



Knowledge Management Road Map for Public Health Emergencies

**A 6-STEP SYSTEMATIC
PROCESS FOR APPLYING
KNOWLEDGE MANAGEMENT IN
A PUBLIC HEALTH EMERGENCY**



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About the Knowledge Management Road Map for Public Health Emergencies

Public health emergencies are not new; however, they are becoming more frequent and more severe due to a variety of factors including urbanization, shifting population dynamics, and climate change ([UNICEF 2023](#); [Talisuna et al. 2020](#)). In the last decade alone, the world has experienced public health emergencies such as COVID-19, cholera, Ebola, and Zika, to name a few, and dealt with life-threatening floods and earthquakes ([WHO 2023](#)). During a crisis, it is essential that public health professionals can access accurate, up-to-date information use to inform their work. It is imperative that they are familiar with and follow the latest guidelines and advice from global and national coordinating bodies such as the World Health Organization (WHO) and Ministries of Health (MOH). However, given the quantity of information being published during a public health emergency, public health professionals and other responders often face choice overload—being presented with too many choices at once—when seeking urgent information to inform their programs. Not being able to quickly find actionable, reliable, up-to-date information leads to frustration, inaction, and an overreliance on the same sources of information—which may not be the most current or relevant to the emergency at hand. Once implementing partners do find the information they are looking for, they also often face cognitive overload—when information is presented in a way that is difficult to understand, making it hard for them to apply the information to their programs. Ultimately, choice and cognitive overload among public health professionals during a crisis can lead to inefficiencies and redundancies, resulting in a less effective emergency response.

Knowledge management (KM) can help address and reduce choice and cognitive overload and should be a core component of any public health emergency response. While there are many different definitions of KM, this guide defines KM as *the process of collecting and curating knowledge and connecting people to it so they can act effectively and efficiently*. KM during a public health emergency is critical to ensure a rapid, well-informed, coordinated, and effective response. In an emergency setting, where speed is of the utmost importance, KM tools and techniques can strengthen collaboration and knowledge exchange and ensure the latest evidence is put into practice, bolstering the overall public health emergency response. Example KM tools and techniques could include knowledge exchange events among key stakeholders, establishing communities of practice, and curating essential resources in one central location, among others.

The Knowledge Management Road Map for Public Health Emergencies is a step-by-step guide for implementing KM during a public health emergency, such as an infectious disease outbreak. The guide is meant to supplement global and national guidelines for public health emergencies and provides templates that implementing partners, public health professionals, and donors can easily modify to fit their needs.

The Foundation of This Guide

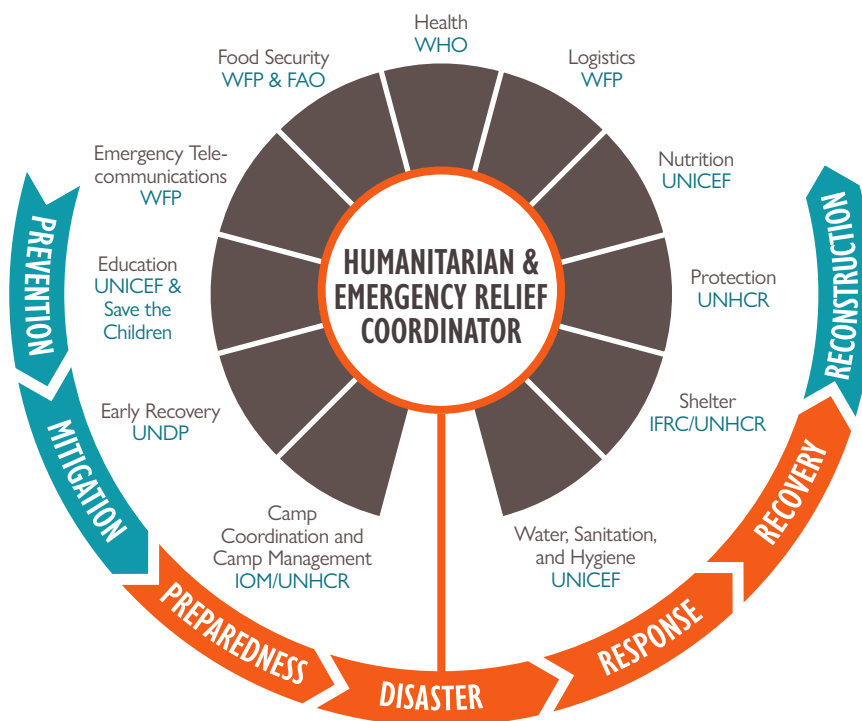
This Road Map was developed in close collaboration with USAID and informed by the Johns Hopkins Center for Communication Programs' experiences supporting USAID-funded response efforts for Ebola, Zika, and COVID-19, as well as a desk review. In addition, three documents served as the foundation for the Knowledge Management Road Map for Public Health Emergencies:

- [Building Better Programs: A Step-by-Step Guide to Using Knowledge Management in Global Health](#): A five-step systematic process for generating, collecting, analyzing, synthesizing, and sharing knowledge, the Knowledge Management Road Map guides the global health workforce in applying KM systematically and strategically in their programs.
- [The KM Pocket Guide for Global Health Programs](#): A basic overview of the Knowledge Management Road Map that serves as a quick reference on key steps for applying the Road Map to global health programs.
- [The United Nations High Commissioner for Refugees \(UNHCR\) Emergency Handbook](#): A guide to agile, effective, and community-based humanitarian emergency responses.

Who is This Guide For?

This guide is meant to be used by public health professionals before, during, and after a public health emergency. Many sectors, including health, are often implicated in a humanitarian or emergency response, as shown in **Figure 1**. This graphic outlines the humanitarian coordination and cluster approach for humanitarian and emergency relief coordination. The cluster approach is a set of structures, processes, principles, and commitments to coordinate humanitarian action when a national government requests international support ([UNHCR 2023](#)). Although health appears as its own cluster, public health emergencies themselves often not only affect health but other sectors as well, such as education; logistics; and water, sanitation, and hygiene, among others. For example, the COVID-19 pandemic affected the education sector, with many schools temporarily closing. Therefore, although this Road Map is meant to guide health professionals during a public health emergency, it is important to recognize that the response to such emergencies cannot occur in a silo. Health professionals need to be aware of the bigger picture during any emergency response.

Figure 1.
The cluster
approach diagram







Specifically, this guide is meant to be used by four primary actors: governments leading overall public health emergency response efforts; international, national, regional, or local donors; the KM Lead organization (identified and funded by a donor/government); and implementing partners made up of public health professionals (**Table 1**). Every emergency response is managed slightly differently, depending on the makeup of partners, funding, and the nature of the emergency itself. Included below are two likely scenarios in which this Road Map would be used, one at the global level and one at the country level. In all scenarios, the overall response to the public health emergency is managed by the government. Large international donors (such as USAID) respond to country needs and work in close collaboration with the government to support response efforts. In many instances, the lead international donor identifies and funds the KM Lead organization. However, in some instances, the government may choose to identify and fund the KM Lead at the country level itself.

