



Qualitative Study on Skills and Capacity Barriers Including Effects of COVID-19 among Community Health Volunteers in Turkana County, Kenya

Study Report



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Acronyms

AFATVAH	age-appropriate, frequency, amount, texture, variety, active feeding, and hygiene
ALPACS	Ask, Listen, Praise, Advise, Check, Solve problems [approach]
CHA	community health assistant
CHC	community health committee
CHS	Community Health Strategy
CHU	community health unit
CHV	community health volunteer
CHEW	community health extension worker
COVID-19	coronavirus disease of 2019
FGD	focus group discussion
GAPDD	Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea
GALIDRAA	Greet, Ask, Listen, Identify, Discuss, Recommend, Agree, and Appoint [approach]
GATHER	Greet, Ask, Tell, Help, Explain, Return [approach]
HIV	human immunodeficiency virus
iCCM	integrated community case management
IDI	in depth interview
IPC	interpersonal communication
IYCF	infant and young child feeding
LDHF	Low Dose High Frequency [approach]
M&E	monitoring and evaluation
MUAC	mid-upper arm circumference
ORS	oral rehydration solution
RDT	rapid diagnostic test
TB	tuberculosis
WASH	water, sanitation, and hygiene
WHO	World Health Organization

Executive Summary

Integrated community case management (iCCM) brings identification, treatment, and referral of common childhood illnesses such as pneumonia, diarrhea, malaria, and malnutrition, as well as newborn care to the community. In Kenya, community health volunteers (CHVs) implement iCCM under the guidance of community health extension workers (CHEWs). While iCCM has a significant focus on disease treatment, it is unclear what level of counseling CHVs provide to facilitate prevention of common childhood illnesses. We conducted this formative research to understand the counseling CHVs provide related to the prevention of pneumonia and malnutrition. Given that data collection took place in 2021 during the coronavirus disease of 2019 (COVID-19) pandemic, we also included questions to learn how the pandemic influenced CHV services (role, communication, and remuneration), training, and supervision, as well as what lessons the health and nutrition community could learn for future emergencies.

The objectives of this formative research were to examine—

1. whether 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
2. the enablers of and barriers to effective CHV counseling on childhood nutrition and pneumonia-related behaviors
3. how COVID-19 affected program implementation and activities by CHVs.

To answer these questions, we conducted primary data collection and document review. To complete the primary data collection, we purposively selected two sub-counties, Loima and Turkana Central, within Turkana County. We conducted 36 in depth interviews and four focus group discussions with national, county, and sub-county health managers; CHEWs; community health committee members; CHVs, and mothers of children under five. We reviewed CHV basic modules and iCCM training manuals to assess the competency building elements (how and what) of CHV training for counseling.

This formative research found that CHVs in Turkana provide all components of treatment, referral, and follow-up for childhood illness within iCCM. Support from CHEWs and the contextualized iCCM job aid were instrumental in this regard. The study also found that some CHVs successfully implemented problem-solving skills into counseling, but mostly with water, sanitation, and hygiene (WASH) behaviors. However, the study identified several gaps related to pneumonia and nutrition-related counseling CHVs provided within the iCCM program:

1. Knowledge on what constitutes counseling and skills to counsel on preventive behaviors, other than for WASH, is weak.
2. Knowledge on pneumonia prevention behaviors, how to support breastfeeding challenges, adequate complementary feeding, and feeding during and after illness is insufficient.
3. The basic modules and iCCM training manuals do not adequately build competencies in counseling: how to counsel (operational skills and interpersonal communication skills) and what to say while counseling (assess, analyze, and act). Further, the training does not adequately cover pneumonia prevention behaviors, infant and young child feeding (IYCF), and feeding during and after illness.
4. Job aids, workload, remuneration, community acceptance, and supervision influence the quality of counseling on preventive behaviors.

During the COVID-19 pandemic, CHVs are playing an active role in continuing community health services, adapting how they communicate with caregivers and CHEWs, reducing their scope at times,

and taking on new responsibilities. This calls for the county to develop a community health emergency preparedness plan that puts CHVs at the center, as recommended by a manager.

Based on these findings, we recommend USAID and the Kenya Ministry of Health invest in the following areas to strengthen CHV counseling on preventive pneumonia and nutrition-related behaviors:

- Expand the basic modules and iCCM training content to build CHV counseling skills drawing on the WASH module training on negotiation.
- Strengthen the iCCM training content on pneumonia prevention behaviors, breastfeeding support, adequate complementary feeding, and feeding during and after illness.
- Build on the contextualized iCCM job aid to add content on preventive behaviors.
- Equip CHEWs with the knowledge, skills, and tools to support CHVs as they counsel caregivers on pneumonia and malnutrition prevention.
- Develop community health emergency preparedness plans prioritizing support to CHVs to ensure uninterrupted delivery of services during crises similar to COVID-19.

A. Background

Recent estimates show that the under-five mortality rate in Kenya is 52 per 1,000 live births—more than double the Sustainable Development Goal target of 25 per 1,000 live births (KNBS et al. 2015). Pneumonia is a significant contributor to child mortality in the country, with an estimated 9,000 children dying of pneumonia in 2018 (Save the Children UK, UNICEF, and Every Breath Counts 2019). Several factors contribute to pneumonia morbidity and mortality, the most significant of which is malnutrition. In Kenya, approximately 45 percent of child pneumonia deaths are attributable to wasting, a form of undernutrition (Every Breath Counts 2021). Other related factors contributing to pneumonia include sub-optimal infant and young child feeding (IYCF) practices; poor water, sanitation, and hygiene (WASH) practices and household conditions; low immunization rates; and untimely healthcare seeking behaviors. **Table I** shows the prevalence of these contributing factors in Kenya and Turkana, one of the poorest counties in the country (KNBS 2018). Located in the northwestern most region of the country, Turkana County is arid/semi-arid with a population of just over 1.2 million (KNBS 2019). The main livelihood in Turkana is pastoralism (60 percent) followed by agro-pastoralism (20 percent), fishing (12 percent), and formal employment/business/petty trade (8 percent) (TCDoH 2019). Only 20 percent of the adult population in Turkana is literate (KNBS 2019).

Table I. Prevalence of Factors that Contribute to Pneumonia Morbidity and Mortality*

Factors	Kenya (%)	Turkana (%)
Malnutrition		
Stunting	26	24
Wasting	4	23
Underweight	11	34
Infant and Young Child Feeding		
Exclusive breastfeeding (0–5.9 months)	61	69**
Minimum diet diversity (6–23 months)	41	10**
Minimum acceptable diet (6–23 months)	22	20**
Water, Sanitation, and Hygiene		
Households with handwashing place containing soap and water	50	34** d
Households with non-improved toilet/latrine facility	47	75**
Households using air-polluting fuel or cooking technology ^a	75	99**
Immunization		
Children 12–23 months fully vaccinated ^b	75	64**
Healthcare Service Use		

Factors	Kenya (%)	Turkana (%)
Oral rehydration solution (ORS) and zinc treatment for diarrhea in the past 2 weeks	7	27**
Sought care for acute respiratory illness in the past 2 weeks ^c	66	78**

*Data from KNBS et al. 2015 unless indicated otherwise; **Data from KNBS, PSRI, and UNICEF 2016

a Coal/lignite, charcoal, wood, straw/shrubs/grass, and agricultural crops

b Bacille Calmette-Guérin, measles, three doses of Diphtheria-pertussis-tetanus-Hepatitis B-Haemophilus influenza b, polio (excluding the polio vaccine given at birth), pneumococcal vaccine

c From a health facility or provider other than a pharmacy, shop, or traditional practitioner

d Not necessarily at designated handwashing station, as the value for handwashing place with soap and water was reported to be 3 percent.

Despite efforts, access to primary health care services in Kenya needs strengthening, especially in Turkana County. For example, an estimated 23 percent of mothers delivered babies in a health facility in Turkana County, compared to 62 percent nationally (KNBS et al. 2015). Community health workers can improve access to primary health care services, and in turn, health outcomes in areas where health services are not readily available (Haines et al. 2007; Mack, Uken, and Powers 2006; Kawakatsu et al. 2012). Evidence shows community health workers play an important role in supporting adoption of optimal health and nutrition behaviors in Kenya as well as globally (Menon et al. 2016; Aseyo et al. 2018).

The Government of Kenya has taken steps to ensure primary health care services are available in all parts of the country. The National Health Sector Strategic Plan III stratifies health into four levels:

1. community
2. primary care
3. county referral services
4. national referral services (MoH 2013a).

