cases were happening’. As one CHW in Bombali confirmed, ‘Before Ebola they were giving us drugs and they cared for us by touching our sick children in the health facility, but when Ebola came they stopped all the good care and treatment’. Similarly, a caregiver in Tonkolili concluded,

*During Ebola there were no drugs in the PHUs and they would not touch your child. All they did was to refer you to the district hospital. Even if they had medicine they would refer you because of their fear of Ebola. They would only test your temperature. If the baby was going to die then he or she would die on the way.*

2.6 Communication and social mobilisation

District-level stakeholders reported that CHWs continued their regular health promotion activities throughout the outbreak, although to varying degrees. CHWs reported that their continuation of routine MNH activities was largely dependent on the extent to which their community had been affected by Ebola. In communities with a high Ebola caseload, CHWs tended to be focus solely on EVD-related duties. As one CHW in Kailahun confirmed, ‘All the activities stopped during Ebola and everything was about Ebola’. In areas less directly affected by Ebola, CHWs reported using EVD sensitisation as a platform to provide MNH promotion messages, and vice versa. In Kenema, for example, some CHWs reported that they added Ebola messaging to their regular activities.

In conducting their regular MNH activities, CHWs were encouraged (by the implementing partners and district authorities) to emphasis the need for caregivers to utilise PHUs when their children or other family members were sick. As one implementing partner in Kailahun reported,

*We really tried to encourage the CHWs to sensitise the community people that they should visit the health facilities, that the health workers were not disease carriers. So we [the DHMT and implementing partners] tried*
Across the four focal districts, CHWs reported that as communities gradually adopted Ebola IPC measures, the rate of utilisation for routine MNCH services also increased, including seeking care through iCCM. Stakeholders attributed this to a combination of strategies including the introduction and enforcement of bylaws (discussed further below), and intensive and persistent sensitisation by community and youth leaders, religious leaders, PHU OICs and CHWs. A CHW in Kenema explained, ‘We kept talking to the community that they should please accept the medicine and give it to their children so that they would not die. And they all eventually accepted the message and worked within the bylaw’. Another CHW in Kenema concluded,

Most of the lactating mothers were afraid when their child had a fever. They were afraid of going to a CHW because they felt that the CHW would refer them to a health facility, and most of their people had been taken to the ETU. But we did sensitization. We talked to them, telling them not to fear and tell us about any case of sickness so that we could treat their children with the ‘no touch’ policy. Without sensitisation, they would end up hiding their children who would die.

2.7 Supervision and performance quality assurance

Stakeholders provided a range of opinions about who provided supervision to CHWs and the extent to which it continued during the outbreak. It was clear that the level of supervision given to CHWs varied depending on district and the timeframe of the outbreak. In more heavily affected areas, reasons given for reduced CHW supervision included the DHMT’s strategic focus on the Ebola response rather than routine services; restrictions on travel and the movement of personnel; closure of the PHUs (often reportedly due to death of the OIC); and peer supervisors task-shifting to Ebola-related activities. Reduced supervision usually resulted in reduced reporting. CHWs who received ongoing supervision and support during the outbreak from at least one reliable source (usually a peer supervisor or PHU OIC), or who were peer supervisors themselves, were most confident in continuing their activities, particularly iCCM, even in the highly challenging outbreak context. As one CHW explained, some peer supervisors managed to continue their supervisory role by bolting it onto their Ebola activities which had taken precedence, ‘ Whilst the peer supervisors were doing the contact tracing, they would also supervise our normal activities and advise us about prevention messages’.

CHWs expressed a keen sense of abandonment when the PHU to which they were attached closed, or their implementing partner withdrew support. Of the four study districts, the analysis of stakeholder narratives suggested that supervision for regular CHW programming was most disrupted during the Ebola outbreak in Kailahun. The DHMT reported that they stopped their supervisory oversight of CHWs for regular MNCH activities and instead focused all their resources on the Ebola response. The implementing partner also scaled back their supervision significantly, and neither PHU meetings nor peer supervision was conducted for a number of months. CHWs in Kailahun were frustrated about the lack of supervision they received, and as one participant asserted, ‘We went nine months without seeing the partner staff. They used to supervise us and were responsible for paying our incentives. If those things are not provided then how can we work?’ Although peer supervision in Kailahun did restart later in the outbreak, the frequency and quality of the supervision was largely undocumented.

In contrast to Kailahun, implementing partners in Kenema suggested that supervision of CHWs was maintained to a greater degree in their district. The DHTM conceded that their supervision of CHWs had stopped, but supervision from the key implementing partner continued and support was given for peer supervisors and PHU OICs to oversee the CHWs. CHWs in Kenema suggested, however, that the supervision they received during Ebola was significantly reduced compared to ‘normal’. They explained that their monthly PHU meetings had
stopped for about four months and concluded that their PHU OICs and peer supervisors were generally too preoccupied with the Ebola response to continue supervising regular activities. The DHMT confirmed that CHW reporting continued during the outbreak, although a decline in both rate and quality was noted, not only in Kenema but across the districts.

In Bombali, representatives from the implementing partner reported that although support was given to peer supervisors, restrictions on movement during periods of intensive Ebola transmission prevented many from performing their supervisory duties. Some CHWs continued to submit their reports during the outbreak, whilst other CHWs engaged in the study admitted that they ceased reporting their regular activities. Some had stopped reporting because they were no longer conducting regular MNCH activities, whilst others explained that they could not report because they had not been provided with reporting forms during the outbreak. In Tonkolili, representatives from the key implementing partner, the IRC, confirmed that movement restrictions and the sequestering of peer supervisors for Ebola-related activities affected CHW supervision to the extent that IRC staff stepped in to continue supervising CHWs’ regular activities. Because of this, the level of CHW reporting in Tonkolili appears to be higher than in other districts during the outbreak.

2.8 Monitoring and evaluation, and health information systems

Information about monitoring and evaluation and the inclusion of MNCH data in health information systems during the Ebola outbreak was not made available during the study.
Early on in this community, people were hiding the sick because they thought they would be taken to the treatment centre where the health workers would inject them with lethal drugs. I was tormented because people were hearing different messages. Many rumours were being spread and people weren’t coming to me for treatment or advice when they were sick.

I was afraid of my life because of threats from my community so I stopped calling for ambulance for a while.

Even my own uncle, who I advised to go to the treatment centre when I saw him vomiting and having bloody diarrhoea, died because he didn’t follow my advice.

It was not until after many people had died in this community that the Paramount Chief came to the community and sensitised the people about Ebola. The bylaws were introduced and the military quarantined us.

After these things, people had more awareness of Ebola and were afraid of the military because they remembered the rebel war in this country. So, they began reporting the sick to me and asking me to call the ambulance.

CHW, Bombali
3. Community health workers and Ebola-related work

This chapter focuses on the Ebola-related work that CHWs were engaged in during the outbreak. For ease of comparison with the pre-Ebola and post-Ebola work conducted by CHWs, this chapter is also structured around the eight benchmarking components.

3.1 Coordination and policy

Across the three most affected countries, both the national and international response to Ebola was slow, and in Sierra Leone the response was characterised by a constantly evolving coordination structure. Whilst this allowed flexibility within the response to adjust to the dynamic context of the Ebola outbreak and emerging issues, it also led to persistent confusion and miscommunications about who was responsible for doing what, where and when.

The president established the Presidential Task Force in late June 2014, almost one month after the first case of Ebola was detected in Kenema on 25 May 2014. Technical support was provided at a central level by the Emergency Operation Centre, and at the district level by the DHMTs that led district task forces supported by local and international NGOs. By August 2014, the Ebola Response Consortium had been established. This included 11 local and international NGOs (later expanded to 14 NGOs), led by the IRC, with a collective remit to support the MoHS in the Ebola response. Regional and international support started flooding into the country, bringing much needed resources but also creating coordination challenges. As a result, the National Ebola Response Coordination (NERC) was established in October 2014. This was a military-civil operation, led by the national military and organised into seven pillars: case management and IPC; surveillance; burials; social mobilisation (later social mobilisation and community engagement); media and communications; child protection and psycho-social support; and logistics. District Ebola Response Centres (DERCs) were set up in each district. These were relatively well-resourced and replicated the pillar structure at the national level.

The effectiveness of the response during the initial phase was dependent on the capacity of the DHMT-led District Task Force to mobilise the necessary response structures (including social mobilisation) and engage community leaders through local task forces at the chiefdom level.

In Ebola hotspot districts where the DHMT lacked emergency response capacity, many national stakeholders considered the DERC to have been necessary and relatively effective, as in Port Loco. In other districts, such as Kenema and Kailahun where the caseload was already declining prior to the new organisational structure, the leadership of the DHMT felt undermined and considered the establishment of the DERC to be a parallel system resulting in both duplication of efforts and unfilled gaps. Although stakeholders reported that communication and coordination improved over time, poor operational management across the pillar structure was cited as a major challenge to the effective distribution of funds and resources.

A strong narrative has developed in Sierra Leone about the critical role CHWs played in the Ebola response. Whilst this was expressed by many stakeholders in the study, the complexity of CHWs involvement was also emphasised. Many explained that CHWs were slow to be included in the formal response. As one national stakeholder reflected,

_Everybody talks about it as if CHWs were very integral to the response. I think that later in the response we created roles for them, but that was very much later. In the fall of 2014 they were cut out and politicians were added in to the role that the CHWs should’ve played._
Although CHWs were well established at the community level, a variety of factors contributed to their under-utilisation in the response, at least initially: the early phase of the response was chaotic; no community-based emergency response strategy existed prior to the outbreak; and components of the response became quickly politicised.

In the early phases of the response, there was no formal coordination of CHWs, largely due to the absence of an emergency response strategy. CHWs reported that they continued to liaise with their PHUs and were a conduit for passing information to their communities, but this was done on an informal and ad hoc basis. A number of programme implementers expressed regret, even guilt, that they had not sustained better working relations with CHWs early on, but had in effect ‘abandoned’ them ‘due to restrictions on movement’.

As the response became more coordinated, initially under the leadership of the District Task Forces and then the DERCs, CHWs were utilised to varying degrees by different pillars, primarily for surveillance and contract tracing, and to a lesser degree for social mobilisation. Overall, however, no streamlined strategy was developed or adopted to mobilise CHWs during the Ebola outbreak.

Whether or not CHWs were recruited and deployed in the response, and if so, where they were recruited from and how they were deployed, depended on the partner that was the head of a particular pillar in a district. If the partner had previously run a CHW programme, they were more likely to use their own CHWs. Other actors working in the Ebola response collaborated with the DHMT and existing national CHW programme implementing partners to mobilise CHWs through the PHUs. In Bombali and Kailahun, for example, the UNFPA collaborated with the DHMT and implementing partner to identify ‘old’ CHW peer supervisors to be trained as contact tracers. Other Ebola response actors, however, recruited ‘new’ CHWs.

Due to parallel systems of operations, poor communication and inaccurate CHW registers, some established CHWs were recruited by multiple partners, often to conduct different streams of work, whilst other CHWs were overlooked and community members without health backgrounds were recruited and trained to carry out EVD-related activities at the community level (‘new’ CHWs). This lack of coordination resulted in the over-burdening of some CHWs and the under utilisation of others, and also led to personnel being deployed to communities which were not their own. Only later in the response were communities involved in the selection of their own personnel to undertake Ebola-related activities, such as contact tracing, and in this selection process, local ‘old’ CHWs were often, but not always, prioritised. As one CHW in Kailahun concluded, ‘They promised us far back in 2012 that in any future disasters we will be trained to assist the DHMT. But it never happened. During Ebola time, they were recruiting on an influence basis’.

The introduction of bylaws

The use of bylaws was well established in Sierra Leone prior to the Ebola outbreak and using bylaws to promote ‘healthy’ behaviour was not new (for example, bylaws already existed that outlawed community-based deliveries). When communities were seen to continue rather than modify behaviours that contributed to the transmission of Ebola, or at least increased the risk of transmission, bylaws were instituted by paramount chiefs across the country. District stakeholders in Kailahun reported that this occurred as early as June 2014. Against a backdrop of long-standing mistrust of the government authority, the bylaws were a mechanism by which to assert control at the local level. As one Chiefdom representative in Kailahun explained, ‘They say where gentility fails brutality follows, so sometimes in human life you talk to people gently, you try to convince them and they refuse to be convinced. Then this idea of bylaws came in’. Some were directly associated with actions rooted in deeply held cultural norms, such as burial practices, whilst others prevented households from hiding the sick, allowing strangers to enter the community, and enforced compliance with referrals for EVD testing. A representative from one implementing partner recounted,
If you have a visitor or a stranger coming into your community, you should report. If anybody is sick, they should report. If one person is sick in that house and that house is hiding that person, when they discover they will impose fines. Those bylaws, you know, they brought out a lot of people that were hiding.

Stakeholders at all levels frequently associated the reduction in Ebola cases to the enforcement of Ebola-related bylaws at the community level and the conclusion, ‘the bylaws were the main weapon and were effective’ was frequently reported. The fact that community leaders developed and monitored the bylaws was integral to their impact. As one CHW explained, ‘You know when the community stakeholders choose these community bylaws and started finding people and telling them what to do, the response became very much easier for us’. A CHW in Kenema concluded,

It was because the government enforced the bylaw and attached a fine to it. If you broke the bylaw, you had to pay the charges against the kind of crime you had committed. If you hid a sick person it was SLL 500,000 [approximately USD 70]. If you washed a dead person, it was SLL 500,000. If you refused to pay they would take you to prison. So people were afraid of going against the bylaws and they collectively joined us to fight and support the bylaws.

The bylaws were enforced alongside a strong military presence in the outbreak. In the post-civil war context of Sierra Leone, this was not insignificant, and may have heightened people’s fear and willingness to comply with the bylaws. Many international actors criticised the bylaws as being punitive measures that could have led to communities feeling further disenfranchised and elevating resistance against the response. Some participants suggested that the bylaws risked ‘pushing dangerous activities further underground’.

Roles and responsibilities

The importance of local or community-level actions in bringing the transmission of Ebola under control was highlighted by many stakeholders. Informally CHWs functioned as ‘caregivers’ in their communities bringing food and water to quarantined families, supporting the sick whilst awaiting the ambulance, and encouraging those who were afraid to attend health facilities. More formally, CHWs primarily contributed to the Surveillance Pillar as contact tracers and ‘case finders’ providing community events based surveillance (CEBS). They also worked on social mobilisation and community engagement. In reality, CHWs often carried out multiple roles in parallel or even simultaneously.

Active case finders and community health monitors

Across the four districts included in this research, CHWs were trained and deployed as ‘active case finders’. With oversight from the DHMT, CHWs went door-to-door to search for sick people in their communities. It was reported that this happened on a daily basis in the most affected areas. If they identified a sick person, they would isolate them, report the case to the DHMT, and depending on the situation, refer to them to a health facility.

In the later phases of the outbreak active case finding evolved into CEBS, and CHWs trained to provide CEBS were identified as community health monitors (CHMs). This more structured approach to surveillance involved the identification of six key ‘triggers’ related to Ebola: two or more sick or dead family members in short period (less than seven days); anyone sick or dead after an unsafe burial or handling of a corpse; traditional healer or health worker sick or died from an unknown cause; any traveller/returnee from another village becoming sick or dying; any EVD contact becoming sick or dying; and unsafe burial practices in a community. The strategy was rolled out by the IRC across nine districts (Bo, Bombali, Kailahun, Kambia, Kenema, Kono, Moyamba,
Pujahun and Tonkolili) and by the ICRC across three districts (Koinadugu, Port Loco and Bonthe). The MoHS reported that a total of 1077 CHWs were trained as CHMs (MoHS 2015a). There were notable variations in how different stakeholders (including CHWs / CHMs) recalled the number and definition of the triggers, again raising concerns about the quality of training received and the level of rigour in implementing CEBS.

The process of reporting and referring sick community members varied by district and over the course of the outbreak. Initially, CHWs referred people to the nearest designated health facility, and issues with referral compliance were common (discussed further below). Often they would be required to walk to the facility as securing transport for somebody who was ill was frequently impossible, at least at the height of the outbreak. At the health facility, the patient would be assessed by a health worker and in the early stages of the outbreak, isolated and managed at the health facility or transferred to a higher-level health facility with isolation capacity. With the establishment of Community Care Centres (CCCs), patients were referred there rather than to local PHUs, and then onwards, if necessary, to specific Ebola Treatment Units (ETUs) (discussed further below).

Over time the reporting and referral system for community ‘alerts’ became more streamlined and CHWs were instructed to report any sick or death alerts to the 177 Hotline manned by the DHMT. Having registered an alert, the DHMT would then coordinate the appropriate response. As part of the CEBS programme, technically trained DHMT staff members were recruited to be Community Surveillance Officers. They were responsible for accompanying an ambulance to the community, assessing the case and making a decision regarding referral to a health facility or Ebola Treatment Centre. If the alert was to register a death or the reporting of a dead body, the dead body management team would be deployed.