Global-level example: Once a public health emergency occurs, an international donor is often identified as the lead to collaborate with the government and support its response efforts. The international donor allocates funds to implementing partners for emergency response efforts. Each partner may have a different focus, depending on their areas of expertise. One implementing partner should be identified as the KM Lead organization. The KM Lead will be responsible for coordinating KM efforts among all implementing partners and across countries funded by the donor during the emergency response.

Country-level example: Once a public health emergency occurs, national, regional, or local donors allocate funds for the emergency response, including funds for KM. One KM Lead organization is identified in collaboration with the government and donors. The KM Lead is responsible for coordinating KM efforts among implementing partners identified by the donors.

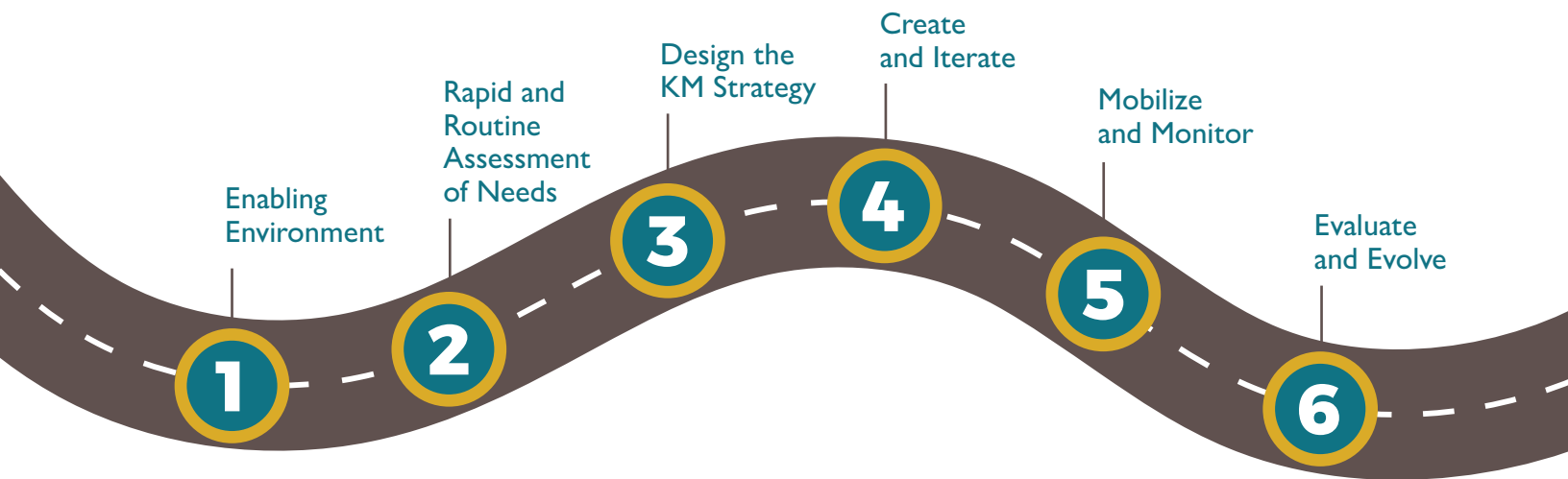
Table 1. Primary audiences for this guide

KM ROLE DURING AN EMERGENCY	HOW TO USE THE ROAD MAP
 Government Organize overall response efforts and work closely with international donors supporting the country's response efforts.	Identify and fund a KM Lead organization at the country level and/or identify a lead donor who will be responsible for identifying a KM Lead, among other response efforts.
 International, national, regional, or local donors Identify and fund a KM Lead organization to manage and implement KM efforts throughout the emergency response. Set expectations, ensure KM efforts are funded, nurtured, respected, and sustained. Deliver clear messaging on up-to-date and accurate information.	Work with the KM Lead to develop a scope of work that responds to the knowledge needs of the public health professionals responding to the emergency. Monitor and assess the KM initiatives managed by the KM Lead. Encourage knowledge exchange among all implementing partners involved in the response. Set clear expectations for how implementing partners engage in KM activities facilitated by the KM Lead.
 The KM Lead Organization* All public health professionals have a role to play in contributing to KM efforts during an emergency. However, there needs to be a clear KM Lead to organize, manage, and spearhead KM efforts among health professionals during the emergency to reduce duplication and streamline response efforts. The KM Lead is responsible for: Designing, implementing, and evaluating KM tools and techniques to address collective knowledge needs among local, national, and/or global public health professionals responding to the emergency. This includes ensuring internal learnings among implementing partners are captured and disseminated among other implementing partners working on the emergency response to encourage collective learning.	Follow the step-by-step process to identify and respond to KM needs among public health professionals in an emergency response. Implement KM tools and techniques to address identified needs. Monitor and evaluate KM efforts during the public health emergency.
 Implementing partners/Public health professionals Participate in broader KM efforts implemented by the KM Lead, including sharing experiences externally to inform the work of others in the emergency response. Implement KM activities internally within their organizations.	Follow the step-by-step process to guide strategic and systematic KM practices within their organizations and projects and contribute to broader knowledge exchange to strengthen response efforts.

*For the purposes of this guide, the KM Lead is assumed to be a national or international NGO

The Knowledge Management Road Map for Public Health Emergencies

The KM in Emergencies Road Map outlines a six-step process for generating, collecting, analyzing, synthesizing, and sharing knowledge during a global health emergency:



STEP 1: Enabling environment to ensure KM is funded and prioritized throughout the emergency

STEP 2: Rapid and routine assessment of needs to understand knowledge needs and identify how KM can help address them

STEP 3: Design the KM strategy using KM interventions

STEP 4: Create and iterate using new KM tools and techniques or adapting existing ones to meet knowledge needs during the emergency

STEP 5: Mobilize and monitor by implementing KM tools and techniques, monitoring their effects, and adapting to respond to changing needs and realities

STEP 6: Evaluate and evolve to explain how and if KM objectives were achieved, identify factors that contributed to or hindered success, and use these findings to influence future programming and emergencies



Although the six steps are presented in a linear way, implementation of KM during a public health emergency is often cyclical. For example, as the emergency progresses, so will the needs of public health professionals responding to it. Therefore, needs assessments should be conducted throughout. Each needs assessment could lead to the implementation of a new KM tool or technique that would need to be implemented, monitored, and evaluated.

What is Knowledge Management?

Information and knowledge are essential assets for any organization. When public health professionals, implementing partners, governments, donors, and policymakers use the latest evidence and experience to inform their decisions, they can provide high-quality programs and services, develop effective policies, reduce duplication of effort, and increase efficiency. These results, in turn, ultimately support better health outcomes for people.