The Community Health Strategy (CHS), aims to improve health outcomes through a well-defined structure: communities organized into community health units (CHUs) governed by a community health committee (CHC). Each CHU is linked to a specific health facility, referred to as the link health facility, and assigned a set number of community health volunteers (CHVs) as well as their supervisors, community health extension workers (CHEWs) (MoH 2013a). Given the shortfall of CHEWs, the Government of Kenya has also recruited a new cadre of CHV supervisors known as community health assistants (CHAs) (MoH 2020).

Nominated by their communities, CHVs work with the community to improve health, prevent disease, provide primary health care, and link the community to the health system (MoH 2013a). **Box I** shows the roles and responsibilities of a CHV as defined by the CHS. To serve the community, CHVs conduct home visits, facilitate community dialogues, and support community action days, in addition to providing basic curative services. Community dialogue days are an opportunity for CHCs, CHVs, the sub-county health management team, partners, and members of the community to discuss the needs of the community and identify possible solutions. Organized by CHCs on a quarterly basis, the CHVs are responsible for mobilizing members for community dialogue. Those involved in the community dialogue implement the identified solution(s) during community action days (MoH 2013a).

To be able to carry out their work, all CHVs receive training in six basic modules at the beginning of their tenure as a CHV. Some do not receive formal training, due to funding constraints, and their supervisors coach them on content covered by the basic modules on the job. CHVs do not necessarily get a copy of the basic modules handbook. The basic modules cover (MoH 2013a)—

1. health and development in the community
2. community governance and leadership
3. communication, advocacy, and social mobilization
4. best practices for health promotion and disease prevention
5. basic health care and life-saving skills
6. management and use of community health information and community disease surveillance.

They also receive training in seven technical modules based on local needs (MoH 2020):

1. integrated Community Case Management (iCCM)
2. water, sanitation, and hygiene
3. maternal and newborn care
4. family planning
5. human immunodeficiency virus (HIV), tuberculosis (TB), and malaria
6. community nutrition
7. noncommunicable diseases.

Box 1. Roles and Responsibilities of CHVs

1. Guide the community on how to improve health and prevent illness by adopting healthy practices.
2. Treat common ailments and minor injuries with first aid, with the support and guidance of the CHEW.
3. Stock the CHV kit with supplies using a revolving fund generated from user contributions.
4. Refer cases to the nearest health facilities.
5. Promote care seeking and compliance with treatment and advice.
6. Visit homes to determine the health situation and initiate dialogue with household members to undertake the necessary action for improvement.
7. Promote appropriate home care for the sick with the support of the CHEWs and level 2 and 3 facilities.
8. Participate in monthly community unit health dialogue and action days organized by CHEWs and CHCs.
9. Be available to the community to respond to questions and provide advice.
10. Be an example and model of healthy behavior.
11. Motivate members of the community to adopt health-promoting practices.
12. Organize, mobilize, and lead village health activities.
13. Maintain village registers and keep records of community health-related events.
14. Report to the CHEW on the activities involved in and specific health problems encountered to bring to the attention of higher levels.

Source: MoH 2013a

To conduct and track the services CHVs provide, the CHS equips them with specific tools, medicine, and reporting forms. **Box 2** shows the supplies CHVs use to provide services in the communities they serve. This includes tools and medicines to identify and treat childhood illness, as well as support with water treatment and family planning. Recording and reporting tools document the services CHVs provide, help them refer cases to the health facility, and equip them with a variety of different job aids/counseling cards.

In 2015, the Government of Kenya launched the iCCM program to avert under-five morbidity and mortality (MoH 2013b). Integrated community case management brings identification, treatment, and referral of common childhood illnesses such as pneumonia, diarrhea, malaria, and malnutrition, as well as newborn care to the community. Implemented by CHVs under the guidance of CHEWs, iCCM allows CHVs to treat children under five with diarrhea using oral rehydration solution and zinc; diagnose malaria with a rapid diagnostic test (RDT) and treat with artemisinin combination therapy; and refer suspected cases of pneumonia, wasting, and sick newborns to a nearby health facility.

The Global Action Plan for the Prevention and Control of Pneumonia and Diarrhea (GAPDD) provides an integrated framework of proven interventions to prevent and treat childhood pneumonia and diarrhea (WHO and UNICEF 2013). **Figure 1** shows the interventions that comprise the GAPDD protect, promote, and treat framework. Through the iCCM program, CHVs support the treatment of common childhood illness, but it is unclear what level of prevention efforts, specifically counseling on pneumonia and malnutrition, CHVs support. The pneumonia and malnutrition prevention behaviors include—

- supporting exclusive breastfeeding for 6 months
- adequate complementary feeding
- vitamin A supplementation
- complete vaccination
- handwashing with soap
- safe drinking water and sanitation
- reduced household air pollution
- HIV prevention and chemoprophylaxis for HIV-infected and exposed children.

Box 2. CHV Medicine, Tools, and Forms

1. Medicine

- Oral rehydration salt
- Artemether-lumefantrine
- Zinc sulfate
- Albendazole
- Paracetamol
- Tetracycline (eye ointment)
- Combined oral contraceptives
- Povidone iodine solution

2. Tools

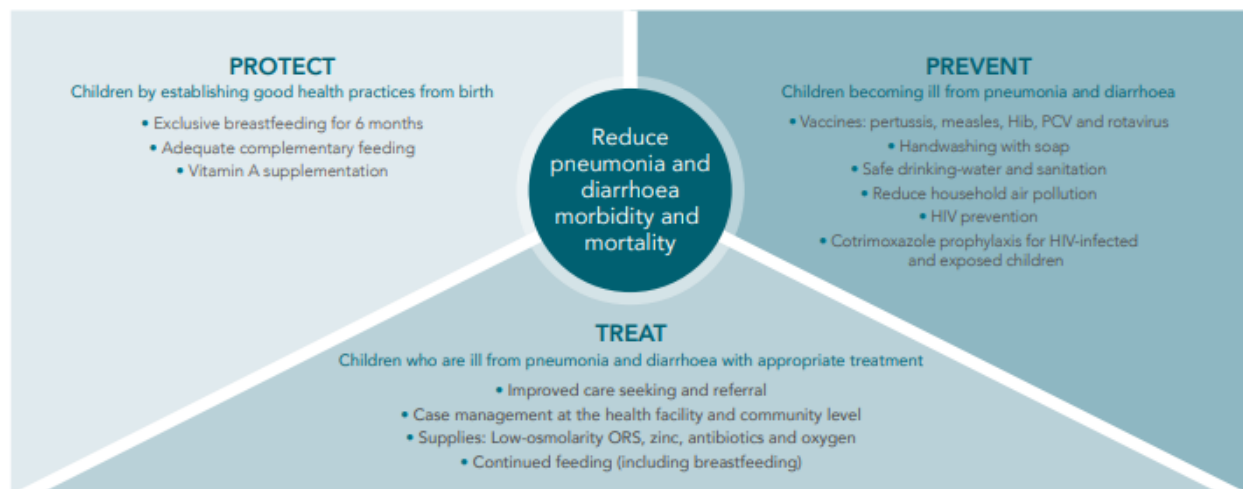
- Timer
- MUAC tape
- Rapid diagnostic test (for malaria)
- Digital thermometer
- Salter scale
- First aid kit
- Water quality supplies
- Male condoms

3. Recording/reporting forms

- Community treatment and tracking register
- Sick child recording form
- CHS job aid/counseling cards
- Referral slips
- Service log book

Source: MoH 2013a

Figure I. Protect, Prevent, and Treat Framework



Source: WHO and UNICEF 2013, 6 | PCV: Pneumococcal conjugate vaccine

While the United Nations Inter-agency Group for Child Mortality Estimation shows that COVID-19 has limited direct impact on child mortality, indirect effects through disruptions in health services could severely affect child deaths (UN IGME 2021). To prevent disruptions in community health services, WHO (2021) guides program managers to adopt the following actions:

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

As the COVID-19 pandemic continues to threaten lives in Kenya and globally, understanding how the pandemic affected CHV services and what lessons the health and nutrition community could learn for future emergencies is essential.

B. Objectives

To understand the quality and coverage of CHV counseling on preventive pneumonia and nutrition behaviors and garner recommendations for future emergencies, USAID Advancing Nutrition undertook a formative research study to answer the following questions:

1. Does the basic and technical training and supportive supervision 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), handwashing 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?
3. 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?

C. Methods

USAID Advancing Nutrition conducted this formative research study in Turkana County in partnership with Save the Children United States, Save the Children Kenya, and a team of locally hired consultants. We also coordinated with national and county Ministry of Health officials for technical review of the protocol, approval to collect the data, and validation of study findings. We employed two methods for this study: 1) primary data collection and 2) document review.