The majority of stakeholders considered CHWs to have been particularly well positioned to take on the role of active case finders or CHMs. As one DHMT official explained,

They were searching for cases, reporting cases and deaths. That was the time when the CHWs were very active because they were still within their communities. Where they stay, they can know about people who are sick and hidden. They even report to us about people who died secretly. The CHWs and the peer supervisors were very useful at that point in time.

Many stakeholders, including community members, recognised that community surveillance activities conducted by CHWs played a major role in role in breaking chains of transmission. As an Ebola survivor in Kailahun concluded, ‘If it hadn’t been for the efforts of the CHWs, all of the people would have got Ebola in this community because the CHWs were going house-to-house, telling [sick] people to go to health facility’. Community surveillance supported the early detection and early referral of Ebola cases, and increased the likelihood that people would present quickly for treatment, thereby increasing their chance of survival. This was positively reinforcing as the return of survivors to the community contributed to the demystification of ETUs and the related shift towards earlier care-seeking.

Contact tracers

Under the surveillance pillar of the response, UNFPA coordinated contact tracing across all the districts included in this study. CHWs (usually peer supervisors) from Ebola affected communities were selected through their PHU to be contact tracers. Contact tracers were responsible for creating a line list of all contacts, isolating and monitoring contacts for signs and symptoms of Ebola every day for 21 days, and maintaining the ‘no touch’ policy at all times. Any contact presenting with signs or symptoms of Ebola was to be reported to the DHMT who would then send a technical officer to conduct a more detailed assessment of the contact. Although all contact tracers received standard training from UNFPA in collaboration with DHMTs, stakeholders
reported significant variations in the implementation of their activities. Some CHWs who worked as contact tracers reported that they assessed the condition of contacts by ‘asking them to walk and make some few exercises’, whilst others applied a more rigorous approach. As one CHW outlined,

> We will isolate them and monitor them by using the questionnaire that includes seventeen signs and symptoms of diseases. We ask them questions relating to their health. If they report no, I will fill no on the form. If they say yes, I will pause the interview and call the alert team to take him or her to the holding centre or ETU.

Although CHWs were well placed to act as contact tracers due to their position within a community, some stakeholders raised concerns about their technical capacity to reliably perform the various functions. Several participants suggested that contact tracers who were working in their resident community were more accepted, even if they faced challenges and resistance from community members. In contrast, an unfamiliar person working as a contact tracer was not well received by the community. As one community leader recalled, ‘We thought they would misinform about us, or manipulate the contact tracing report to tell the health workers that we have Ebola all over the community, so we were afraid of them’.

**Social mobilisers**

The use of CHWs in social mobilisation and community engagement was widespread. Their roles and responsibilities in this capacity are discussed in detail in the following section on communication and social mobilisation below.

**Burial teams**

The majority of stakeholders involved with the study confirmed that CHWs were not members of the safe and dignified burial teams.

**Traditional birth attendants and traditional healers**

Despite the trust that communities felt for TBAs, they were rarely included in the formal EVD response, and given concerns about their low literacy levels, many were considered not sufficiently skilled to take on Ebola-related activities. Similarly, traditional healers were sidelined throughout much of the formal response. In some hotspot areas, such as Port Loco, traditional healers were eventually trained and supported to work as social mobilisers, but emphasised that this collaboration had come too late in the outbreak. As one traditional healer commented,

> They should have trained us about how to distribute food, how to quarantine people. We are the traditional people and they [the community members] are our people. So by facing traditional people they cannot find these things to be very difficult, but they [the response] never did that. Also, they should have involved us in the transportation of the sick people.

### 3.2 Costing and financing

Stakeholders at both national and district levels raised concern over the lack of emergency funds held by the government to support an effective early response to Ebola. The mismanagement of the huge influx of humanitarian relief funds from a range of donors was also highlighted by many participants. Representatives from the DHMTs were frustrated over what they perceived to be a missed opportunity to strategically invest
short-term Ebola funding in such a way as to both contribute to the response but also consolidate existing health structures for longer-term gain.

Funding for CHW-related activities during the Ebola outbreak were mobilised from a number of sources. Pre-Ebola funds were redirected to the Ebola response and a number of donors provided small one off grants of restricted funds, for example, to provide CHW training on the ‘no touch’ policy. Later in the outbreak, the Ebola Response Consortium received significant funding from the UK Department for International Development (DFID) to train CHWs in CEBS but again, stakeholders were uncertain whether this would receive sustained funding post-Ebola.

3.3 Human resource management

The response to Ebola resulted in a rapid expansion of actors involved in the community health system. Existing CHWs had their duties expanded and were tasked with new Ebola-related roles, in addition to or in place of their existing MNCH activities (depending on time and location). A need for extended coverage, particularly for community-based surveillance, led to the recruitment and training of new CHWs to supplement the existing community-level workforce. Alongside CHWs, both old and new, a large number of youth and other strategic groups of community members (e.g. women’s groups) were recruited and trained in social mobilisation to contribute to the community-level response.

Training

Which CHWs received training, what training they received and who provided it depended on the district, the implementing partner(s) they were associated with, and the timing of the outbreak. Across the response, however, the vast majority of CHWs were trained on Ebola prevention, signs and symptoms, and how to manage a suspected case in their community. Newly recruited CHWs were usually only trained on specific Ebola-related activities, whereas established CHWs (usually peer supervisors from affected communities) received more advanced training, for example on contact tracing. Although reported numbers of CHWs trained varied across documentation and by organisation, the MoHS concluded that 9,715 CHWs were trained on the ‘no touch’ policy for iCCM, and 7,011 were trained in CEBS (MoHS 2015b). A representative from an implementing partner explained the need for, and effectiveness of, CHW training.

One of our CHWs was approached to handle a case that came to their community. Everybody knew that if you have not been in your community for three or more months, you were not allowed to come back to that community. So this guy came to his community, but he was sick. So all the relatives said ‘No, we will not allow you to enter our house. Stay out there’. They called the CHW. The CHW came. The CHW informed the OIC, then the OIC said, ‘Okay bring this person to the health centre’. Because of the training he had got on the ‘no touch’ policy, this CHW was brave enough. He draped the bike rider with a plastic seating and then he dressed up with his raincoat and wore plastic gloves. He took the patient and put him on the motorbike. He took the patient to the health centre that he was reporting to. And this patient later proved to be positive. The CHW was quarantined for 21 days but he never presented symptoms, which means he actually followed the training we gave him on ‘no touch’ policy and also the preventive measures that we explained to him.

Implementing partners expressed concern over the quality of the ‘rapid fire’ training in which up to 100 CHWs were trained at one time during the outbreak. It was acknowledged that quality may have been sacrificed for scale, and that this was not good practice particularly in relation to more technical surveillance activities. The varied descriptions that different CHWs provided about surveillance activities were often vague, suggesting that such concerns may have been justified. It was notable, however, that reports of CHWs becoming infected
with Ebola after having received training were rare. This was seen by many stakeholders to be testimony to the effectiveness of the training of frontline community health workers. Early in the outbreak in Kailahun, for example, four CHWs were infected and died, but after receiving training, no more CHWs were infected in the district for the remainder of the outbreak despite their relatively high risk of exposure.

Incentives

The significant influx of time-limited emergency funds during the outbreak allowed partners to offer CHWs and other ‘Ebola workers’ incentives that were inflated compared with normal scales of remuneration. High incentives were intended to offset the hazard associated with working on the front line of the Ebola response, yet it led to a number of unintended consequences, some with lasting impact. Ensuring promised payments were delivered regularly and on time was a major logistical challenge. Although this was made easier by the introduction of a mobile payment system, it did not always cover the more remote villages. Stakeholders frequently reported variable payment rates depending on the implementing partner they were working with, and their specific role. Many CHWs conducting social mobilisation activities or ‘active case finding’ under the supervision of their regular NGO or the DHMT received no payment despite the risk of exposure associated with this work. In contrast, people specifically recruited for Ebola-related social mobilisation activities or contact tracing by international organisations (e.g. MSF and UNFPA respectively) were reportedly paid SLL 400,000 per month (approximately USD 54). Such disparities in payment not only demoralised some CHWs who were working voluntarily, but led to the politicisation of certain Ebola-related activities. A national stakeholder recalled,

| There was this whole redesigned contact tracing strategy that was very much driven by political interests and politicians getting incentives. Essentially CHWs were kicked out of being contact tracers with the exception of the few that had been trained early in the response and the ward councillors took over the responsibility of contact tracing...It was horrible because first of all it was ineffective. One of the most important public health measures to contain Ebola was undermined through this strategy. And second, one of the best groups that we had were these CHWs who were working for years and years with no money. But they got undermined when it was the first chance for them to get some financial benefit. |

Many national stakeholders and a small number of district-level stakeholders shared the opinion that CHWs were primarily motivated by high financial incentives during the outbreak. A few suggested that because there was an expanded workforce, CHWs were concerned that they would be replaced if their work did not achieve a certain standard. Accordingly, this led to a higher level of performance and greater accountability driven by financial motivation. This view was not often supported by CHWs themselves, who frequently reported that their primary motivation to contribute to the Ebola response was their commitment to their communities. As one CHW emphasised, ‘We sacrificed to volunteer for our people and the love that we have for the community. With pay or no pay, we need to work for them. We took the oath during our ten days CHW training for the benefit of this country’. A representative from an implementing partner in Kailahun highlighted that in the early phase of the response, CHWs contributed without pay for over three months, ‘CHWs registered their interest, even before knowing what they were to get. They started doing it voluntarily’. Similarly, implementing partners who had worked previously with CHWs confirmed that they were able to ‘cajole’ CHWs into conducting Ebola-related activities without pay because of their pre-existing relationship.

In addition to financial remuneration, CHWs also received material incentives and equipment necessary to conduct their duties. This included rain gear (coats and boots), gloves, and cell phones (used mainly for reporting purposes, although the poor network coverage in some areas led to delays in communication, referral and follow up). Some CHWs also received motorbikes to facilitate access to their catchment areas.
CHWs reported that material support came mainly from INGOs, and several perceived that because the government had not made these provisions, the national authorities had been neglectful.

3.4 Supply chain management

Supply chain management was problematic during the response, and many of the issues identified before the outbreak became further magnified.

Nationwide, health authorities and implementing partners reported that they lacked sufficient emergency stockpiles of IPC materials to effectively protect their workers during the early phase of the outbreak. This included limited PPE, non-contact thermometers buckets, soap, chlorine and hand sanitiser. PHUs, particularly in the areas most affected early in the outbreak, reported significant delays in accessing new supplies, up to three months in Kenema. This resulted in unsafe contact with patients and health workers were forced to improvise with the rudimental materials they had available. One caregiver recalled, ‘Health workers told us that if you are pregnant, then to visit the health facility you should go with two black plastics and they will use these as gloves to attend to you’.

After initial shortages, large quantities of IPC materials and EVD-related equipment were brought into Sierra Leone by implementing partners and donors. Usually, partners used their own emergency procurement systems and, particularly early in the response, bypassed the government’s relatively weak national supply mechanisms. Supplies and equipment were distributed via the organisations managing activities under each pillar and eventually cascaded down to the PHUs.

Despite the large volume of supplies, it was reported that weak coordination resulted in unequal distribution, and whilst some PHUs faced stock-outs of EVD-related materials, others had surplus. Storage space was a major challenge for small PHUs, and led to congestion in already space-limited work places. In the later phases of the response, the coordination of supplies to PHUs was improved and materials were distributed by the central medical store to the district medical stores and on to the PHUs from where CHWs accessed the supplies.

3.5 Service delivery and referral

As discussed above, specific Ebola-related activities carried out by CHWs varied according to district, implementing partner and the timing of the outbreak. Some CHWs reported juggling routine MNCH activities with their new responsibilities, but CHWs across all districts stressed their responsibility to conduct ‘community policing’ - identifying, isolating and referring any sick person in their community to the appropriate facility. Often, they were also able to provided additional and contextual information about the case that was valuable in determining Ebola suspect status, even when patients were not willing to disclose such details to PHU staff.

The evolving socio-political context of Ebola, compounded by the complexities of the health system and service delivery, meant that CHWs faced significant barriers to conducting their duties during the outbreak. The greatest challenges were related to the identification and referral of sick individuals (both suspected Ebola and non-Ebola cases) to health facilities and to effecting behaviour change within their communities despite the introduction of the bylaws reinforced the practices being prescribed by the response. Although communities reported high levels of knowledge about Ebola and prevention measures, this knowledge was slow to trigger behaviour change and throughout the outbreak, there were reports of high risk behaviours continuing, including hiding the sick and community burials (Focus 1000, 2014). As a community leader in Kailahun emphasised,
Avoiding body contact was the main challenge and most of the people were our family members. Don’t visit your relative, your mother or son, who is sick. There was no doctor or medicine. This was really difficult. Just imagine you cannot touch your own son who is sick. Who are you supposed to embrace as a father? And when he dies, he will be lying on the ground without you touching him. And when the Safe Burial Team come, they will put him in the plastic bag and take him away.

The concept of ‘Ebola money’ caused further friction. CHWs were often threatened and faced discrimination even within their own communities. As one DHMT representative explained, ‘It wasn’t easy for them. As long as they were having links to the health facility, people felt that the CHWs were given money to go and kill their people’. A health worker in Kailahun concluded,

The problem was that if people see the CHWs coming with their reports to the health facility, they will feel that the CHWs are coming to collect the Ebola virus from the health facility and take it to the communities. That was why they were rejected. People’s misconceptions were that the health workers have received money from the government to spread the virus to everybody and so if anybody is doing volunteer work for the health facilities they will also have that blame.

This sentiment was confirmed by caregivers who reported, ‘Because of the thinking and lack of trust during the outbreak, people thought that CHWs would give them Ebola and kill them all, that the CHW is responsible for the death of any sick person by calling for an ambulance in the community’. The fear of ambulances was widespread. Because many patients died at ETUs, ambulances were associated with ‘taking people away’ from their community (e.g. to an ETU) never to return. There was also a perception that ‘being put in an ambulance could kill you’, partly linked to the suspicion and fear of using chlorine spray. Across the four districts, CHWs reported numerous instances of community resistance to using ambulances. As one CHW in Kenema explained, ‘If I attempted to call an ambulance for the sick persons, they [the community] would attack me that I am calling an ambulance for their relative to be killed by the health care workers’. This and the fear of being referred to an ETU (described below) was exacerbated by the lack of information given to families after patients had been taken from their communities, particularly early in the response.

Whilst some stakeholders argued that the infection of health workers contributed to community acceptance that Ebola was ‘real’, it also contributed to people’s reluctance to attend health facilities. As discussed in the previous chapter, caregivers were concerned about the risk of infection due to the ‘mixing’ of Ebola and non-Ebola patients at health facilities, and/or being deliberately infected with Ebola by health workers. Community members also expressed their concern about how non-Ebola illnesses were treated and the fact that a patient would be sent to an ETU for any illness. A caregiver in Kailahun recounted,

There were no differences between Ebola and other diseases at that time. They would refer non-Ebola cases as Ebola. We don’t want them to tell us that we have Ebola even for a common headache. They will say you have Ebola and they will camp you in the ETU. They will not allow your relatives to go inside and greet you, and you can’t set eyes on your family members. Then they will tell them that you are dead.

Data from the Sierra Leone Rapid Health Facility Assessment conducted in October 2014 indicated that just 47 of Sierra Leone’s 1185 PHUs closed temporarily during the outbreak for periods of between one and two months (MoHS and UNICEF, 2014). There was a widespread perception amongst communities that the majority of PHUs were closed and, as discussed above, the care they would receive would be of poor quality and undignified. Health workers were thought to be scared of treating patients, and many caregivers suggested that the adoption of IPC measures and the ‘no touch’ policy made health workers seem uncaring. As one CHW in Kenema recalled, ‘The health workers were also afraid of the sick people and the referral patients. They weren’t touching or exchanging anything with patients. If they have food for the patients they would push it to
you and if you weren’t strong enough to take it for yourself, you would die with hunger’. The limited supply of drugs and quality care further reinforced the avoidance of CHWs and limited acceptance of referrals.

Over the course of the response, strategies were adopted both in health facilities and at the community-level to triage and isolate suspected Ebola cases as quickly as possible for referral to ETUs, thereby limiting the number of potential contacts. Health facilities were supported by implementing partners to establish Ebola screening and triage systems. This also led to the development of Community Care Centres (CCCs), (particularly in hotspot areas) intended as temporary structures within the vertical Ebola response system. CCCs were established in consultation with the traditional paramount chief, although a retrospective evaluation identified widespread community complaints over ‘political nepotism’ regarding employment at CCCs (Oosterhoff et al, 2014). Communities were instructed to present at a CCC for any illness and non-Ebola cases were referred on to the local PHU. Suspected Ebola cases were kept at the CCC for monitoring and testing, and if necessary were then referred to the ETU. As Ebola cases reduced and the emergent need for essential non-Ebola health care became evident, many CCCs experienced ‘mission drift’ becoming centres for free essential health care (ibid).

