Opportunities for One Health Integration of Community Animal and Community Health Workers

Community One Health Implementation Guide

Community meeting in Northern Kenya

"They're basically living the idea of One Health. Their lives depend on their cattle, their health depends on the cattle and the environment… This One Health idea is the best idea to address pastoralist health in the region."

"We've been having these discussions for decades that their services are weak, but with these recurrent emergencies, we need to design 'emergency interventions' that are sustainable - we have to incorporate these existing markets for services. Often during an emergency, we give things away and cripple local businesses. Now we live in emergencies all the time, and this old system of emergency management creates financial emergencies for these small economies. So how do we use PPCPs to incorporate them into response?"

Community One Health Workshop Participant

Jeffrey C. Mariner, DVM PhD
Micol Fascendini, MD MPH
Gaia Bonini, MS

Cummings School of Veterinary Medicine

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Acronyms

CAHW	Community Animal Health Workers
CEW	Community Environment Workers
CHW	Community Health Workers
iCCM	Integrated Community Case Management
OH	One Health
ORS	Oral Rehydration Salts
PPCP	Public-Private-Community Partnership
RDT	Rapid Diagnostic Test
TBA	Traditional Birth Attendants

Introduction

The study 'Opportunities for One Health Integration of Community Animal and Community Health Workers' looked at the intersection of human, animal and environmental health at the community level with the goal of improving access to One Health services in the context of humanitarian emergencies. The study collected the experiences and views of stakeholders from the community up to the level of senior decision-makers and international experts in human health, animal health and environmental health. The goal was to identify appropriate interventions and opportunities for improved One Health integration of Community Animal Health (CAHW), Community Health Workers (CHW) and environmental workers.

The purpose of this document is to provide a concise and practical guide to the implementation of OH approaches at the community level. It contains a quick summary of core issues and lessons learnt from the study and proposes a way forward and five-step approach to the establishment of the Community OH System in emergency. The proposed approach is not prescriptive. Instead, it seeks to help bring issues into focus and facilitate a productive discussion on options to enhance access to services leading to a shared plan with actionable recommendations.

This quick start manual is backed up by considerable study and consultation with local, national and international stakeholders that has been carefully documented. The study used four main methods to gather information and work with stakeholders to synthesize new knowledge:

- A literature review of formal and informal publications on topics related to the intersection of One Health and community human and animal health approaches,
- Engagement of stakeholder organizations to gather experiences and perspectives on the way forward,
- Site visits to fully explore programs, understand the perspective of community and frontline workers and discuss first-hand experiences and lessons,
- Engagement of stakeholders in participatory Community One Health Scenario Workshops to share lessons and develop a common vision of the way forward on One Health approaches to delivering community health in specific countries.

The final report of the study includes summaries of the methodologies and main findings, a thematic discussion to develop insights into key issues in OH services access, and practical recommendations for the way forward. Detailed reports of the different activities conducted during the study are attached as Annexes:

- The report of the literature review (Annex 1)

- The Community One Health Implementation Guide namely the present document (Annex 2)
- The Community OH Scenario Workshop Manual which provides a suggested approach to implementing a workshop to develop a consensus strategy to improve OH services at the community level (Annex 3)
- The reports of the Community OH Scenario Workshops conducted in Ethiopia, Niger, South Sudan and Somalia (Annex 4)
- The reports of the Sites Visits conducted in Ethiopia and South Sudan (Annex 5)

Despite acknowledging the length and magnitude of the final report and its annexes, the authors believe that they provide strong evidence to the operationalization of One Health at the community level and allow appreciating the challenges and opportunities to the transformation of community-level health systems through the OH lens.

The humanitarian sector takes a holistic approach to meeting immediate needs to save lives and livelihoods in emergencies recognizing that aid and development are inextricably intertwined. This is evident in documents such as Sphere (Sphere 2018), LEGS (LEGS 2014), the FAO Livestock Related Interventions During Emergencies – The How-To-Do-It Manual (FAO 2016) and the Bureau for Humanitarian Assistance Mission Statement (BHA 2023). The study has carefully reviewed existing guidelines and many other documents with an eye to moving forward into One Health. The way aid is delivered profoundly affects development and resilience and the risk of future emergencies and institutions and development strategies affect both the risk and impact of emergencies. A holistic approach is required.