Primary Data Collection

For the primary data collection, we purposively selected two sub-counties, Loima and Turkana Central, within Turkana County with ongoing nutrition and iCCM programs, as well as the presence of USAID health and nutrition investments. We virtually trained a team of eight locally hired consultants on the study design, research ethics, and data collection tools in August 2021. The data collection team pre-tested the tools in Lokichar sub-county, separate from sub-counties selected for data collection to minimize contamination. The research team conducted the in-depth interviews (IDI) and focus group discussion (FGD) from September to October 2021. Since we were interested in community-level perceptions, we initially planned to conduct FGDs. We were unsure if it would be possible to do FGDs given COVID-19 related restrictions on group events during data collection, however we felt the perspectives of the CHVs and mothers were critical. To capture this, we proposed to conduct IDIs and FGDs in the protocol from the beginning. Even during data collection, we were unsure whether we could hold the FGDs until the end of the collection period. The IDI participants included managers at the national, county, and sub-county levels; CHC members; CHEWs; CHVs; and mothers of children under five years of age. The FGD participants were CHVs and mothers. There were eight participants in each FGD.

Table 2 presents details of the participant category for the 36 IDIs and 4 FGDs. The data collection team conducted the IDIs and FGDs in English, Kiswahili, or Turkana, as appropriate. At least two research team members were present during data collection, one interviewer/facilitator and another note taker. The research team audio recorded all interviews and discussions. They also took COVID-19 precautions per the Government of Kenya guidelines, such as using masks and hand sanitizer and conducting the IDIs and FGDs in well-ventilated areas or outdoors.

Table 2. Participant Category for IDIs and FGDs

Respondent Category	National/ County	Loima Sub-County	Turkana Central Sub-County	Total
In-Depth Interviews				
National managers	5			5
County-level managers	5			5
Sub-county level managers	-	5	5	10
Community health extension workers		3	3	6
Community health volunteers	-	2	2	4
Community health unit members		1	1	2
Mothers	-	2	2	4
Total IDIs				36
Focus Group Discussions				
Community health volunteers	-	1	1	2
Mothers	-	1	1	2
Total FGDs				4

Once data collection was complete, the research team transcribed and translated the IDIs and FGDs into English. A team of four researchers prepared a codebook of deductive (pre-determined) and inductive (emerging themes) codes. Using ATLAS.ti version 9 software, all four researchers coded 10 percent of the transcripts to ensure satisfactory inter-coder agreement. Next, the four coders split the remaining number of transcripts among themselves. After coding, the researchers analyzed the data by thematic areas for each research question and then triangulated data from the document review, IDIs, and FGDs.

We define counseling as two-way interaction through which the caregiver and a trained health worker interpret results of an assessment, identify individual health and nutrition needs and goals, discuss ways to meet those goals, and agree on next steps (FANTA 2016). This definition highlights the personalized and problem-solving elements of counseling. This is distinct from education, which presents general information related to health and nutrition, often in groups (FANTA 2016). Both education and counseling fit within the larger umbrella of interpersonal communication (IPC), defined as any face-to-face interaction between a health worker and caregiver (Alive & Thrive 2014).

Document Review

The purpose of the document review was to evaluate the adequacy of the CHV basic module and iCCM training to equip CHVs with the skills to counsel on preventive behaviors. To do this, we adapted USAID Advancing Nutrition (2020)'s Program Packages for Frontline Services checklist. Using the checklist, we assessed the competency building elements (how and what) of CHV training for counseling

on pneumonia and malnutrition prevention. For the basic modules, we assessed the Community Health Volunteer (CHVs) Basic Modules Handbook (MoH 2013a). For the iCCM training package, we assessed the Integrated Community Case Management 2013–2018, Monitoring and Evaluation Plan (MoH 2013d); Integrated Community Case Management for Sick Children under 5 Years—Participants Manual 2013 (MoH 2013c); and iCCM Turkana County CHV job aid (MoH 2016).

Ethical Considerations

All participants provided verbal informed consent to participate in and record audio from the IDIs and FGDs. Ethical review committees at the John Snow, Inc., Save the Children United States, and Kenyatta National Hospital—University of Nairobi approved this study.

Validation Workshop

Once the findings were shared internally and with USAID Washington, we facilitated a validation workshop in Turkana County with health managers from the county, health managers from six sub-counties (including Loima and Turkana Central), and CHEWs. The purpose of the workshop was to confirm the study findings aligned with CHV counseling practices in Turkana County.

D. Findings

In this section, we present findings related to CHV competencies (knowledge and skills), adequacy of capacity strengthening approaches (basic modules and iCCM), and factors that support CHVs to provide counseling to caregivers on pneumonia and malnutrition prevention, and the impact of COVID-19:

- **Knowledge and skills:** We show what CHVs understand by counseling, how effective the level of counseling they provide is in changing behaviors among caregivers, and what information they share with caregivers to prevent pneumonia and improve nutrition, specifically infant and young child feeding. We also present the level of knowledge and skills CHVs have about who to treat, refer, what advice to give caregivers about feeding during and after illness, and when to follow-up.
- **Capacity strengthening approaches:** We describe whether the basic and iCCM training manuals equip CHVs with skills to assess, analyze, and act while counseling. We note recommendations from CHVs on the training format. We also provide a brief overview of whether the other CHV training modules covered counseling.
- **Support:** We present the role that tools and job aids, workload, remuneration, community acceptance, and supervision play in CHVs' ability to counsel caregivers on pneumonia and malnutrition prevention. We also highlight the barriers to and enablers of support for effective counseling.
- **Impact of COVID-19:** Finally, we discuss the pandemic's influence on CHVs (e.g., role, remuneration, training, supervision, communication, and personal protective equipment).

I. Knowledge and Skills

Counseling

Within iCCM, CHVs disseminate messages that promote health and prevent disease during home visits (for postnatal care, follow-up on treatment or referral, and sick child care), and group meetings (MoH 2013c). The promotion work that CHVs described during the IDIs and FGDs focused primarily on giving messages around WASH, breastfeeding, dietary diversity, and sleeping under a bed net. A few mothers noted that CHVs encouraged them to immunize their children. The CHVs we spoke to understood counseling as providing generic messages. Several CHVs expressed frustration that although most caregivers responded well to their messages, some ignored what they “instructed” them to do. This

shows that CHVs believed giving messages would lead to changes in caregiver behaviors, and were surprised when the messages alone were insufficient. Caregivers, in turn, expressed dissatisfaction at receiving generic guidance. This was likely because the generic messages were not helping caregivers overcome barriers unique to their circumstances to adopt the behavior(s) suggested by the CHV.

“That is the challenge that we CHVs are getting from the community. You can visit someone, and you get a response that, ‘I am tired of your messages every day.’”

— CHV, Turkana Central

Problem Solving

Although CHVs mostly described telling caregivers what to do by sharing messages, a few CHVs mentioned problem solving with caregivers on WASH and nutrition, specifically diversifying diets. For WASH, CHVs described suggesting caregivers dig a hole as a temporary latrine and then cover it, if they did not have resources to build a permanent latrine. To ensure diversity in the foods offered to children, some CHVs suggested caregivers who did not have the means to buy different foods grow a kitchen garden. However, some CHVs conveyed that they did not know how to help mothers who were unable to provide a variety of foods to their children due to financial constraints. Some CHVs also noted that mothers could not exclusively breastfeed because their milk supply had run out when they did not have enough food to eat. CHVs did not describe a referral system for those with general feeding difficulties. One CHV noted that if a child does not breastfeed at all then they refer the mother and child to a health facility. One mother shared that she had received emotional support from her CHV on how to care for her child when she was going through a difficult time in her marriage.

“I was also in that training that other people have talked about, and we learned to talk to our people like: for example, if you don't have a latrine, you can dig the soil and relieve yourself there then cover it.”

— CHV, Turkana Central

Pneumonia

For pneumonia prevention, none of the mothers or CHVs mentioned breastfeeding, complementary feeding, vitamin A supplementation, immunization, handwashing, drinking water treatment, sanitation, or managing indoor air quality as actions to prevent pneumonia. Only one national level manager noted indoor air quality as a risk factor for pneumonia. One mother shared that during a group meeting, she learned about the importance of giving safe drinking water to her children to prevent pneumonia. The majority of mothers mentioned that CHVs emphasized the importance of keeping their children warm to prevent pneumonia.

“On preventive practices, like for example now on prevention of pneumonia, we counsel the mothers that they should wash their children as early as 5 pm when the cold winds have not yet come. And in the morning, they should not allow the child out of the house while in light clothes, because in the morning, there is cold and there are chances that the child may get pneumonia.”

