



Qualitative Study on Counseling by Community Health Volunteers in Kenya to Promote Childhood Nutrition and Better Pneumonia-Related Behaviors **A Formative Research Protocol**

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Acronyms

CHC	community health committee
CHEW	community health extension worker
CHU	community health unit
CHV	community health volunteer
CHW	community health worker
COVID-19	coronavirus disease 2019
FGD	focus group discussion
iCCM	integrated community case management
IDI	in-depth interview
IRB	institutional review board
IYCF	infant and young child feeding
MOH	Ministry of Health
MNCH	maternal, newborn, and child health
PPE	personal protective equipment

Introduction

USAID Advancing Nutrition proposes conducting formative research in Kenya to assess common skill and capacity barriers faced by community health volunteers (CHVs) as they implement the national integrated community case management (iCCM) program. We also propose investigating the effect of the COVID-19 pandemic on the work that the CHVs conduct under the iCCM program.

Background

The most recent Demographic and Health Survey (2014) reported that the under-5 mortality rate in Kenya is 52 per 1,000 live births, with considerable subnational disparities based on wealth and geography (Kenya National Bureau of Statistics et al. 2015). An estimated 9,000 children died of pneumonia in Kenya in 2018 (Save the Children UK, UNICEF, and Every Breath Counts 2019). Several factors contribute to continued pneumonia morbidity and mortality:

- Malnutrition: 26 percent of <5 years children are stunted, 4 percent are wasted, and 11 percent are underweight (Kenya National Bureau of Statistics et al. 2015).
- Breastfeeding: 61 percent of children younger than age 6 months are exclusively breastfed (Kenya National Bureau of Statistics et al. 2015).
- Sanitation and environment factors: 14 percent of the population has handwashing facilities with soap and water at home; 93.2 percent of the rural population uses air-polluting fuel and/or cooking technology (Kenya National Bureau of Statistics et al. 2015).
- Immunization: geographic disparities exist in immunization coverage (e.g., for diphtheria-tetanus-pertussis, Haemophilus influenzae type b third dose, and conjugate pneumococcal vaccination (MOH 2015).
- Treatment of childhood illnesses: 8.1 percent of children <5 years are treated with oral rehydration therapy and zinc combined for diarrhea; 65.7 percent of children <5 years with symptoms of acute respiratory illness sought care (advice or treatment) from a health facility or health care provider (Kenya National Bureau of Statistics et al. 2015).

Community health workers (CHW) can improve access to primary health care (Kawakatsu, Y. et al. 2012) and improve health outcomes (Haines, A. et al. 2007; Mack., Uken., and Powers 2006) especially where health services are not readily available. CHW play an increasingly important role in delivering behavior change strategies globally, as well as in Kenya (Michie, Van Stralen, and West, R. 2011; Aseyo et al. 2018).

As per the Kenya Health Sector Strategic Plan, essential health services and interventions are delivered at four levels: Level 1 (community); Level 2 (primary care); Level 3 (county referral services); and Level 4 (national referral services). County authorities are responsible for providing services in Levels 1 to 3; national-level authorities are responsible for providing Level 4 services. Two community-based health cadres deliver community health services in Kenya—community health extension workers (CHEWs) and CHVs. There is another cadre of CHVs called community health assistants, who are government personnel within the Kenya Public Service Commission, and whose role is complementary to that of the CHVs' community activities with respect to outreach, data collection, monitoring, and liaison with the health facilities. The CHV program traces its origins to the early 1970s, when community-based health care projects emerged in different parts of the country. The National Health Sector Strategic Plan in Kenya formalized CHVs within their current structure (Ministry of Health 2005). In 2011, Kenya introduced its Community Health Strategy, which aims to improve health outcomes, including maternal, newborn, and child health (MNCH) by promoting individual and community health (Ministry of Health 2006). The strategy is the guiding framework for public health extension services in Kenya and underpins its plan for attaining universal health coverage. Under this strategy, communities are

organized into community health units (CHUs), which provide a health service delivery structure within a defined geographical area of approximately 5,000 people.

Each CHU is assigned five CHEWs and 20 CHVs who offer preventive and basic curative health services. A community health committee (CHC) governs the CHU, and each CHU is linked to a specific health facility. The current policy requires all CHVs to complete a 10-day, Ministry of Health (MOH)-led basic training before they begin their work. This basic training is supplemented by specific technical training in line with CHV activities and local engagement with the health sector. Community health volunteers are part-time and receive training, coaching, and supervision from CHEWs, who are salaried frontline health care workers.

CHVs are nominated by their communities and are tasked with improving health and well-being and linking individuals to primary health care services (MOH 2016). Given their in-depth understanding of community values, local culture, and local languages, CHVs fill the gap between the community and the wider health system, which is where most preventable health issues arise. The CHVs can also promote hygiene practices and deliver positive behavior change strategies in the communities where they work (Rose Evelyne Aseyo et al. 2018). To have maximum impact on MNCH, CHVs must regularly reach a high proportion of women and children throughout the continuum of care (LeFevre A.E. et al. 2015) with key messages and link them to services (Lisa S. Avery 2017).

In January 2015, the Kenyan MOH launched the national integrated community case management (iCCM) implementation framework and action plan, which focuses on childhood diarrhea, malaria, pneumonia, newborn illness, and malnutrition (MOH 2013). The framework is anchored in the Community Health Strategy (Ministry of Health 2006) and the Child Survival and Development Strategy (Ministry of Public Health and Sanitation 2009), which focuses on policy, case management, the commodity supply chain, training, and supervision. CHEWs undergo an initial basic training over a two-week period, and continue with additional training and refresher courses every three months or as needed.

The training course for CHVs is divided into two phases. The first includes six modules that cover basic competencies for CHVs over 10 days. The second phase includes technical modules based on local needs. The duration of each technical module ranges from two to five days. Combined, the phases take approximately six weeks. Before being certified as a CHV, all candidates complete basic and technical training that focuses on health and development, health promotion, and the Kenya Community-based Essential Health Package (MOH 2006). To provide services under the national iCCM framework, the CHVs take an additional six-day training course on community case management of fever, diarrhea, and cough/fast breathing. CHVs are trained to treat under-5 children with diarrhea using oral rehydration salts and zinc; diagnose malaria with a rapid diagnostic test and treat it with artemisinin combination therapy; and refer suspected pneumonia, malnutrition, and sick newborns to a health facility (MOH 2013). The national iCCM policy recently allowed CHVs to be trained to dispense amoxicillin dispersible tablets for case management of suspected pneumonia; however, implementation of this change in policy is being rolled out gradually alongside additional training. Hence, the CHVs' primary role is limited to promoting prevention and protection behaviors among parents and families. These messages cover all stages of a pre-school child's life including birth registration, use of insecticide nets, timely hand-washing behaviors, treatment of household water, safe disposal of infant fecal matter, exclusive breastfeeding and complementary feeding, management of diarrhea, control of indoor pollution, immunization, and care of sick child, with the medium of communication being community dialogue, interpersonal communication, and social channels. CHVs also promote timely care-seeking from health facilities for children who have signs/symptoms of acute respiratory infection or suspected pneumonia and acute malnutrition. In addition to screening and referral of acute malnutrition, iCCM includes guidance on continued feeding of any sick child treated at home. However, implementation of nutrition counseling within iCCM—including preventive components—is often not delivered with the intensity, quality, and coverage needed to improve children's nutritional status.

Problem statement

Though the training curriculum for CHVs covers key technical areas (e.g., community nutrition, iCCM, water, sanitation, and hygiene), the 10-day MOH basic CHV training does not encompass skill building on motivating social and behavior change among the beneficiary population. Training on interpersonal communication is vital for CHVs who are involved in changing people's health-related behaviors and practices in their communities (National Institute for Health and Clinical Excellence 2007). Refresher training improves skills and knowledge (Msisuka C et al. 2011), but is rarely offered. Existing training curricula and capacity-strengthening activities are not sufficient to ensure CHVs have the skills to influence nutrition and health behaviors at the community and household levels.

A key element in developing a competent workforce is mentorship that includes, in addition to CHEW support, coaching by a nurse or clinical officer to help CHVs acquire skills to manage childhood diseases and promote optimal health and nutrition practices. A study in Uganda reported that mentorship resulted in good CHV knowledge of malaria and pneumonia (72 percent), and capacity to elicit signs and symptoms in 50 percent of the CHVs (Kalyango J et al. 2013). Yet neither the training modules nor supervision plans mention coaching or mentorship. CHEW supportive supervision is an area that also needs strengthening in relation to counseling and behavior change activities. An implementation research study on childhood illnesses at community and facility levels in Bondo sub-county in Kenya reported that CHVs were able to follow the Kenya iCCM algorithm for decision-making on whether to treat or refer a sick child (Shiroya-Wandabwa et al. 2018). When considering both nutrition and health related behaviors, we need to assess whether the CHVs' decision-making abilities and CHEWs' supportive supervision can be implemented effectively within the program.