In almost all community discussions and workshops organized during the study , the participants called for further investment in community-level workers as the most effective way of institutionalizing access to OH services. There was alignment on the need to increase access to basic health services in rural and remote communities, especially cattle camps and transhumant pastoralists. The most common approaches advocated for were the cross-training of community animal health workers and community health workers, the selection of community health workers from the segments of the community that live in the cattle camps, and the development of OH systems of supervision of community workers.

Core Issues

- Access to OH services (human health, animal health and environmental services) in rural, pastoral and remote areas are unevenly distributed across communities, livelihoods groups and the landscape.

- Many existing services are designed to meet the needs of sedentary populations. Pastoral populations are often not well served.
- The currently existing service models contain legacies of the colonial era and are not fully fit for purpose in the context of extensive production systems and the cultures and economies of the sub-Saharan African region.
- The logistics of resupply and the management of services are among the main constraints for the public sector.
- Both animal and human health are moving forward with Public-Private-Community Partnership (PPCP) on their own and in their own way. Animal health has more experience at the community level with PPCP employed for vaccination and supply of community workers. The two sectors can learn from each other.

Lessons Learnt

- The OH sectors share the humanitarian aid objective of saving lives and meeting basic needs while reducing the risk of future emergencies through preserving and enhancing resilience.
- In areas prone to chronic or repeated cycles of humanitarian emergencies, development and humanitarian aid issues are inextricably linked.
- Community workers and their support systems are core activities in the OH components of resilience.
- The OH sectors are characterized by similarities and potential synergies while at the same time manifesting important differences in terms of objectives, assumptions, culture, and ethics.
- These differences are opportunities for learning that need to be carefully assessed to identify where convergence could result in benefits.
- The environmental component is a key factor in emergencies and development challenges and requires to be fully integrated and strengthened in community level OH.
- Progress on the development of appropriate community services is intimately associated with the process of decolonialization of OH services.
- The non-governmental sector has been an important innovator in service delivery both in terms of proposing new solutions and taking risks to pilot new ideas. As such, it confirms a key actor to the operationalization of One Health at the community level.

- There is significant flexibility and a broad range of services that can be effectively provided through community or community-based workers. An increased coordination, number and reach of services provided by community workers would ease healthcare accessibility.
- Selection criteria for community and community-based workers shape the range of community groups and individuals who will be able to receive services and determine who will be marginalized.
- Training and supervision are key elements that determine the appropriate range of services provided by the community and community-based workers.
- Stakeholders do not perceive barriers to community and community-based workers operating along OH lines, but rather only challenges that can be overtaken through an accurate and collaborative planning.
- In general, stakeholders seem to prefer to maintain workers with primary responsibilities along traditional sector lines and advocate for empowering workers to perform OH services based on cross and joint training, operating in a OH network using a OH model of supervision.
- Building on existing local institutions to networking community services along OH lines is the entry point for OH integration of community level services.

The Way Forward

The sub-Saharan region, focus of the present study, is prone to chronic or repeated cycles of natural and human-made disasters. In this context, humanitarian and development issues are inextricably linked and it is difficult to address the former while forgetting the latter. A response at the humanitarian-development nexus is necessary to save lives and enhancing resilience.

The literature is clear in showing that complex and challenging problems are emerging at the animal-human-environment interface (e.g., antimicrobial resistance, emergence and re-emergence of zoonotic disease) and that feasible, effective and sustainable solutions can be discussed and designed at the same interface, through a collaborative approach across disciplines (OHLLEP 2021). Stakeholders from the global, national and local level interviewed during the study through online interviews, site visits and scenario workshops, all agree on the value and potentials of One Health. However, the approach is still restricted to national strategic plans and legal frameworks with limited operationalization at the community level, despite communities could easily put One Health into action through already existing and functioning local systems; "*community is more ahead than the agencies",* as one key informant put it.

The outcomes of this study support the establishment of an integrated community health system that is context-specific, builds on local institutions, develops when possible during non-emergency period and adapts to effectively respond to emergencies. Based on the inputs retrieved from the literature and discussed during interviews, site visits and scenario workshops, eight features have been identified to describe the model (figure 1).