District-level stakeholders engaged in this study, forwarded different impressions about the effectiveness of CCCs. Some considered that they achieved the aim of promptly removing Ebola cases from communities, keeping them out of PHUs and building trust in PHUs as Ebola-free zones. Others were concerned that triage and screening at CCCs was risky, and that CCCs were a waste of resources that would have been better directed towards strengthening permanent health structures and referral systems directly to the ETUs. For example, the evaluation of CCCs documented that health workers abandoned PHUs for employment at CCCs because of the more lucrative incentive packages (Oosterhoff et al, 2014). Initial community fear of CCCs resolved with sustained community engagement and communities spoke positively about the quality and dignified treatment they received at CCCs (ibid). Some, more rural, communities were frustrated by the decommissioning of their CCC at the end of the outbreak. They highlighted that because of the CCC, they had been able to access free treatment at the point of service delivery within their community for the first time. Although they were only planned as temporary structures, the removal of this point of care was seen by many stakeholders as emblematic of how the response to Ebola did little to support sustainable health system strengthening.

The delivery of Ebola-related services by CHWs was also challenged by lack of transport, especially for social mobilisers who were expected to cover large distances each day, and for contact tracers working outside their own community. One contact tracer in Tonkolili reported having to walk between 10 and 20 miles each day to conduct duties in a distant community. Although some response workers were given a motorbike (as discussed above), they could not always afford or procure petrol. The poor road network across difficult terrain also curtailed access to communities, and further pressured the ambulance service. In some areas, such as in the coastal boarder regions of Kambia district for example, response workers also had to navigate turbulent sea channels by boat.

Securing the support of community leaders (including religious leaders and traditional chiefs) was essential for the delivery of community-based Ebola-related services by CHWs, and for effective referrals. This was repeatedly emphasised by stakeholders across the study. One DHMT representative concluded that gaining the buy-in of traditional leadership structures had been a ‘game changer’. CHWs reported that it had taken time to secure the support of the community leaders, and generally required advocacy of chiefdom leaders. As discussed above, leaders were critical in enforcing the bylaws to control community behaviour.

CHWs also emphasised that they tried to set a positive example through their own behaviour. One CHW in Kailahun explained,

*When they introduced the use of chlorine in this country, we were demonstrating it in the communities, we washed our hands and we did whatsoever they asked us to do. They told us not to touch and we did not touch.*
When my sister got sick, I didn’t touch her. I called for an ambulance and they came and took her. This was the biggest example that I set my community. My biological brother also died, but I didn’t touch. I called the ambulance and they took him also. My brother loved me and I loved him too. But if I said I was going to be very more moral to him by touching his body, then I would have killed myself. So by practicing those activities in the communities, it really helped the government and international bodies to finished Ebola.

Many community members asserted that they were prepared to utilise health services during the Ebola outbreak only after having witnessed their neighbours and family members becoming ill and dying within their communities. As a community leader in Kailahun confirmed, ‘They noticed that people were dying with Ebola as a result of late treatment, so when they experienced the Ebola signs and symptoms they decided on their own to go for treatment’. Whilst it was important for communities to see people being treated with dignity and receiving good quality care at health facilities and ETUs, the return of survivors was critical in encouraging people to seek treatment. As one community member in Kailahun recounted,

I got Ebola through that contact because I took an active part in the burial activity. The contact tracers and health workers were searching for sick people and I was hiding in the bush running from the ambulance for about one month because many sick people were dying and I was scared of the sick. When I realised that people were surviving from the treatment centre, I later went to the centre for treatment.

It was notable, however, that some community members confirmed that they had only started to use health facilities when Sierra Leone was declared to be Ebola free. As caregiver in Kailahun concluded, ‘Because of the national declaration that there is no Ebola in this country again, that is why we are now visiting the health facility’.

3.6 Communication and social mobilisation

One of the roles that CHWs adopted early in response was social mobilisation and community engagement on Ebola prevention and control. At first, this was done in an informal and ad hoc manner. CHWs used to providing health education and sensitisation in their communities began to convey Ebola-related messages and were mobilised by their PHUs and implementing partners. It was not until some time later in the outbreak that CHWs were included within the formal social mobilisation and community engagement pillar of the response, but in some districts CHWs were not primarily selected for these duties. As one national stakeholder involved in the social mobilisation pillar recalled,

At the start there were other people at the community level, social mobilisers and community mobilisers from civil society organisations who were working, it was over the course of the outbreak that the issue of CHWs being more effective in social mobilisation came up.

In some way, most CHWs had been involved in awareness-raising about Ebola through the course of the outbreak. They helped to address Ebola-related rumours, and despite the often fraught position they had within the communities they worked, were considered by many to be an important actor in building trust between communities, Ebola response workers and the health system.

A variety of strategies were employed to communicate key messages, share information and provide demonstrations (for example on the preparation of chlorine solution and proper hand washing techniques). CHWs discussed being opportunistic, providing information to communities whenever they had the chance, whilst others detailed formal activities specific to the response including the use of community radio; town hall meetings; door-to-door or household campaigns; public announcements (through town criers or using megaphones) and the use of posters as tools to reinforce the messages.
Some of the initial messaging that was used by the response across the three most affected countries was highly problematic. The message that Ebola could kill and that there was no cure had the unintended consequence of producing a sense of ‘therapeutic nihilism’, where people did not see any reason to seek care if there was no treatment (ODI 2015). Early Ebola messaging had on-going and negative ramifications throughout the outbreak. As a district stakeholder in Kenema concluded,

*I will also say that the social mobilisation was too late in terms of the messages. The initial messages that came were that Ebola is not curable, the moment you get Ebola you will die. Communities were afraid of coming out. It was only when they started getting news that some people who went to the holding centre recovered then you started seeing people voluntarily coming out and saying I have touched this kind of person, I have touched a dead body, I have touched a corpse, or I am feeling sick. At that time the awareness had come that if you go early to the treatment centre you will be cured. But if you come out with wrong messages like before, people will prefer to stay at their corner and die.*

It was not only the content of the messages, but who delivered the messages that proved influential as communities were more likely to respond positively to familiar and trusted channels of information. Social mobilisation and community engagement had to be conducted not only by CHWs, but also by prominent actors who were trusted sources of information in their communities in ‘peace’ time, including community and religious leaders, teachers, youth groups, women’s groups and local civil society and community based organisations. In most scenarios, local people were more readily trusted than outsiders, and were familiar with local dialects, customs and power dynamics, all of which helped to support effective community engagement. Many stakeholders confirmed, however, that the involvement of community members came too late in the response, and for too long communication for the response was one-directional without facilitating meaningful dialogue with community members. A CHW in Bombali who emphasised the importance of involving community leaders reported that chiefdom leaders had only been included in the district’s social mobilisation efforts after 38 people had died. Whilst some communities did self-mobilise, a number of CHWs were frustrated that local leaders had not ‘pulled together to help the sensitisation’ without being organised by outside actors.

Under the response structure of the NERC, the social mobilisation and community engagement pillar was led by UNICEF. There was a vast number of organisations involved in social mobilisation across the country, and coordination, in terms of both coverage and the messages being conveyed, was hugely challenging. UNICEF conducted district and micro-level mapping of the various actors, and through the DERCs sought to support implementing partners at the local level. In Kambia, for example, the district mapping revealed 29 organisations involved in social mobilisation, and after the micro-mapping that looked at coverage, resources and quality of messaging and communication, 15 were supported through the pillar. In addition, SMAC (Social Mobilisation and Action Consortium), a group of five national and international organisations (GOAL, Restless Development, Focus 1000 and CDC) worked across the country to roll out community-led Ebola action (CLEA), a participatory approach building on good practices from community-led total sanitation. By April 2015, SMAC had used the CLEA approach to trigger collective action in 9,285 communities in Sierra Leone. All developed action plans that were followed up by multiple community visits by SMAC-trained community mobilisers. The issues linked to coordination and payment remained, and there was criticism of duplication of efforts even after the pillar system had been established. This was due in part to a lack of inter-pillar coordination, but also because social mobilisation was an endeavour that cut across most activities (such as community events based surveillance and contact tracing). In the later phases of the outbreak when lines of transmission could be more easily identified, the response started to target social mobilisation action based on epidemiological data at the local level. Although attempts were made by organisations engaged in social mobilisation to evaluate the effectiveness of interventions and messages, it was often the number of activities that were reported, rather than their impact on knowledge increase or resulting behaviour change.
As one CHW in Kailahun concluded, ‘Persistence and perseverance in sensitisation led to success’. Whilst social mobilisation and communication were important components of the response, stakeholders also stressed the importance of the bylaws in changing behaviours, and community members reiterated the notion that ‘seeing is believing’, suggesting that despite the messaging, it was only after people had directly experienced Ebola that they were motivated to adopt prevention and control behaviours. One caregiver in Kenema concluded, ‘We understood the messaging later when we saw cases were declining. Also when we complied with the bylaws and then we believed the health workers were being truthful’.

### 3.7 Supervision and performance quality assurance

The structure, regularity and quality of CHW supervision was dependent on the district, type of activity being conducted, the organisation under which they were operating, and the stage of the outbreak. CHWs conducting surveillance and social mobilisation activities were often directly supervised by the chieftdom community health officer, or in some cases the in-charge of the PHU they had been attached to prior to the outbreak. In Kenema, for example, contact tracers were supervised by their chieftdom supervisors (usually the community health officer) who reported to the district monitoring and evaluation officer under the District Task Force or later the DERC. If contact tracers reported challenges at the community level, these were passed on to the District Task Force or DERC, and subsequently to the military if necessary. Contract tracers in other districts reported having different supervision structures, and one contact tracer in Bombali confirmed that they had received very limited supervision since the community health officer was based 13 miles away and he had no means of transport. Overall, however, both national- and district-level stakeholders suggested that CHW supervision for Ebola-related activities had been more intense than the supervision CHWs received for regular MNCH activities, particularly as supervision within the response happened on a daily or weekly basis. Whether supportive supervision included robust strategies for quality assurance, remains less clear.

### 3.8 Monitoring and evaluation, and health information systems

Reporting systems were strengthened throughout the course of the response, and eventually the reporting system adopted by each pillar was theoretically linked both vertically and horizontally. In relation to contact tracing, for example, A DHMT representative explained,

> The contact tracer would monitor the contact for 21 days through day-to-day visits. They would report to their supervisor. The supervisors would come together with the information and present it to the district medical officer at the DHMT. At the district level UNFPA employed one district contact-tracing monitor who compiled all these data and transmitted them electronically to the disease prevention and control officer in the Ministry of Health. Then all the information from the 14 districts [in Sierra Leone] was combined into one national situation report. The report would be disseminated to the DHMTs where the information was originally collected, and also to the stakeholders who were part of the Ebola response system.

Despite this, Ebola-related data (from contact tracing or CEBS) was always managed in parallel to existing data management structures. Whilst monitoring tools for routine CHW programme were modified to integrate Ebola response related indicators (including, for example, the number of households visited and provided with Ebola IPC messages, the number of EVD alerts reported by CHWs), this data was not also reflected in the HMIS.
Let the government transform us into a well-recognised health workforce with a high standard of work. CHWs shouldn't be a rotten group of community dropouts. Even if the government wants to continue paying us just SLL 15,000, I don’t mind. But let it be a formally recognised standard salary that is paid on time. Because how many educated people are ready to be a CHW under the current system when their colleagues are making money in other fields?

CHW Kailahun

CHWs are aware of their responsibility, irrespective of personal conflicts, if you go to them for any health problem they are ready to attend to you day or night or they refer you to the health centre. The government should provide enough essential drugs for both the CHWs and properly equip the health centre so that the CHWs can treat their children at night before referring to the health facility the next day.

Also if there is any way to open a mobile clinic in this community since the distance from here to the CHC is so far, and the CHWs don’t have any mobility to allow them to respond quickly to emergencies or transport sick patients.

Also the government and partners should help us with latrines and good water facilities because we are using the community forest as our toilet facility.

Community leaders, Kailahun
4. Community health workers and post-Ebola community-based MNCH programming

This chapter analyses community-based MNCH programming and the work of CHWs during the transition and recovery phase after the end of the Ebola outbreak. Again, the analysis is structured around the eight icCM benchmarking components.

4.1 Coordination and policy

CHWs have been acknowledged as a core component of the primary health system in Sierra Leone. The cadre was formally recognised in the revised BPEHS launched in July 2015 (MoHS 2015c) and CHW programming has been a key priority in national post-Ebola recovery planning. Several initiatives and new structures have been established since the end of the outbreak. Leadership for the community health component of the primary health system had been strengthened within the MoHS, and in early 2015 a national CHW hub was developed under the directorate of primary healthcare (DPHC). A national coordinator, four regional coordinators and a monitoring and evaluation officer were appointed to the hub with dedicated roles in CHW policy, planning, supervision, monitoring and evaluation. A CHW steering committee within the MoHS was established to provide a collaborative platform for stakeholders to work on the integration of CHW programme into the health system at the national level. The CHWs technical working group, led by the national CHW hub and including UNICEF and NGO partners, was revitalised to coordinate partner activities; provide technical guidance to the MoHS particularly in terms of harmonising and standardising CHW training, supervision, monitoring tools and job aids; develop, review and update the NCHWP and strategy; and mobilise financial, human and material resources. At the district level, CHW focal persons were appointed within all DHMTs to strengthen their ownership and coordination of CHW programmes. District-level CHW task forces were also established and co-chaired by the DMO and district council, with other members including the district CHW focal person (acting as secretary), CHW programme focal persons, and all implementing partners operating in each district (including those not implementing the national CHW programme). The district CHW task force was responsible for ensuring the implementation and monitoring of the national CHW programme in each district, to discuss and act on identified challenges and lessons learnt, and share good practice between districts. The organogram below illustrates the structure of the national CHW programme post-Ebola (MoHS 2016).

As part of the renewed focus on the community health system post-Ebola, the MoHS and UNICEF conducted a national geo-referenced mapping of CHWs to inform the development of the revised NCHWP 2016-2020 (RNCHWP) and Strategic Plan 2016-2020 (MoHS 2016). The mapping aimed to provide a basis for an up-to-date national database of active CWHs (their name, location, contact details, socio-demographics, training and incentives). Integrating the database into the national health management system would be an important step in coordination and, according to a national stakeholder, would actively support the MoHS to ‘Count them [CHWs] or consider them as a human asset, the human capital for the health system’. The database was intended to assist with effective planning, management, monitoring, evaluation, and CHW-related research. A key objective was the facilitation of the rapid and coordinated mobilisation of CHWs for regular health campaigns or for future emergency response. Its effectiveness was tested during a national immunisation campaign conducted in May 2016 in response to a measles outbreak that had started in August 2015 in Kono District. The MoHS and UNICEF used CHW phone numbers stored in the database to send SMS messages to CHWs located in the relevant districts requesting them to mobilise their communities. Similarly, in response to the last confirmed case of Ebola in Tonkolili in February 2016, the MoHS and UNICEF were able to use the CHW database to mobilise CHWs in the affected and surrounding high-risk communities to conduct community sensitisation and active case finding.
From March 2015, the MoHS (led by the DPHC) with technical support from UNICEF began revising the NCHWP and national CHW programme. This was a consultative process including other government ministries, technical and implementing partners, local councils and civil society through a series of meetings and workshops (MoHS 2016). Both lessons learnt since the launch of the national CHW programme in 2012 and regarding CHW involvement in the Ebola response were considered prior to the RNCHWP being formalised in November 2016 (with the official launch scheduled for 2 February 2017). The RNCHWP defined a CHW as a ‘community-based lay health worker’ who was to be selected in coordination with the DHMT (and officially recognised by the MoHS), meet the selection criteria outlined in the RNCHWP, trained under the national CHW training programme and implement the services stipulated in the scope of work outlined in the RNCHWP. A number of key changes were made to the revised programme: CHW coverage of ‘easy’ as well as ‘hard-to-reach’ communities was increased; CHW responsibilities were expanded; the training programme was redesigned; and issues of CHW incentives were readdressed (all discussed in detail below). Although these changes were confirmed, a number of national- and district-level stakeholders engaged in the study raised concerns over the expansion of CHW activities without having robust evidence of their effectiveness as a cadre, or a detailed appreciation of the operational challenges that existed in the Sierra Leone context.

The RNCHWP clearly defined the roles of different components of community health programming. Whilst the overall objective was to move towards one harmonised national CHW programme, the MoHS appeared to recognise the value of certain vertical community health programmes that fell outside the national programme. Their activities were to be permitted as long as they complemented or supplemented rather than duplicated the national programme. For example, continued implementation of the national tuberculosis (TB) and leprosy control programme and the national AIDS control programme would be in parallel to the national CHW programme. The RNCHWP clarified that any individual working outside the national CHW programme would not be referred to as a CHW, but those working within the programme would be given ID cards and certificates. To ensure the MoHS and DHMTs maintained control over community health activities, the RNCHWP stated that any partner wishing to support community-based health interventions must first consult the national CHW programme and relevant DHMTs; ensure their work was aligned with other community based activities; join the district technical working group; maximise support and utilisation of MoHS structures (including supply chains and supervision); and report to the national CHW programme via the DHMT.