To be effective as community agents for behavior change promotion within the iCCM program, CHVs need support so that their workload across multiple programs does not lead to deficiencies in service and care. Refresher training to update knowledge and enhance skills can enable them to deliver health promotion messages. Before prescribing an intervention package to this end, however, it is critical to explore CHVs current role and practices in formal or informal behavior change initiatives, and their training and skill building opportunities in the context of available resources and support from CHEWs. The mitigation measures taken against the pandemic could result in deleterious effects to the health of women and children. CHVs must adapt and continue to provide health and nutrition services. The health system is also required to prevent or manage misconceptions about COVID-19 and child care and breastfeeding, especially in LMIC like Kenya (Ferguson et al. 2020) (Liu and Liu 2020). The pandemic could result in an additional 250,000 to 1.1 million child deaths due to disruptions to health services and increases in child wasting. WHO provided guidance for key actions that program managers in community health can undertake to prevent disruption in service delivery (WHO 2020)—

- a) Ensure that the community health workforce is included in assessments associated with the COVID-19 response.
- b) Clearly define roles for the community health workforce in the context of the COVID-19 response.
- c) Ensure that the community health workforce and other critical personnel are classified as essential.
- d) Recognize and remunerate the community health workforce supporting the COVID-19 response.
- e) Quantify training needs and invest in rapid, remote training on new COVID-19 roles and tasks.
- f) Modify supportive supervision and communication modalities as needed.
- g) Ensure that health workers have sufficient phone credit.
- h) Ensure the safety and health of all health workers, including the provision of personal protective equipment.

As our understanding of COVID-19 evolves with new information on biology, epidemiology, transmission, and infectiousness of the virus, guidance for CHVs must reflect not only the accuracy of that information but also

the opportunity to convey it to the mothers and caregivers. For example, guidance on infant and young child feeding (IYCF) (WHO March 2020, WHO June 2020) and wasting (UNICEF 2020) should be reflected in national guidelines when CHVs provide essential nutrition and health services under iCCM.

There has been spread and an increase in the number of COVID-19 cases in Kenya. The government and counties are taking prevention and mitigation measures to slow its spread and manage cases with an already stretched health system. Thus, it is important to investigate the effect of mitigation and suppression strategies on the delivery of community health and nutrition services, especially iCCM and nutrition in Kenya. This formative assessment will also look into how COVID-19 and the mitigation measures and increased attention to COVID-19 affect CHVs functionality, especially in delivering iCCM and nutrition care and services, and their ability to support households and caregivers.

USAID Advancing Nutrition proposes conducting formative research in Kenya in two sub-counties in Turkana County (Turkana Central and Loima). We will investigate common skill and capacity barriers CHVs face as they work to improve iCCM practices and behaviors among parents, families, and communities. We also propose investigating the effect of the COVID-19 pandemic on the counseling and behavior change activities for child health and nutrition that CHVs conduct under the iCCM program.

Research questions

Our proposed formative research will focus on three research questions:

1. Does the basic and technical training and supportive supervision that CHVs receive provide the knowledge and skills to counsel caregivers on childhood nutrition and pneumonia-related behaviors, particularly related to immunization, control of indoor air pollution (e.g., adequate ventilation), hand washing with water and soap, continued feeding during and after illness, and care-seeking for sick children?
2. What are the enablers of and barriers to effective CHV counseling on childhood nutrition and pneumonia-related behaviors, particularly immunization and care-seeking for sick children by parents, families, and communities?

How has COVID-19 affected program implementation and activities by CHVs, including the progress of basic and in-service training, supportive supervision by CHEWs, and the CHVs' ability to provide counseling within iCCM?

Methods

Study design

We will use a qualitative study design to investigate common barriers affecting CHV capacity to promote improved practices and behaviors among parents, families, and communities. We will use a combination of document review and qualitative interviews to understand prevention, promotion, care-seeking for IYCF, and adherence to recommended case management of childhood illness. We will conduct the activity in two stages:

- 1) We will characterize the skill-building elements of CHV training and supervision structures. We will accomplish this by undertaking a review of national planning documents, training syllabi, and curricula for CHVs and CHEWs; the monthly CHEW report that summarizes data for each CHU on service delivery and supervision; government databases on training; and monitoring reports from health facilities and CHCs. During the review, we will use an evaluation checklist to assess the following areas of the training and supervision of CHVs:

- a. Training modules, training session plan (agenda, how long, methods/structure), training of trainers, frequency of refresher training
 - b. Adequacy of training plan to help build CHVs' skills in interpersonal communication, counseling, behavior change promotion. For example, is there enough time during training for both education and hands-on practice in counseling? Are any interpersonal counseling tools/job aids used? What is the method of training: lecture /interactive/ audio-visual show? What is the frequency of refresher training?
 - c. Opportunities to practice skills before going for service delivery.
 - d. Opportunities for coaching and mentorship. For example, coaching-mentorship plan? Frequent supportive supervision and constructive feedback and follow-up system in place? How is counseling is assessed (i.e., does the CHV follow the job aids/counseling tools)?
 - e. Supervisory visits (planned and actual) made by supervisors, with an analysis of the plan for systematic sharing of feedback by supervisors.
- 2) We will explore CHVs' challenges to behavior change counseling by conducting in-depth interviews (IDIs) and focus group discussions (FGDs) among relevant stakeholders. The areas targeted for behavior change under the iCCM relate to pneumonia prevention and management (control of indoor air pollution, keeping the baby warm, hand washing with water and soap, immunization, feeding during sickness, recognition of danger signs, and referral to a health facility) and nutrition (exclusive breastfeeding and other optimal IYCF practices, growth monitoring and promotion, optimal micronutrient intake, and feeding during illness). In addition to collecting data on the areas covered in our document review, we will ask questions on implementation:
- a. How big is the population that one CHV is assigned to serve? How heavy is each CHV's workload? Do CHVs have enough time to conduct a high-quality health counseling session during household and community visits?
 - b. Are CHVs equipped with necessary logistics/commodities to conduct health counseling sessions at household and community levels?
 - c. How much time do CHVs use for their various activities?
 - d. Given their time and resources, what factors do CHVs consider as challenges to their behavior change promotion activities? Are CHVs expected to be role models for behaviors on which they counsel mothers and caregivers?
 - e. In the context of COVID 19, are there additional behaviors about which CHVs are expected to counsel that are not covered in the iCCM training?

We will conduct these activities with due consideration to the pandemic as outlined in the COVID-19 Mitigation Plan section of the methods.

Sampling

To enroll participants in the proposed study, we will follow purposive sampling based on convenience and availability of eligible study participants. Specific sampling methods for each of the research approaches are described in the Study Procedures section.

Study site and population

We will conduct the study in Turkana Central and Loima Sub-counties of Turkana County, in which there are nine wards with 58 CHUs. We selected these sub-counties because they have ongoing nutrition and iCCM programs, as well as the presence of other USAID health and nutrition investments and implementing partners. Loima and Turkana Central feature a mixture of urban and rural settings. The purposive selection of study sites

in both the rural and urban context will allow us to understand the research questions in these two settings. We will include respondents who are 18 years or older and be able to consent for themselves. **Table 1** lists the number of wards in Loima and Turkana Central. The MOH determines which of the CHUs are “functional,” using an indicator that includes the number of active CHVs reported, active CHC members, dialogue and health action days held in the last three months, CHC meetings held in the last 3 months, and availability of community health information system tools (MOH, Republic of Kenya 2014). From among these listed wards, we used a purposive sampling to pick one from each of the sub-counties that represented one urban and one rural setting, had at least five fully functional CHUs, and which travel between them would not involve more than a day of logistic preparation.

Table 1. List of the Wards with Numbers of Established and Fully Functioning CHUs in Loima and Turkana Central

Proposed county	Proposed sub-county	Ward	Number of established CHUs	Number of fully functional CHUs*
Turkana	Loima	Kotaruk/Lobei	1	0
		Loima	5	5
		Likiriamu/Lorengippi	11	7
		Turkwell	15	14
	Turkana Central	Lodwar Township	5	5
		Kalokol	3	2
		Kang’atotha	6	6
		Kanamkemer	4	4
		Kerio Delta	8	8
	Total	4	58	51

Source: Ministry of Health, Kenya Master Health Facility List. Available at <http://kmhfl.health.go.ke/#/home>. Accessed on April 30, 2020; *- Functional CHU is defined by the MOH.