Flexibility. The model needs to meet the demands of both emergency and non-emergency scenarios and opportunities exist to make progress on developing and implementing the new model during both emergency and non-emergency periods. Certainly, there are times where relief has to focus solely on meeting the needs of acute emergencies, but there are appropriate opportunities where relief interventions can contribute to drive positive long-term change. Ideally non-emergency periods provide time to design and set-up the model, when stakeholders can focus on establishing the new intervention, creating/reinforcing the multisectoral coordination mechanism and investing on a common system for communication and data sharing, without being distracted by the pressing needs of the emergency response. On the other hand, for some countries relief aid is a major source of funding and one of the few opportunities available to invest in new strategies. There are also countries suffering from protracted crises and they also want to move forward to reduce vulnerability as part of the process of escaping chronic emergency. The flexibility of the model will support its adaptation to a sudden change in the current situation when community actors will be engaged in the emergency response, while still collaborating across disciplines.

Context-specific. The model will differ between countries and communities, as it will need to respond to local needs and integrate in the local context. Mobile integrated community systems, for example, could perfectly respond to the challenges faced by transhumant communities, whereas fixed integrated systems would better address the needs of settled rural communities which can easily access facility-based services.

Shared governance. The success of the proposed model lies in an early and effective engagement of key stakeholders, including local communities, local authorities, public and private actors that are supporting the health systems in the areas of intervention. This will encourage local ownership of the model and promote its sustainability in the long run. Shared governance requires the community-level service providers (CAHW and CHW) to be involved in the decision-making processes and in the identification of the integration approach that best suits their community, as a key stakeholder put it. A community-led project will have more chances to succeed and thrive through the challenges of recurrent emergencies.

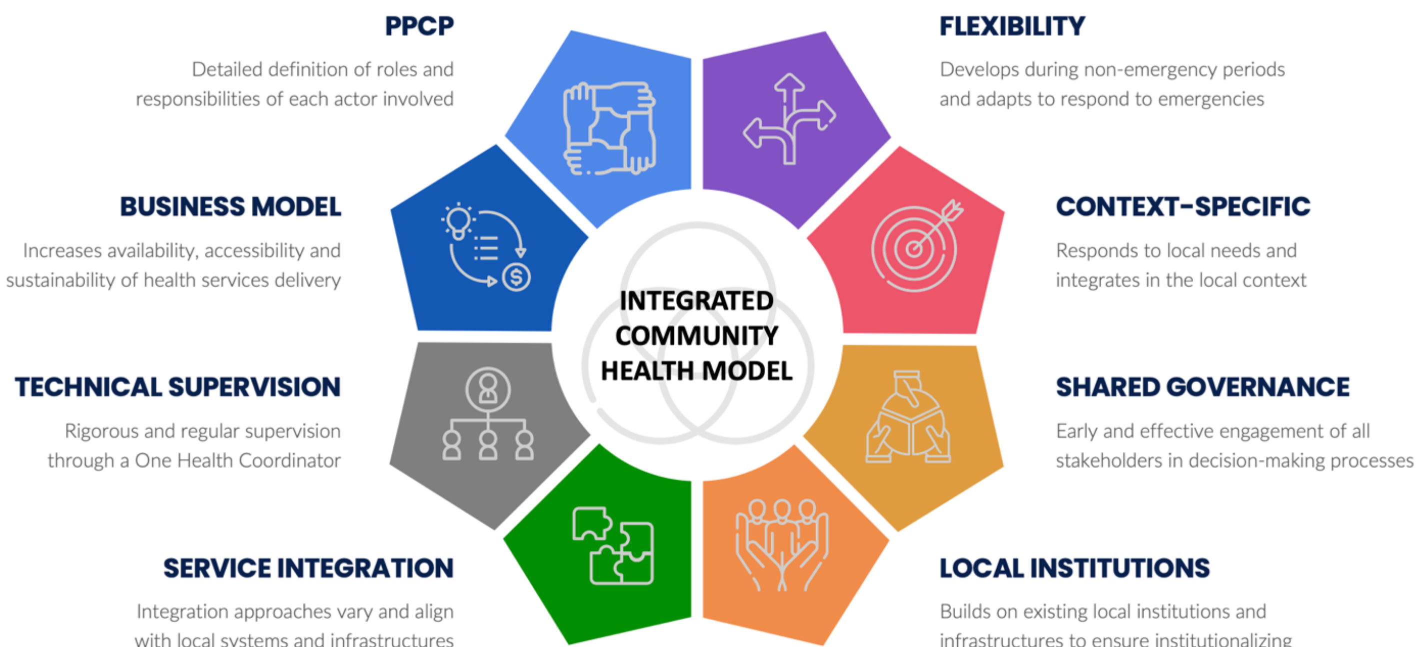

Figure 1: Integrated community health model (icons from Flaticon)

Local institutions. The scenario workshops clearly revealed the value of local traditional institutions in the management of both relief and development issues. In Somalia, for example, councils of elders are responsible to decide issues related to both emergency services and development activities, as well as resolve disputes emerging at the village level. Building on the existing local institutions and infrastructures ensures the institutionalization and operationalization of the new model of service delivery at the community level.