To improve the community component of any future emergency response, district- and national-level stakeholders acknowledged the need for an emergency preparedness plan that clearly delineated the roles of CHWs. Several participants stressed the need for a more integrated approach to community-level response. As one INGO representative concluded, it is necessary ‘To make sure that the response coordination mechanism includes some sort of group that is specifically looking at what is happening at the community level and considers the use of different community volunteers and agents within the response in a holistic way’. A key component of the post-Ebola recovery strategy was a renewed focus on community engagement (discussed further below) and part of the updated strategic approach to community health included strengthening links between community health and other components of the health sector. Representatives from the MoHS discussed the possibility of including a CHW component into the nursing curriculum, and UNICEF stakeholders highlighted the importance of strengthening cross-sectoral programming including CHWs such as nutrition, early childhood development, HIV and WASH.

Significant concerns were raised by a number of stakeholders, however, about the capacity for future emergency preparedness given the lack of sustainable capacity that was built during the Ebola outbreak. Government representatives highlighted that despite the RNCHWP and the provisions it made, some organisations had returned ‘to business as usual’ with implementing partners continuing to run short-term programmes, often in parallel to the formal health system, and which failed to build the capacity of permanent health structures.
Roles of community health actors and their relationship to community health workers

Traditional birth attendants

Although TBAs had performed an increased number of home deliveries in some of the hardest hit communities during the Ebola outbreak, many who participated in this study had stopped conducting deliveries. TBAs and caregivers reported that many women preferred to deliver at home, yet most TBAs had reverted to referring pregnant women to the nearest health facility. Despite this, and even with the bylaws in place, many TBAs requested that they be supplied with equipment so that they could attend labouring women who were not able to present at a health facility (because of transport or financial barriers, for example). They recognised that home and roadside deliveries were ongoing, particularly in the hardest to reach communities and wanted to be able to assist their community women ‘safely’.

Many TBAs had adopted more significant roles in facility-based deliveries during the outbreak, and a number explained how they had subsequently been given greater responsibility by their PHU supervisors. As one TBA in Tonkolili confirmed, ‘Before the health workers asked us out of the delivery room but they have now started incorporating us as their assistants and we are working together’. Several TBAs suggested that they had been
allowed to perform deliveries independently at the facility, not only under the supervision of PHU health workers. Overall, TBAs reported that they continued to have amicable and complementary working relationships with CHWs who often acted in a supervisory role.

Stakeholders had mixed opinions about whether TBAs should be given obstetric training. Some felt enhanced training was important to enable to TBAs to safely deliver women in situations when they were unable to access a health facility. Others were concerned that most TBAs were older women and the high rate of illiteracy would prevent successful training. They thought there was a risk that training may encourage TBAs to start performing home deliveries again despite the bylaws.

TBAs expressed a desire to be paid for their contribution to maternal health in their communities. As one TBA in Bombali concluded, ‘We are unhappy about it because we are doing great assistance in the health facilities and the health workers will not compensate us with money, but we are doing the difficult work with health workers’. TBA dissatisfaction would likely be heightened if CHWs were routinely paid a higher amount, but incentivising TBAs did not appear to be included in the policy revisions.

Traditional healers

At the time of the study, the bylaw prohibiting the use of traditional healers remained active. Most traditional healers reported that they continued to refer patients to health facilities, and the majority of caregivers denied using traditional healers, although in Bombali, participants cited long distances to health facilities and a lack of transport as reasons for their persistent use of healers. There were also some accounts of active community policing of traditional healers, and as one representative explained,

There was a man here one or two months ago. He came and said he can heal all kind of sick. So he started doing it, but the people stopped him. They said ‘No, no, we cannot allow that in our district. If you feel you can heal any type of sickness then come up to the health facility. The person that the health workers feel they cannot heal, then you can heal after. Screen them after they have done their screening. But we will not allow you to sit at the corner and touch whatever sicknesses you want.

Marginalisation during the Ebola response, the ongoing bylaws, and persistent efforts of CHWs to discourage the utilisation of traditional healers has led to dissatisfaction amongst traditional healers regarding their loss of income and has caused tension with CHWs. Consequently, traditional healers have expressed a firm desire to be integrated into the health system through formal attachment with their local PHU. Traditional healers maintained that they complemented the efforts of health workers and CHWs by offering treatment for conditions not suited to biomedical interventions, including psychological illness. District-level stakeholders also recognised that community members were likely to continue seeking care from traditional healers for a range of illnesses, and acknowledged the need for them to be included in community health plans. They suggested, for example, that traditional healers had a role to play in community-based surveillance or community sensitisation, and a few suggested that traditional healers could be trained at CHWs.

Village Development Committees

As part of the recovery process, renewed support was provided for the formation and (re-)activation of Village Development Committees in an effort to ensure that resilience was built at a community level, and that communities had an equitable role in the design, implementation and accountability of initiatives. Acting as a facilitator for enhanced community participation and ownership, UNICEF’s Communication for Development (C4D) section supported the VDCs to create, implement and monitor effective development plans that reflect the views and needs of communities. The intention was for CHWs to function as a ‘health experts’ within the
VDCs and provide a link between community members, the provision of community-level health services and the PHU. As of June 2015, 1291 VDCs had been mapped across all districts in Sierra Leone and over 30% had been ‘re-activated’ to initiative dialogues around key issues such as routine immunisation campaigns (UNICEF 2015c). For example in Bombali, a teacher and previous CHW who chaired a VDC reported that it had worked independently of NGOs to build their community church, and worked with the CHW and PHU to organise women and children to attend vaccination campaigns. It was notable that the RNCHWP 2016-2020 did not mention Village Health Committees and the structure was not discussed by stakeholders with reference to the post-Ebola era.

4.2 Costing and financing

Both district and national stakeholders supported establishing a MoHS budget line for CHWs. One DHMT representative suggested 10% of the MoHS budget should be allocated to CHWs. There was a sense that if the MoHS was financially invested in CHWs, they would be more likely to assume a greater degree of oversight and accountability. Stakeholders at all levels also advocated for an increase in the routine and routine monthly payments to CHWs (as discussed below). At the time of the study, however, CHWs and their programmatic work remained entirely funded by external agencies.

Implementation of the revised national CHWs programme (under the RNCHWP 2016-2020) was expected to be more costly than the previous programme due to expanding CHW training, the introduction of standard monthly financial and non-financial incentives, and more robust supervision mechanisms (discussed below). The MoHS, supported by UNICEF and other partners, estimated that the revised programme would require a total budget of USD 18 million for the first year of implementation. At the time of writing, over 85% of this estimated budget had been secured. The USD 2.5 million gap was largely for CHW supplies and job aides, but UNICEF stakeholders who were engaged in the study appeared confident that further funds would be secured.

The major funders of the national CHW programme include the World Bank, the Global Fund, DFID, UNICEF and USAID. As a result of different funding timelines, donor conditions, and means of channeling committed funds, the financing landscape remains complex and requires strong coordination strategies. Funds from the World Bank and the Global Fund are to be channeled through the MoHS, whilst funds from DFID, UNICEF and USAID are to be channeled through implementing partners. To mitigate the risk of overlap and to increase harmonisation, the MoHS, supported by UNICEF, is considering the implementation of a district specific approach, whereby a donor would provide dedicated support for one or more districts.

4.3 Human resource management

Community health worker selection and distribution

As Sierra Leone transitioned into the post-Ebola recovery period, Ebola-related community-level activities were scaled back and implementing partners focused again on regular CHW MNCH programming. Despite discontent over incentives, the majority of CHWs who had worked with implementing partners engaged in this study prior to Ebola, were willing to continue their MNCH activities. Only in Kailahun did the implementing partner report significant attrition, with 150 of the 800 ‘old’ CHWs not being retained post-Ebola. It was explained that many had resigned or left the district, and consequently the DHMT worked with communities to identify and select 150 replacement CHWs. A number of district-level stakeholders confirmed that many of those selected to do Ebola-related roles during the outbreak, particularly contact tracing, had not been CHWs and had subsequently returned to their regular work. To these stakeholders, this emphasised the degree to
which the emergency response failed to build sustainable capacity in both human resources and health structures.

The RNCHWP 2016-2020 stipulated that the CHW selection process must be ‘fair and transparent’ and that selection should be jointly conducted by community structures (for example the VDC) and the PHU to which the CHW will be affiliated. The RNCHWP specifically emphasised that local political structures (such as local councillors) should not be in charge of the selection process, but rather that civil society organisations and implementing partners should assume a ‘watchdog’ role, with any undue exertion of influence being reported to the DHMT to take action. The selection criteria remained largely unchanged from the 2012 NCWHP, although the new policy suggested that literacy and basic numeracy, although preferable, was not a strict requirement. The RNCHWP also acknowledged the evident gender imbalance within the CHW cadre, and aimed to overcome the low number of female CHWs through positive determination, stating that women (particularly those with experience of working with pregnant women and new mother) who fulfilled the selection criteria would be given preference. Under the RNCHWP, a CHW can be removed from their position if they fail to fulfil their responsibilities, display offensive behaviour, and/or engage in misconduct such as selling drugs that are supposed to be free at the point of service delivery.

Unlike the 2012 NCHWP, the RNCHWP did not stipulate specific population coverage rates for CHWs. It concluded that health indicators in Sierra Leone continue to be poor regardless of the population’s proximity to a health facility, but that geographic barriers that prevent access to healthcare are key determinants to poor health outcomes.

Training

The Ebola response introduced new skill sets to many CHWs. Perhaps the most notable of these were infection prevention control and CEBS. In transitioning out of the Ebola response and back into regular health programming, UNICEF-supported implementing partners conducted CHW refresher trainings on MNCH services. The length and content of these trainings depended on the implementing partner. In Kenema, for example, the IRC and DHMT conducted a two-day refresher training for all their CHWs who had been active prior to the Ebola outbreak under the national CHW programme, focusing on iCCM for diarrhoea, pneumonia and malaria. In Bombali, World Hope International re-started working towards the implementation of the full comprehensive package of services under the national CHW programme, and with the DHMT trained the 750 ‘old’ CHWs on the full 10 day standardised CHW training course that was outlined in the 2012 NCHWP.

The RNCHWP 2016-2020 made explicit that high quality pre-service training, initial intensive on-the-job supervision and annual refresher trainings were all important for performance quality and CHW motivation. The new standard CHW training course was expanded from 10 to 25 days with the inclusion of additional practical training days. The training was structured around three modules: community health basics (classroom-based for six days plus one practical day); iCCM (classroom-based for six days plus two practical days); and reproductive, maternal, newborn and child health (classroom-based for eight days plus two practical days) (MoHS 2016). In terms of content, the revised training course reflected the expanded scope of work outlined in the RNCHWP. Notably, the training included a stronger emphasis on community engagement. Training on the use of RDTs for malaria were also due to be reintroduced. In between each module, a minimum of two weeks in-community intensive supervision would be instituted to support CHWs translate their classroom-based learning into practice, and to quickly identify and correct any errors. In addition, a fourth module was being designed specifically for peer supervisors focusing on supervisory skills. The RNCHWP also recommended annual refresher training for CHWs.
Incentives

The issue of remuneration for CHWs remained one of the most hotly debated topics and was discussed by stakeholders at all levels in this study. At the end of the Ebola response, the funding structures reverted to ‘normal’ or non-emergency mechanisms. Many implementing partners scaled back the number of CHWs they engaged, and it was not possible for them or the government to sustain the inflated rates of pay offered to many during the outbreak. Some response workers were never paid in full.

Many CHWs were dissatisfied with having to return to volunteerism. They perceived that the government had afforded them little recognition for their contribution to the Ebola response, and those who had performed activities without inflated incentives were particularly critical. CHWs were also frustrated that the government had failed to deliver the ‘packages’ promised to them at the end of the outbreak. As one CHW explained,

They gave us confidence that they would give us a package at the end of the Ebola fight. For example, those with tertiary qualification, they would be given a scholarship or the government would enroll those who wanted to work in the Republic of Sierra Leone Armed Forces or Sierra Leone Police. But at the end of Ebola, they never said thank you to us, and they isolated us after we had fought the Ebola war.

Many CHWs suggested that they would consider leaving their position if they were not better incentivised in the future. As one CHW in Kailahun stated, ‘Let the MoHS go back to the drawing board and fulfil some of their promises. If they do not, some of us are equipped to find other jobs’. The following view expressed by a CHW in a focus group discussion in Kailahun was representative of many.

For us to be ready to partake in any other outbreak as CHWs, the government should provide career building opportunities for CHWs. For those that have tertiary qualifications, the government should provide opportunities for us to study further health courses like nursing, and also introduce us into the health cadre. CHWs shouldn’t be a rotten system that will be for community dropouts, it needs to be improved to have better standards. Even if they say they want to continue paying us SLL 15,000 [approximately USD 2], let it be on an approved and normal routine basis, so that the government will determine the salary scale of the CHW. How many educated people are ready to be CHWs when their colleagues are making money in other fields?

A small number of district- and national-level stakeholders suggested that all CHWs should return to voluntary status stressing the fact that the high incentives paid during the response were directly linked to hazard pay and the elevated risks associated with Ebola-related activities. The majority of participants, including community members, advocated for CHWs to be paid, however. A number of higher-level stakeholders suggested that the relationship between the MoHS and CHWs would be improved by adding CHWs to the government payroll, particularly in terms of accountability and oversight. Some were concerned that if the CHW role remained voluntary, it would not be possible to sustain a high calibre cadre of CHWs, and that many of the more educated CHWs would abandon their positions in favour of alternative paid work. A number of participants suggested that to justify an expansion of CHW duties and responsibilities, it would be necessary to pay CHWs, and many CHWs confirmed that increased financial incentives would make them more willing or motivated to fulfil their responsibilities.

The RNCHWP 2016-2020 stated that all CHWs and peer supervisors should receive a flat monthly payment of SLL 100,000-150,000 (approximately USD 13.50-20) for their day-to-day CHW work, with additional compensation being made for engagement in activities beyond their standard scope of work, such as vaccination campaigns. The RNCHWP also stipulated a monthly payment to cover transport costs and phone top-up: SLL 50,000 (approximately USD 6.50) for CHWs living within a three kilometre radius of their PHU, or SLL 80,000 (approximately USD 10.80) for CHWs living beyond the three km kilometre radius. Peer supervisors should receive SLL 100,000 (approximately USD 13.50) for logistic support. Several implementing partners suggested that the long-standing issue of CHWs’ transport costs exceeding their monthly incentives was
actually more problematic than the cessation of elevated rates of pay, so including a dedicated stipend for travel and communication was seen to be a particularly positive component of the RNCHWP.

Many of the stakeholders who favoured making CHWs a paid cadre within the health workforce also expressed concerns over the feasibility of implementing this policy. Participants questioned the viability of paying CHWs through the government payroll, in terms of financial sustainability and logistics. Many highlighted that the government payroll did not have the capacity to remunerate the comparatively small cadre of health workers regularly, and was plagued by corruption and a lack of transparency. The expanded cadre of CHWs was larger and personnel worked in a decentralised fashion at the community level, making routine payments harder to ensure. It was well understood that unreliable payment would likely have a negative impact on CHW motivation. A representative from an implementing partner emphasised that the drive for financially incentivising CHWs had been born out of the value system based on ‘fairness’ held by international development workers, not Sierra Leone’s own system of values in which volunteerism was deeply ingrained in their social system.

Less controversial were discussions regarding the effectiveness of motivation with non-financial incentives. These included preferential selection for paid work to implement health campaigns, opportunities for scholarships to facilitate career development, financing education for CHWs’ children, and micro-financing for small businesses. CHWs regarded all these initiatives to be positive and desirable. A number of CHWs confirmed that community members laboured on their farms to enable them to perform their CHW duties rather than tend the land, but this was seen to be a practical necessity and was not valued as highly as incentives or government recognition.

The importance of creating an enabling work environment was also emphasised by stakeholders. CHWs frequently mentioned their desire for supportive supervision and enhanced refresher training (including on emergency preparedness), but also stressed the need to be provided with tools and equipment to facilitate their activities, particularly a reliable drug supply, cell phones and credit top-ups, and transport to access the communities.