Data collection

Data will be collected through IDIs (instrument enclosed in Appendix A) and FGDs (Appendix B), and will continue until data saturation occurs and no new theme or information arises. We will translate the study instruments into Kiswahili. For study data collection, we will employ field interviewers and one field supervisor, all of whom have experience in qualitative research. Field interviewers and supervisors will receive a one-day comprehensive training. The training agenda will include orientation sessions on the study, the data collection tools, and refresher training on qualitative research methodologies and facilitation skills. A two-member interview team will be assigned to conduct each IDI: one team member will interview while the other takes notes. A three-member interview team will be assigned to conduct each FGD: one member will facilitate, one will take notes, and one will observe. Interview guides will support conducting IDIs and FGDs by indicating open-ended questions and using probing questions. We will conduct data collection activities with due consideration to the pandemic, as outlined in the COVID-19 Mitigation Plan section of the methods.

Study procedure

We will conduct an IDI with one manager from each of the different units of Family Health (Community Health, Nutrition and Dietetic, Child Health, and Primary Health Care) and the environmental health managers at the national, county, and sub-county levels. We will conduct IDIs with CHEWs and CHVs who are trained in nutrition and iCCM modules and who have been providing these services in Loima and Turkana Central. We will enlist CHVs and CHEWs with the help of the sub-county managers. Other respondents include CHC members and mothers of under-5 children, for a total of 36 IDIs. We will also conduct four FGD sessions in

separate groups with selected CHVs and mothers from communities within Loima and Turkana Central (**table 2**).

We have developed separate data collection tools for each category of respondent and data collection method (IDI or FGD). All interviews, except at the national level, will be conducted in Kiswahili. Data collection tools will be translated from English into Kiswahili and back-translated into English to check and ensure the quality of translation. We will conduct a pre-test before finalizing the data collection tools.

Pretesting the questionnaires

Prior to the field study, we will carry out a pre-test of the CHEW, CHV, and national and sub-national health manager IDI questionnaire. We will conduct the pre-test in Nairobi. We will use the pre-test phase to assess the validity of the questions and potential for respondent fatigue. We will use a retrospective approach with debriefing after the administration of the questionnaire to ask questions of the respondent about the length of the questionnaire, complexity of the questions, and their understanding of the intent of the study. The retrospective approach with debriefing allows us to observe the respondents reacting to the questionnaire without interruption, and helps us assess the time taken to administer the survey.

Table 2. Number and Location of IDIs and FGDs

Respondent Category	IDI	FGD	Location
National-level community health managers from each unit of Family Health and one from Environmental Health	5		MOH/Secretariat @Nairobi
County-level community health managers from each unit of Family Health and one from Environmental Health	5		Turkana County HQ
Sub-county-level community health managers from each unit of Family Health and one from Environmental Health	10		5 IDIs each @ Loima and Turkana Central sub-county HQ
CHEW	6		3 IDIs each @ selected CHEW work places in Turkwell (Loima) and Lodwar Township (Turkana Central) wards
CHV	4	2	One FGD each @ selected CHU in Turkwell and Lodwar Township wards
CHC member	2		1 IDI each with CHC in (Loima) and Lodwar township (Turkana Central) wards
Mothers (having at least 1 under-5 child)	4	2	1 IDI each with mothers in Turkwell (Loima) and Lodwar township (Turkana Central) wards 1 FGD@ each in Turkwell and Lodwar Township wards
Total	36	4	

Selection of study respondents

We have selected two wards from the two sub-counties (Turkwell ward in Loima and Lodwar Township ward in Turkana Central) from which we will recruit our respondents. We selected these

wards for the following reasons: 1) they are geographically adjacent to each other and will allow data collectors to spend less time travelling between study sites; 2) they have 5 or more fully-functional CHUs; and 3) Turkwell will provide the rural context and Lodwar Township will provide the urban context. We will list the CHUs that have CHVs trained in iCCM and nutrition, and randomly select one CHU for IDI and one for FGD. We will recruit respondents for IDIs or FGDs. For IDIs with CHEWs and CHVs, we will list all available CHEWs and CHVs who have undergone additional training with the iCCM and nutrition modules, and randomly select six CHEWs and four CHVs to interview from that list using simple random sampling. If any randomly selected CHEW or CHV is unavailable on the day of interview or does not consent, then we will approach and (upon consent) interview the next CHEW or CHV on the list. We will interview the CHEWs in their offices in the health facility and CHVs in the community where they serve.

We will organize one FGD session with CHVs in the wards where the highest number of fully functional CHUs are located. From the CHUs in that ward, we will randomly select one that has 6–8 active and available CHVs. We will select CHVs who have had at least six months of experience implementing iCCM in their area, and will conduct an FGD with these CHVs in that health unit. We will coordinate in advance so that all the CHVs are available.

We will also conduct one FGD session with mothers who have at least one under-5 child. We will coordinate in advance of each visit, asking the CHC in each CHU to arrange for 6–8 mothers to participate. We will conduct IDIs with national and sub-county level health managers at their respective offices in Nairobi, and Loima and Turkana Central.

COVID-19 mitigation plan

We will follow steps to reduce the risk of COVID-19 transmission for study participants and data collectors. We will conduct the study with the approval of the director of health services, MOH, and under the umbrella of its guidance on physical and social distancing. All data collectors will be fitted with personal protective equipment. We will conduct the IDIs and FGDs in outdoor locations, with appropriate social distancing and masking precautions taken by all participants. The field team will carry additional masks and shields in case IDI and FGD participants do not have them. We will also monitor the epidemiological situation regarding transmission, and will explore alternative remote interview options if the conditions in the field restrict travel to the study sites. FGDs are difficult to conduct virtually, so we may consider cancelling them if we cannot implement risk-mitigation strategies. We believe that we can conduct data triangulation /validation through IDIs alone due to the interviews we are conducting with stakeholders at the various levels. We will keep the director of health services and the Division of Family Health informed of our activities as we conduct them.

Data management and analyses

We will use a checklist to evaluate the adequacy of the training given to CHVs, as collected from our document review (instrument enclosed in Appendix C). All IDIs and FGDs will be audio-recorded after study participants provide consent. From the recordings, the note taker will transcribe each completed IDI and FGD. Immediately after one interview is completed and transcribed, the team will translate the whole transcript from Kiswahili into English. All transcriptions will be translated into English for analysis, and a consultant unrelated to the field study will back-translate 15 percent of translation work for independent checking of accuracy and quality. After transcription, translation, and transcript accuracy and quality are checked, all recordings will be kept with all other study-related confidential documents in a secure server managed by USAID Advancing Nutrition, and destroyed at the end of the project. We will use the English-translated transcripts for thematic analysis of information collected through the FGDs and IDIs. We will develop a coding scheme for identifying key themes for analyses and will analyze data using Atlas.ti/Nvivo software.

Ethical considerations

The study will initiate data collection from the field after obtaining approval from the institutional review board (IRB) at the University of Nairobi and ethical review committees of JSI Research & Training Institute, Inc. and Save the Children-US

Informed consent

All respondents will be of the age to give consent, i.e. above 18 years of age. We will obtain informed consent from all study respondents prior to any data collection using approved consent forms from the IRB prepared in Kiswahili. Prior to any IDI or FGD, the interviewer or FGD facilitator will read the consent form to the participants and obtain consent. The note-taker will bear witness to the consent. We will ensure that each respondent understands that “participation in the study is completely voluntary and there will be no negative consequences from refusing to participate.” The consent forms will clearly explain that the participants are free to refuse to participate in the study; or can refuse to participate in any specific portions of the discussion/question or refuse to answer specific question. Participants will also be informed that their confidentiality will be protected.

Risk

Risks of involvement in the IDIs or FGDs are minimal, as long as COVID-19 mitigation strategies like physical distancing and universal mask wearing are followed. Loss of participant’s time will be the main burden from the study. We will minimize the duration of the IDIs and FGDs, which will last no longer than 60–90 minutes. It is possible but highly unlikely that a participant will feel uncomfortable with a question. If this happens we will minimize discomfort by re-explaining the purpose of the study and data collection procedure in the informed consent, ensuring that interviewers receive high-quality training, and ensuring confidentiality by using coded identification of respondents, with the key to the code stored securely in a location that is accessible only to the primary investigator and study staff at USAID Advancing Nutrition.

Benefit to the study participants

The study may not offer any direct benefit to the respondents, but the data collected through their participation will provide information for delivering broader health benefits to the community. Study participants will receive no monetary benefits, and will not incur any out-of-pocket cost. However, participants may receive wage compensation for the time spent (maximum 1.5 hour) at the local wage rate, plus a transportation allowance for traveling from their residence to the IDIs or FGD sessions.

Confidentiality

All recorded data will be kept with the study team during travel, then in a locked file cabinet at a secured office during transcription and translation. All recorded data will be de-identified to protect participant privacy, and transcripts will be stored in a locked file cabinet. Only study staff and investigators will have access to the information collected from study participants. Participants will receive assurance that study investigators will strictly protect the confidentiality of individual information.

Plan for dissemination and utilizing results

After analyzing results and preparing the report, we will organize workshops to disseminate the results with national and county-level stakeholders. Our findings will also offer a way of revising and adjusting the community health service delivery plan for the field. We will prepare manuscript(s) based on the study and submit them to peer-reviewed journal(s) for publication.