Service integration. Review of the literature and insights from key informants providing a global, national and local perspective, reveals the value and economic and health benefits of service integration at the community level. There are different approaches to integration with the following three being the more reasonable and feasible: i) creation of one network in which community-level service providers are jointly trained, maintain specific roles and responsibilities in their distinct disciplines and work together under a common coordination mechanism; ii) careful selection of shared responsibilities that both CAHWs and CHWs (and potentially CEWs) carry out as part of their daily duties. These could include health education on basic preventive, hygiene and animal husbandry practices, as well as the recognition and management of common infectious diseases in both animals (e.g., infectious respiratory and intestinal infections, internal and external parasites, and hemoparasites) and humans (e.g., diarrhea, malaria and respiratory diseases); iii) cross-training program to allow the same community-level worker to provide healthcare services to both animals and humans.

Technical supervision. Inadequate supervision of community-level health services is reported as critical feature to the program effectiveness of both CAHWs (Hoots 2023) and CHWs (WHO 2020). Lack or limited technical supervision can have significant impact on the quality of care provided, ultimately affecting the trust and utilization of services by local communities. Investments are needed to standardize the training program of community-level health workers and ensure it is accompanied by a rigorous and regular supervision schedule through a One Health Coordinator which oversees and supports both the provision and the integration of services at the community level, as proposed during the scenario workshops in Niger and Somalia.

Business model. A critical issue to the sustainability of any health program in resource limited countries is the excessive dependence to external funding. This is also the case for CAHW and CHW programs that, when not fully integrated in the national system and relying on international projects, can collapse because of the sudden loss of external funding (WHO 2020, Hoots 2023). Leveraging the good practices and lessons learnt through the CAHW programs in sub-Saharan Africa (Hoots 2023), the integrated community health system should consider developing a business model to s. Increasing the entrepreneurial skills of the community-level workers will be necessary to ensure the success of the business model.

PPCP. National and local stakeholders explored the concept of Public-Private-Community Partnership during the scenario workshops and had the opportunity to discuss its potentials in enhancing and maintaining the quality of health services in the most remote and vulnerable areas of resources limited countries. Building the integrated community health model through a PPCP could guarantee the quality and continuity of services at the community level but will require a detailed definition of roles and responsibilities of each actor involved (e.g., technical supervision by public system, supply and re-supply by private actors, system overview and cost contribution by community).

The Community OH System in Emergency

This section builds on the lesson learnt during the study and applies the Way Forward detailed in the section above to situations of emergency that require humanitarian aid interventions. It provides practical guidance to establish an integrated One Health system at the community level to support the response to emergencies while promoting resilience and building local development.

The two essential lessons gained from the discussions held with key stakeholders during the site visits, online interviews and scenario workshops, is that community-based OH workers can work together and share responsibilities and that integrated community services can increase the

accessibility (and utilization) of basic health services in vulnerable and remote communities. It is up to the partners and stakeholders to clearly articulate the program objectives and make sure the training and supervision of community health workers is appropriate to the task. Mobile populations, for example, are better served by CAHWs and rarely have health workers. This can be addressed by cross training CAHWs or selecting CHWs based on their presence in cattle camps. Traditional Birth Attendants (TBAs), for instance, are in a similar situation to CAHWs and usually present in cattle camps as they are more community-based or embedded than most other forms of CHWs. In certain areas, they could therefore be involved in the community health network and appointed to specific OH activities. The thematic section of the final report on 'Options for community level service delivery and approaches to OH integration' provides guidance on the organization and roles.