There are many different definitions of KM, but all share common themes. This guide defines knowledge management as **a systematic process of collecting and curating knowledge and connecting people to it so they can act effectively and efficiently.**

Additional Definitions of KM:





- The process of generating, curating, organizing, sharing, and using knowledge to create value or support decision-making in context (USAID)
- The process of creating, sharing, using, and managing the knowledge and information of an organization (United Nations)

The 3 Ps: People, Processes, and Platforms

These three components form the foundation of KM. Most knowledge is created, captured, and shared through human interaction—making it essentially a social act. People, their behaviors, and the norms that govern those behaviors must, therefore, be at the core of any KM approach, particularly since so much knowledge is in people's heads and is difficult to transfer to others. Processes, both formal and informal, help us capture and share knowledge, while technological platforms that are appropriate to the context can expedite knowledge storage, retrieval, synthesis, and exchange.

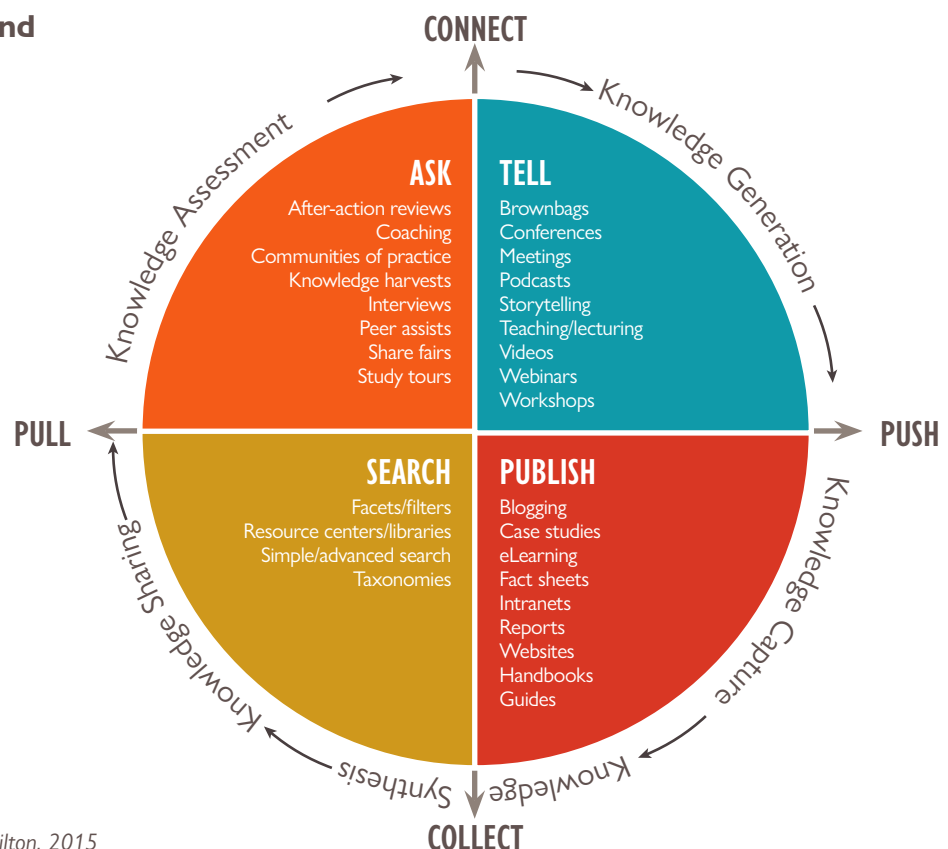
The KM Tools and Techniques Matrix

KM tools and techniques can range from activities that focus on collecting knowledge and connecting people to that knowledge, to pushing knowledge to key audiences and enabling audiences to pull the content they need (see Figure 2). These two continuums—connecting and collecting and pushing and pulling—create a matrix in which KM tools and techniques can be understood in terms of the broad approaches they use in the KM cycle to generate, capture, and share knowledge:

-  **Asking** approaches for eliciting tacit knowledge—the “know-how” in people’s heads
-  **Telling** approaches for conveying knowledge to defined groups of people
-  **Publishing** approaches for sharing explicit knowledge—knowledge that is in a format that can be easily stored and shared with others
-  **Searching** approaches to allow people to pull the information they need, when they need it

Taken together, these different approaches complement each other, and effective KM strategies will often use multiple approaches. For more information on KM and specific approaches and methods, please refer to the [KM Training Package for Global Health Programs](#).

Figure 2. KM Tools and Techniques Matrix



Source: Adapted from Barnes & Milton, 2015

The Role of Knowledge Management in a Public Health Emergency

The very nature of a public health emergency, such as an infectious disease outbreak, necessitates speed. The ability to act quickly and decisively in these contexts can have life-changing consequences for affected communities. Available knowledge is rapidly distributed, updated, and redistributed, and—with a multitude of actors responding to the emergency—the communication of vitally important information can be uncoordinated or disjointed.

During a public health emergency, a wealth of information is often disseminated very quickly. While most information is accurate and essential and is intended to strengthen global health efforts to mitigate the effects of the crisis, misinformation is also common during emergencies. Given the quantity of information available—whether accurate or not—implementing partners often face choice and cognitive overload.

KM tools and techniques can help address these challenges by documenting and disseminating current information in a streamlined and systematic way, curating and synthesizing knowledge so that it is actionable, and creating knowledge exchange opportunities for stakeholders to share tacit knowledge. KM approaches can ensure that implementing partners are able to access the most current guidance and information (often updated on a daily basis during an emergency). Being able to confidently find and act on the most recent information can help ensure a streamlined and effective response. In addition, KM tools and techniques can help ensure that partners are using the same tools, reducing inconsistent messaging that can lead to public mistrust and confusion.

Managing an emergency response is a complex undertaking requiring knowledge sharing and accountability across stakeholders. Although emergencies are rapidly evolving, the resources, people, and time available to address them are finite. KM creates a culture of constant improvement, adaptive response, and applied learning to strengthen response efforts.

Considerations for KM in Emergencies

- Emergencies develop and progress rapidly. During a crisis, KM efforts need to be systematic, streamlined, and rapid to respond to needs in real time.
- KM tools and techniques are most effective when implemented from the start of the emergency; however, KM can be used at any point throughout response efforts.
- KM efforts are most effective when all stakeholders in an emergency are engaged and committed to documentation and knowledge exchange. For example, documenting program implementation details, including what works and what doesn't, and sharing that information externally with other partners can lead to a more effective and efficient response.
- Expectations need to be clear regarding who is meant to contribute to KM tools/techniques and when. These roles need to be established at the beginning.
- Various stakeholders are often brought together in an emergency—some of whom have never worked with one another before. KM tools and techniques, such as knowledge exchange events and communities of practice, can be used to create safe and trusting environments among stakeholders to share implementation details, lessons learned, what's working, and potentially sensitive topics (such as what's not working).
- Knowledge needs will shift as the emergency progresses. Therefore, flexibility is essential.
- Creating mechanisms for consistent communication between and among implementing partners and donors is key for an efficient and effective response.
- Those responding to the emergency may also be experiencing the effects of the emergency themselves; therefore, the physical safety and mental health of staff and public health professionals need to be top of mind throughout the response.