Outcome

Findings from this study will be used to inform the community health service delivery strategy on ways to strengthen CHV counselling to promote positive childhood nutrition and pneumonia-related behaviors, including immunization and care-seeking for childhood illness. They may also help in the planning of implementation

research to test whether strengthening CHVs' counseling improves parents'/families'/community members' adoption of ideal behaviors to improve childhood nutrition and prevent common childhood illness like pneumonia. Our findings on the effects of COVID-19 on community health cadres' work will provide direction to the Division of Family Health and its different units on the challenges it must overcome to remedy disruptions to regular health services delivery.

References

- Acter, Thamina, Nizam Uddin, Jagotamoy Das, Afroza Akhter, Tasrina Rabia Choudhury, and Sunghwan Kim. 2020. "Evolution of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) as Coronavirus Disease 2019 (COVID-19) Pandemic: A Global Health Emergency." *The Science of the Total Environment* 730 (April): 138996. <https://doi.org/10.1016/j.scitotenv.2020.138996>.
- Ferguson, NM, D. Laydon, G Nedjati-Gilani, N Imai, K Ainslie, M Baguelin, S Bhatia, et al. 2020. "Impact of Non-Pharmaceutical Interventions (NPIs) to Reduce COVID-19 Mortality and Healthcare Demand." London, UK: Imperial College COVID-19 Response Team. <https://www.imperial.ac.uk/media/imperial-college/medicine/sph/ide/gida-fellowships/Imperial-College-COVID19-NPI-modelling-16-03-2020.pdf>.
- Haines A, Sanders D, Lehmann U, Rowe AK, Lawn JE, Jan S, and et al. 2007. "Achieving Child Survival Goals: Potential Contribution of Community Health Workers." *Lancet*. 369: 2121–31.
- Kalyango JN, Alfven T, Peterson S, Mugenyi K, Karamagi C, and Rutebemberwa E. 2013. "Integrated Community Case Management of Malaria and Pneumonia Increases Prompt and Appropriate Treatment for Pneumonia Symptoms in Children under Five Years in Eastern Uganda." *Malar J*. Sep 22 (12): 340.
- Kwakatsu Y, Sugishita T, Kioko J, Ishimura A, and Honda S. 2012. "Factors Influencing the Performance of Community Health Workers in Kisumu West, Kenya." *Prim Health Care Res Dev*. 13 (4): 294–300.
- Kenya National Bureau of Statistics, Ministry of Health/Kenya, National AIDS Control Council/Kenya, Kenya Medical Research Institute, and National Council for Population and Development/Kenya. 2015. "Kenya Demographic and Health Survey 2014." Rockville, MD, USA. <http://dhsprogram.com/pubs/pdf/FR308/FR308.pdf>.
- LeFevre AE, Mpembeni R, Chitama D, George AS, Mohan D, Urassa DP, and et al. 2015. "Profile, Knowledge, and Work Patterns of a Cadre of Maternal, Newborn, and Child Health CHWs Focusing on Preventive and Promotive Services in Morogoro Region, Tanzania." *Hum Resour Health* 13 (98). <https://doi.org/10.1186/s12960-015-0086-3>.
- Li, C., and B.-H. Xu. 2020. "The Viral, Epidemiologic, Clinical Characteristics and Potential Therapy Options for COVID-19: A Review." *European Review for Medical and Pharmacological Sciences* 24 (8): 4576–84. https://doi.org/10.26355/eurrev_202004_21044.
- Lisa S. Avery, Elsabé du Plessis. 2017. "Enhancing the Capacity and Effectiveness of Community Health Volunteers to Improve Maternal, Newborn and Child Health: Experience from Kenya." *Can J Public Health* 108 (4): e427–e434. <https://doi.org/10.17269/CJPH.108.5578>.
- Liu, Jialin, and Siru Liu. 2020. "The Management of Coronavirus Disease 2019 (COVID-19)." *Journal of Medical Virology*, May. <https://doi.org/10.1002/jmv.25965>.
- Mack M, Uken R, and Powers J. 2006. "People Improving the Community's Health: Community Health Workers as Agents of Change." *J Health Care Poor Underserved*. 17 ((1 Suppl)): 16–25.
- Michie S, Van Stralen MM, and West R. 2011. "The Behavior Change Wheel: A New Method for Characterizing and Designing Behavior Change Interventions." *Implement Sci*. 6 (1): 42.
- Ministry of Health. 2005. "National Health Sector Strategic Plan(NHSSP II) 2005–2010." Kenya: Ministry of Health.
- . 2006. "Taking the Kenya Essential Package for Health to the Community: A Strategy for the Delivery of Level One Services." Nairobi, Kenya: Ministry of Health, Health Sector Reform Secretariat.
- . 2013. "A National Framework and Plan of Action for Implementation of Integrated Community Case Management (ICCM) in Kenya 2013–2018: A Strategy for Management of Childhood Illnesses in under Five Years." Nairobi, Kenya: Ministry of Health.

- . 2015. “Comprehensive Multi-Year Plan for Immunization - July 2015- June 2019.” Kenya: Ministry of Health. https://www.who.int/immunization/programmes_systems/financing/countries/cmyp/Kenya_cMYP_2015-2019.pdf.
- . 2016. “Draft-Kenya-CHP-2016-02-12-1.”
- Ministry of Health, Republic of Kenya. 2014. “Monitoring and Evaluation Plan for Community Health Services (2014-2018).” Nairobi, Kenya: Government of Kenya.
- Ministry of Public Health and Sanitation. 2009. “Child Survival and Development Strategy 2008–2015.” Nairobi, Kenya: MOPHS.
- Msisuka C, Nozaki I, Kakimoto K, Seko M, Ulaya M, and Syakantu G. 2011. “An Evaluation of a Refresher Training Intervention for HIV Lay Counsellors in Chongwe District, Zambia.” *Journal of Social Aspects of HIV/AIDS*. 8: 204–9.
- National Institute for Health and Clinical Excellence. 2007. “Behaviour Change at Population, Community and Individual Levels.” *Behav Chang*. 6 (57).
- Rose Evalyne Aseyo, Jane Mumma, Kerry Scott, Damaris Nelima, Emily Davis, Kelly K Baker, Oliver Cumming, and Robert Dreibelbis. 2018. “Realities and Experiences of Community Health Volunteers as Agents for Behavior Change: Evidence from an Informal Urban Settlement in Kisumu, Kenya.” *Human Resources for Health*. 16 (53). <https://doi.org/10.1186/s12960-018-0318-4>.
- Save the Children UK, UNICEF, and Every Breath Counts. 2019. “Fighting for Breath in Kenya. A Call for Action to Stop Children Dying from Pneumonia.” 2019. <https://stoppneumonia.org/wp-content/uploads/2019/11/Kenya-12.11.2019-Web.pdf>.
- Shiroya-Wandabwa, Makeba, Mark Kabue, Dyness Kasungami, Jonesmus Wambua, Dan Otieno, Charles Waka, Augustine Ngindu, et al. 2018. “Coaching Community Health Volunteers in Integrated Community Case Management Improves the Care of Sick Children Under-5: Experience from Bondo, Kenya.” *International Journal of Integrated Care* 18 (4): 5. <https://doi.org/10.5334/ijic.3971>.
- Siordia, Juan A. 2020. “Epidemiology and Clinical Features of COVID-19: A Review of Current Literature.” *Journal of Clinical Virology: The Official Publication of the Pan American Society for Clinical Virology* 127 (April): 104357. <https://doi.org/10.1016/j.jcv.2020.104357>.
- WHO. 2020. “Community-Based Health Care, Including Outreach and Campaigns, in the Context of the COVID-19 Pandemic: Interim Guidance.” Geneva, Switzerland.
- WHO. May 2020. Clinical management of COVID-19: Interim guidance. Geneva, Switzerland.
- WHO. June 2020. Breastfeeding and COVID-19. Scientific brief. Geneva, Switzerland.
- WHO/UNICEF/WFP/UNHCR. March 2020. Infant and Young Child Feeding in the Context of the COVID-19 Pandemic Eastern, Central and Southern Africa.