4.4 Supply chain management

Despite the significant injection of resources during the Ebola outbreak, problems related to the management of iCCM drugs and the supply chain persisted as they had prior to Ebola. Consequently, drug shortages continued to impact both CHW motivation levels, and community perceptions of CHW services. At the time of study, the PHUs that were included in the research in Bombali reported stock-outs of ORS, zinc and ACTs, and CHWs reported that they were not treating pneumonia or diarrhoea due to drug stock-outs. In Tonkolili CHWs reported that they had not received any drug supplies for over two months and were therefore not currently providing iCCM services. In Kailahun CHWs confirmed that although they had been supplied with one formula of ACTs, they had received no zinc, ORS or amoxicillin. As one CHW explained, ‘For malaria we have ACT 25 to treat children who are two to 11 months old, and 50mg to treat children who are 12 to 59 months old. But they will only supply us ACT 50. So we are only treating children aged 12-59 months and the communities blame us for not treating the other children’. Implementing partners discussed ongoing issues related to insufficient funding, inadequate and inaccurate drug procurement, logistical challenges, and a lack of accountability amongst PHU staff. They acknowledged that tackling these issues would require major government-led institutional reform and health system strengthening. The frustration was also felt by national stakeholders. In discussing the inflexible and inefficient nature of national drug procurement and supply mechanisms, one concluded, ‘It is like a big elephant. We cannot touch it at all’.
At the time of the study, some districts were adopting ‘work-around-strategies’ to address certain aspects of supply chain management in the absence of significant plans for reform. In Kenema, for example, representatives from the DHMT reported having implemented a pull system at the community-level such that CHWs would calculate their monthly drug needs and if the drugs were in stock, they would be supplied the required amount by their PHU. Implementing partners in Kenema reported ‘buffering’ the district medical store supply by providing a parallel supply of zinc, ORS, ACTs and amoxicillin to CHWs at times of stock-outs. Representatives from the DHMTs expressed frustration that such strategies often bypassed the formal government structures, making it more difficult for them to accurately calculate CHW drug needs and effectively improve the national supply chain.

National- and district-level stakeholders made other suggestions to improve the supply chain mechanism. These included improving the collection and use of PHU-level data to calculate and procure quantities of essential drugs that more accurately matched demand; adopting a pull system at the PHU-level; ear-marking CHW iCCM medicines before they were transported to PHUs; increasing supervision of drug distribution to CHWs; and delivering iCCM medicines directly from the district medical stores to CHWs. Representatives from the MoHS also emphasised the need to strengthen PHU-CHW relationships in some districts. They suggested that PHU in-charges were more likely to provide CHWs with 30% of the free healthcare initiative drugs supplied to PHUs if CHWs were perceived to be complementary service providers rather than in competition. Notably this will only be effective if PHU staff are adequately remunerated for their work and do not rely on user fees and therefore high patient load to support their incomes. At the time of this study, UNICEF reported that over 2,000 health workers were not on the government payroll and were therefore likely to be charging for drugs that should have been provided for free at the point of service delivery. The amount of drugs supplied to PHUs will also need to adequately meet the needs of both PHUs and CHWs. As one NGO worker commented, ‘If you have like 100 tablets of antibiotics and then they said give 30% to the CHWs, if you count 30 of this and give over to 17 CHWs how many do you expect one CHW to receive?’.

The RNCHWP highlighted that ‘Access to supplies greatly affects CHW motivation, knowledge and skills retention’ and that stock-outs reduce community trust in CHWs and the wider health system. The national CHW programme was set to continue providing services and iCCM drugs with ‘zero-tolerance’ of CHWs selling drugs or charging a user-fee. Issues with drug procurement at the national level, and the chain that impacts CHWs’ drug supply were only addressed to a limited extent in the RNCHWP. The policy stated that the national CHW programme would work to provide accurate CHW drug consumption data to the national pharmacy to inform drug procurement and distribution, and accept that buffering drug supplies from implementing partners through the district medical stores would remain a necessary strategy in the foreseeable future.

4.5 Service delivery and referral

In comparison to the 2012 NCHWP, the RNCHWP 2016-2020 outlined an expanded scope of work for CHWs, as detailed in the box below. Key additions included the introduction of quarterly routine home visits; a greater emphasis on family planning services; expanded iCCM to include management of malaria and diarrhoea in all age groups; stronger follow-up for iCCM care; expanded community-based surveillance to include ten immediately reportable conditions or events (agreed with UNICEF and the WHO); and the addition of sensitisation activities for HIV and TB (MoHS 2016).

National and district-level stakeholders were particularly supportive of including expanded community-based surveillance as part of the standard package of CHWs services given CHWs’ ‘community watch-dog’ capacity. As one DHMT representative explained,
If a CHW has not seen somebody for two or three days they will ask where is this Mr X? Mr X has been missing for two or three days, so they will go and see and ask a few questions that will give us a clue of actually what’s happening. Yes, for me CHWs are the best because they are living in the community. We are not there, but they are there. In these kinds of cases they can inform us on time.

At the time of the study, many CHWs were continuing to provide iCCM under the ‘no touch’ policy and there was confusion amongst partners and CHWs about when regular iCCM could or would resume as the government was yet to formally lift the ‘no touch’ policy. A representative from the MoHS suggested that the policy would remain in place until CHWs were supplied with IPC materials. Discussions were reportedly underway on how IPC materials could be supplied to CHWs, including iCCM drugs through the national supply chain. In Tonkolili a PHU OIC cited the ‘no touch’ policy as a reason for withholding ACT from CHWs. In other areas, CHWs had started to deliver iCCM services according to the regular protocol, and expressed frustration that they had not yet received training or been supplied with RDTs to more accurately diagnose malaria.

According to many of the DHMTs, the CHWs who had been trained as community health monitors were still conducting Ebola-specific CEBS in their communities, albeit to varying degrees. At the time of the study, for example, a CHW in Tonkolili had recently detected a ‘secret burial’ and promptly alerted the DHMT. Representatives from the DHMTs in Kenema reported that CHWs in their district had started CEBS for the wider set of key modifiable conditions, despite not having yet receiving formal training.

Stakeholders across all districts suggested that the mistrust communities had harboured for CHWs during the Ebola outbreak had largely resolved in most areas. In a number of villages, participants reported a greater depth of respect and trust for their CHWs as communities had come to appreciate the efforts made by CHWs to protect them during the Ebola outbreak. Community members frequently asserted ‘If it was not for the CHWs and local authorities, nobody would have survived in this community’. CWHs in Kenema concluded ‘We are now working amicably with the community and they have realised that they were just blaming us for nothing during the outbreak. They are no longer hiding sick children from us and they will knock at our doors at any time if they have a sick child’. Despite these widespread shifts in attitudes, a small number of CHWs expressed on-going difficulties, particularly in communities hardest-hit by Ebola. One CHW reported that he still received death threats, and others confirmed that communities were persistent in their suspicion that CHWs were receiving money as government operatives. As one CHW in Kailahun explained,

‘I am not fully accepted in my community. They have accepted us to some extent, but not fully as before because there are certain wounds. I called an ambulance to take my sick brother to the Ebola treatment unit, and they think that I am responsible for the death of my brother. Because they lack knowledge about Ebola, they think I sold my brother. They think that for any patient we called an ambulance for, we received a payment of SLL 200, 000 or 500,000 [approximately USD 27 or 67.50].

National- and district-level stakeholders emphasised that ongoing community engagement and social mobilisation, including actively addressing rumours, had been integral to rebuilding community trust in health facilities and the promotion of PHU utilisation in the post-Ebola recovery period. Many PHU OICs reported that patient numbers had returned to normal and most caregivers confirmed that they would attempt to comply with any PHU referral made by their CHW, although in Kailahun, some CHWs reported that some caregivers remained afraid of using the health facilities. In their focus groups, many CHWs asserted that care seeking for sick children under five had almost returned to pre-Ebola levels in areas where CHWs had iCCM drugs available for distribution in their communities.
CHW scope of work outlined in the RNCHWP

General
- Conduct community mapping, household registration, and community entry meetings to understand community demographic and to identify their target population
- Participate or lead mobilisation and engagement for health (for example, immunisation campaigns)
- Identify and make prompt health facility referrals of cases that are beyond the CHW mandate
- Conduct quarterly routine home visits to all households in the catchment area to:
  - Update community mapping, including demography
  - Apply interpersonal communication skills to reinforce key healthy behaviours and practices for families and households, including early care-seeking when one is sick
  - Assess the health situation of households
  - Discuss with families and communities their needs, help identify solutions, and monitor and support implementation of such solutions
  - Identify pregnant women early, as well as any adolescent or woman of childbearing age who are eligible for RMNCH interventions, including uptake of family planning methods and iCCM for sick children

Reproductive, maternal, newborn, and child health
- Provide pre-pregnancy counseling on the importance and availability of family planning methods, distribute condoms and refill of oral contraceptive pills to all women of childbearing age.
- Identify pregnant women as early as possible.
- Conduct three antenatal home visits: at 2-4 months, 5-6 months, and 7-9 months to:
  - Educate and counsel the woman and her spouse/family on:
    - The importance of antenatal care at PHUs and making sure she attends these visits
    - Maternal nutrition
    - The importance of the use of long-lasting ITNs
    - HIV testing and prevention of mother to child transmission of HIV, as needed
    - Hand washing and use of toilets
    - Use of family planning methods and referral to closest facility
    - Essential newborn care (exclusive breastfeeding, hygienic cord care, thermal care, immunisation)
    - Preventive and promotive behaviours for MNCH, including WASH, infant and young child feeding, family planning, immunisation
  - Screen and refer for any danger signs (for example bleeding, oedema, fever, persistent headache) during pregnancy
  - Educate woman for birth preparedness and planning for delivery at health facility
  - Provide intermittent preventive treatment in pregnancy for malaria (sulfadoxine-pyrimethamine) at each visit
- Conduct a fourth visit to women identified and/or referred by the PHU as having a high risk pregnancy (e.g. women with previous obstetric complications, HIV-infected women, adolescents)
- Where possible, accompany labouring women to the PHU for delivery and facilitate birth registration
- Conduct three postnatal home visits for both the mother and the baby on the 1st, 3rd and 7th day after delivery to:
  - Educate and counsel the mother and her family/spouse on:
    - Essential newborn care practices (including feeding the colostrum, exclusive breastfeeding for 6 months, thermal care, skin-to-skin contact, delayed bathing, and hygienic cord care)
    - The importance of using family planning methods
    - Maternal nutrition
    - Hand washing and use of a toilet
    - Vaccination for the baby
- Educate, screen and refer for danger signs in both the mother (e.g. excessive or offensive lochia, fever) and the newborn (e.g. fever, inability to breastfeed)
  - Follow up to ensure implementation of essential newborn care practices and vaccination schedule
  - Conduct a fourth postnatal home visit to low birth-weight babies to provide the services listed above, including kangaroo mother care
  - Assess and facilitate breastfeeding practices for younger infants (0-2 months)
  - Screen and refer children 6-59 months for moderate and severe acute (using the MUAC)
  - Conduct five infant home visits during first, fifth, ninth twelfth and fifteen months to ensure vaccination and appropriate feeding
  - Report births, maternal and U5 deaths in the community.

iCCM ‘Plus’
- Identify and treat pneumonia, diarrhoea, and malaria (using rapid diagnostic testing) in children ages 2-59 months, and refer cases with danger signs as outlined in the national CHW training programme
- Diarrhoea cases should be immediately referred during outbreak of diarrhoeal diseases
- Plus: identification and treatment of malaria (using rapid diagnostic testing) in older children and adults
- Plus: identification and provision of oral rehydration salts for over-fives with diarrhoea and refer to the PHU
- Provide follow-up care for patients who are on or have finished treatment through appropriately scheduled home visits as outlined in the national CHW training programme.

Disease prevention and control
- Community-based surveillance, documentation and reporting (to peer supervisors) of any events related to the following diseases/conditions based on community-level case definitions:
  - Acute flaccid paralysis (polio)
  - Acute watery diarrhoea (cholera)
  - Clustered deaths
  - Guinea worm
  - Maternal death
  - Measles
  - Neonatal tetanus
  - Neonatal death
  - Suspected Ebola
  - Yellow fever
- Additionally, the CHW is required to report any unusual events or rumours affecting the health of community member(s)
- CHWs are expected to support community engagement activities in response to outbreaks

Community sensitisation on HIV and TB
- TB risk factors, signs, and symptoms
- HIV risk factors, signs, and symptoms
In some communities CHWs were seen to be the necessary link between the community and their acceptance and utilisation of the health facility. Whilst CHWs promoted caregiver confidence, many community members confirmed that their decision to start attending health facilities was primarily influenced by a renewed sense of safety after Ebola had been declared over. Many community members suggested that they would again avoid health facilities in the event of a future outbreak, because they were still perceived to be areas of high risk during public health emergencies. For other participants, the decision to seek care from a health facility was more pragmatic, ‘if we continue having fear in the health centre then we are killing ourselves slowly’.

Despite the willingness of most communities to utilise services and comply with referrals in the post-Ebola period, weak health structures and poor service provision continued to influence demand and utilisation as before the outbreak. The PHUs visited during the study were still under-resourced. They had insufficient numbers of adequately trained staff, frequent stock-outs and a lack of basic infrastructure. Many did not have a reliable source of safe water or electricity. Some communities reported having to pay out-of-pocket for treatment of children under five, particularly during stock-outs. District partners also reported that PHU staff often resorted to charging fees for their service when the MoHS failed to pay their salary on time.

The lack of ambulances to facilitate access to health facilities was raised by many stakeholders. In Kenema, for example, there was just one ambulance in the whole district to transport pregnant women. Similarly, in Tonkolili a DHTM representative confirmed, ‘Last week we had a maternal death and I know one of the issues may be late referrals. They go to the PHU late and when they go there, they call for an ambulance, but the ambulance is not arriving’. District-level stakeholders expressed frustration that despite reports that the government intended to establish the country’s first emergency medical system, no clear strategy had been produced. They highlighted that although approximately 100 ambulances had been donated to Sierra Leone during the Ebola outbreak, the vehicles ‘lay idol’ in Freetown whilst the districts remained in desperate need.

4.6 Communication and social mobilisation

Post Ebola, DHMTs and partners reported implementing a range of social mobilisation and community engagement activities designed to rebuild trust in and increase utilisation of health services. In Tonkolili, for example, a DHTM representative explained that they had introduced CHW dialogue forums, ‘CHWs go around the communities, dialogue with them, ask them to explain their challenges. They are not to find fault, but at least they are to explain the challenges on both sides so they can strike a common understanding and so the community people don’t shy away from coming to the health facility’. In Bombali caregivers reported that CHWs provided them with more information about their health issues and what to expect at the health facility before making the referral.

Many national and district-level stakeholders perceived that CHWs were well placed for social mobilisation and community engagement, not only to convey routine health messages but also to provide communities with up-to-date health information on example vaccination campaigns and local disease outbreaks. As one DHMT representative explained,

That is the biggest advantage of the CHW programme. It is easier for the health workers to call all the CHWs to the health facility and give them information, and they would be able to disseminate the information immediately within all the catchment areas. The CHWs are really supporting the health facilities. We need to do continuous education, be telling people one thing over and again. I would like to see social mobilisation at community level that educates community people on all health issues. If there is an outbreak you tell them. If there is an upsurge of malaria, you tell them. There was lots of malaria last month and we are even having it more than last year, so the people should be informed. If they are informed and know, they will act.
CHWs emphasised the need for on-going support at the chiefdom level and from community leaders to ensure that social mobilisation activities were effective. A CHW in Kailahun confirmed,

*The chiefdoms have monthly meetings. It will be very essential when they call chiefdom meetings for the PHU OIC within that chiefdom to raise awareness for the CHWs through the paramount chiefs. Then the paramount chiefs will talk to the chiefs, and then they will all come together with one voice. If we are working for the communities without having one voice, it will be a bad work.*

Within the revised training curriculum, CHWs will also be trained in negotiation and problem solving to influence behavioural change at household level.

### 4.7 Supervision and performance quality assurance

Challenges to regular supervision were similar in the post-Ebola period as prior to the outbreak. UNICEF reported that in 2015, according to the national CHW database, 75% of CHWs working under UNICEF-supported programmes had been supervised by a peer supervisor, PHU OIC or the DHMT at least once per month. National stakeholders and DHMTs also remained uncertain about the quality of supervision being provided and the use of quality assurance mechanisms. As one peer supervisor in Bombali exclaimed, ‘To supervise CHWs, you cannot expect me to use a bicycle for more than thirty miles every day to reach different communities’. At the district level, quality assurance tended to focus on monitoring CHW drug supply. Although mechanisms for supervisors to monitor CHW’s quality of care did exist, it was unclear whether such mechanisms were being used systematically by supervisors.

CHWs reported a wide range in both the quantity and quality of supervision they received. It was clear that supervision was orientated around the accuracy of CHW reporting and was linked to the distribution and use of drugs. Methods of CHW reporting remained unchanged since before Ebola, although in Kenema the DHMT reported CHWs also had an additional reporting form for CEBS.

The RNCHWP 2016-2020 attempted to address issues relating to quality of supervision in the national CHW programme. As highlighted above, peer supervisors were due to receive expanded training on supportive supervision methods and at the time of the study, a range of tools were being developed to support peer supervisors improve their monitoring of the quality of care provided by CHWs. According to UNICEF representatives, a set of key indicators had been selected including the rate of correct diagnosis and treatment for children under five; the rate of early identification of pregnancy; and the rate of male involvement in home visits. Peer supervisors would be expected to conduct and document direct case observations to assess the performance of the CHWs, and identify appropriate actions to support CHWs deliver high quality services. Stakeholders also reported plans for intensified monitoring of CHW programmes by MoHS staff through quarterly visits to districts to administer a standardised check-list assessing drug supply, service provision, quality of care, supervision, constraints and challenges.