The Four Stages of Emergency Management

The four stages of emergency management include: 1) planning and mitigation, 2) preparedness, 3) response, and 4) recovery. The planning for a KM response can be done as part of the planning and preparedness stages, while the **implementation** of KM tools and techniques occurs in the response phase. The **outcomes** of KM efforts—including the insights, lessons learned and documented recommendations, and the tacit knowledge exchanged—can and should be immediately used to inform the recovery phase. These outcomes should also remain accessible to inform the planning and preparedness phase of any future public health emergency.

Equity in Knowledge Management in Emergencies

In global health emergencies, unfair, avoidable, and remediable differences in health status are accentuated through limited knowledge creation, lack of access, and sparse or restricted use among groups of public health professionals. Power and privilege imbalances are amplified as the divisions between who has power and who does not widen. For example, women are often more vulnerable to the impacts of disasters than men due to existing gender inequities ([McKinsey Global Institute 2020](#); [World Bank 2021](#)). These inequities also bleed into the health sector. For example, in North, Central, and South America and the Caribbean, the vast majority of health workers are women. Therefore, women were at an increased risk of contracting COVID-19 during the emergency response, accounting for 72% of all COVID-19 cases among health workers in the region ([PAHO 2022](#)).

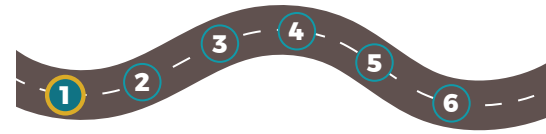
These facts need to be taken into consideration when designing a KM intervention in a health emergency context, as these power and privilege imbalances in global health are also embedded in KM systems and processes within global health programs. To attain equity in KM, programs should apply an equity lens throughout all steps of the KM Road Map. Therefore, considerations for equity have been included throughout this guide.

Refer to [the complete Equity Checklist and how-to guide](#) to help global health program teams raise awareness about potential inequities in KM and identify where to focus their efforts to achieve a more equitable KM approach.



What is health equity?

According to the [World Health Organization](#), health equity is the “absence of unfair, avoidable, and remediable differences in health status among groups of people” and is “achieved when everyone can attain their full potential for health and well-being.” Equity is achieved when all public health professionals have the opportunity, skills, and resources they need to define and participate in the process of knowledge access, creation, sharing, and use to improve health programs. To ensure effective KM, all public health professionals must engage in knowledge creation, capture, sharing, and use, and KM systems must value and respect each individual’s unique knowledge needs, experience, and perspective, regardless of their geographic location, age, gender identity, race, ethnicity, or other identity.



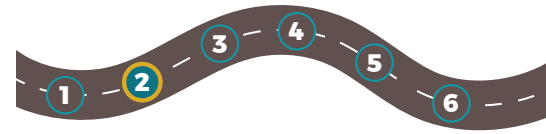
6-Step Process: Knowledge Management Road Map for Public Health Emergencies

STEP 1 Enabling Environment

Allocate and award funds for KM. KM needs to be funded and prioritized from the beginning of the response. This includes advocating for the allocation of funds specifically for KM activities, such as collaboration (e.g., staff time to manage a community of practice), knowledge exchange (e.g., funds to host in-person or virtual knowledge exchange events or knowledge-sharing platforms), documentation (e.g., funds to write, lay out, and publish case studies), and curation of resources (e.g., funds to host a central resource hub). Using the [Smart Advocacy approach](#) is a good place to start. Referencing relevant theoretical models (refer to call out box on p.17) and [evidence that demonstrate the value of KM](#) can support your advocacy efforts.

Create a scope of work and identify a KM Lead organization who will identify KM needs among public health professionals, as well as manage, implement, and monitor KM initiatives. A KM Lead is necessary to ensure KM is strategic and systematic throughout the emergency. Their role is to facilitate KM throughout the response. The KM Lead and their donor/government should work together to create a scope of work for KM activities that is informed by the needs of implementing partners and public health professionals responding to the emergency. Refer to the scope of work template in the Appendix.

Publicly announce the KM Lead among all implementing partners and set clear expectations among all implementing partners regarding their involvement in KM initiatives. Although there is one KM Lead, everyone is responsible for contributing to KM efforts; the KM Lead is meant to support and promote the work of all implementing partners and public health professionals. Therefore, roles and expectations need to be set by the donor or government, so everyone knows and understands their role in the KM efforts. For example, if implementing partners are expected to share the tools and resources they create with the KM Lead so they can be made accessible via a single platform, the donor/government needs to make that expectation clear. In addition, if implementing partners are expected to openly discuss what is and isn't working with other external partners, that expectation needs to be set by the donor/government. Finally, the KM Lead should work in close collaboration with implementing partners and public health professionals and consistently reiterate that the KM Lead's role is to support them in promoting their work and ensuring their lessons and insights are shared and used to inform the broader response.



STEP 2

Rapid and Routine Assessment of Needs

To provide KM support during an emergency, you must first understand the needs of those working to mitigate the crisis. Key steps for a needs assessment include:

Define the stakeholders you want to include. Be specific. Conduct your needs assessment among the public health professionals responding to the emergency. This can include those working at national or international NGOs as well as health workers themselves. These are the individuals who need timely and reliable information quickly and whose knowledge needs you'll need to understand to implement the appropriate KM tools and techniques to address those needs. This step should include conducting a rapid landscape assessment of all the implementing partners, their roles, and where they are working. Refer to the landscape analysis template in the Appendix. An example stakeholder for a public health emergency response needs assessment could be implementing partners responding to the COVID-19 pandemic in sub-Saharan Africa.

Decide what key questions you want to answer. Common questions center around the types of information your primary stakeholder needs, how they prefer to access information, their capacity strengthening needs, and facilitators and barriers to accessing, sharing, and using information. Refer to the needs assessment template in the Appendix.



Example Needs Assessment Questions

- Where do public health professionals go to access up-to-date information during an emergency?
- What format(s) is information shared in? What formats are most preferred by public health professionals? (e.g., case studies, webinars, podcasts, etc.)
- What languages is information available in? What is the preferred language of the public health professionals responding to the emergency?
- What opportunities, if any, are there for public health professionals to share implementation details, lessons learned, and recommendations with one another? What knowledge exchange opportunities would be useful?
- What formal or informal communities of practice exist to discuss this public health emergency or similar health topics?

Select and implement the appropriate methods to answer your questions.

During an emergency, choosing methods that will provide rapid results and minimize the time commitment from implementing partners is key. This could include conducting a desk review, surveying/interviewing members of stakeholder groups, and/or documenting challenges that arise during routine meetings, such as communities of practice.

Analyze and use the information gathered to adjust your learning objectives as needed.

Much of the data will likely be qualitative. If conducting an online survey, try to use software that produces a compiled report of the findings to save time synthesizing the data. If conducting interviews, use a standard notetaking template and identify key themes after each interview to minimize the time required for analysis. Synthesize the findings and create a summary.

Needs should be assessed frequently, given the rapidly changing environment in an emergency. As new information arises or as the emergency progresses, stakeholders will have different needs.