Appendix A

In-Depth Interviews with Community Health Extension Workers, Community Health Volunteers, and Health Managers

In-Depth Interviews with Community Health Extension Workers

Study Title: Qualitative study on counseling by community health volunteers in Kenya to promote childhood nutrition and pneumonia-related behaviors

Respondent's ID #:

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Location of interview: County: _____

Sub-county: _____

Ward: _____

CHU: _____

Date of interview: _____ (dd/mm/yy)

Interviewer's Name _____

[RECORD] START Time _____ am/pm

Introduction to Respondent:

[Hello, thank you for meeting with me today! My name is _____ and I am meeting you today on behalf of the Save the Children Kenya and the USAID Advancing Nutrition program. I am going to begin by reading a form to you so that you fully understand the purpose of this interview and you may give your consent to participate:

Consent

We are here to talk to you about improving counseling by community health volunteers on nutrition and pneumonia-related behaviors. The goal of this study is to explore current role and practices of community health volunteers, in formal or informal behavior change initiatives, and their training and skill building opportunities. The

results will help the government's national integrated community case management (iCCM) serve you better. To this end, we are meeting with people at all levels—national, county, and sub-county community health managers, community health extension workers (CHEWs), community health volunteers (CHVs), mothers of children under five years of age, and community health committee members. We would like to talk to you about CHV challenges to behavior change promotion. Specifically, we would like to focus on how training for CHVs allows them to fulfill their roles and responsibilities. We would also like to ask you how the recent COVID-19 pandemic affected the work of CHVs in your community and your interaction with them. If you decide to participate in this interview, we will ask you to answer our questions. The interview will take about an hour to an hour and a half.

We will not share your name or any other identifying information with anyone. We will collect answers from you and analyze them collectively, not individually. You are free to refuse to participate in survey or to withdraw your consent at any time during the interview. Your participation will not affect your relationship with your supervisor or your position within the government.

Thank you for agreeing to participate in the interview, I appreciate you sharing your knowledge with me so that I may learn more about the topic. With your permission, I will audio record our discussion so that I can remember the information you share with me, but if you are uncomfortable with the recording, you may ask for it to be stopped at any time. I will also take notes so that I can remember what you share with me. There are no right or wrong answers to the questions. Feel free to answer, as you like.

If you have no questions for me now, I will begin the interview.]

Instruction to interviewer: For each question, pay particular attention to responses and probe as relevant and needed.

- 1. As a CHEW, how many CHVs do you supervise?**
- 2. What is your technical background?**
Probe: nursing, public health, laboratory, clinical officer, dental, etc.
- 3. How many CHVs are assigned to provide health services in the CHU where you work?**
- 4. Do these CHVs receive any training before they start working in the community? (yes/no)**
- 5. What trainings does a CHV receives before s/he starts her/his job?**
Probes:
 - For how many days the training is offered?
 - What kind of training do the CHV receive on counseling/communication/negotiation skills?
- 6. Do these training sessions help CHVs learn, practice, and improve their communication skills?**
Probes:
 - Do CHVs practice (role-play) conducting counseling session during the training?
- 7. Can you suggest any changes to existing training session plan to give CHVs better opportunities to learn and practice counseling skills before they start their job?**

8. Is there any provision of in-service (on the job) training for CHVs?

If yes, probe:

- *Where do they receive the in-service training?*
- *Who are the trainers/coach for in-service training? For how many days does a CHV receive in-service training?*

If not, why not?

-What are the challenges/barriers to planning and implementing in-service training for CHVs?

9. Do you have any concerns about CHV knowledge and practice of counseling for nutrition and pneumonia-related behaviors (the way they counsel parents, families, or community members)? If yes, explain.

10. Tell me about the IYCF counseling that CHVs provide

Probes:

- *Breastfeeding, complementary feeding, and feeding of sick child*
- *How effective is the CHV's IYCF counseling*
- *How frequently provided*
- *How it is targeted*
- *Barriers to IYCF counseling*

11. Tell me about the iCCM-related counseling activities that CHVs conduct

Probes: pneumonia-related services, identification and treatment of childhood illness and malnutrition, referral systems, information on preventive practices.

12. As a CHEW, how many days in a month you spend on field supervision of CHV work?

13. How many days in a month do you think a supervisor should have for conducting field supervision to help CHVs do a better job?

14. Tell me about your role and responsibility as a CHEW

Probes:

- *How do you support CHVs?*
- *Do you monitor the CHV supply stock? If yes, how?*
- *Do you provide supplies to CHVs if they run short? How are medications/supplies given to CHVs?*
- *How do you collect and report information on number of visit and quality of counseling by CHVs?*
- *Do you do conduct any education activities to encourage parents/families/community people to seek services from CHVs? Do you make it clear to the community which services and support a CHV can offer?*
- *What tools/job aids do they have for supervision (e.g., checklist)?*
- *What support do you receive from CHU and/or health facilities?*

15. How do you communicate your findings during supervisory visits to the respective CHV?

Probes:

- *Do you praise him/her for doing a great job?*
- *Do you yell at/scold to him/her in front of the parents/family members for doing or saying something wrong?*

16. If you find a CHV doing something wrong during her/his work, how do you correct her/him?

Probe:

- *Do you demonstrate how to do the job correctly?*

17. What is the role of supportive supervision in helping the CHVs do their job?

Probes:

- *Mentorship*
- *Identify areas where knowledge and skills can be strengthened*
- *Identify CHVs who need on-the-job training*

18. Do you think all the CHVs assigned to you receive enough supervisory visits and support from you? (yes/no)

Probe:

- *If not, what is your suggestion to make things better?*

19. How do you assess the counseling skills of CHVs?

Probe: tools, method, timing, frequency

20. How do you support the CHVs to improve/strengthen their skills in areas of weakness?

Probe: Formal or informal support, structured training or ad-hoc

21. What changes do you suggest making to the current field supervision plan and system to help CHVs provide better counseling to parents, families, and community members?

22. How satisfied are you with current CHV supervision mechanism/system to ensure CHV competency in activities related to iCCM and nutrition?

23. What additional actions or changes to field supervision would improve CHVs' counseling skill?

24. As a CHEW, what would you identify as the most helpful or important enabling/facilitating factors for improving CHV competency in counseling to promote childhood nutrition and pneumonia-related behaviors?

25. Are there barriers that restrict/limit CHVs from being more effective in counseling when they visit households/communities?

Probe: Are CHEWs also trained in counseling? Given guidance to assess effectiveness of counseling, and if CHVs are acceptable? Also probe on convenience/timing of home/community visit; when counseling should take place, how early, how often, what tools are used, etc.

26. How are your supervisory activities supported?

Probe: part of job description, additional specific funding line item, collaboration with nongovernmental organization, etc.

27. What are the main challenges to your work when supervising CHVs?

Probe:

- Supervision
- Supplying logistics/commodities
- Improving the counselling
- Getting information from CHVs and reporting
- Community acceptance of CHVs

28. How could parents and families be encouraged to seek counseling service from CHVs?

Probe: What else, as a supervisor, could you do to improve CHV's counseling service at community level? What else could CHVs do?

Now I would like to ask you few questions about the COVID-19 situation:

29. How did COVID-19 affect CHV services?

Probes:

- Did they continue working as before?
- Was there a release of new guidelines related to COVID-19?
- What were the changes in services that CHVs provided (e.g., only provided curative treatment and referrals, not preventive services like counseling; or additional services they don't usually provide)?
- Were there adaptations to how CHVs provided services (e.g., seeing fewer people, seeing in a different location, wearing personal protective equipment (PPE), and requiring masks of clients)?
- What have you learned from adapting to this emergency and recommendations for future emergencies?
- Any other impacts? For example, supply of logistics, field commodities, supervision?

30. Was there a national guideline/protocol on how CHVs would offer services during the COVID-19 lockdown?

Probes:

- If yes, how did you communicate the community work guideline to CHVs? Did they receive any training/orientation on the guideline/protocol?
- If not, why not? How did the CHVs provide services without changing their way of usual business? Did they follow any guideline/protocol for their community activities? Did they receive PPE? Training/orientation on new guidelines for working during the pandemic?

31. Tell me more about what was done to continue community health services during the COVID-19 lockdown

Probes:

- To make sure that community health services were available
- To make sure that CHVs could safely offer home visit and counseling services
- To help health facilities and CHVs work together
- Were CHVs given any additional responsibilities during the emergency?
- How was the process conducted? Was it consultative? Were any additional incentives provided to CHVs for their work during the lockdown days?

32. What major issues/concerns need to be overcome to continue community health services during a pandemic like COVID-19, when a country-wide lockdown is in place?

Probes:

- *What were the main challenges for managers/supervisors at county and sub-county levels?*
- *What were the main challenges for CHVs?*

33. What changes should be made to improve CHV services (like home visit and counseling) during future emergencies?

Probes:

- *To improve availability of community health services*
- *To improve the safety of community and CHVs*
- *To encourage communities to seek services from CHVs*
- *To improve linkages between CHVs and health facilities*
- *To improve program health services and support to CHVs*

Before we finish, is there anything else you would like to tell or ask me?