— CHV, Turkana Central

IYCF

Mothers shared that the infant and young child feeding advice they received from CHVs focused on exclusive breastfeeding for the first 6 months of life and giving a variety of foods after 6 months. For breastfeeding, some mothers mentioned that CHVs encouraged them to eat well as “the child may get those nutrients from breast milk,” to relax while breastfeeding otherwise “the child may not get milk from the breasts,” and to refrain from drinking alcohol. A few mothers also shared they had been told to discontinue breastfeeding after 6 months because they were HIV positive or to go to the health

facility for advice after their child could begin complementary feeding. Several managers attributed perceived high rates of early and continued breastfeeding in the county to CHVs working with mothers to overcome barriers, but others acknowledged broader factors influencing this change. Examples of barriers to early initiation of breastfeeding included waiting to breastfeed children born at night until after naming them in the morning, per cultural norms. CHVs noted that under such circumstances they tell mothers that they should breastfeed immediately after giving birth, as feeding and naming are unrelated to each other.

During complementary feeding, mothers shared that CHVs emphasized giving a variety of different foods. CHVs encouraged mothers to feed their children fruits (e.g., banana, mango, and avocado); fruit juice (orange); animal source foods (meat stew/soup, fish soup); starches (rice, potato, porridge); and beans. Mothers rarely described advice from CHVs on adding green leafy vegetables to their child's diet. In terms of frequency, a few mothers noted that their CHVs told them to feed their children multiple times during the day, but did not specify a goal number. One mother mentioned that her CHV told her to give her child "thick porridge and not one that was too thin." Overall, advice from CHVs was more on diversity than on frequency, amount, texture, or appropriate to age. The CHVs we spoke to also confirmed that they emphasized dietary diversity within iCCM. None of the mothers or CHVs talked about active (or responsive) feeding.

"We also counsel on nutrition in the iCCM, the feeding of under-five children. We counsel on food diversification."

— CHV, Turkana Central

WASH

Several mothers shared that they most value the advice CHVs give about hygiene, sanitation, and drinking water. While the majority of mothers were aware of the importance of handwashing with soap, they could not always mention all the critical times for washing hands. After going to the latrine, after changing a child's diaper, before feeding/eating or preparing food were common instances when mothers noted it was important to wash hands with soap and water. Mothers also shared that CHVs suggested using cleaning agents such as washing detergent or ash if they did not have soap. For sanitation, mothers described how CHVs encouraged them to build and use a latrine and to dispose of children's stool in the latrine. For drinking water, mothers noted that CHVs advised them to treat water by boiling it or using water purification tablets and to store the treated water in a clean and covered container. CHVs confirmed that the disease preventive practice they primarily advise mothers on is hygiene and sanitation.

"The role of CHVs that I value most is when they are counseling on digging pit latrines. The number of latrines people are constructing is increasing. And, she said the latrine is the first part of hygiene. You cannot be clean by cleaning the compound alone without a latrine; that is not hygiene."

— Mother, Loima

Treatment

CHVs spoke about determining whether to treat or refer sick children based on the presence of danger signs and using the Sick Child Recording Form for decision-making. CHVs described using beads to determine fast breathing (as cough and fast breathing is a sign of pneumonia), mid-upper arm circumference (MUAC) to test for wasting¹, and RDT to diagnose malaria. In terms of treatment, mothers mentioned that CHVs give ORS and zinc, paracetamol, and antimalarial drugs. One mother shared that her CHV administered paracetamol in a controlled way: administering a small amount and

¹ Community-based management of acute malnutrition is implemented in Turkana (Save the Children 2017).

then asking the mother to bring the child back the next day before giving out more medicine. Most mothers understood that CHVs were their first point of treatment and that the CHVs would help determine whether the child needed to visit the health facility. CHVs were also available at night to provide services until the mother could take the child to the health facility, if needed. However, several CHVs noted that they did not always have all the commodities they should. The mothers we spoke to had directly benefited from a CHV or knew of someone in their community who had. Several mothers also attributed perceived reductions in cases of malnutrition to the work of CHVs.

“Another form of support is when a child falls sick at night ... she is the first person to identify childhood illnesses in the community.”

— *Mother, Loima*

Sick Child Feeding

Mothers noted that messages on sick child feeding from CHVs were on continuing to feed during illness with much of the focus on giving fruits (e.g., banana, oranges, and mangoes). Some mothers also mentioned that CHVs advised them to give donuts, porridge, potatoes, and meat stew or soup when the child was ill. Several mothers said CHVs advised them to offer water. The focus was on trying different foods that were “soft” or “light” to ensure the child who was ill and did not have an appetite ate something to regain his/her energy. Some CHVs noted that they encouraged mothers to feed their sick children smaller portions more frequently. One CHV mentioned that she encouraged giving a balanced or diversified diet even during illness, and adding a bit of fat or oil to porridge. Both CHVs and mothers mentioned feeding a sick child despite vomiting. Only one mother shared that her CHV told her to continue feeding solids while also breastfeeding. Neither mothers nor CHVs described how to feed during the recuperative period after illness.

“Since anybody who is unwell lacks appetite ... At least you have to feed with [a] balance diet, something like oranges, something like porridge at least with little fat/oil.”

— *CHV, Loima*

Referral

CHVs and mothers mentioned that CHVs refer children with danger signs, including for wasting and pneumonia, to the health facility. The danger signs CHVs and mothers described were diarrhea and vomiting, diarrhea for more than 3 days, blood in stool, fast breathing, a fever for more than 7 days, fainting, and swelling of hands and legs. For wasting, one mother shared that CHVs have begun weighing children in the community and if they suspect a child is losing weight, then the CHV uses a MUAC tape to determine if they are malnourished. One mother mentioned that they also have MUAC tapes, which they can use to check their children and rush to the CHV if the child’s MUAC is in the danger zone. Another mother shared that if the child is in the yellow zone of the MUAC tape, the CHV refers them to a supplementary feeding program, and if the child is in the red zone, to the health facility. For pneumonia, both CHVs and mothers shared that CHVs refer a child suspected of pneumonia, described as fast breathing, to the health facility. Several CHVs were aware that a change in policy would allow CHVs to treat pneumonia cases with the antibiotic amoxicillin. However, CHVs said they did not have the drugs currently.

Mothers talked about how a referral form from the CHV was required to receive treatment at the health facility. If the child was not seriously ill, CHVs may send them to get a referral form before treating the child. CHVs mentioned that they use MoH 100 (Community Referral Form). The referral form supports the work of the CHVs and ensures that the community sees CHVs as the first point of contact for health services. None of the mothers described challenges associated with completing referrals. The basic modules handbook guides CHVs on how to support caregivers by listing possible solutions to common barriers to completing referrals. In contrast, the iCCM manual (MoH 2013c, 34)

states that CHVs should “support transportation and help solve other difficulties in referral,” but does not show how to do this.

“When it is an unmanageable disease, she is the one making a call for an ambulance to ferry the patient to the health facility. She will not leave you and she will always be there.”

— *Mother, Loima*

Follow-Up

The majority of the mothers we spoke to praised CHVs for following-up on cases, while a few mothers said that CHVs only followed-up on serious cases. Those who praised CHVs described how CHVs accompanied sick children and their mothers to the health facility, checked on the status of the sick child over the phone, or conducted home visits until the child recovered. Some mothers described the frequency of in-person follow-up as up to two times per week for children who lived further away from the CHV. The iCCM manual (MoH 2013c) guides CHVs to follow-up on a sick child within three days and at least once per week after returning from the health facility.

“When my CHV knows that one of his village members is sick, she will follow up until they confirm that person has gotten well.”

— *Mother, Loima*

During follow-up, CHVs are also required to complete a section of the Sick Child Recording Form with three options to describe their status:

1. Child is better—continue to treat at home. Day of next follow-up: ____.
2. Child is not better—refer URGENTLY to a health facility.
3. Child has danger sign—refer URGENTLY to a health facility.

There is little guidance on how to counsel mothers on feeding and pneumonia prevention during the follow-up visit. Since observation was not part of this study, we did not check whether the CHVs we spoke to had the Sick Child Recording Form on hand. However, the CHVs did not mention that they had insufficient forms.

2. Capacity Strengthening

Basic Modules

The content on counseling (how and what) of the *CHVs Basic Modules Handbook* (MoH 2013a) is weak. To build counseling skills, a manual must cover both how to counsel (operational and IPC skills), what to counsel on (assess, analyze, and act), and contain practical hands-on exercises to build the skills. **Table 3** shows the training content on pneumonia and malnutrition prevention counseling in the basic modules.

Section 3 of the handbook covers certain operational skills (e.g., how to conduct community mobilization events, how to conduct home visits, and how to counsel). However, details on how to

counsel, such as which clients, how often, and for what duration are missing. For home visits, the handbook specifies making three postnatal home visits, but does not offer guidance on when to conduct other home visits (MoH 2013a).