Equity Consideration:

Consider the potential inequities in your KM efforts by taking into account the social, economic, and environmental categories of people's identities (see Table 1 of the [KM Pocket Guide](#)), as well as aspects of KM systems and processes that are not being delivered equitably. Segment your stakeholder audience when analyzing the findings of your needs assessment; this will help you better understand each group's specific needs to ensure that your KM intervention is designed to meet them. For example, if you are surveying a community of practice on its information needs, take into consideration the gender and age breakdown of the members and use those findings to tailor KM interventions to the different segments, if needed. For example, younger professionals may prefer to receive information through a WhatsApp group or social media posts, while older professionals may prefer a newsletter or website.



STEP 3

Design the KM Strategy

Decide on KM objectives. Use the results of the needs assessment to create KM objectives that respond to the stakeholders' needs and use KM approaches and formats that are accessible and appropriate. Choose three to five objectives and make sure they are SMART: Specific, Measurable, Actionable, Realistic, and Timely. Most KM interventions focus on improving initial outcomes (e.g., improving public health professionals' knowledge of a topic and their use of a tool/guideline), and sometimes intermediate outcomes (e.g., improving quality of services). KM interventions contribute to long-term outcomes (e.g., changes in health outcomes) but are difficult to directly link to those outcomes. Refer to the [Knowledge Management for Global Health Logic Model](#) for additional information and a visual depiction of the relationships between the resources, processes, outputs, and outcomes of KM interventions in global health programs.



Examples of SMART KM Objectives:

- Strengthen knowledge exchange among USAID-funded COVID-19 implementing partners through at least one virtual and one in-person knowledge exchange event by X date.
- Increase access to tacit knowledge among USAID-funded COVID-19 implementing partners through the documentation of at least three implementation experiences (e.g., blogs, case studies, podcast episodes, etc.) highlighting what works and what doesn't in COVID-19 vaccination implementation by X date.

Define the stakeholders of the KM intervention. The stakeholders of the KM intervention should be the same stakeholder audience (or a segmented version) as those who responded to your needs assessment. Be as specific as possible. For example, your stakeholder audience can remain the same from your needs assessment: *Implementing partners responding to the COVID-19 pandemic in sub-Saharan Africa*. Or it could be segmented further: *USAID-funded implementing partners responding to the COVID-19 pandemic in Kenya, Nigeria, and Tanzania*.

Theoretical Frameworks

Identifying a relevant theoretical model in your KM strategy gives rigor and an underlying evidence base to your KM activities, which can help when advocating for funding. Therefore, we recommend grounding the KM intervention in one or more relevant theoretical frameworks.

An emergency response may require grounding the intervention in more than one theoretical framework—combining both KM and emergency response frameworks. For example, common examples of frameworks and theories relevant to KM include [Bloom’s taxonomy of learning](#), [diffusion of innovations](#), [ideation](#), and [stages of change](#). However, it’s also important to be aware of emergency frameworks, many of which include a balance between perceived threat of the emergency and self-efficacy (i.e., confidence to practice the proposed behavior). Two frequently used emergency models include the [Extended Parallel Processing Model](#) and the [institutional collective action \(ICA\) framework](#).

Select the KM tools and techniques you will implement to meet your KM objectives. (Refer to Figure 2 and accompanying emergency-specific considerations of KM tools and techniques for examples of specific KM tools and techniques that might be appropriate for meeting your stakeholders’ needs and accomplishing your objectives in an emergency.) Remember to choose tools and techniques that are appropriate for the context and “meet people where they are.” Also be cognizant of the timing during an emergency response, as a technique that is quicker to implement may be more useful than a more robust technique that requires months to implement.

Develop an implementation plan and budget. Identify which KM tools and techniques you will employ, among whom, where, and how often. Use this information to complete a budget that includes estimated costs for each KM tool/technique. Refer to the budget template in the Appendix. Financial considerations for equity should also be included, such as funds for translation of documents into other languages, interpretation during events/webinars, etc. If planning in-person events, assess whether other stakeholders will have the funds to attend or whether the KM Lead will fund participation of the stakeholders (e.g., many implementing partners will not have available funds set aside to attend workshops that are not directly associated with their program activities).

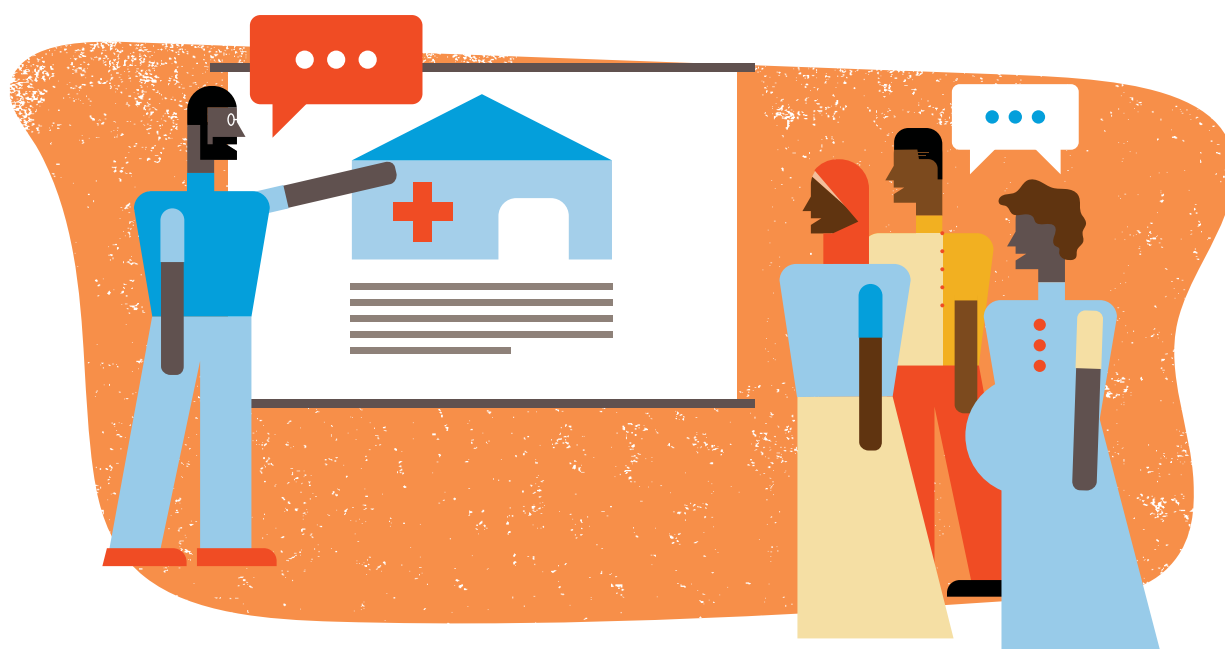
Develop a routine and rapid monitoring and evaluation (M&E) plan. Employing rapid and routine methods to collect feedback and assess the impact of your KM innovations is essential to ensure you are meeting KM needs throughout the emergency response. Keep in mind the busy schedules of implementing partners and try to collect their feedback while you already have their attention (e.g., add a pop-up survey to a webpage or ask poll questions at the end of an online event instead of emailing them later). Your M&E plan should include how and how often activities will be monitored, indicators to measure progress toward outcomes, data sources, and how success will be defined. Try to disaggregate and analyze findings by gender, age, and other factors that represent your stakeholders' identities and are relevant to your program context. Refer to the M&E template in the Appendix.