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

[RECORD STOP TIME] _____ am/pm

In-Depth Interviews with Community Health Volunteers

Study Title: Qualitative study on counseling by community health volunteers in Kenya to promote childhood nutrition and pneumonia-related behaviors

Respondent's ID #:

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Location of interview: County: _____

Sub-county: _____

Ward: _____

CHU: _____

Date of interview: _____ (dd/mm/yy)

Interviewer's Name _____

[RECORD] START Time _____ am/pm

Introduction to Respondent

[Hello, thank you for meeting with me today! My name is _____ and I am meeting you today on behalf of the Save the Children Kenya and the USAID Advancing Nutrition program. I am going to begin by reading a form to you so that you fully understand the purpose of this interview and you may give your consent to participate:

Consent

We are here to talk to you about improving counseling by community health volunteers (CHVs) on nutrition and pneumonia-related behaviors. The goal of this study is to explore current role and practices of CHVs in formal and informal behavior change initiatives, and your training and skill building opportunities. The results will help the government's national integrated community case management (iCCM) serve you better. To this end, we are meeting with people at all levels—national, county, and sub-county community health managers, community health extension workers (CHEWs), CHVs, mothers of children under five years of age, and community health committee members. We would like to talk with you about challenges to behavior change promotion. Specifically, we would like to focus on how the training for CHVs allows you to fulfill your roles and responsibilities. We would also like to ask you how the COVID-19 pandemic affected your work. If you decide to participate in this interview, we will ask you to answer our questions. The interview will take about an hour to an hour and a half.

We will not share your name or any other identifying information with anyone. We will collect answers from you and analyze them collectively, not individually. You are free to refuse to participate in survey or to withdraw your

consent at any time during the interview. Your participation will not affect your relationship with your supervisor or your position within the government.

Thank you for agreeing to participate in the interview, I appreciate you sharing your knowledge with me so that I may learn more about the topic. With your permission, I will audio record our discussion so that I can remember the information you share with me, but if you are uncomfortable with the recording, you may ask for it to be stopped at any time. I will also take notes so that I can remember what you tell me. There are no right or wrong answers to the questions. Feel free to answer, as you like.

If you have no questions for me now, I will begin the interview.]

Instruction to interviewer:

For each question, pay particular attention to responses and probe as relevant and needed.

1. Did you receive any training before you started working in the community?

If yes; probe for kind and length of training, format/structure, what it included.

2. What did the training do to help improve your ability to promote certain behaviors and help change behaviors?

Probe: agenda, methods, structure, time given to training skills versus theory, frequency of refreshers. Are there any expectations for CHVs to be role models of behaviors on which they counsel mothers and caregivers?

3. How has this training helped you do your everyday work?

Probe: diagnosis and management of nutrition, diagnosis and management of childhood illness, functional referral system.

4. Tell me about the infant and young child feeding (IYCF) counseling that you provide

Probe:

- *Breastfeeding, complementary feeding and feeding of sick child.*
- *Effectiveness of counseling*
- *Barriers to counseling*
- *Most common counseling topics, and knowledgeability in these areas*
- *Most important practices for effective counseling*

5. Tell me about the iCCM-related counseling activities that you conduct

Probe pneumonia-related services: identification and treatment of childhood illness and malnutrition, referral systems, information on preventive practices, identification of dehydration (general condition, sunken eyes, activity, thirst, skin pinch), respiratory distress (difficulty breathing, respiratory rate, chest movement, and breath sounds) and fever (duration, temperature, rash, stiff neck), and danger signs for referral to a health facility. Probe about key counseling messages on feeding a sick child (eating regularly during illness and an additional meal after illness), improving hand washing (washing hands with soap and running water at the 4 critical times [after visiting toilet, before eating, before cooking/preparing food, and after wiping a child feces] and safe disposal of infant feces, and safe water source for drinking (treating drinking water and storage in clean covered containers).

6. Did you receive any on-the-job training?

Probes:

- *If yes, where did you receive the training?*
- *Was there additional on-the-job training for effective counseling?*

- If no – why? Is there a process for identifying who gets on the job training? What are the challenges/barriers to planning and implementing on-the-job training for CHVs?

7. How do CHEWs support your work?

8. What elements of CHEW support help you most?

Probes: mentorship/coaching, supportive supervision, frequency, tools

9. Is there anything that restricts you from being more effective in counseling when you visit a household?

Probe: time use and priorities from multiple programs, coverage and workload, acceptance in the community, suitability for the job, convenience/timing of home/community visits, when counseling should take place, how early, how often, etc., the benefits and drawbacks of a referral system, challenges to counseling on certain behaviors or therapies, including need for more frequent repetition, different communication styles, etc.?

10. What would motivate you to strengthen your skills in counseling and offering community health services?

Probe: monetary incentive, community appreciation, social status, recognition from the health system and its leadership, better training.

11. If you could change anything about CHV training and supervision that we talked about today, what would you change and why?

Probe: instruction methods, resources needed, likelihood of support for suggested feature from leadership, coverage and workload

12. Is there anything else you would like to discuss about your role in supporting iCCM?

Now I would like to ask you few questions about the COVID-19 situation:

13. How did COVID-19 affect your work?

Probes:

- What kind of guidance they received and from whom (national, local, other guidance, etc.).
- What were the changes in services that you provided (e.g., only curative treatment and referrals, not preventive services like counseling; or additional services they don't usually provide).
- Were there any adaptations to how you provided services (e.g., seeing fewer people, seeing in a different location, wearing personal protective equipment, requiring masks of clients)
- What have you learned from adapting to this emergency and recommendations for future emergencies?
- Any other effects? (logistics, field commodity supply, supervision)?

14. How did COVID-19 affect your counseling, awareness raising, and health message dissemination (communication) activities? Probe: Additional behaviors that you were expected to counsel that were not part of the iCCM training?

15. How did you support continuity in community health services?

Probes: messaging, linkages with health facility

16. What changes would improve CHV services (like home visit and counseling) in future emergencies?

Probes: availability to help the community, safety of community and CHVs, referral system, work load, coverage of services

Before we finish, is there anything else you would like to tell or ask me?

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

[RECORD STOP TIME] _____ am/pm

In-Depth Interviews with Health Managers at National and Sub-County levels

Study Title: Qualitative study on counseling by community health volunteers in Kenya to promote childhood nutrition and pneumonia-related behaviors

Respondent's ID #: _____

Location of interview: County: _____

Sub-county: _____

Designation of respondent: _____

Date of interview: _____ (dd/mm/yy)

Interviewer's name _____

[RECORD] START Time _____ am/pm

Introduction to respondent

Hello, thank you for meeting with me today! My name is _____ and I am meeting you today on behalf of the Save the Children Kenya and USAID Advancing Nutrition program. I am going to begin by reading a form to you so that you fully understand the purpose of this interview and you may give your consent to participate.

Consent

We are here to talk to you about improving counseling by community health volunteers (CHVs) on nutrition and pneumonia-related behaviors. The goal of this study is to explore current role and practices of CHVs, in formal or informal behavior change initiatives, and their training and skill building opportunities. The results will help the government's national integrated community case management (iCCM) serve you better. To this end, we are meeting with people at all levels—national, county, and sub-county community health managers, community health extension workers, CHVs, mothers of children under five years of age, and community health committee members. We would like to talk with you about CHV challenges to behavior change promotion. Specifically, we would like to focus on how the training for CHVs allows them to fulfill their roles and responsibilities. We would also like to ask you how the COVID-19 pandemic affected the work of CHVs in your community and your interaction with them. If you decide to participate in this interview, we will ask you to answer our questions. The interview will take about an hour to an hour and a half.

We will not share your name or any other identifying information with anyone. We will collect answers from you and analyze them collectively, not individually. You are free to refuse to participate in survey or to withdraw your consent at any time during the interview. Your participation will not affect your relationship with your supervisor or your position within the government.

Thank you for agreeing to participate in the interview, I appreciate you sharing your knowledge with me so that I may learn more about the topic. With your permission, I will audio record our discussion so that I can remember the information you share with me, but if you feel uncomfortable with the

recording, you may ask for it to be stopped at any time. I will also take notes so that I can remember what you share with me. There are no right or wrong answers to the questions. Feel free to answer, as you like.

If you have no questions for me now, I will begin the interview.

Instruction to interviewer:

For each question, pay particular attention to responses and probe as relevant and needed.

1. Do you have any role or responsibility in improving quality of CHV's counseling services at community level?

Probe:

- *If yes, what specific role and responsibility do you have?*

2. What is included in the training that CHVs receive before starting their work?

Probes:

- *Counseling/communication skills?*

3. What is your opinion of training opportunities to improve CHV knowledge and skill for behavior change and promotion with parents, families, and community members?

Probes:

- *How is the quality of the training?*
- *Does the training allow them to do all expected tasks?*
- *How often do CHVs receive refresher training?*

4. Do CHVs have get mentorship/coaching?

Probes:

- *If yes, how does it work? What is the frequency, who does it, what tools are used?*
- *If no, what do you think about mentorship/coaching opportunities for CHVs to improve communication and counseling skills?*
- *Why this is not happening?*
- *What is preventing mentorship/coaching for CHVs?*

5. Do CHVs receive on-the-job training?

Probes:

- *If yes, what is the focus of the training? How often is it held? Where do CHVs get in-service training?*
- *If no – why? Is there a process for identifying who gets on-the-job training? What are the challenges/barriers to planning and implementing on-the-job training for CHVs?*

6. What changes would you make to the current training plan to improve CHV's opportunities to learn and practice counseling skills before they start their job?