For IPC skills, the handbook covers good listening, learning, building confidence, and giving support. However, the handbook does not mention any IPC frameworks, but other modules such as iCCM do. IPC frameworks guide health workers to contextualize their support during counseling by discussing a problem specific to the caregiver, identifying a possible solution (doable action) they can try at home, and committing the caregiver to the next follow-up visit.

The basic module covers general child health and nutrition information on which to counsel, but does not guide CHVs on how to assess issues in these areas. See **box 3** for key child health and nutrition information in the basic modules manual. For example, guidance to assess issues with complementary feeding would show CHVs how to ask caregivers questions by using the age-appropriate, frequency, amount, texture, variety, active feeding, and hygiene (AFATVAH) framework to identify a problem. While the manual provides knowledge, it fails to show CHVs how to use it effectively.

The manual notes that several vaccines prevent pneumonia, and briefly mentions that poor indoor air causes acute respiratory infections. There is little guidance on how to prioritize issues and act on them. Although the basic counseling session includes two role-play scenarios, the scenarios focus on the need to treat drinking water for diarrhea prevention only. This does not allow CHVs to practice supporting behaviors that prevent other childhood illnesses, such as pneumonia or malnutrition.

Supporting findings of the document review, a few managers and CHEWs noted that CHVs received training on interpersonal communication skills, but not counseling. Most CHVs we spoke to had received training on the basic modules. However, some CHVs received on-the-job training, which put the burden of training them on link health facility staff, including CHEWs. One explanation for this may be CHV turnover—creating the need to fill the position quickly by training a newly appointed person on-the-job versus waiting for a scheduled training on the basic modules. Health managers noted that partners fund most of the CHV trainings and the trainers are the sub-county health management team and CHEWs.

Box 3. Nutrition-Associated Behaviors for the Prevention of Diarrhea and Pneumonia

1. Breastfeeding:

- Put babies to the breast within 1 hour of delivery.
- Only give breastmilk (no food or water) for the first 6 months.

2. Complementary feeding:

- Start complementary feeding after 6 months.
- Frequency: Give different number of meals and snacks by age.
- Variety: Serve different food groups at each meal.
- Interact with child while feeding.
- Maintain hygiene while preparing food.

3. Sick child feeding:

- Encourage child to breastfeed more and continue eating during illness.
- Feed extra food after illness ends.

4. Vaccination: Complete required vaccination by 1 year of age.

5. Vitamin A: Supplement child every 6 months from 6–59 months of age.

6. WASH:

- Wash hands with soap and water at critical times.
- Learn how to treat drinking water.
- Understand the importance of building and using latrines.

Source: MoH 2013a

Table 3. Training Content on Pneumonia and Malnutrition Prevention Counseling in the CHV Basic Modules and iCCM

Training Content	Basic Module	iCCM
How to Deliver		
Operational Skills		
How to mobilize communities ^a	X	
How to counsel clients ^b	X	
How to conduct home visits ^c	X	X
How to use job aids	X	X
IPC Skills		
Use framework like GATHER or Greet, Ask, Listen, Identify, Discuss, Recommend, Agree, and Appoint (GALIDRAA)		
Build confidence	X	X
Create a respectful and communicative relationship with clients	X	X
Use helpful non-verbal communication	X	X
Greet client	X	X
Assure and maintain confidentiality/privacy		
Ask about/follow-up on previous counseling session/visit		
How/when to invite and talk with other family members		
Listen to what the client and/or caregiver says and asks	X	X
Analyze client's problems and agree on which to focus on	X	
Tailor/adapt messages or recommended actions to client		
How to recommend actions	X	
How to discuss/negotiate a plan of action	X	
How to model/demonstrate behaviors/actions promoted		X
How to check comprehension of a recommended action	X	
What to Deliver		

Training Content	Basic Module	iCCM
Assess ^d		
Observe child breastfeeding (as appropriate)		
Identify any breastfeeding problems		
Assess child's diet		
Assess child's diet (during and after illness)		
Identify immunization child may be missing		X
Check child's vitamin A supplementation records		X
Assess household drinking water quality		
Assess household sanitation facility		
Assess when and how caregiver washes hands		
Analyze		
Identify and prioritize any issues		
Act		
Facilitate/support initiation of breastfeeding		
Demonstrate optimal breastfeeding positioning, as appropriate		
Treat breastfeeding problems		
Recommend an action for appropriate complementary feeding		
Refer child to receive any missed vaccines		X
Refer child to receive missed vitamin A supplementation		X
Show how to treat drinking water		
Support household to build and use an improved latrine		
Recommend an action related to handwashing with soap and water		
Refer child to health facility		
Schedule a follow-up visit		

^a How often should CHVs conduct such events? How long should each event last? What should the focus/content of each event be?

^b Who should be counseled? Which clients? How often should CHVs counsel each client? How long should each counseling session be? How should CHVs determine on the content/focus of the counseling session? How can they encourage participation?

c Who should be visited? Which individuals? How often should CHVs visit each person? How long should the visit be? How should CHVs decide on the content/focus of the visit? How should they encourage participation?
d We focused on pneumonia and nutrition prevention behaviors only.
Source: checklist adapted from USAID Advancing Nutrition (2020)

iCCM

All CHVs we spoke to received training in iCCM. The *Integrated Community Case Management for Sick Children Under 5 Years—Participants Manual*, covers some elements of how to counsel, but little on what to counsel on for prevention of pneumonia and malnutrition (MoH 2013c). **Table 3** shows the iCCM training content on pneumonia and malnutrition prevention counseling.

The manual does not train CHVs on many operational skills (e.g., mobilizing communities, counseling clients), but provides some guidance on which clients to visit at home (e.g., for postnatal care and follow-up). The manual covers some IPC skills such as good interpersonal communication (e.g., greet, listen), but does not explain how to counsel. There is guidance to use the Ask, Listen, Praise, Advise, Check, Solve problems (ALPACS) framework, but only when providing treatment and not for prevention.

Information related to prevention of childhood illness that could help CHVs counsel families is brief and only listed under the section on diarrhea prevention (See **box 4**). Many of these would also be relevant to prevention of other childhood illnesses including pneumonia and malnutrition. By simply listing messages related to preventive behaviors, the manual does not guide CHVs to assess the behavior, analyze the situation to prioritize an issue, and act by recommending a small doable action. However, the manual trains CHVs to check immunization and vitamin A supplementation records and refer children to the health facility to receive these services if any are missing.

The iCCM training manual's content on feeding during illness is also limited. Information on feeding during illness is included under several sub-sections. See **box 5** for specific messages. The manual does not separate the advice by age of the child (under 6 months vs. 6–59 months). Further, the manual does not include any content on feeding more during the recuperative period as noted in the global iCCM guidance (WHO and UNICEF 2011). The iCCM training manual uses a variety of methods to build CHV skills in identification and treatment of illnesses including presentations, practice, case studies, role play, question and answer sessions, and discussion, but none are about feeding during (or after) illness or preventive behaviors. The focus of the iCCM manual is on training CHVs to identify 11² danger signs to assess, analyze, and act on to treat sick children themselves or refer the children to the link health facility.

“We have been taught about counseling. On the Sick Child Recording Form, there is a section on counseling. For example, when you are treating a child, you have something to counsel the caregiver. For example, when the situation worsens, [we] have to refer to the health facility. You can counsel on feeding and [for] the intake of water to be high. Also, on a diet, they should be changing food and taking a balanced diet.”

— CHV, Loima

Format

Given the low levels of literacy among CHVs, several managers mentioned that the traditional training format of delivering all technical content over a set number of days and expecting CHVs to apply them upon immediately returning to their communities was not appropriate. CHVs echoed this sentiment and expressed that they tend to forget information they learned during training and need periodic

² The danger signs are: Cough for 14 days or more, diarrhea for 14 days or more, blood in stool, fever for the last 7 days or more, convulsions, not able to drink or feed anything, vomits everything, chest in drawing, unusually sleepy or unconscious, red on MUAC, and swelling of both feet.

refreshers. On-the-job training may be one solution, but managers noted that this approach places the burden on a small number of staff at the link health facility. While not mentioned in the iCCM training manual, the *iCCM National Framework and Plan of Action* describes post-training follow-up of CHVs within 4–6 weeks after training (MoH 2013b). Several managers mentioned this step, but CHVs themselves rarely did. CHVs also shared that many of the training materials (including audio) were not in Kiturkana, the language in which they communicate with caregivers. They further suggested that future training materials and job aids be pictorial (to support CHVs with low levels of literacy) and in Kiturkana. Managers appreciated how the iCCM program took their advice to contextualize training materials and job aids with pictures. They requested that other programs follow this approach.