### 4.8 Monitoring and evaluation, and health information systems

As the MoHS developed the RNCHWP and strategy, a technical working group was established within the MoHS CHW hub to develop a new monitoring and evaluation framework that built on existing monitoring systems and indicators. The framework took into account the CHWs’ revised scope of work and training curriculum. The global iCCM benchmark framework was also used to inform the revised framework. Sets of indicators were selected across a range of key thematic areas including policy and planning; coordination, service delivery and quality of care. Stakeholders explained that once the framework was finalised, the MoHS and the
Directorate of Policy, Planning and Information would review how CHW-related indicators could be better integrated into the health management information system. It was intended that the revised monitoring and evaluation framework would also inform future evaluations of the national CHW programme.

In addition to monitoring ongoing or programmatic work, several stakeholders emphasised the need for an impact evaluation of CHWs on maternal and under-five mortality. As one national stakeholder concluded,

*Regarding evaluation, that’s one of the major gaps we have. We were supposed to do an evaluation at the end of 2014 or early 2015, but because of Ebola it didn’t happen. We even had funds committed to do an evaluation but we couldn’t do any kind of evaluation. Ebola has affected everything including implementation and evaluation. So whilst I could say there is no evaluation done, that doesn’t necessarily mean we don’t know the progress of the programme. We know the progress based on routine monitoring data, field monitoring visits and regular review meetings. We know where we are, but we don’t know the impact of the programme. We know where we are going, what the issues are that we need to address. So monitoring is quite good I would say, but the evaluation outcomes and impact level results is lacking.*
5. Conclusions

The results of this study demonstrated mixed results in terms of resilience of community-based MNCH services in Sierra Leone. On one hand, there was clearly a sharp drop in iCCM service provision in the early months the Ebola outbreak. On the other, curative services continued to some degree and MNH services appear to have been largely unaffected. The reduction in services can be attributed partly to directives from the government and implementing partners to cease curative services. When policy was changed and CHWs were directed to restart services and trained on the no touch policy, service provision rebounded, although with variations in service levels, even while the outbreak continued. It is clear that the vast majority of CHWs remained active in their communities and were willing to continue providing health-related services. Although CHWs faced mistrust and stigma because of their ties to health facilities, many were better able to gain the trust of community members because of their longstanding relationships. Respondents at all levels consistently affirmed that CHWs played an integral role in the Ebola response at the community level, carrying out contact tracing, case finding, social mobilisation and community engagement, and informal caregiving to sick community members.

In addition to CHWs, this study showed the importance of engaging other key community members. Engagement of trusted and respected community leaders was crucial to mounting an effective community response to the emergency. Furthermore, TBAs played an important role in supporting maternal health and traditional healers gained increased prominence as trust in health workers diminished. However, TBAs and traditional healers were not adequately supported or engaged in the response. In an emergency, all of these community actors should be immediately engaged in a coordinated response. The establishment of village development committees would further facilitate mobilisation and coordination at the community level.

These finding support the hypothesis that the establishment of strong community-based health services through CHWs, along with engagement of other key community actors, will increase both health system and community resilience in emergencies. Following the Ebola outbreak, stakeholders at all levels have recognised the importance of strong community-based health systems to achieve increased and more equitable coverage of essential MNCH interventions and to improve resilience of health systems and improved response to emergencies. The new national community health policy provides a strong foundation for strengthening the community health system. It is unclear, however, how this policy will be financed. Furthermore, there remain critical service delivery weaknesses, particularly regarding supply chain management and supervision, that were present before, during and after Ebola. There is also a need for rigorous assessments of CHW quality of care and impact of community-based health services. These issues will have to be resolved for the initiative to have a significant impact.

Although the Ebola outbreak and its impact could not have been predicted, we can anticipate that some form of emergency, such as disease outbreak, conflict or natural disaster, will occur again in Sierra Leone. To avoid some of the pitfalls seen during the Ebola outbreak, such as poor coordination of activities and unclear policies, emergency preparedness and response plans should be developed and incorporated into the trainings of CHWs, VDCs, TBAs, traditional healers, health facility staff, and other actors involved in health service delivery. Finally, in an emergency, a balance must be struck between responding to the emergency and continuation of routine services.
Appendix 1 – Map of Sierra Leone

[Map of Sierra Leone showing major cities and geographical features.]

http://www.nationsonline.org/oneworld/map/sierra_leone_map2.htm
## Appendix 2 – Fieldwork schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
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<tbody>
<tr>
<td>Tue 10 May</td>
<td>Briefing with UNICEF Country Office and national stakeholder meetings</td>
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<td>Wed 11 May</td>
<td>National stakeholder meetings</td>
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<td>Thu 12 May</td>
<td>National stakeholder meetings</td>
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<tr>
<td>Fri 13 May</td>
<td>National stakeholder meetings / travel to Kenema</td>
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<tr>
<td>Sat 14 May</td>
<td>Gauru Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Sun 15 May</td>
<td>Nongowa Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Mon 16 May</td>
<td>District-level stakeholder meetings</td>
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<tr>
<td>Tue 17 May</td>
<td>Travel to Kailahun</td>
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<tr>
<td>Wed 18 May</td>
<td>District-level stakeholder meetings</td>
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<tr>
<td>Thu 19 May</td>
<td>Jawei Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Fri 20 May</td>
<td>Kissi Teng Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Sat 21 May</td>
<td>Travel to Bombali</td>
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<tr>
<td>Sun 22 May</td>
<td>Biriwa Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Mon 23 May</td>
<td>District-level stakeholder meetings</td>
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<tr>
<td>Tue 24 May</td>
<td>Safroko Limba Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Wed 25 May</td>
<td>Travel to Tonkolili</td>
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<tr>
<td>Thu 26 May</td>
<td>District-level stakeholder meetings</td>
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<tr>
<td>Fri 27 May</td>
<td>Kholifa Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Sat 28 May</td>
<td>Gbonkolenken Chiefdom – community and PHU FGDs/interviews</td>
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<tr>
<td>Sun 29 May</td>
<td>Travel to Freetown</td>
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<tr>
<td>Mon 30 May</td>
<td>Preliminary analysis</td>
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<tr>
<td>Tue 31 May</td>
<td>Debrief workshop</td>
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<tr>
<td>Wed 1 June</td>
<td>Debrief and transcriptions with national research assistant</td>
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<tr>
<td>Thu 2 June</td>
<td>Depart Freetown</td>
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Appendix 3 – Research tools

Focus group discussion – caregivers and community members

Data sheet

- Country: _______________________________________________________
- District: _______________________________________________________
- Venue: _______________________________________________________
- Date: _______________________________________________________
- KII/FGD unique code: __________________________________________
- Time KII/FGD started: __________________________________________
- Time KII/FGD stopped: __________________________________________
- Name of facilitator: _____________________________________________
- Name of back-up note taker: _____________________________________
- Name of translator (if used): _____________________________________
- Digital recording code: __________________________________________
- General comments and observations:
  (include time taken to travel to link facility, mode of travel, and if possible distance.)
<table>
<thead>
<tr>
<th>Sex</th>
<th>Age</th>
<th>Years education</th>
<th>Marital status</th>
<th>Occupation</th>
<th>Number of children cared for in family unit</th>
<th>Types of health practitioner visited in last two months? E.g. CHW, TBA, traditional healer, staff at health centre</th>
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Discussion framework

NB – men and women in separate groups

First I want to ask you about your family and how you normally seek health care.

1. Can you tell me about the healthcare you and your family receive? (before Ebola time)
   - Where do people in your community usually go for healthcare?
   - If your child/baby seems unwell what do you normally do? Who would you consult?
   - From what sources do people in the community usually receive health messages?
   - Who do you trust to give you advice about decisions on healthcare?

2. Can you tell me about the work of community health volunteers in this area? (before Ebola time)
   - What types of people provide health services in this community? (Probe: CHWs, CHCs, TTM, traditional healer, other health volunteers, etc.)
   - What services do they provide? (Probe: iCCM, maternal and newborn services, immunisation, health education)
   - What do you think about these services?
   - Do you normally visit a CHWs in the community? Traditional healer? Which? How do you make contact?

   Additional prompts:
   - Do they sometimes make referrals for you and your family? How is this process? Do you follow the referral? How far is the place to where people are referred? How do you travel there? How do people feel about referral?
   - Are there some people who do not use the CHWs? Why? Are CHWs accessible to everyone?
   - What would make it easier for people in your community to use community health services?

Now, I want to ask you about the Ebola outbreak in your community

3. Can you tell me about how the Ebola outbreak affected your community?
   - What were the main ways Ebola was transmitted between people in your community?
   - What were the challenges to preventing new cases?
   - Did you hear Ebola prevention messages? What were the different sources of information on Ebola? Did you understand the messages?
   - What do you think was the best source/method of giving information on Ebola?
   - How did Ebola affect people’s ability to seek health care or services like iCCM, ANC, vaccinations, contraceptives, maternal care and advice etc.? What would have helped them to continue using these services?

Next, I would like to talk about when your children were sick (with malaria, pneumonia, or diarrhoea) during the Ebola outbreak. NOT with Ebola.

4. Before Ebola, what did you do if your child was sick?
   - How did you seek health care and advice?
   - Who did you seek care from?
   - Did your child receive care? If not, why? What care/treatment was given?
   - Did your child recover?

5. How did you seek care during the Ebola outbreak? (i.e. willingness to seek care)
- Were there some types of providers from whom you did not want to seek care during Ebola? Why? CHWs? Health facilities?
- Were you afraid to seek care from CHWs?
- Has the Ebola outbreak changed the way you feel about seeking health care or services like ANC, vaccinations, contraceptives, basic healthcare and advice etc.?

6. **Was the availability of health services changed during the Ebola outbreak?**
   - From CHWs?
   - From health facilities? Were the clinics providing regular services during the outbreak?
   - Were normal services (iCCM, etc.) available, from whom? If not, what was not available? How do you know about this – from your own or other’s experiences?
   - Was anyone pregnant during the outbreak? What differences where there in maternal health services that you could get during Ebola? *(Illicit case study of delivering during outbreak)*
   - Did anyone have a child who was sick (non-Ebola during the outbreak)? What differences where there in child health services that you could get during Ebola? *(Illicit case study of seeking care for children during outbreak)*
   - How were these services different during Ebola than they were before Ebola?
   - What differences were there in services from health facilities? Were referrals being made as before? How did you/your community feel about following referrals?
   - How did you feel about the quality of services compared to usual?

7. **Do you know what work CHWs did relating to Ebola?**
   - Can you remember the types of works CHWs were doing during Ebola? (E.g. Communication and social mobilisation? Isolation? Treatment? Other?)
   - What do you think about the work they did?
   - Were the CHWs from your community or from the outside?
   - How were health messages given during the outbreak? What was the best way, in your opinion, to deliver the health messages?

8. **How could CHW services have been improved during the Ebola outbreak?**
   - What health services were most lacking during the Ebola outbreak? What were the main challenges you faced seeking care during the outbreak?
   - How could CHWs have made maternal and child health services more available and better quality?
   - What would have made you more willing to receive healthcare from CHWs? From health facilities?
   - From where/whom would you have preferred to receive healthcare? (CHWs, traditional, health centres etc.)
   - From where/whom would you want to receive health advice and information about Ebola? CHWs/traditional healers?
   - How could CHWs have done more to prevent Ebola from spreading in the community?
   - What did you feel generally about the response to Ebola from the community and health sector? What could have been better?
   - In the event of another outbreak, do you have any recommendations for how to support community health services?

9. **Is there anything you would like to ask us?**

Thank you for your time and for sharing your opinions and experiences with us.

[RECORD STOP TIME] __________
Focus group discussion – community leaders

Data sheet

- Country: ________________________________________________________________
- District: ______________________________________________________________
- Venue: ________________________________________________________________
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- General comments and observations:
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## Participant information sheet

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</table>
Discussion framework

1. **Please introduce yourself and describe your role in the community.**
   - Do you have a role with regard the health or well-being of the members of your community? How?
   - Did you have a role supporting CHWs in the Ebola response. How? (e.g. health promotion, countering fear, other activities?)

2. **Can you tell me about the health services provided in this community?**
   - When people are unwell in this community whose advice do they usually seek? (For minor and major health issues)
   - What are the main challenges to getting healthcare in this community?
   - Are there some providers/places people don’t want to go for healthcare? Why?

Now, I would like to ask about CHWs and community health providers in your community.

3. **Can you tell me about the health services provided in this community?**
   - Please tell me what types of people provide any sort of services related to health in the community. (e.g. CHWs, village health committees, TTM, traditional healers, others?)
   - What services do they provide? Government services? NGO services? Free services?
   - What do you think about these services? How do people receive these health services?
   - Do you have CHWs in this area? How many? Were the CHWs present in your community before Ebola? (If present in community before Ebola, what were they doing in the community?)

   Additional prompts:
   - How are CHWs selected and recruited in this community? Are you involved in the selection of CHWs? How? What do you think about this process?
   - Do they sometimes make referrals? How do people feel about referral? Do they follow the referral? Where are they referred?
   - Are there some people who do not use the CHWs? Why? Or cannot access them?
   - What would make it easier for people in your community to use community health services?
   - What do you think the CHWs do well and less well for mothers and children?

Next, I want to ask you about the Ebola outbreak in your community.

4. **Can you tell me about how the Ebola outbreak affected your community?**
   - What were the main ways Ebola was transmitted between people in your community?
   - What were the challenges to preventing new cases?
   - Where did you get most of your information during the outbreak?
   - Did you hear Ebola prevention messages? Who gave advice? What did the messages make you feel/do?
   - How did Ebola affect people’s ability to seek health care or services like ANC, vaccinations, contraceptives, basic healthcare and advice etc.? What would have helped them to continue using these services?

5. **How did the Ebola outbreak impact the CHWs work with mothers and sick children?**
   - Were health services such as iCCM available during the outbreak?
   - How was CHWs availability in the community and their willingness to see sick patients?
   - How was the availability of supplies and drugs?
   - Communication and social mobilisation?
- What if someone was sick with a non-Ebola illness? What did they do/where did they go for treatment?

6. How did the Ebola outbreak impact the community’s use of CHW services?
   - Willingness to seek care from CHWs? From health facilities?
   - The ability or willingness of patients to comply with referrals?
   - What (if anything) made people to understand the need to go for treatment?

   Additional prompts:
   - Attitudes about quality of care? By CHWs? In health facilities?

7. How did CHWs contribute to the Ebola response?
   - Communication, health promotion and social mobilisation?
   - Case identification and reporting?
   - Referral?
   - Other activities? (e.g. case isolation, case treatment, contact tracing, safe burial, psychosocial care?)
   - Which activities were CHWs able to do effectively or less effectively? Why?
   - What were the main challenges in carrying out these activities?
   - How could their work have been improved?

   Additional prompts:
   - Who coordinated CHWs activities? How? Were you involved in this? What can we learn from it?
   - How did CHWs respond to the needs of the community?
   - What helped them to carry out their activities?

8. What are the main lessons learned and how can the community health system be strengthened for future emergencies?

   - In terms of preventing new cases of Ebola in the community, what went well and what did not go well?
   - Continuation of regular maternal and child health services? (e.g. iCCM)
   - Did CHWs receive the support and guidance they needed from government and partners? Availability of supplies?
   - Health promotion and community engagement? How?
   - Gaining the trust of communities?
   - What are the advantages/disadvantages of using community members as CHWs?
   - Preparing for future emergencies? Any advice to the government on how to strengthen community health systems? How to improve the work of CHWs?

9. Is there anything you would like to ask us?

Thank you for your time and for sharing your opinions and experiences with us.
Focus group discussion – community health workers

Data sheet

- Country: ________________________________________________________________
- District: ______________________________________________________________
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**Participant information sheet**

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<td>e.g. gov’t facility, mission, NGO-funded facility</td>
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</table>
Discussion framework

First, I would like to ask about your work as a CHW, including the work you did before the Ebola outbreak.

1. Can you tell me about the services you normally provide to mothers and sick children (before Ebola)?
   - Curative services (iCCM)?
   - Maternal and newborn services?
   - Health promotion?
   - Others?
   - What training have you received?
   - How do you receive supplies?
   - Who supervises you?
   - How do you report your activities?
   - About how many sick children did you usually treat per month (before Ebola)?
   - What were the main challenges you faced in providing services?

2. Can you tell me about any other individuals or groups that work on health in the community?
   - Other community health workers or volunteers?
   - TTM other traditional healers?
   - Village health committees?
   - What do these individuals/groups do for mothers and sick children?
   - How do you coordinate with them?
   - Before Ebola, where did people’s health information come from?

Additional prompts:
   - When someone is sick in your community, who do they prefer to go to for advice/treatment? Why?