Bring together relevant stakeholders to launch the KM intervention. Inform all stakeholders about your KM strategy and implementation plan. This will help ensure everyone understands their own and each other's roles and how their activities contribute collectively to the larger vision. This could include hosting a webinar, writing a blog post, or sending an email. If possible, donors should also be involved in promotional efforts to ensure expectations regarding



Equity Consideration: _____

Ensure that your KM interventions address the barriers and root causes of inequity that you identified in the needs assessment. If you are organizing an event, use the [Checklist for Assessing Equity in KM Initiatives](#) while planning your event.



Sample KM Tools/Techniques in Public Health Emergencies



ASK:

- [A community of practice](#) (CoP) is a group of individuals who interact over time, are bound together by a shared interest or purpose, and share best practices and lessons learned with one another. CoPs are especially important during a public health emergency as they bring multiple stakeholders together to rapidly share knowledge and support adaptive management. Task forces, CoPs, and technical working groups already exist on many pressing public health topics. For example, consult [this list of key KM hubs](#) for risk communication and community engagement published by [the READY initiative](#). Given the rapid nature of a public health emergency, it is often more effective to leverage existing CoPs instead of creating a new one. CoPs can meet virtually or in person; however, providing a virtual option allows for broader participation across countries.
- [Share fairs](#) are participatory events that promote learning from participants' experiences to improve their work. They often include interactive and small group conversations for participants to exchange knowledge and provide an opportunity to dive deeply into a specific topic, share lessons learned, and encourage collaboration and networking. Share fairs are often implemented in person, but can be done virtually as well.
- [Peer assists](#) are a structured, participatory process for peer learning and exchange between a team with relevant experience and another team new to a process. Peer assists provide a unique opportunity for teams to learn from one another in a trusted environment. They can be implemented virtually or in person.



TELL:

- Webinars can be a great tool to keep public health professionals updated throughout an emergency with the most current information. With every webinar, consider publishing a [webinar recap](#) with timestamps for easier skimming among those who were not able to attend.
- Podcasts and blogs can help keep stakeholder audiences informed with the most up-to-date information and share insights from various experts and stakeholders. Podcasts are a good approach if stakeholders do not have the time to read lengthy documents or are often multi-tasking.
- Summary reports of discussions and insights shared at closed-door meetings should be disseminated widely to ensure the information and insights exchanged are accessible beyond those who attended.



PUBLISH:

- [Document and publish program experiences](#) that include implementation details so that promising practices are shared and can be adapted to different contexts, as appropriate. Publication channels may include blogs, internal reports, or peer-reviewed manuscripts.
- Publish “how-to guides” and case studies that document implementation details, successes, challenges, impacts, lessons learned, and recommendations to help with the application of evidence into action.
- Create and publish summaries of key documents to ensure essential information is accessible and key concepts are synthesized.
- Translate and publish essential resources into other languages to ensure they are accessible to those who need them to inform their programs. Translation is often overlooked and/or underfunded; however, it is one of the most valuable KM approaches to address equity and ensure access to essential timely information.



SEARCH:

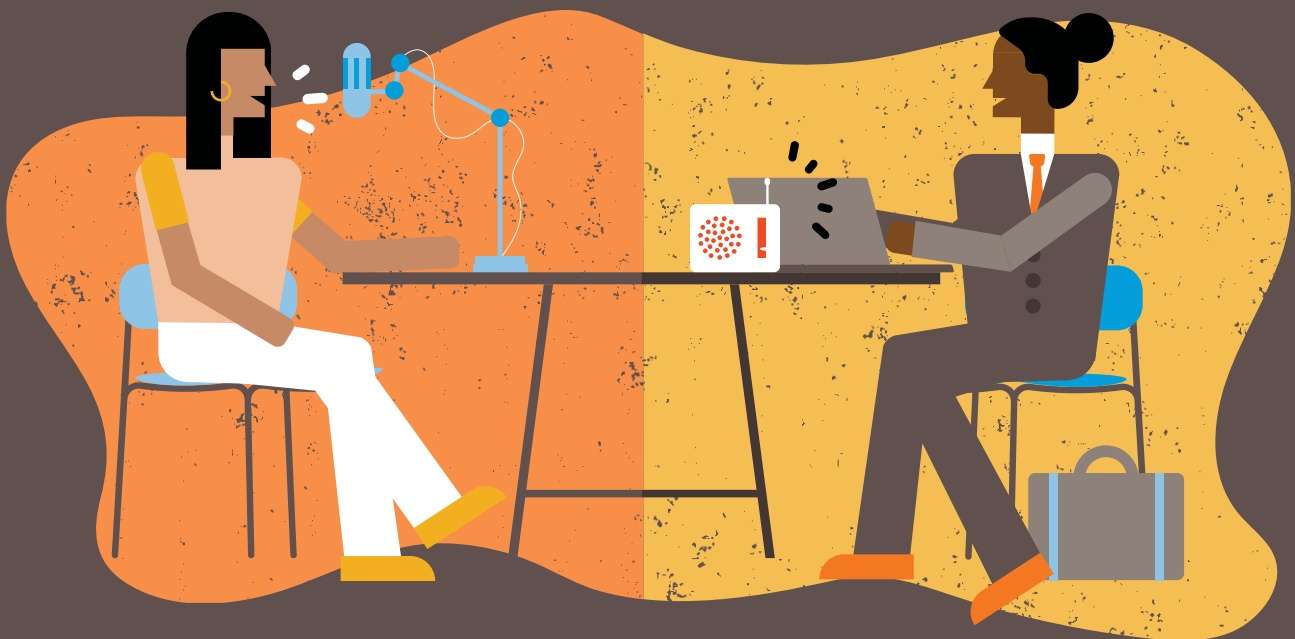
- [Online hubs, resource centers, or resource collections](#)—especially those that have already been established prior to the emergency—can be a great tool to curate essential information in one central, easily accessible location for stakeholders who do not have time to scroll through Google search results or when validity of information is a concern due to misinformation. If implementing partners are expected to share resources to an online hub, the KM Lead should create a streamlined submission plan, do consistent outreach to partners for new resources, and ensure all information is credible. Maintenance of the hub is also important to ensure information stays updated and does not point to outdated guidance. Resources should be precisely and consistently tagged for accessibility, efficiency, and relevance when searching and the content should have good search engine optimization (SEO). Good SEO techniques should also be included when uploading any document online to ensure the content is accessible to those searching via Google instead of accessing the resource center or collection directly.

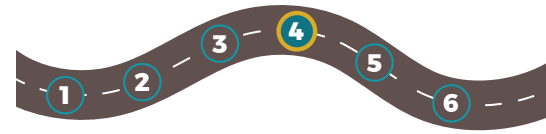
Refer to the [KM Training Package](#) for training modules and resources on specific KM tools and techniques.