“I could have included things like charts that show how the child is fed. Those pictures, so that when you go to the village, you can show to the mother how the child is fed, things like that.”

— CHV, Turkana Central

Counseling in Other CHV Training Modules

We briefly reviewed the other six³ CHV training modules. Counseling is a session in Module 10: Maternal and Newborn Care and Module 11: Family Planning (MoH 2013e; MoH 2018). Although the Maternal and Newborn Care module does not mention a framework, it emphasizes three steps: greet and build rapport, ask questions and listen, and give advice and receive feedback. The Family Planning module shows CHVs how to use the Greet, Ask, Tell, Help, Explain, Remind (GATHER) framework during counseling. While Module 7: WASH does not have a separate session on counseling or mention a framework, it lists “negotiate improved practices” as a responsibility of the CHV (MoH 2013f, 2). We noted that the role-play scenarios in this module equip CHVs with skills to negotiate, a key skill in counseling.

3. Support

Tools/Job Aids

CHVs commented that they had a large number of tools and reporting forms, which the storage container and carry bag they were given cannot hold. This posed a challenge, as CHVs typically need to take most of them along with medicines during home visits. They also shared that the reporting forms and job aids were not in the language or format that was suitable for older CHVs with low levels of literacy.

Recommendations to improve tools/job aids included weighing scales where the child could sit, pictorial job aids with text in Kiturkana, better storage containers, and reducing the size of the forms so they fit in the bags provided (or providing larger bags). We would need to evaluate these recommendations according to feasibility, especially for the potential extra burden to carry.

“Some of the books’ writing spaces are small. This saves property, so I was thinking—name spaces are small, and you cannot write well. For us older adults, we are writing big letters.”

— CHV, Loima

Managers shared that the iCCM job aid for CHVs in Turkana is unique because it includes contextualized pictures and text in both English and Kiturkana. This job aid also includes a pictorial version of the Sick Child Recording Form. **Figure 2** shows the same section of the form in the contextualized and standard versions of the form. The Sick Child Recording Form heavily focuses on treatment and there are only two sections on feeding, limited to one check box for the following: 1) For

³ We were unable to find the HIV, TB, and malaria module online. We learned from colleagues in Kenya that the content of the module is no longer relevant to current implementation.

any sick child who can drink, advise to give fluids, and continue feeding, and 2) If in the yellow zone of the MUAC tape, counsel caregiver on feeding.


CHVs mentioned that the iCCM job aid helped them considerably and requested that more materials be developed in this format. One mother noted that she would like to see what a balanced diet looked like, as it was encouraged by CHVs for complementary feeding. The iCCM job aid has a page on how to feed a well child including examples of foods (e.g., milk, porridge, ripe banana), but does not show a picture of what balanced (or varied diet) might look like. This job aid also includes some information on feeding a sick child such as giving more fluids, food with more fluids such as porridge, breastfeeding more frequently, and increasing breastfeeding duration when treating a child with diarrhea without danger signs. Breastfeeding is also included as a way to treat a child with cough but no danger signs. However, the job aid does not present recommendations for feeding a sick child by age of the child (under 6 months vs. 6–59 months).

Figure 2. Standard and Contextualized Sick Child Recording Form

a) Standard (MoH 2013c)

ASK and LOOK		Any DANGER SIGN	SICK but NO Danger Sign?
ASK: What are the child's problems? If not reported, then ask to be sure. YES, sign present → Tick <input checked="" type="checkbox"/> NO sign → Circle <input type="checkbox"/>			
<input type="checkbox"/>	Cough? If yes, for how long? ___ days	<input type="checkbox"/> Cough for 14 days or more	
<input type="checkbox"/>	Diarrhoea (3 or more loose stools in 24 hrs)? IF YES, for how long? ___days.	<input type="checkbox"/> Diarrhoea for 14 days or more	<input type="checkbox"/> Diarrhoea (less than 14 days AND no blood in stool)
<input type="checkbox"/>	IF DIARRHOEA, blood in stool?	<input type="checkbox"/> Blood in stool	

b) Contextualized (MoH 2016)

King'it anierumor tokienyik. Ask and look		Ayakau eger aedeke aloapoton. Any danger sign	Edeaka, tamam eger aedeke aloapoton. Sick but no danger sign
	<input type="checkbox"/> Eremia/iurusia (ngacin nakaliwak ngalooso 3 kori na kaalak anakwaar apei)? Diarrhoea (3 or more episodes of loose stools in 24 hours) Anikeremi, ngirwa ng'iai? ___ If yes for how long? ___days	<input type="checkbox"/> Akirem/akuurut ng'irwa ng'itomon ka ng'omwon kori lukaalak Diarrhoea for 14 days or more	Akirem/Akuurut (Ang'irwa alupe nyenangito ng'itomon ka ng'omwon nabo tamam ng'aakot anachin) Diarrhoea (less than 14days and no blood in stool)

Workload

CHVs shared that the number of households and the distance between households was a significant barrier. One CHV specifically noted that the workload made it difficult to provide quality counseling. The CHVs we spoke to were responsible for 60–600 households and shared that they either spent every day of the month or up to 2 weeks per month conducting home visits. They requested transportation support in the form of bicycles or motorbikes to cover large distances faster and one noted that this would also enable them to transport patients to the health facility. CHVs agreed that 20–30 households per CHV was a reasonable number to support every month. The CHS states that one CHV should be responsible for 50–100 households (MoH 2020).

“Villages are populated; like me now, I serve a village with 300 and above people, which will make one not do good counseling, and you are not even sure whether you will get something to eat in the evening or not.”

— *CHV, Turkana Central*

Remuneration

Managers, CHEWs, CHVs, and mothers shared that poor implementation of the Community Health Services Act, which requires counties to provide stipends to CHVs, demotivates CHVs the most. Managers shared that the county pays CHVs a stipend⁴ for submitting their monthly reports. However, because there is a delay of 6 months to 2 years in payment of the stipends, in the past, some CHVs have threatened not to submit their reports. A county level manager reported that the delay in payment of CHV stipends was a result of insufficient funds. CHVs noted that the lack of stipends makes it challenging to spend adequate time on their CHV-related responsibilities, as they must seek additional work to provide for their families.⁵ We did not find any written guidance on the number of hours the county expects CHVs to work. As mentioned above, CHVs we spoke to shared that they either spent every day of the month or up to 2 weeks per month conducting home visits.

“Lack of monetary incentives or stipends makes it difficult for me to do this full work time; I also have to spend most of my time looking for something to feed my family.”

— *CHV, Turkana Central*

Community Acceptance

All the mothers we spoke to appreciate CHVs for their work. Mothers shared that CHVs are capable, respectful, and motivated to help their community. They also praised CHVs for volunteering their time to serve the community. CHVs, in turn, shared that the respect and appreciation from the community motivates them. However, several CHVs noted that some household members were uncooperative and felt the CHVs gained from their position (e.g., earned income) and without providing any benefits to them, such as assistance in the form of food. CHVs perceive the community felt this way because CHVs were writing down information they collected from the household, but did not have anything to give in return. One mother noted that some people in her community feel that CHVs did not help, but she felt that they were fulfilling their CHV responsibilities. A few CHVs emphasized that they involved other family members, such as husbands, who were the decision makers in many households. Male CHVs experienced specific challenges such as resistance from mothers on breastfeeding advice and the need to engage husbands to ensure everyone was comfortable with their visit.⁶ CHVs reported that certain community members demand proof of their status and noted that a uniform to identify them as CHVs would help overcome this challenge.

“When you start visiting, you hear community people saying, ‘she is here with a black book,’ accusing me of using them for personal gains.”

— *CHV, Loima*

⁴ The CHV stipend is Kenyan Shillings 3,000 (equivalent to USD 26) per month.

⁵ The Kenya Community Health Policy 2020–2030 does not specify the number of hours the county expects a CHV to work (MoH 2020).

⁶ In Kenya, the female/male CHV ratio is approximately 80/20 (REACHOUT n.d.).

Supervision

The *Integrated Community Case Management 2013–2018, Monitoring and Evaluation (M&E) Plan* (MoH 2013d) outlines two forms of supervision. The first is day-to-day supervision by CHEWs and the second is supervision from county and sub-county managers to the health facility, specifically interacting with CHEWs on factors related to CHV services. For both purposes, the iCCM M&E plan includes detailed checklists. Health managers at the national and sub-county level spoke about CHAs (the new cadre of CHV supervisors) but CHEWs, CHVs, CHC members, and caregivers did not refer to them.