Now, I am interested in what happened during the Ebola outbreak

3. How did the Ebola outbreak impact your work with mothers and sick children?
   - To what extent were you able to carry out your normal activities as well as Ebola related work?
   - Did it affect your availability in the community and willingness to see sick patients?
   - Did it affect the supply of drugs, supplies and equipment? What caused problems? Was anything done to resolve this? Was it successful?
   - Did you receive supervision as often as before? Did the content of the supervision change? What was the result of this change?
   - Did you carry out communication and social mobilisation for maternal and child health? What were the challenges in this?
   - Were you able to complete and send reports to supervisors? What caused problems? Was anything done to resolve this? Was it successful?
   - Did Ebola affect care seeking by the population? Were people still willing to come to you for care? Why/why not? Did you do anything to encourage them to come to you?
   - Did Ebola affect the ability or willingness of patients to comply with referrals? What caused problems? Was anything done to resolve this? Was it successful?
   - Was the availability of health facility services changed? Why? What was the effect of this?
   - Did health facility support to you change? In what way? What was the effect of this?
   - Were you trained on the no-touch iCCM policy? How well did this work? Were there any problems?

Additional prompts:
- Confidence in being able to provide services? Why? Which ones were difficult to provide? Which ones were less difficult?
- How did the Ebola outbreak affect the way your community sought health care?
  - Attitude and response towards public health messages and mobilisation efforts? Why?
  - Willingness to seek care from CHWs? From health facilities?
  - Attitude towards CHWs? Why?
  - Attitude towards health facilities? Why?

Next I would like to ask about your work during the Ebola outbreak response.

4. What activities did you carry out for the Ebola outbreak response?
- Communication, health promotion and social mobilisation?
- Case identification and reporting?
- Referral?
- Other activities (Case isolation, case treatment, contact tracing, safe burial, psychosocial care?)
- Specifically, how did you go about this work? (e.g. house-to-house visits, active case finding, quarantining sick people, providing care to sick people)
- Did you hear of any CHWs that were providing care to Ebola patients? (Illicit case study)
- Which activities were CHWs able to do effectively or less effectively? Why?
- What were the main challenges in carrying out these activities?
- How did this work affect your ability to provide maternal and child services?
- What is/was your motivation to do this work?

Additional prompts:
- What helped you to carry out your activities?
  - What would have helped you do it better? Who could have helped? E.g. on how to manage/control Ebola, protect yourself, community messaging and mobilisation on prevention and protection? Engaging with community members/traditional healers/faith leaders? Why? How? E.g. on how to work on health promotion and countering fear?
- Who coordinated your activities? How? What would help you to maintain normal services? What policies are needed?
- How did your community respond to you during the outbreak?
  - Why do you think this was? And how did you feel about your ability to respond to the needs of the community? In future outbreaks how can CHWs contribute to enhancing trust and use of the health system? E.g. Community education and mobilisation strategies?
- What supplies were available? From where? Were they sufficient and of good quality? Can we learn anything from the work during the Ebola outbreak that can help future activities? (If CCCs were in place) How was your Ebola control work coordinated with Community Care Centres? Did the CCCs change the way you worked? What was your involvement with the CCCs? Now that the CCCs are dismantled, what is the impact on your work?
- What were your greatest (work-related) concerns during the outbreak?

5. How were you supported by the government and partners to contribute to the Ebola outbreak response?
- Did the government support you to contribute to the response? How? Who guided you?
- What support was there from partners? (NGOs, international response, other community groups). How effective?
- What payment or incentives did you receive for work on Ebola? Were there any issues with payments? (e.g. lack of standardisation of rates, late payments)
- What training did you receive? How was the training? Was it sufficient? What do you think should have been done differently?
- What supervision did you receive? Was the supervision helpful? What do you think should have been done differently?
- What supplies were provided to you? Did you receive the supplies you needed?
- How did you report on your work?
- How were sick people referred to health facilities/Ebola treatment units/CCCs?
- How could you have been supported to do your work better?
- How was your work during Ebola as a CHW similar or different to your work as a CHW before Ebola?

6. What are the main lessons learned and how can the community health system be strengthened for future emergencies?
   - Guidance and protocols? (e.g. Emergency and for MNCH).
   - What else would you need to help you to continue providing maternal and child health services? What do you need to do good work?
   - To help the community to use services?
   - Support from the health system and partners?
   - Community education and mobilisation strategies?
   - Disease outbreak control activities?
   - What recommendations do you have for the MoH, UNICEF, or other partners to better respond to any future outbreak or other emergency?

7. Is there anything you would like to ask us?

Thank you for your time and for sharing your opinions and experiences with us.

[RECORD STOP TIME] __________
Focus group discussion – health workers

Data sheet

• Country: ______________________________________________________

• District: ______________________________________________________

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Discussion framework

First, I want to ask you about your work and the services you provide here.

1. Background (general not Ebola specific)
   - What health services can pregnant women, their babies and young children receive in this health facility? How do you feel about the capacity of this health facility to deliver these services?
   - Do you receive referrals of pregnant women and their young children from CHWs or other community based practitioners? For what sort of issues? What is the catchment area?

Now I want to ask you about services during the Ebola outbreak.

2. How did the Ebola outbreak affect maternal and child health services at the health facility?
   - Motivation and capacity of staff to work? E.g. Exhaustion, fear.
   - Supply of essential drugs, supplies, equipment as well as PPE?
   - Supervision routine?
   - Completing and sending reports and/or lab samples/results?
   - Care seeking by the population? (e.g. The ability or willingness of patients to seek MNCH services here, including delivery services?)

Additional prompts:
   - Ability to juggle Ebola-related tasks with regular MNCH tasks? Impact on capacity to assist facility deliveries?

3. How did the Ebola outbreak impact routine MNCH health facility support to CHWs?
   - Supplies needed for community MNCH services?
   - Supervision of CHWs and support for the MNCH services they offer?
   - Referral services, tracking and reporting of pregnant women, babies and sick children?

Additional prompts: [If these things were a problem, clarify if they were worse than usual, or a continuation of a systemic problem.]
   - Did the Ebola outbreak have any unexpected positive impact on your work/coordination with CHWs that we can learn from for the future?

Now I would like to ask about CHWs’ role in the Ebola outbreak response.

4. What activities did CHWs in this area carry out for the Ebola outbreak response?
   - Communication, health promotion and social mobilisation?
   - Case identification and reporting?
   - Referral?
   - Other activities (Case isolation, case treatment, contact tracing, safe burial, psychosocial care?)
   - Which activities CHWs were able to do effectively or less effectively? Why?
   - What were the main challenges in carrying out these activities?

Additional prompts:
   - What influenced their performance? Probe: training, experience, status in community. What could have been done better?
   - How did you feel about CHWs’ ability to respond to the needs of the community? (Ebola and MNCH) and how did local communities respond to CHWs during the outbreak?
Why do you think this was? And how did you feel about your ability to respond to the needs of the community? In future outbreaks how can CHWs contribute to enhancing trust and use of the health system? (e.g. Community education and mobilisation strategies such as identifying and coordinating trusted community volunteers and support? Why do you think this was?

5. How were CHWs supported by the health facility staff to contribute to the Ebola outbreak response?
   - Training?
   - Supervision?
   - Supplies?
   - Collecting data?
   - Providing referral services?
   - Others?

Additional prompts:
   - What supplies were provided to CHWs? From whom? Were they sufficient and of good quality? Can we learn anything from the procurement and distribution channels used during the outbreak that can inform future community health programming?
   - Who coordinated the community Ebola activities? How? What can we learn from these? How could it be improved? Were there challenges in doing the activities as requested? What? Do you know what supervision CHWs received? From whom? How did this differ from existing supervision? Can we learn anything from the way they were supervised?

6. What are the main lessons learned and how can the community health system be strengthened for future emergencies?
   - Policies and guidance?
   - MNCH service delivery?
   - Utilisation of MNCH services?
   - Support to CHWs from the health system and partners?
   - Health promotion and community engagement?
   - Rapid response to emergencies?

Additional prompts:
   - What would help CHWs to maintain normal services as well as Ebola related services?
   - Health promotion and community engagement? Probe. How?
   - Linkage to other support organisations? (e.g. Care/referral for orphaned children?)
   - Support to CHWs from the health system and partners?
   - Supervision and training of CHWs on Ebola response? (e.g. Emergency protocols on how to manage a) Ebola, and b) pregnancy and child health during an outbreak?)
   - Supplies and PPE?
   - Collecting data?
   - Providing referral services and tracking referrals?
   - Psychosocial and moral support? Did they receive any? Enough?
   - In future outbreaks, how can CHWs contribute to enhancing trust in the health system for regular and Ebola services?
   - Supporting, advising communities? How? Who else can collaborate on that? Who do communities trust?
   - Capacity to respond rapidly?

7. Is there anything you would like to ask us?
Thank you for your time and for sharing your opinions and experiences with us.

[RECORD STOP TIME] _________
Interview framework – policy makers and programme implementers (national level)

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- Country: ____________________________
- Venue: ____________________________
- Date: ____________________________
- Unique ID code: ____________________________
- Time interview started: ____________________________
- Time interview stopped: ____________________________
- Name of interviewer: ____________________________
- Name of back-up note taker (if used): ____________________________
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Discussion framework

I want to start by asking you about your organisation’s work on community health and the EVD response.

1. Background
   - Please describe your organisation’s work in community MNCH.
   - Please describe your organisation’s work in the EVD response, particularly at the community level.
   - Please describe your current position/role and responsibilities?
   - In what ways are you involved with community health workers (programming, strategy, policy)?

Next, I want to ask you about MNCH services, policy and coordination during the Ebola outbreak.

2. How did the EVD outbreak affect community MNCH policy?
   a. Were any policy changes made?
   b. Was the no-touch iCCM policy implemented with CHWs? How well did this work? What was the impact of this?

3. How did the EVD outbreak impact MoH, partner coordination?
   - How did Ebola affect coordination between the MoH and partners? What went well and less well? Was coordination effective?
   - Who coordinated the CHWs Ebola activities? How? Did districts take different approaches? What can we learn from these?
   - What do you think are the main lessons from the coordination efforts? Are any of these relevant as we plan how to implement the new CHWs policies?

4. How did the EVD outbreak impact delivery of MNCH interventions by CHWs?
   - Was there a change in availability of CHWs in the communities and willingness to see patients? (e.g. Absenteeism?)
   - What motivated CHWs to continue working through the outbreak?
   - How was the supply chain and availability of MNCH commodities affected? Was this different from normal during Ebola?
   - What about routine training of CHWs?
   - Supervision of CHWs?
   - Communication and social mobilisation activities by CHWs?
   - Routine monitoring and evaluation of CHWs activities?
   - Care seeking by the population?
   - The ability or willingness of patients to follow CHW advice (e.g. comply with referrals?)
   - Availability of health facility services?
   - Health facility support to CHWs?

Additional prompts:
   - How did communities respond to CHWs during the outbreak? Why do you think this was? Did it vary across districts? Why? Do you think it could be improved? How?
   - Supporting, advising communities? How? Who else can collaborate on that? Who do communities trust?
   - Some areas had no established CHWs services at the time of the Ebola outbreak, how did these areas fare, compared to other areas?

Now I would like to ask about CHWs’ role in the Ebola outbreak response
[Note: not all national level interviewees would be expected to be able to answer all parts of, some may be omitted if not relevant]

5. What activities did CHWs carry out for the Ebola outbreak response?
   - Communication, health promotion and social mobilisation?
   - Case identification and reporting?
   - Case isolation?
   - Case management?
   - Contact tracing?
   - Safe burial?
   - Psychosocial care?
   - Referral?
   - Other activities?

6. Do you know which activities CHWs were able to do effectively or less effectively? Why?

7. How and to what extent were CHWs supported by the health system and partners to contribute to the EVD outbreak response? And, what do you think could have been better?
   - What remuneration did CHWs receive? In addition to their normal remuneration?
   - What training did CHWs receive?
   - What supervision did CHWs receive?
   - What supplies were provided to CHWs? From whom? Were they sufficient and of good quality? Can we learn anything from the procurement and distribution channels used during the outbreak that can inform future programming?
   - What monitoring and evaluation activities were carried out? Any lessons from these?
   - To what extent were referral services available?

8. What are the main lessons learned and how can the community health system be strengthened for future emergencies?
   - Policies and guidance?
   - MNCH service delivery?
   - Utilisation of MNCH services? Support to CHWs from the health system and partners?
   - Health promotion and community engagement?
   - Rapid response to emergencies?

Thank you for your time and for sharing your opinions and experiences with us.

[RECORD STOP TIME] __________
Interview framework – programme implementers and government health officials (district level)

Data sheet

• Country: __________________________________________________________

• Venue: __________________________________________________________

• Date: ____________________________________________________________

• Unique ID code: __________________________________________________

• Time interview started: ____________________________________________

• Time interviewer stopped: _________________________________________

• Name of interviewer: _____________________________________________

• Name of back-up note taker (if used): _________________________________

• Name of translator (if used): _______________________________________

• Digital recording code: _____________________________________________

• General comments and observations:

Participant information sheet

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age</th>
<th>Time in service Years and months</th>
<th>Education level Primary, secondary, tertiary</th>
<th>Position</th>
<th>Department /type of facility e.g. gov’t department, mission, NGO facility etc.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion framework

I want to start by asking you about your organisation’s work on community health and the EVD response in this area.

1. Background
   - Please describe your organisation’s work in community MNCH.
   - Please describe your organisation’s work in the EVD response, particularly at the community level.
   - Please describe your current position/role and responsibilities?
   - In what ways are you involved with community health workers (programming, strategy, policy)?

2. Please tell me about community level delivery of MNCH services in this area before Ebola?
   - Who are the main providers of health services or health information in the community? (Probe: CHWs, TTM, traditional/faith healers, other community health volunteers).
   - What MNCH services were provided at the community level? (Probe: iCCM, maternal/newborn).
   - [If applicable] What were the components of your iCCM program? What was effective? Less effective? Any issues with drug supplies? Supervision? Reporting? Training?
   - [If applicable] Did iCCM end before Ebola? Why?

Additional prompts:
   - How do you think TBAs and traditional faith healers feel about CHWs? Do they work well together and support each other or are there tensions? (Probe, legal issues, competition, dangerous practices).
   - Which types of providers do you feel communities are most comfortable seeking help from? (probe different types of issues: pregnancy and delivery advice, ANC, health problems during pregnancy, concerns with neonates)

Next, I want to ask you about community MNCH services during the Ebola outbreak.

3. How did the EVD outbreak affect community MNCH services?
   - Did iCCM end due to Ebola? How was this change communicated?
   - Was there a change in availability of CHWs in the communities and willingness to see patients? (e.g. Absenteeism?)
   - How was the supply chain and availability of MNCH commodities affected? Was this different from normal during Ebola?
   - What about routine training of CHWs?
   - Supervision of CHWs?
   - Communication and social mobilisation activities by CHWs?
   - Health facility support to CHWs?
   - What motivated CHWs to continue working through the outbreak?
   - Routine monitoring and evaluation of CHWs activities?
   - Care seeking by the population?
   - The ability or willingness of patients to follow CHWs advice (e.g. comply with referrals?)
   - Availability of health facility services?

Additional prompts:
   - How did Ebola affect coordination between the health system and other implementing partners in this district? How was it changed, what do you think are the main lessons from the coordination efforts? Was coordination effective? What went well and less well?
- What about other routine activities: (E.g. training and supervision of CHWs? Routine monitoring and evaluation of CHW activities? Availability of services? Health facility support to CHWs?
- Was there a change in the way people sought MNCH services?

Now I would like to ask about CHWs’ role in the Ebola outbreak response.

4. What activities did CHWs carry out for the Ebola outbreak response?
- Communication, health promotion and social mobilisation?
- Case identification and reporting?
- Referral? Other activities (Case isolation, case treatment, contact tracing, safe burial, psychosocial care?)
- Which activities CHWs were able to do effectively or less effectively? Why?
- What were the main challenges in carrying out these activities?

Additional prompts:
- What do you think influenced CHW performance and ability to work during the outbreak?
  - How did you feel about the CHWs’ ability to respond to the needs of the community during the outbreak? Why do you think this was? Did it vary across districts? Why? Do you think it could be improved? How?
  - How was the motivation and capacity of staff to work? E.g. Exhaustion, fear. How could it have been managed better?
- Did community behaviour and attitudes influence CHW ability to work effectively?
  - How did communities respond to CHWs during the outbreak? E.g. ability or willingness of patients to comply with referrals.
- Were Community Care Centers used in this area? Please describe how the Ebola Community Care Centres worked in this area? Who was it staffed by, where are those people now? How did CHWs interact with CCCs? Are there any lessons we should learn from the CCCs that are relevant to the CHW programme / preparedness for future outbreaks?

5. How and to what extent were CHWs supported by the health system and partners to contribute to the EVD outbreak response?
- How effective was partner coordination on Ebola support to CHWs? What can we learn from what went well or less well? How could it have been better?
- What remuneration did CHWs receive? In addition to their normal remuneration?
- What Ebola training did CHWs receive? From whom?
- What supervision did CHWs receive? From whom? How did this differ from existing supervision? Can we learn anything from the way they were supervised?
- What supplies were provided to CHWs? From whom? Were they sufficient and of good quality? Can we learn anything from the procurement and distribution channels used during the outbreak that can inform future programming?
- What monitoring and evaluation activities were carried out? Any lessons from these?
- To what extent were referral services available? How could referral systems have been strengthened?
- Were policies and action plans in place that allowed CHWs to contribute? What were they? How effective were they? What would you change?