The community OH system can be an effective response to emergency. As shown also in the literature, community workers are at the fore front of the emergency. They can ensure the provision of basic health services, create community awareness, engage in disease surveillance and support the health professionals, reducing the burden on already stretched health systems. The acuteness and nature of the emergency will determine the relative feasibility and timeline for actions. Often humanitarian aid interventions are used to reinforce or even start community-based services and become opportunities to create long term impact. For example, rinderpest was eradicated from South Sudan when the NGO sector programmed 6-month funding packages from a mixture of donors to meet both immediate and long-term needs (Mariner, House et al. 2012). Outreach services such as mobile clinics can offer higher levels of care but should not take precedence over the foundation of access to basic services. In acute emergencies, mobile clinics are essential short-term solutions that, however, should be organized with the final goal of establishing and reinforcing community-based solutions.

A five-step process (figure 2) is suggested to establish the Community OH System in emergency with the goal of saving lives and increasing accessibility to basic health services, while putting the foundations for integrated community services that evolve and sustain in the long term.

Step 1 – Initial Assessment. For any kind of emergency, appropriate interventions require a first and thorough understanding of the local context in terms of size and distribution of affected human and animal populations, present or potential disease risks for animals and humans, environmental components of the emergency, local needs and community priorities, and existing assets and capacities such as available expertise and human resources, coordination and supervision system, resource supply network. Mapping services and actors that already exist and operate in the area will ensure that the new service delivery model fully integrates in the local structures, avoiding the establishment of parallel systems that are not sustainable in the long run. The initial assessment will allow identifying and building on similarities and

differences of the local public health, veterinary and environmental systems to harness potential synergies and create opportunities for effective coordination and collaboration.

Step 2 – Intervention Design. A key lesson from the study is that 'one size does not fit all'. It is impractical providing direct instructions on how to establish the Community OH System in a specific area. Rather, it is critical selecting the emergency intervention that best responds to the local needs and, at the same time, builds on already existing capacities and resources at the community level. Several options for the community level service delivery and approaches to OH integration are extensively described in the final report (see the section 'Options for community level service delivery and approaches to OH integration' under the Thematic Discussion) and are summarized in the Way Forward. It is recommended that these are reviewed and analyzed in light of the results of the initial assessment. The Community One Health Scenario Workshop can be an excellent tool for the scope (see the 'Community One Health Scenario Workshop Manual Guide', Annex 3 of the study Final Report). The workshop will allow to bring together stakeholders from the national to local level, community members, service providers and policymakers, to discuss and articulate a road map to OH integration at the community level. The workshop methodology assumes that no single approach to OH will be appropriate to all countries and empowers country stakeholders to identify those aspects of OH that best suit the local context and how to proceed with the process of change. The Community One Health Scenario Workshop will help to:

- articulate objectives and strategies that address both basic needs and resilience
- explore opportunity for refreshing and resupplying existing community workers in the short-term, and expanding their capacities and roles
- explore opportunities (and challenges) for integrating human, animal and environmental health services at the community level
- explore opportunity for updating existing supervision systems in the context of OH through integrated networks and evolution of supervisors' capacities and roles

- redefine local supply networks integrating supply networks into OH community worker networks