Equity Consideration:

Carefully consider what platforms you are using for KM and who does and does not have access. Ensure all content is accessible to users regardless of their capabilities. Diversify knowledge-sharing techniques to reach a broader stakeholder audience. Consider connection issues and communication barriers based on different contexts. For example, consider providing phone credits if accessing the internet via phone is a barrier, providing live interpretation for speakers of other languages, or offer technical support for documentation if needed. Finally, ensure equitable participation in all events, surveys, and other outputs (e.g., gender identity, ability, geographic location, age).





STEP 4

Create and Iterate

Identify your KM Team. Identify the KM skills required for the various tools and techniques you intend to employ, then find staff members to lead and support each. You do not necessarily need to have internal capacity for all these skills; sometimes it might be more efficient and effective to outsource defined tasks. As you assemble your KM team, identify opportunities for roles to be filled by people of different identities, especially those who are traditionally underrepresented and people from the countries where the activity will take place.

KM Skill Sets

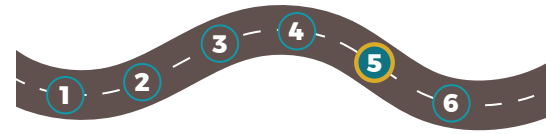
Depending on which KM tools and techniques you implement, your KM team may include the following skill sets:

- Writing, copyediting, and design of any knowledge product, including case studies, implementation experiences, summary reports, etc.
- Information technology (IT) staff to upload content online and manage repositories.
- Staff with facilitation experience for in-person or online knowledge-exchange workshops
- Logistics and administrative staff for event planning, booking venues, and arranging logistics for in-person meetings/workshops, etc.

Consultants can be brought on for many of these and other roles, including for interpretation and translation.

Develop the KM tools and techniques. For each KM tool or technique, begin by creating a concept note that outlines the objectives, purpose, deliverables, expected outcomes, and specifics of each KM activity. Refer to the concept note template in the Appendix. Consider the sustainability of each KM activity from the design phase, including which components need to be sustained post-emergency and which do not. Take into consideration approaches that require maintenance or have associated costs, such as resource centers, websites, etc. How will the information continue to be made available after the emergency (and its funding) ends so it can inform future response efforts?

Test or gather feedback about the KM tools and techniques, revise, and retest. Solicit rapid feedback from donors and key stakeholders on the elements included in the concept note and incorporate their suggestions. For electronic products, prototypes can be used for stakeholder testing and feedback. For KM events, such as a webinar or share fair, get feedback on the concept note and draft agenda. Changes are easier and less expensive during the earliest development stages. One rapid and low-cost way to gather feedback is through CoP meetings.



STEP 5 Mobilize and Monitor

Implement your KM interventions. Begin implementing your KM tools and techniques according to your implementation plan and timeline.

Schedule routine team meetings. Set up routine meetings and other channels for systematic and ad hoc communication with those implementing KM activities. Encourage an environment of sharing knowledge about what has and has not been working well and of asking for suggestions on how to improve processes.

Review progress toward KM objectives. Refer to your M&E plan and routinely track your program's inputs, processes, and outputs to help quantify what has been done, who has or has not been reached, and who has acted on the appropriate knowledge. Collect feedback from participants as you go. In an emergency, monitoring activities should be as un-cumbersome as possible without threatening the quality of the information. Create streamlined processes to ensure rapid collection of information (paper vs. electronic), which will encourage quick decision-making and define roles and expectations for monitoring. Pairing this monitoring data with other KM tools and techniques, such as [after-action reviews](#), can help foster discussions about what changes might be needed to keep the initiative on track and to ensure more equitable KM.

Adapt as necessary. Monitoring data is only valuable if it is used to inform decision-making and enhance performance. Conduct [after-action reviews](#) to discuss what went well and areas for improvement and hold standing team meetings to discuss necessary shifts in activities. Donors and governments need to encourage the KM Lead to be open and honest with what's working and what's not, and remain flexible to ensure the KM Lead has the autonomy to make needed shifts in their workplan and budget to address rapidly changing needs.

After-action Reviews Help Inform Lassa Fever and COVID-19 Implementation in Nigeria

After-action reviews of the response to [Lassa fever outbreaks in Nigeria](#) in 2017–2019 were helpful in shaping a more informed future response for both Lassa fever and COVID-19. The Nigeria Centre for Disease Control (NCDC) organized after-action reviews with key stakeholders within the response to assess the previous year's response activities. They learned that public sensitization about Lassa fever during football matches and the use of environmental sanitation days contributed to increased awareness among citizens in a specific state. The NCDC thus adapted this practice during future outbreaks, including COVID-19.



Equity Consideration: _____

Disaggregate monitoring data by the relevant identities of your audience (e.g., gender identity, ability, geographic location, age), allow people to self-identify gender and race to monitor for equity, and reflect on how different identities interact to create unique challenges and/or opportunities for engagement with your KM intervention.



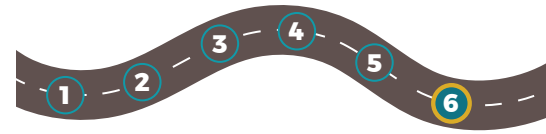
CASE STUDY

The MOMENTUM Routine Immunization Transformation and Equity (M-RITE) Project Applies Knowledge Management to the COVID-19 Response

The World Health Organization declared COVID-19 a public health emergency of international concern on January 30, 2020. As part of the USAID COVID-19 response, the USAID-funded MOMENTUM Routine Immunization Transformation and Equity ([M-RITE](#)) Project led by JSI Research & Training Institute Inc. contributed to efforts to mitigate the impact of COVID-19 on immunization services and support countries to prepare for and introduce COVID-19 vaccines, including the use of KM tools and techniques.

At the start of the COVID-19 pandemic, many implementing partners who had not previously worked in vaccines began implementing COVID-19 vaccine initiatives. These partners needed trusted, up-to-date information on the types of COVID-19 vaccines available, guidance on administration of doses, priority populations, and service delivery strategies. M-RITE began hosting monthly COVID-19 vaccine implementing partner forum meetings. The forum was intended to provide a platform for the bi-directional sharing of updates, experiences, and ideas among USAID-funded implementing partners to increase the potential effectiveness of USAID's COVID-19 investments.

Throughout the implementation period, M-RITE collaborated with Data for Implementation ([Data.Fi](#))—a global project that helps countries strengthen routine health information systems—to launch approximately seven “pulse surveys” to assess knowledge needs among implementing partners over time. M-RITE used the findings to determine the topics and speakers for the monthly implementing partner forum meetings. As the pandemic evolved, more information was published, and more vaccines were made available around the world, the implementing partner forum calls slowly decreased in frequency from monthly to quarterly and eventually ended altogether. However, in addition to the forum calls, M-RITE also hosted an internal website for USAID-funded implementing partners to share meeting notes and presentations, find the latest resources on COVID-19 vaccine, access one another's contact information, and share experiences via a discussion forum.