7. Describe the approach to field supervision of CHV work

Probes:

- *What is the current average ratio of supervisors to CHVs? (One supervisor per how many CHVs?)*
- *How does supervision and feedback mechanism work?*
- *How often do CHVs receive supervision?*
- *How do supervisors communicate feedback to CHVs?*

8. Does supportive supervision help CHVs do their job?

Probes:

- If yes, how?
- If not, why?

9. What changes to the existing field supervision plan would you suggest to help CHVs counsel parents, families, and community members?

10. Tell me about the ICYF counseling that CHVs provide

Probes:

- a) Breastfeeding, complementary feeding and feeding of sick child
- b) Efficacy of counseling
- c) Barriers to counseling

11. Tell me about the iCCM-related counseling activities that CHVs conduct

Probe: pneumonia-related services, identification and treatment of childhood illness and malnutrition, referral systems, information on preventive practices, identification of dehydration (general condition, sunken eyes, activity, thirst, skin pinch), respiratory distress (difficulty breathing, respiratory rate, chest movement, and breath sounds) and fever (duration, temperature, rash, stiff neck), and danger signs for referral to a health facility. Ask about counseling messages on feeding a sick child (eating regularly during illness and an additional meal after illness), improving hand washing (washing hands with soap and running water at the 4 critical times [after visiting toilet, before eating, before cooking/preparing food, and after wiping children's feces] and safe disposal of infant feces), and safe water source for drinking (treating and storage in clean covered containers).

12. Do you have concerns about the way CHVs counsel parents, families, or community members?

Probes:

- Are counseling techniques appropriate?
- Is frequency adequate?
- Is there feedback from the community on the helpfulness of CHV counseling?

13. How satisfied are you with current CHVs supervision mechanism/system to ensure competency of counseling to promote childhood nutrition and pneumonia-related behaviors?

14. What additional efforts/steps in field supervision could improve CHV counseling?

15. Are there enabling/facilitating factors that might improve CHV counseling competency to promote childhood nutrition and pneumonia-related behaviors?

16. Are there any barriers that restrict/limit CHVs from being more effective in counseling when they visit the households/communities?

Probe: are CHVs accepted in the community? Are they the right people for the job?

Convenience/timing of home/community visit - when counseling should take place, how early, how often, etc.

17. How could parents and families in the community be encouraged to seek CHV

counseling?

Probes: What could a health manager (like you) do to improve CHV's counseling service at community level?

- *What could CHVs do?*

Now I would like to ask you few questions about the COVID-19 situation:

18. What major issues/concerns need to be overcome to continuing community health services during a pandemic like COVID-19, when a countrywide lockdown is in place?

Probes:

- *What were the main challenges for managers/supervisors at county and sub-county levels?*
- *What were the main challenges for CHVs?*

19. How did COVID-19 affect CHV service provision?

Probes:

- *Did they continue working as before? If yes, did they follow any guideline/protocol for their activities? Did they receive personal protective equipment (PPE)? Did they receive training/orientation on guidelines for working during COVID-19?*
- *Any other effects? Logistics, field commodity supply, supervision?*

20. Was there a national guideline/protocol on how community health workers would offer services at community level during lockdown?

Probes:

- *If yes, how did you communicate the guideline to CHVs? Did they receive any training/orientation on such guideline/protocol?*
- *If no – why not? How did CHVs provide services without changing their way of usual business? What kind of guidance was provided in absence of national protocol? Did they follow community guideline/protocol? Did they receive PPE?*

21. Tell me about what was done to continue community health services during the lockdown

Probes:

- *To make sure that CHVs can safely offer home visit and counseling services at community*
- *To encourage people to seek health services from CHVs*
- *To help health facilities and CHVs work together*
- *Were CHVs given any additional responsibilities during the emergency?*
- *How was the process conducted? Was it consultative? Was any additional incentive provided to CHVs for their work during the lockdown?*

17. What changes would improve CHV services (like home visit and counseling) in future emergencies?

Probes:

- *To improve availability of community health services*
- *To improve safety of community and CHVs*
- *To encourage people to seek services from CHVs*
- *To improve linkages between CHVs and health facilities*
- *To improve program health services and support to CHVs during similar emergencies*

Before we finish, is there anything else you would like to tell or ask me?

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

[RECORD STOP TIME] _____ am/pm

Appendix B

Focus Group Discussion Guide for Mothers and Community Health Committee Members

Welcome

Hello, Thank you for meeting with us today. My name is _____ and assisting me are _____. We are here on behalf of the Save the Children Kenya and the USAID Advancing Nutrition program. We are going to go over the informed consent form to be sure that you understand why we are having this focus group and that you want to participate.

Consent

We are here to talk to you about improving counseling by community health volunteers on nutrition and pneumonia related behaviors. The goal of this study is to explore current role and practices of community health volunteers (CHVs) in formal or informal behavior change initiatives, and their training and skill building opportunities. The results will help the government's national integrated community case management (iCCM) serve you better. To this end, we are meeting with people at all levels—national, county, and sub-county community health managers, community health extension workers, CHVs, mothers of children under five years of age, and community health committee (CHC) members. We would like to talk with you all today about CHV challenges to behavior change promotion. Specifically, we would like to focus on how training for CHVs allows them to fulfill their roles and responsibilities. We would also like to ask you how the COVID-19 pandemic affected the work of CHVs in your community and your interaction with them. If you decide to participate in this focus group, we will ask you to answer our questions. The focus group will take about an hour to an hour and a half.

We will not share your name or any other identifying information with anyone. You are free to refuse to participate in the focus group or to withdraw your consent at any time during the interview. Your participation will not affect your relationship with your supervisor or your position within the government.

Focus group experience

- Ask if anyone has participated in a focus group before. Explain that focus groups are used to gain information to learn about and improve health and nutrition services.
- The group members are the experts: we learn from you (positive and negative). Those who support the CHVs and those who receive information from the CHVs are being invited to participate.
- We are not trying to get everyone to agree; we are gathering information. It is okay if you have different opinions and ideas than other participants. Our goal to develop an iCCM program that will meet all your needs.

Focus group ground rules

- Focus group will last about one hour (60 minutes; 90 minutes with COVID-19 questions)
- Everyone should participate and only one person talks at a time.
- It is important for us to hear everyone's ideas and opinions.
- There are no right or wrong answers to questions; only ideas, experiences, and opinions, all of which are valuable.
- The session will be audio recorded to ensure that our handwritten notes are complete/accurate.
- Stay with the group. Please don't have side conversations, and speak clearly to increase recording quality.

- Group members must respect the privacy of the other members and not disclose what was discussed in the focus group to others who did not participate.
- Turn off or silence cell phones.

Ask if there are any questions before we start, and answer them.

[RECORD START TIME] _____ am/pm

Focus group questions for mothers of children under five years of age

Allow pauses to give people time to think before answering the questions, and don't move too quickly.

- 1) How do CHVs help you and your child?
Probes: counseling, nutrition, pneumonia-related services, identification and treatment of childhood illness and malnutrition, referral systems, information on preventive practices.
- 2) What do CHVs tell you about nutrition and pneumonia?
Probes: counseling on what, where, when, how often, methods of imparting information, follow up for treatment and prevention services.
- 3) What is your opinion about CHVs role in your and your child's health and welfare?
- 4) What do CHVs tell you about feeding your child?
Probes:
 - Breastfeeding, complementary feeding, and feeding of sick child.
- 5) Tell me more about what CHVs tell you about taking care of your child when s/he is sick.
Probes:
 - Are CHVs able to identify when the child is sick and do they refer the mother to the health facility for treatment (or treat the child themselves)
 - How CHVs give advice
 - Preventive practices for pneumonia, feeding of sick child.*Probe: pneumonia-related services: identification of dehydration (general condition, sunken eyes, activity, thirst, skin pinch), respiratory distress (difficulty breathing, respiratory rate, chest movement, and breath sounds) fever (duration, temperature, rash, stiff neck), and danger signs for referral to a health facility.*
Probe: messages on feeding a sick child (eating regularly during illness and an additional meal after illness), improving hand washing (washing hands with soap and running water at the 4 critical times [after visiting toilet, before eating, before cooking/preparing food, and after wiping children's feces] and safe disposal of infant feces), and safe water source for drinking (treating and storage in clean covered containers).
- 6) Do CHVs have trouble getting to you on time when providing nutrition and pneumonia-related services?
Probe: CHV acceptability, suitability, convenience, timing, resources, visit frequency, ability to connect with health facility.
- 7) What do you think would motivate CHVs to provide better services?
Probes: monetary incentive, community appreciation, social status, recognition from the health system and its leadership, better training.
- 8) What do you value most about the services that CHVs provide?
- 9) If you could change anything about the way CHVs help you keep your child well-nourished and safe from pneumonia, what would you change and why?
- 10) Is there anything else you would like to discuss about CHVs' role in supporting you and your child?