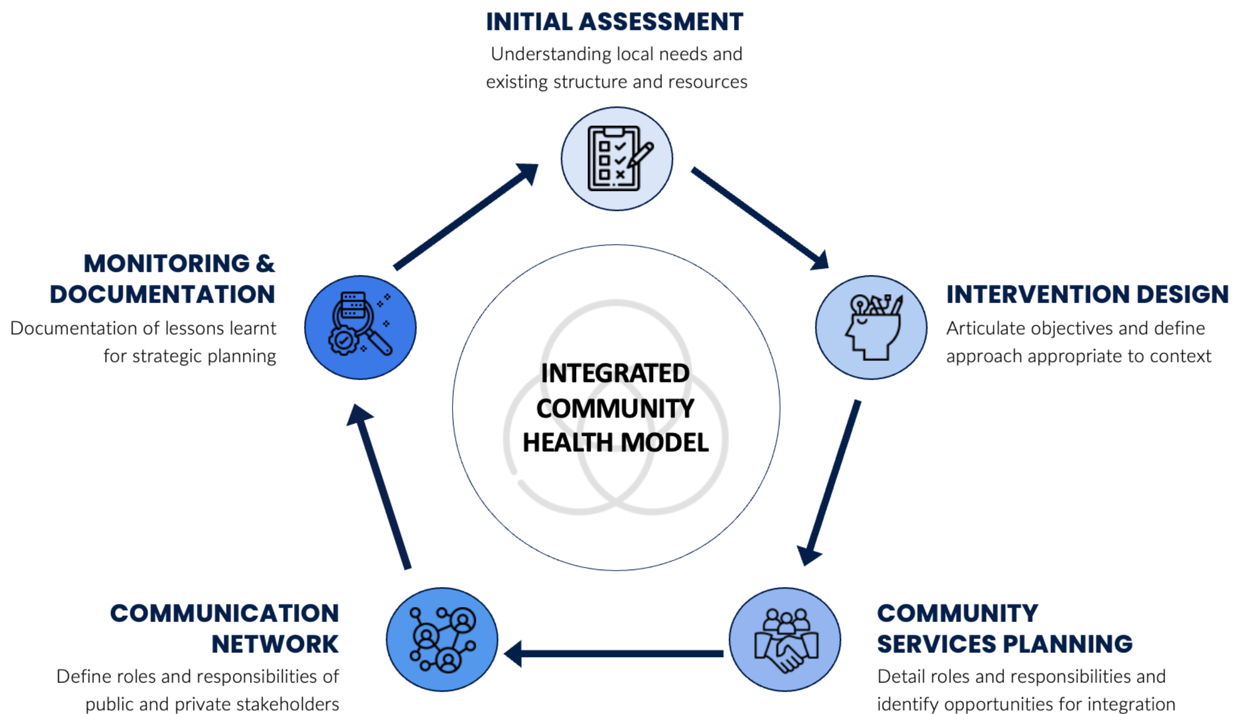

Figure 2: Five-step approach to establish a Community OH System in Emergency (icons from Flaticon)

Step 3 – Community Services Planning. The success of the emergency intervention and its impact on local development in the long term depend on the empowerment and engagement of local actors in the design of the community level action and a clear definition of their roles and responsibilities. Partners and stakeholders will need to detail roles and responsibilities of community-level service providers and, possibly, expanding their abilities and capacities to prevent, detect and manage diseases and ailments, while remaining in the national legal frameworks. The analysis of international practices and policies and review of experiences of communities and frontline workers suggest that community workers should be trained and equipped to provide a minimum package of services.

- CHWs should be able to provide health education and advice on health and personal hygiene, treatment for primary health concerns (e.g., malaria, diarrhea, and respiratory diseases), maternal pre- and post-natal care, and referral of more complicated cases
- CAHWs should be able to provide advice on animal husbandry and animal health, treatment for principle endemic diseases (e.g., infectious respiratory and intestinal infections, internal and external parasites, and hemoparasites), vaccination for endemic

diseases in accordance with the national strategy and using thermotolerant vaccines where available

Specific packages of medicines (types and concentrations) should be developed to simplify training and supervision of community-level workers. Human medications should include specific topical and oral preparations (e.g., antimalarials and RDTs, antibiotics, ORS); veterinary medications should include topical, oral and injectable preparations (e.g., acaracides, anthelmintics, antibiotics, trypanocidal drugs).

Partners and stakeholders will have to define the integration approach building on the existing systems. The approaches described in the Way Forward – one network of jointly trained community-level providers, one network of community-level providers sharing responsibilities, cross-trained community-level workers that provide healthcare services to both animals and humans – could help to define the system that best suits local structures and needs. Moreover, when planning the community service, it will be essential exploring the opportunity to develop a business model that builds on the good practices and lessons learnt in previous experiences and integrates in the local systems and infrastructures. The experience of local institutions with PPCP, for example, could assist the identification of the best approach to supporting purchasing power like the veterinary health vouchers.

Step 4 – Coordination and Communication Network. The Community OH System requires effective and continuous communication and collaboration among actors and across sectors. Public and private stakeholders from the local to the national levels should be involved in the design, management and maintenance of the community OH system, through a shared definition of their roles and responsibilities. Private pharmacies and drug stores, for example, could support the supply and re-supply of the OH network, whereas the local public system could ensure the technical supervision and support to community-level workers.

Step 5 – Monitoring and Documentation. In view of building a resilient Community OH System, practices from the field must be clearly documented and lessons learnt capitalized for future strategic planning. The establishment of the Community OH System to address an emergency can create the basis to develop a more resilient approach to health threats at the animal-human-environment interface. Lessons learnt and practices developed during the emergency will inform the evolution and amelioration of the system, transforming service delivery into a more effective and responsive model for vulnerable and remote communities.

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