CHEWs

In terms of direct supervision, both CHEWs and CHVs described how CHEWs accompany CHVs during home visits, check reporting tools, support with replenishing commodities, and oversee CHVs during action days at the health facility. CHVs expressed appreciation for the support they received from CHEWs, such as explaining sections in a tool, correcting records, and building confidence among caregivers in CHV services. Several CHVs noted that CHEWs treated them with respect and communicated with them frequently over the phone or via text messages.

CHEWs described that their supervision checklist focused on the number of children CHVs identified and treated/referred to a health facility for a particular illness, good communication skills, and whether CHVs conducted counseling. The counseling section of the checklist is a yes/no assessment of whether correct messages on feeding, increasing fluid, and when to return were given to the caregiver, but not specifically what was discussed and agreed upon or the quality of the counseling. See **box 6** for key topics of the checklist, which primarily focuses on treatment topics.

Several CHEWs shared that they had not received training on counseling and that this posed a challenge when CHVs reached out to them for support. CHEWs specifically mentioned this when counseling HIV and TB patients about medication compliance and less so for childhood illness or infant and young child feeding.

Interviewer: “How do you assess the counseling skills of CHVs? Which method, tools, and timing do you use?”

Respondent: “I use a checklist that was formulated by [an international nongovernmental organization] that was asking how they greet, receive, welcome, and how they have talked to the client, how he/she tested them.”

— CHEW, Loima

CHEWs noted that they were unable to visit all CHVs in their CHU every month. While the CHS states that one CHEW should supervise only 10 CHVs, two of the six CHEWs we spoke to were supervising more than 10 CHVs (MoH 2020). Most CHEWs shared that they conduct CHV supervision three days of the week and support the health facility the other two days. CHEWs cited distance and lack of transportation support as the biggest barriers to conducting frequent supervision visits.

“Okay, [the] CHEW make[s] my work easier, because she makes a schedule for us to go round with her in our villages. At least Monday and Friday, I go with her to the village, and I invite her

Box 6. Topics Covered in the CHEW iCCM Supervision Checklist

1. Availability of medicines
2. Medicine storage and quality
3. Availability of supplies
4. Provision of iCCM services
5. Case follow-up
6. Register and report completeness
7. Case management and counseling
8. Assessment skills
9. Knowledge of danger signs
10. Maternal and newborn care home visit and counseling

Source: MoH 2013b

to some of the sessions where I had some challenges and the CHEW adds her skill there. This builds confidence of villagers in me.”

— CHV, Turkana Central

Managers

Managers described how they were unable to conduct quarterly supervision visits, which were typically just to health facilities, due to funding constraints. They further noted that the supervision checklists were not nationally determined, but supported by partners. Additionally, national managers spoke about their experiences with iCCM overall and not just its implementation in Turkana County.

Barriers and Enablers to Support Effective Counseling

In this section, we summarize the barriers to and enablers of CHV counseling on preventive behaviors. Since CHVs do not counsel on pneumonia and malnutrition preventive behaviors, we did not identify any true enablers of CHV counseling in these areas. However, we identified several enablers of the overall services CHVs provide. These included—

- Respect and appreciation from the community motivated CHVs to fulfill their responsibilities.
- Contextualized iCCM job aid enabled CHVs to communicate effectively with caregivers on treatment-related issues.
- Support from CHEWs in reporting, coaching, and problem solving gave CHVs confidence to carry out their work.

There were several barriers to CHV counseling on preventive behaviors, including—

- A lack of training on counseling meant that CHVs did not understand what constitutes counseling and did not have the skills to counsel effectively.
- Limited training on pneumonia prevention behaviors, IYCF, and feeding after illness, which influenced the quality of counseling provided.
- Insufficient content on preventive behaviors (pneumonia, IYCF, and feeding during and after illness) in the contextualized iCCM job aid.
- High workload and lack of stipend prevented CHVs from spending adequate time with caregivers during counseling.
- Insufficient supervision of CHV counseling by CHEWs because the county did not train CHEWs on counseling and the supervision checklist inadequately covered counseling.

4. COVID-19

Role

During the early days of the COVID-19 pandemic, CHVs did not conduct home visits. When they resumed home visits, they conducted only a few each month. They did not always have sufficient commodities, as there were shortages at the health facility. At the same time, the CHU tasked CHVs with more responsibilities, such as conducting vitamin A supplementation. Availability of masks seriously affected CHVs' ability to work safely. One CHV mentioned that when the two masks given by the health facility for the month were not sufficient, many CHVs began making their own masks. To community members, CHVs emphasized handwashing and social distancing as precautionary measures. Mothers noted that because of the awareness CHVs raised around handwashing during COVID-19, most households have a handwashing station at the entrance of their compound. CHVs felt that the increase in handwashing might have led to a decrease in the number of diarrhea cases in their communities.

“Wash your hands, we used to tell them these things even before corona[virus], to wash their hands because of diarrhea but everybody started washing their hands after corona[virus], we noted that diarrhea cases decreased.”

— CHV, Loima

Communication

CHVs also relied on their phones to conduct referrals and follow-up on cases. One CHV shared that a mother asked her not to visit in-person even when following up on a sick child due to the fear of COVID-19 transmission. Another mother recommended that CHVs have adequate masks, sanitizers, non-contact thermometers, and phones⁷ to continue their work even during an emergency such as the COVID-19 pandemic.

“I continued messaging through phone calls; I used to call the households to know how they were doing, and my work was going well.”

— CHV, Turkana Central

Remuneration

Some county health managers and CHEWs shared that partners paid CHVs for taking on additional responsibilities during COVID-19. This included payment for raising awareness in the community about COVID-19 over a set number of days or cash (equivalent to lunch) on the day they attended COVID-19-related orientation. CHVs shared that this did not take away from their typical responsibilities, because during the peak of the COVID-19 pandemic, COVID-19 prevention efforts took precedence over all other activities. CHVs appreciated the extra remuneration, but felt it was not sufficient.

Interviewer: “Were [CHVs] given additional incentives during this time?”

Respondent: “Yeah, there was a time [CHVs] were being given [payment] by [an international nongovernmental organization]. [CHVs] were told to do the awareness for around 6 days, then they were paid.”

— CHEW, Turkana Central

Training

During the initial days of the COVID-19 pandemic, the county deprioritized trainings for CHVs on HIV, TB, and iCCM, then conducted the trainings in smaller groups when guidelines on how to do so safely were available. At this point, CHVs also received training on COVID-19 precautionary measures, often funded by a partner who tasked them with sharing the information with community members.

“When coronavirus came, other diseases like HIV, TB, iCCM were forgotten and all prevention effort was now on corona[virus].”

— CHV, Turkana Central

Supervision

The CHEWs were unable to conduct as many supervision visits because masks were not sufficiently available. Thus, they checked-in with CHVs over the phone. CHVs also shared that during the COVID-19 pandemic, the link health facility restricted the number of CHVs that could be present on site at any given time. This meant that CHVs could not interact with health facility staff as freely as before. One national manager recommended developing a community health emergency preparedness plan that put CHVs at the center to ensure their essential work could continue.

⁷ The county and partners provided one-time phone credit (airtime) worth Kenyan shillings 1,000 (equivalent to USD 9) to CHVs during COVID-19 pandemic to share reports using WhatsApp.

“To have actual plans that can be implemented in times of emergencies [would] ensure that [CHVs] get the right information at the right time in a way that they are able to contribute to intervene in situation, as it were, without endangering their lives and those that they are serving.”

— *Manager, National*

E. Conclusions and Recommendations

This formative research found that CHVs we spoke to in two sub-counties of Turkana provide all components of treatment, referral, and follow-up of childhood illness within iCCM. Support from CHEWs and the contextualized iCCM job aid were instrumental in this regard. The study also found that some CHVs problem solved on WASH behaviors, which was likely due to the skills developed by the WASH modules training. However, the study also identified several gaps related to CHV counseling on pneumonia and malnutrition prevention within the iCCM program. First, **CHV knowledge on what constitutes counseling and skills to counsel on preventive behaviors other than WASH behaviors is weak.** CHVs described one-way communication disseminating messaging as counseling, which caregivers did not always appreciate.

Second, **CHV knowledge on pneumonia prevention behaviors, components of infant and young child feeding, and feeding during and after illness was insufficient.** The only message CHVs provided related to pneumonia prevention was to keep children warm. They did not emphasize that IYCF, vitamin A supplementation, vaccination, good WASH practices, conditions of the household, and indoor air quality prevent pneumonia. For IYCF, CHVs encouraged exclusive breastfeeding for the first 6 months of life and introduction of a varied diet after 6 months. For complementary feeding, CHVs seldom shared information on frequency, amount, texture, and active feeding. During illness, CHVs advised mothers to continue feeding with a focus on feeding fruits, and most did not mention frequency and portion size. Knowledge on feeding more after illness was nonexistent among CHVs and mothers.