6. What are the main lessons learned and how can the community health system be strengthened for future emergencies?
- Policies and guidance?
- MNCH service delivery?
- Utilisation of MNCH services?
- Support to CHWs from the health system and partners?
- Health promotion and community engagement?
- Rapid response to emergencies?

Additional prompts:
- Linkage to other support organisations. Care/referral for orphaned children? How can CHWs contribute to enhancing trust in the health system?

Thank you for your time and for sharing your opinions and experiences with us.
Interview framework – Ebola survivors and their family members

Data sheet

- Country: ____________________________
- Venue: ____________________________
- Date: ____________________________
- Unique ID code: ____________________
- Time interview started: ______________
- Time interviewer stopped: ____________
- Name of interviewer: ________________
- Name of back-up note taker (if used): ____________
- Name of translator (if used): ______________
- Digital recording code: ________________
- General comments and observations:

Participant information sheet

<table>
<thead>
<tr>
<th>Sex</th>
<th>Age</th>
<th>Years Education</th>
<th>Marital Status</th>
<th>Number of children cared for in family unit</th>
<th>Types of health practitioner visited in last two months?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion framework

I want to ask you about your (your family member’s) experience with Ebola.

1. Before becoming infected, did you (your family member) receive any Ebola prevention messages?
   - What messages?
   - What impact did these messages have on you?

2. How did you (your family member) become infected?

3. What happened after you (your family member) became infected?
   - Did you (your family member) seek care from any providers outside the home? If not, why?
   - Did you (your family member) have any contact with CHWs in your community?
   - Did you (your family member) receive care?
   - Was the infection reported to anyone? If yes, what was the response?
   - Were you (your family member) isolated from other people?
   - Who transported you (your family member) to a facility for care?
   - Did anyone do contact tracing?

4. What happened after you (your family member) recovered/died?
   Probes, if recovered:
   - Were you (was your family member) able to return home?
   - Have you received any psychosocial care?
   - Have you received any other support?

   Probes, if deceased:
   - What kind of burial was done?

5. What role did CHWs play in the Ebola response?
   Probes, if recovered:
   - Communication and social mobilisation?
   - Case identification and reporting?
   - Case isolation?
   - Case treatment?
   - Contact tracing?
   - Safe burial?
   - Psychosocial care?
   - Other activities?

6. How could CHW services have been improved during the Ebola outbreak?
   - To make you more willing to go to CHWs for treatment?
   - To make maternal and child health services more available?
   - For the Ebola response?

Thank you for your time and for sharing your opinions and experiences with us.

[RECORD STOP TIME] ______________
Appendix 4 – Consent form

Qualitative assessment of MNCH and Ebola-related services by Community Health Workers during the 2014-2015 Ebola outbreak in Guinea, Liberia and Sierra Leone

Introduction
Hello. We work for a research organisation called Anthrologica and we are conducting a study on behalf of UNICEF on the use of Community Health Workers (CHW) in Sierra Leone during the Ebola outbreak. This study is meant to inform the community health component of the Post-Ebola Health Recovery Plans that the government of Sierra Leone is developing, particularly in relation to increasing resilience through stronger community health systems. This study will use information from individuals like you to better understand the role of CHWs during the response, and to inform how they may be best utilised in the future to provide services for mothers and children. You are being asked to participate in an interview or focus group discussion for this project. You can decide to participate in the interview or focus group discussion, or not. It is entirely your choice. If you decide to take part, you can change your mind later on and stop at any time. You will not be paid to participate in the interview or focus group discussion. Participating in the interview or focus group discussion will not provide extra health or medical care. It is only an interview. You may ask any questions related to the study and we will answer these questions to your satisfaction.

Purpose
The purpose of the interview or focus group discussion is to get information about matters relating to CHWs and health services for mothers and children. Specifically:
• To document the effect of Ebola on the implementation of community-based services for mothers and children;
• To document the contribution of CHWs to the Ebola response;
• To identify how CHWs could have been more effectively used and supported during the Ebola response;
• To determine lessons learned and recommendations for strengthening healthcare systems and for ensuring future services for mothers and children.

Participant Selection
You have been chosen to participate in this research given your/your organisation’s role in providing health services in Sierra Leone and/or your community’s experiences of Ebola as they relate to CHWs. The interview will last for approximately one hour. Focus group discussions will last for approximately one and a half hours. We believe there is no risk to you although it is noted that there may be aspects of your participation in this research that involve risks that are currently unforeseeable.

Voluntary Participation and Confidentiality
Participation is voluntary. You have the right to withdraw from the discussion at any time without reason and without penalty. There is no cost associated with your participation. We will ensure that your information, opinions and experiences are kept confidential and will only be used for the purpose of the study outlined. We will not use your name. Your name and other things that describe you (your town name, your office name, any other persons’ names you mention) will not appear when we discuss the interviews/focus group discussions with others or publish a report based on our research. Interviews and focus group discussions may be recorded (your voice only) for the purpose of later writing your answers. The recordings will not be played for anyone in public, for example, not on the radio. These will be destroyed at the end of the study. With your permission, we may also take a photograph of you with the focus group participants. These will be used for the purpose of the current study and may be included in academic publications and other material for UNICEF and Anthrologica. If your photograph is published, you shall not be identified by name and confidential processes (outlined above) will be followed.
In regard to collecting information for this study, we would greatly appreciate your help and therefore seek your consent and cooperation. If you have any questions about this study, you may contact the study Principal Investigator: Nathan Miller (email: nmiller@unicef.org; telephone: +1 347 681 6450), or Kebir Hassen (email: khassen@unicef.org, telephone: +23276194218) a representative from UNICEF-Sierra Leone office located at Government Central Medical store compound, Jomo Kenyatta Road, Freetown, Sierra Leone.

INFORMED CONSENT

We will give you a signed copy of this form to keep. By agreeing to take part in this interview, you understand that you will not be paid for the interview, your name and personal information will not be included in any reports, and you can stop the interview at any time as you wish.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study:

_________________________  __________________________  ______________  
Name of Participant       Signature                 Thumb Print              Date

_________________________  __________________________  ______________  
Name of Witness           Signature                 Thumb Print              Date
Appendix 5 – Sampling and demographics of participants

Table 2. Key informant interview and focus group discussion participants

<table>
<thead>
<tr>
<th></th>
<th>Freetown</th>
<th>Kenema</th>
<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Number of participants</td>
<td>Number of activities</td>
<td>Number of participants</td>
<td>Number of activities</td>
<td>Number of participants</td>
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<td>14</td>
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<td>-</td>
<td>-</td>
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<td>District-level stakeholders (Govt, Implementing partner)</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Survivors</td>
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<td>-</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>2</td>
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<tr>
<td>District-level stakeholders (Govt, Implementing partner)</td>
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<td>-</td>
<td>1</td>
<td>5</td>
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<tr>
<td>TBAs</td>
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<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Caregivers of children under 5yrs</td>
<td>-</td>
<td>-</td>
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<td>14</td>
<td>2</td>
<td>8</td>
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<tr>
<td>Survivors</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td><strong>Total</strong></td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>58</td>
<td>14</td>
<td>38</td>
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</table>

Table 3. National-level interviews

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Number of representatives interviewed</th>
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</thead>
<tbody>
<tr>
<td>International Rescue Committee</td>
<td>1</td>
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<tr>
<td>MoHS, Department of Health and Education</td>
<td>1</td>
</tr>
<tr>
<td>MoHS, National Community Health Worker Hub</td>
<td>1</td>
</tr>
<tr>
<td>MoHS, National Disease Surveillance Program</td>
<td>1</td>
</tr>
<tr>
<td>MoHS, Malaria Control Program</td>
<td>1</td>
</tr>
<tr>
<td>MoHS, Department of Primary Health Care</td>
<td>2</td>
</tr>
<tr>
<td>Restless Development</td>
<td>1</td>
</tr>
<tr>
<td>Save the Children</td>
<td>1</td>
</tr>
<tr>
<td>Traditional Healers Union</td>
<td>1</td>
</tr>
<tr>
<td>UNFPA</td>
<td>1</td>
</tr>
<tr>
<td>UNICEF, Communication for Development</td>
<td>1</td>
</tr>
<tr>
<td>UNICEF, Health Specialist</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
</tr>
</tbody>
</table>
### Table 4. Demographic details, district-level programme implementers

<table>
<thead>
<tr>
<th></th>
<th>Kenema</th>
<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td>Male</td>
<td>80%</td>
<td>Male</td>
<td>83.30%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>20%</td>
<td>Female</td>
<td>16.70%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Range</td>
<td>28-54</td>
<td>Range</td>
<td>29-56</td>
</tr>
<tr>
<td></td>
<td>Average</td>
<td>41.3</td>
<td>Average</td>
<td>45</td>
</tr>
<tr>
<td><strong>Time in Service</strong></td>
<td>&lt; 1 year (post-Ebola)</td>
<td>1/10</td>
<td>&lt; 1 year (post-Ebola)</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>1-2 years (during Ebola)</td>
<td>1/10</td>
<td>1-2 years (during Ebola)</td>
<td>--</td>
</tr>
</tbody>
</table>
|                | 2+ years (pre-Ebola) | 8/10 | 2+ years (pre-Ebola) | 100% | 2+ years (pre-Ebola) | 100%
| **Education Level** | Primary | -- | Primary | -- | Primary | -- |
|                | Secondary | -- | Secondary | -- | Secondary | -- |
|                | Tertiary | 10/10 | Tertiary | 100% | Tertiary | 100% |
| **Positions**  | Health Manager | -- | Health Officer | -- | Health Program Manager | -- |
|                | Health Supervisors (3) | -- | M&E Officer/DSO | -- | CHW Focal Person | -- |
|                | CWH Focal Person | -- | Section Chief | -- | CHW Co-ordinator | -- |
|                | M&E Officers (2) | -- | Health Program Officer | -- | Health Officer | -- |
|                | DMO | -- | -- | -- | -- | -- |
|                | District Health Sister | -- | -- | -- | -- | -- |
| **Department / Facility Type** | Government (4/10) | IRC (5/10) | UNICEF (1/10) | Government (3/6) | UNICEF (1/6) | World Hope International (1/6) | Traditional Healers Union (1/6) |

### Table 5. Demographic details, community leaders

<table>
<thead>
<tr>
<th></th>
<th>Kenema</th>
<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td>Male</td>
<td>100%</td>
<td>Male</td>
<td>82%</td>
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<tr>
<td></td>
<td>Female</td>
<td>--</td>
<td>Female</td>
<td>18%</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Range</td>
<td>52-100</td>
<td>Range</td>
<td>26-97</td>
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<tr>
<td></td>
<td>Average</td>
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<td>Average</td>
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<td>None</td>
<td>64%</td>
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<td></td>
<td>Primary</td>
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<td>Primary</td>
<td>9%</td>
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<tr>
<td></td>
<td>Secondary</td>
<td>25%</td>
<td>Secondary</td>
<td>18%</td>
</tr>
<tr>
<td></td>
<td>Tertiary</td>
<td>--</td>
<td>Tertiary</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Role</strong></td>
<td>Town Chiefs (2)</td>
<td>Speaker (Deputy Chief)</td>
<td>Chairman</td>
<td>Community members (3)</td>
</tr>
<tr>
<td></td>
<td>Speaker (Deputy Chief)</td>
<td>Chair</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Chiefdom Councillors (2)</td>
<td>--</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Assistant Secretary</td>
<td>--</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Community members (2)</td>
<td>TBA</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Imams (2)</td>
<td>TBA</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td></td>
<td>Pastor</td>
<td>TBA</td>
<td>Community members (3)</td>
<td>TBA</td>
</tr>
<tr>
<td><strong>How elected?</strong></td>
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<td>Elected</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>Recruited</td>
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<td>Recruited</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Appointed</td>
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<td>Appointed</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>16%</td>
<td>Other</td>
<td>20%</td>
</tr>
</tbody>
</table>

---

Table 4: This table outlines demographic details for district-level programme implementers, including sex, age, and time in service. The data is presented for four districts: Kenema, Kailahun, Bombali, and Tonkolili.

Table 5: This table details demographic information for community leaders, including sex, age, education level, roles, and how they were elected. The information is provided for three districts: Kenema, Kailahun, and Bombali.
Table 6. Demographic details, caregivers of children under five

<table>
<thead>
<tr>
<th></th>
<th>Kenema</th>
<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1/1</td>
<td>--</td>
<td>2/5</td>
<td>1/4</td>
</tr>
<tr>
<td>Female</td>
<td>2/2</td>
<td>3/5</td>
<td>4/5</td>
<td>2/4</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range</td>
<td>40-48</td>
<td>30-72</td>
<td>34-35</td>
<td></td>
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<td>Average</td>
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<tr>
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<td>--</td>
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<td>--</td>
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</tr>
<tr>
<td><strong>Marital Status</strong></td>
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<td>--</td>
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<tr>
<td>Widow</td>
<td>1/1</td>
<td>3/5</td>
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<tr>
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<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Farmer</td>
<td>1/2</td>
<td>4/5</td>
<td>1/4</td>
<td>1/4</td>
</tr>
<tr>
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<td>1/8</td>
<td>7/8</td>
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<td>5/10</td>
<td>4/6</td>
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<td>10/10</td>
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Table 7. Demographic details, survivors

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<td>--</td>
<td>2/5</td>
<td>1/4</td>
</tr>
<tr>
<td>Female</td>
<td>2/2</td>
<td>3/5</td>
<td>4/5</td>
<td>2/4</td>
</tr>
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<tr>
<td>Widow</td>
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<td>3/5</td>
<td>2/4</td>
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</tr>
<tr>
<td>Farmer</td>
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Table 8, Demographic details, community health workers

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<th>Tonkolili</th>
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<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Male</td>
<td>83%</td>
<td>78%</td>
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<td>60%</td>
</tr>
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<td>17%</td>
<td>22%</td>
<td>--</td>
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</tr>
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<td></td>
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<tr>
<td>&lt; 1 year (post-Ebola)</td>
<td>--</td>
<td>--</td>
<td>&lt; 1 year (post-Ebola)</td>
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</tr>
<tr>
<td>1-2 years (during Ebola)</td>
<td>1/12</td>
<td>1/2</td>
<td>1/2</td>
<td>1/2</td>
</tr>
<tr>
<td>2+ years (pre-Ebola)</td>
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<td>100%</td>
<td>100%</td>
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<td>Tertiary</td>
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Table 9. Demographic details, health workers

<table>
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<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1/3</td>
<td>3/3</td>
<td>1/1</td>
<td>1/2</td>
</tr>
<tr>
<td>Female</td>
<td>2/3</td>
<td>--</td>
<td>--</td>
<td>Female</td>
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<thead>
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<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 1 year (post-Ebola)</td>
<td>&lt; 1 year (post-Ebola)</td>
<td>&lt; 1 year (post-Ebola)</td>
<td>&lt; 1 year (post-Ebola)</td>
<td>--</td>
</tr>
<tr>
<td>1-2 years (during Ebola)</td>
<td>1-2 years (during Ebola)</td>
<td>1-2 years (during Ebola)</td>
<td>1-2 years (during Ebola)</td>
<td>--</td>
</tr>
<tr>
<td>2+ years (pre-Ebola)</td>
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<table>
<thead>
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<th>Bombali</th>
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<tbody>
<tr>
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<td>None</td>
<td>None</td>
<td>--</td>
<td>None</td>
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<td>Primary</td>
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<td>Primary</td>
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<tr>
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<th>Tonkolili</th>
</tr>
</thead>
<tbody>
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<td>MCH Aid</td>
<td>CHO</td>
<td>CHO</td>
<td>CHO</td>
<td>MCH Aid</td>
</tr>
<tr>
<td>CHO</td>
<td>CHO/DSO</td>
<td>In-Charge at CHP</td>
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Table 10. Demographic details, traditional birth attendants

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<th>Bombali</th>
<th>Tonkolili</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
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<td>Male</td>
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<td>Male</td>
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<tr>
<td>Female</td>
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<th>Tonkolili</th>
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<td>&lt; 1 year (post-Ebola)</td>
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</tr>
<tr>
<td>1-2 years (during Ebola)</td>
<td>1-2 years (during Ebola)</td>
<td>1-2 years (during Ebola)</td>
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</tr>
<tr>
<td>2+ years (pre-Ebola)</td>
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<th>Tonkolili</th>
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<th>Kailahun</th>
<th>Bombali</th>
<th>Tonkolili</th>
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<tbody>
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<td>MCH Aid</td>
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Adomakoh, Sarah. 2014. CHWs delivering integrated community case management and maternal and newborn health services in Kailahun and Pujehun, Sierra Leone. Executive summary and research findings. Save the Children. Unpublished report.


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