Now I would like to ask you few questions about how the pandemic has affected you

- 1) Did COVID-19 affect how the CHVs visited you?
Probes: travel restrictions, social distancing guidelines and efficacy of counseling, referral for sick children.
- 2) What changes could improve CHV services (like home visit and counseling) in future emergencies?
Probes: availability of CHVs to help the community, safety of community and CHVs, linkages to health facilities

Conclusion

That concludes our focus group discussion. Thank you so much for sharing your thoughts and opinions with us.

Focus group questions for community health committee (CHC) members

Allow pauses to give people time to think before answering the questions, and don't move too quickly.

- 1) Tell us about your experience CHVs' work in your community with respect to behavior change and promotion within the iCCM.
Probes: community interaction, CHC role in CHVs work.
- 2) What barriers do CHV face in to working in the community households?
Probe: interaction with CHC, skills in counseling
- 3) How does the CHC help the CHVs fulfill their roles in the community?
Probes: community engagement, resources for work
- 4) What would motivate CHVs to provide better services?
Probes: monetary incentive, community appreciation, social status, recognition from the health system and its leadership, better training.
- 5) Is there anything else you would like to discuss about CHVs' role in the iCCM program?

Now I would like to ask you few questions about how the pandemic has affected your work:

- 1) Did COVID-19 affect your work with CHVs?
Probes: travel restrictions, social distancing guidelines, training and supervision, personal protective equipment, logistics and supply chains, national guidelines or protocols
- 2) How did you help ensure continuity in community health services?
Probes: community messaging, linkages with health facility, support to CHVs.
- 3) What changes could improve CHV services (like home visit and counseling) in future emergencies?
Probes: availability of CHVs to help the community, safety of community and CHVs, linkages to health facilities.

Conclusion

That concludes our focus group. Thank you so much for sharing your thoughts and opinions with us.

Appendix C

Checklist to Evaluate Adequacy of the CHV Training, as Collected from our Document Review

Adapted from “USAID Advancing Nutrition. Program Packages for Frontline Services.” Arlington, VA: USAID Advancing Nutrition.

CHVs training manual

- 1) Does the CHV training manual explain who will train whom at each level?
- 2) Does the CHV training manual include guidance for how trainers of this course should be trained?
- 3) What are the minimum qualifications for a facilitator or trainer of this training? (e.g., years of education/degree, years of work experience, years of training experience)
- 4) Does the CHV training manual mention the roles and responsibilities of trainers?
- 5) Does the CHV training manual mention the need to train the supervisors of service providers as well as the service providers themselves?
- 6) Is there a separate training or module for training supervisors?

Review of CHV training

- 1) Is the training competency-based? Does the course seek to improve knowledge AND skills AND attitudes/aptitudes (competence)? If yes, is there an evaluation procedure for measuring those improvements?
- 2) Does the training use adult learning techniques?
- 3) How long is the proposed training? How many in-person training hours are proposed? How many distance-training hours, if any, are proposed?
- 4) How many hours are spent in hands-on practice of the skills learned? What percentage of the total training time?
- 5) Which modalities are suggested for the training (distance, in-person, on-the-job, combination)?
- 6) Where does the training take place (onsite in facility or community? Offsite in conference room/center)?
- 7) Is the training modular or designed to be delivered in installments?
- 8) According to the proposed training plan, over what span of time will facilitators/trainers have contact with participants?
- 9) What methods does the training suggest?
 - a. presentations
 - b. practice
 - c. group exercises
 - d. case studies
 - e. role play

- f. individual reflection
 - g. question and answer
 - h. discussion
 - i. other
- 10) Does the training suggest methods to get trainees to practice skills or take them outside of the training room?
 - a. field visits
 - b. observations
 - c. hands-on practice
 - d. other
 - 11) If this includes practice, is it supervised? If yes, what is the trainer/trainee ratio?
 - 12) Does the training package include materials for participants?
 - 13) Does the training package provide opportunity for trainees to provide feedback?
 - 14) Does the training include a formal assessment of participant knowledge or skill? If yes, pre-and/or post?
 - 15) Does the training include action-oriented approaches like modeling behavior and demonstration to convey information to mothers and caregivers when supporting them to adopt key behaviors?
 - 16) Is assessment of training and trainers by trainee/participants in the schedule? If yes, how is this assessment documented?
 - 17) Are the methods appropriate to the goal of the training/ package?
 - 18) How feasible/scalable/ sustainable is the capacity-strengthening approach?

Beyond the training

- 1) Does the training package include job aids (e.g., counselling cards, take-home brochures, decision algorithms) for participants to use when they return to work?
- 2) Does the training include provisions for follow-up training?
- 3) Does the training include provisions for remote support by trainers to trainees?
- 4) Does the package include guidance for supervision?
- 5) Does the package include tools for conducting supervisory visits?

Training content - how to deliver services

Operational skills to:

- 1) Engage/mobilize community actors or conduct community mobilization events
- 2) Mobilize community resources.

- 3) Counsel clients.
- 4) Conduct home visits
- 5) Use job aids/brochures.
- 6) Use home-based records.
- 7) Use data for decision-making.
- 8) Conduct any other interventions.

Interpersonal communication skills to:

- 1) Does it use a common framework like **“GATHER”** (greet, ask, tell, help, explain, and return or **“GALIDRAA”** (greet, ask, listen, identify, discuss, recommend, agree, and appoint)?
- 2) Build confidence (e.g., recognize and praise what a client is doing well; listen to client’s concerns; repeating what the client says; avoid using judging words).
- 3) Create a respectful and communicative relationship with clients (e.g., respect clients’ autonomy, keep clients’ interests in mind, treat all clients fairly and without discrimination).
- 4) Use helpful non-verbal communication (e.g., keep your head level with client, pay attention [eye contact], remove barriers [tables and notes], take time, use appropriate touch, use gestures that show interest).
- 5) Greet the client to establish a comfortable atmosphere.
- 6) Assure and maintain confidentiality/privacy.
- 7) Ask about/follow-up on previous counseling session/visit.
- 8) How/when to invite and talk with other family members.
- 9) Listen to what the client and/or caregiver says and asks, noticing body language, using probing questions, and repeating what the client says to make sure it is correctly understood.
- 10) Analyze client’s problems and agree on which to focus on.
- 11) Tailor/adapt messages or recommended actions to client’s age and situation.
- 12) How to recommend actions
- 13) How to discuss/negotiate a plan of action (using simple language).
- 14) How to model/demonstrate behaviors/actions promoted (e.g., breastfeeding, responsive feeding, child engagement).
- 15) How to check comprehension of a recommended action.

Training content - what services to deliver

ASSESS

- 1) Ask about/follow-up on previous visits.
- 2) Ask caregivers about child health concerns.
- 3) Observe child breastfeeding, as appropriate.
- 4) Identify any breastfeeding problems.

- 5) Determine child's age.
- 6) Assess child's nutritional status.
- 7) Assess child's growth.
- 8) Measure and record newborn head circumference.
- 9) Assess child's diet.
- 10) Measure and record child's weight, height, and middle-upper arm circumference.
- 11) Count and record child's respiration.
- 12) Observe and record child chest in-drawing.
- 13) Measure and record child's temperature.
- 14) Ask probing questions about child's health and major complaint (e.g., if a child has diarrhea, ask about frequency, consistency of stool; if a child has difficulty breathing, ask about cough, fever, breastfeeding).

ANALYZE

- 1) Classify birth weight.
- 2) Classify child's nutritional status.
- 3) Classify child's clinical signs and symptoms following IMCI guidelines.
- 4) Identify and prioritize any difficulties.

ACT (treat/care)

- 1) Delay cord clamping after deliver in the third stage of labor.
- 2) Facilitate/support skin-to-skin contact immediately after birth/during first hour.
- 3) Avoid unnecessary separation of mother and baby.
- 4) Facilitate/support initiation of breastfeeding immediately after birth/during first hour.
- 5) Avoid using artificial teats or pacifiers (also called dummies or soothers).
- 6) Demonstrate optimal breastfeeding positioning, as appropriate.
- 7) Treat breastfeeding problems.
- 8) Refer child with severe acute malnutrition with and without complications.
- 9) Refer child with any sign/symptom of pneumonia (suspected pneumonia).
- 10) Provide zinc with oral rehydration salts to children with diarrhea.
- 11) Refer child with moderate to severe dehydration.
- 12) Refer child with any sign/symptom of malaria.
- 13) Counsel caregiver(s) on appropriate health and nutrition-related behaviors.
- 14) Refer child to other services, as appropriate.
- 15) Schedule a follow-up appointment.
- 16) Follow up with malnourished children.



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