STEP 6 Evaluate and Evolve

Decide which program outcomes to measure. The KM tools and techniques that you implement should help ensure critical, high-quality information is available and accessible, that knowledge exchange and collaboration among implementing partners and public health professionals is brokered and supported, and that capacity is strengthened for knowledge sharing. Together, these KM results contribute to long-term outcomes such as increased use of evidence-based information to inform programs, improved and strengthened health programs and services, and improved health and development indicators. Although KM contributes to these long-term outcomes, it is often difficult to directly link them to KM interventions since KM tools and techniques generally work in concert with other public health activities, such as those focused on service delivery, logistics, or training. For this reason, it is hard to tease out the specific impact of the KM tools and techniques. Therefore, most KM interventions in emergencies focus on improving initial, and sometimes intermediate, outcomes. For example, outcomes at the initial level could include access to information or implementation of global guidance and tools. Outcomes at the intermediate level could include changes to national data monitoring and reporting systems.



Example Knowledge Management Monitoring and Evaluation Indicators

- Number/percent of public health professionals who report knowledge gained
- Number/percent of public health professionals who feel confident they know where to go to access reliable and up-to-date information to inform their work
- Number/percent of public health professionals who report improved collaboration due to KM initiatives
- Number/percent of public health professionals accessing information by attending webinars, downloading web content, or visiting a website

Choose the evaluation design and collect, analyze, and synthesize the data.

Strong evaluation designs take before-and-after measures of key indicators to identify changes over the duration of an intervention. For completely new public health emergencies, baseline data regarding accessibility to key information/guidelines will be sparse, as information on the topic did not exist prior. However, tracking this information is still essential to see changes over time and assess confidence in one's ability to access accurate, up-to-date information to inform their programs. Given the speed at which emergencies occur, an emphasis is often placed on implementation over evaluation. However, evaluations are essential to inform future emergency responses. Suggestions for how to conduct rapid evaluations include online surveys, periodic polls or pulse surveys, reporting on web analytics, etc.

Share evaluation findings and lessons learned broadly and with key stakeholders.

Sharing evaluation findings as well as lessons learned and recommendations is essential to inform future emergencies. Insights can be shared via implementation stories, case studies, project briefs, and—if time allows—peer-reviewed manuscripts.

Promote use of evaluation findings in policy and practice. To ensure that findings are shared with the appropriate stakeholders to inform future emergencies, consider hosting an in-person or virtual event (such as a share fair) to share the findings, lessons, and recommendations broadly and identify champions who can advocate use of the results beyond the current emergency.



Equity Consideration: _____

Qualitative data methods, such as focus group discussions or key informant interviews, are often more effective in gathering a more comprehensive and detailed picture of an experience than a quantitative method like a survey or online form. This can therefore provide a more in-depth, accurate picture of equity-related opportunities or challenges to accessing and using the KM intervention.

CASE STUDY

The Knowledge for Health (K4Health) Project Applies KM to the USAID Zika Response

Zika was declared a public health emergency of international concern by the World Health Organization ([WHO](#)) on February 1, 2016. Shortly after, in April 2016, USAID began supporting 10 countries in Latin America and the Caribbean with their Zika responses. The Zika epidemic required rapid development and strengthening of technical expertise among implementing partners. Therefore, KM efforts to bridge knowledge gaps and foster knowledge sharing among implementing partners was critical to rapidly respond to the evolving emergency.

From the beginning of the response, **USAID recognized the importance of KM**, including a sustained and accessible knowledge platform for implementing partners to access and exchange knowledge and the necessity of providing opportunities for partners to collaborate. The Knowledge for Health (K4Health) Project, led by the Johns Hopkins Center for Communication Programs, was USAID's flagship knowledge management project for family planning and reproductive health programs. USAID awarded additional funds to K4Health to serve as the KM Lead for USAID implementing partners working to mitigate the health effects of the Zika epidemic. **The KM objectives** for this scope were three-fold: 1) to promote knowledge sharing among implementing partners, 2) document and share lessons learned, and 3) adapt, translate, and ensure access to timely family planning and reproductive health resources for the Zika response. **At the start of the response, and throughout, K4Health conducted needs assessments through surveys and discussions at partner meetings among the public health professionals responding to the emergency.**

In this role, K4Health created the [Zika Communication Network \(ZCN\)](#)—an online repository that curated essential, evidence-based tools and resources created by a variety of partners to help minimize the spread of Zika and related negative pregnancy outcomes. **K4Health conducted usability testing** on the website prior to and after its launch to ensure it met the stakeholder audience's needs. The platform was widely used, as USAID strongly encouraged all implementing partners working on the Zika response to upload their resources to the site.

STEP 1

STEP 3

STEP 2

STEP 4

Initially, K4Health planned to promote the ZCN on social media, assuming that, given the rapid nature of the response, partners would prefer social media's immediate delivery of information. However, **through a survey**, K4Health found that partners preferred to receive information through email, and the project quickly pivoted to launch a bilingual ZCN e-newsletter to share upcoming events, tools, and resources.

STEP 5

A year into the USAID Zika response, it became apparent that implementing partners needed an internal platform to share information with one another and with USAID. Therefore, K4Health created the ZCN Partners site—a password-protected platform for open communication between USAID's Zika team and USAID Zika-funded implementing partners. Partners used the ZCN Partner site to submit monthly reports; document current and past research activities on the USAID partner research tracker; submit quarterly M&E data; access agendas, meeting minutes, and presentations from various Zika meetings; and upload and access non-public Zika resources and materials.

STEPS 4 + 5

K4Health also facilitated the ZCN Advisory Group phone calls. The calls were originally envisioned to vet the various resources being added to the external ZCN. However, as needs changed, the calls morphed into an opportunity for implementing partners to inform one another of project updates, current studies and results, upcoming events, and new resources.

Finally, K4Health **hosted two in-person share fairs** to build trust and encourage collaboration among USAID-funded Zika partners. The events brought together over 150 implementing partners, donors, and government representatives to discuss pressing topics. The first share fair was implemented mid-response and focused on strategies for community engagement. The second share fair was implemented near the end of the response and brought stakeholders together to come to consensus on lessons learned that could be used to inform future public health emergency responses. K4Health used the insights from the second share fair to **publish** [Learning from Zika: A synthesis of lessons learned for future public health emergencies](#).

STEP 5

STEP 6

K4Health systematically and strategically used KM tools and techniques to quickly adapt their activities to the emerging and ever-changing needs of implementing partners, ultimately supporting documentation, knowledge exchange, and knowledge use to support the Zika response and inform future public health emergencies.

Appendix: Templates and Resources

Links to customizable templates

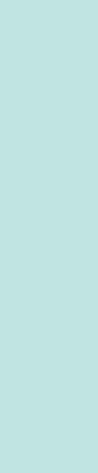
Step in KM Road Map	Template
Step 1	<u>Scope of Work (SOW) Template</u>
Step 2	<u>Landscape Analysis Template</u> <u>Needs Assessment Template</u>
Step 3	<u>Budget Template</u> <u>Monitoring and Evaluation Template</u>
Step 4	<u>Concept Note Template</u>



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