Third, **the basic modules and iCCM training manuals do not adequately build CHV competencies in counseling:** how to counsel (operational skills and IPC skills) and what to do while counseling (assess, analyze, and act). Both manuals covered some IPC skills, but did not guide CHVs on how to determine what to say to caregivers. CHV knowledge on pneumonia prevention, IYCF, and feeding during and after illness were weak because the manuals do not cover these topics sufficiently.

Fourth, **job aids, workload, remuneration, community acceptance, and supervision influenced the quality of CHV counseling on preventive behaviors.** The CHV iCCM job aid in Turkana was contextualized (pictorial with text in Kiturkana), but CHVs need similarly contextualized job aids in other technical areas (e.g., pictures in the Turkana CHV IYCF job aids helped, but the text was still in English). High workload and lack of regular stipend prevented CHVs from devoting sufficient time to their CHV-related responsibilities. While the majority of community members appreciated CHVs for their service, some did not see value in their work. The CHEW-CHV relationship was an enabler of CHV services: providing motivation, training, and support (e.g., replenishing commodities).

Finally, **during the COVID-19 pandemic, CHVs are playing an active role in continuing community health services,** reducing their scope at times, and taking on new responsibilities. CHVs also adapted service delivery (e.g., calling caregivers to check on them rather than visiting them at home) and CHEWs adapted how CHVs were supervised (e.g., by phone).

Managers, CHEWs, CHC members, CHVs, and mothers identified several recommendations to fill the gaps identified by this study. Based on these, we recommend investment in the following areas to strengthen the preventive services CHVs provide to Turkana children and their mothers within iCCM.

I. Knowledge and Skills

Expand the training content to build CHV counseling skills.

The iCCM approach expects CHVs to deliver messages that promote health and prevent disease (MoH 2013c). However, we know that knowledge alone is insufficient to change behaviors. To make CHVs more effective, specifically **mention a counseling framework** such as ALPACS, already used for treatment counseling in iCCM, in the basic modules to help CHVs guide caregivers to identify and commit to a small, doable action for preventive behaviors. Also, include a role-play scenario to enable CHVs to practice counseling on several topics, in addition to WASH, using the framework. Draw from the WASH modules when **designing the role-play scenarios** to help CHVs build negotiation skills for pneumonia prevention, IYCF, and feeding during and after illness. Since counseling can support social and behavior change for multiple health and nutrition topics, this content may be appropriate for the basic modules manual, but the iCCM manual and associated job aid should refer to the framework. At the time of writing this report, we learned that MoH had revised the iCCM manual, but it had yet to be rolled out (MoH 2021). A review of the revised manual revealed that it did not include any of the recommendations noted in this report.

Strengthen the iCCM training content on pneumonia prevention behaviors.

In Turkana, CHVs mainly encouraged mothers to keep their children warm to prevent pneumonia. However, many other actions can prevent a child from becoming susceptible to pneumonia, some of which are also common recommendations to prevent diarrhea. The GAPPD protect, promote, and treat framework lists these actions. To ensure CHVs have the most accurate information on how to prevent pneumonia, **create a separate session on disease prevention within the iCCM manual** to present these actions as preventing both diarrhea and pneumonia, and in many cases, malnutrition. See **box 7** for actions that prevent diarrhea and pneumonia. Include these collective disease prevention actions on a separate page in the associated iCCM job aid.

Strengthen the iCCM training content on IYCF.

To support caregivers with breastfeeding and appropriate complementary feeding, CHVs need to know how to support a mother with breastfeeding difficulties and what to recommend for complementary feeding, in addition to encouraging a varied diet and increased frequency of feeding. To do this, **update the “Counsel the mother about feeding well child” card in the iCCM job aid** to include all elements of appropriate complementary feeding (age appropriate, frequency, amount texture, variety, active feeding, and hygiene) and how to support common challenges with breastfeeding (initiation, frequency, positioning, and attachment). Include this information in the newly created prevention section (recommended above) of the iCCM manual as well.

Strengthen iCCM training content on feeding during and after illness.

Feeding a child appropriately during illness helps them fight the illness, minimize weight loss, and recover more quickly (WHO and UNICEF 2011). It is also important to feed a child appropriately after illness to

Box 7. GAPPD Interventions to Protect and Promote against Pneumonia and Diarrhea

1. Exclusive breastfeeding for the first 6 months of life
2. Adequate complementary feeding at 6 months, including age-appropriate, frequency, amount, texture, variety, active feeding, and hygiene
3. Vitamin A supplementation
4. Complete vaccination
5. Handwashing with soap
6. Safe drinking water and sanitation
7. Reduce indoor air pollution
8. HIV prevention
9. Cotrimoxazole prophylaxis for HIV-infected and exposed children

Source: WHO and UNICEF 2013

help them regain the weight that may have been lost and prevent the child from becoming malnourished (WHO and UNICEF 2011). CHVs in Turkana knew why it was important to continue feeding during illness and even recommended that caregivers offer a variety of foods frequently to a sick child. However, CHVs we spoke to did not know that they needed to encourage caregivers to feed a child more after illness. To ensure CHVs provide age appropriate advice to caregivers of a sick child, **update the content of the iCCM manual per the global World Health Organization (WHO)/UNICEF iCCM guidance** presented in **box 8**. While not mentioned in the global iCCM guidance, also specify how to feed a child under 6 months after illness. Include this information in the iCCM training manual and job aid, along with an opportunity to practice counseling a caregiver on how to feed a sick child during and after illness.

2. Capacity Strengthening

Test alternative capacity strengthening approaches that are more suitable to the age and literacy levels of CHVs.

CHVs and some managers expressed that the current training approach of delivering content over several days and then expecting CHVs to use the information upon immediately returning to their communities was not appropriate. This was particularly true for older CHVs and those with low levels of literacy who requested periodic refreshers and support. Alternative capacity strengthening approaches that **frequently deliver select technical content followed by on-site supervision** may be more effective. An example of such an approach is the Low Dose, High Frequency (LDHF) for Helping Mothers Survive program, which builds the knowledge and skills of facility-based health care providers to improve care and save lives during pregnancy and delivery (Jhpiego n.d.). In Kenya, Busia County Government's Department of Health found the LDHF approach improved competencies of nurses and midwives in reducing intrapartum fetal deaths (Shikuku et al. 2019). The USAID Integrated Health Program in Nigeria is testing a similar approach where the project will deliver four modules on immunization, malaria, nutrition, and integrated management of childhood illness during in-service training for health workers providing facility and outreach services over several half days with mentoring in between training sessions (USAID IHP 2020).

3. Support

Equip CHEWs/CHAs with the knowledge, skills, and tools to support CHVs as they counsel caregivers on pneumonia and malnutrition prevention.

CHVs value the regular supervision they receive from CHEWs for improving their work. However, to supervise CHVs effectively on counseling for pneumonia and malnutrition prevention, CHEWs/CHAs need training on how to counsel and what to say during counseling. To do this, **train CHEWs/CHAs on counseling so they can appropriately supervise CHVs, and add an assessment of CHV counseling effectiveness (in addition to yes/no) in the CHEW supervision checklist**. CHEWs also need adequate supervision, but funding constraints prevent national, county, and sub-county health

Box 8. WHO/UNICEF Guidelines on Caring for the Sick Child

During Illness (under 6 Months)

1. Breastfeed more frequently and for longer feeds.
2. If not exclusively breastfed, give clean water and more liquid-based foods (soup, rice water, yogurt drinks).

During Illness (6–23 Months)

1. Breastfeed more frequently.
2. If child has lower appetite, feed frequently and in smaller portions. Take more time and offer food more often.
3. Offer soft foods like porridge. Avoid spicy or fatty foods.

After Illness (Recovery)

1. Encourage child 6 months or older to eat one additional meal of solid food each day for the next 2 weeks.

Source: WHO and UNICEF 2011

managers from supporting CHEWs. To overcome this barrier, test a virtual supervision mechanism for national, county, and sub-county managers to support CHEWs and CHVs.

Develop community health emergency preparedness plans prioritizing support to CHVs to ensure uninterrupted delivery of services.

Health systems globally adapted to deliver services during the COVID-19 pandemic. We now have more information about what needs to be in place to ensure CHWs are able to continue their work while keeping community members and themselves safe. In Turkana, **support the county to develop the community health emergency preparedness plan based on the WHO guidance** that defines the role, remuneration, training, supervision, communication, and personal protective equipment provision for CHVs during a similar crisis.

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