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# Background and rationale

The Ebola outbreak in eastern Democratic Republic of the Congo (DRC) lasted nearly 2 years. By June 21, 2020,   
a total of 2,287 persons had died of Ebola and 1,171 had recovered.[[1]](#footnote-0) During this outbreak, lack of community engagement in and trust of the response undermined Ebola control activities, such as patient isolation and treatment, contact tracing, and vaccination.[[2]](#footnote-1),[[3]](#footnote-2)

This outbreak demonstrated the need to understand community members’ perceptions about Ebola and their attitudes and beliefs about response activities so that health officials could successfully engage with communities. Some of the response activities, like new vaccines and treatments, were being used for the first time, so it was also important to understand how they were affecting people’s lives and what health authorities could do to better meet communities’ needs.

Many methods are available to gain insight into community perceptions and needs during an Ebola outbreak. This guide focuses on one of these methods, a **Knowledge, Attitudes and Practices (KAP) survey**. KAP surveys ask   
a representative sample of the community:

* What they know about a health threat
* How they feel about the threat and about taking protective action
* Questions about the family and community norms related to the threat
* What behaviors they are using to protect themselves and others from the threat

A KAP survey is by no means the only method for gathering this information, and depending on your needs and resources, there may be other, more appropriate strategies. Later in this guide, we will walk you through a process to help you decide if a KAP survey is the best strategy for your purposes or if you would be better off using a different method.

**Why use KAP surveys?**

KAP surveys are widely used in public health for the following reasons:

* They are a standardized way to collect information about communities’ health practices so you can learn how these practices may be influenced by what people know and how they feel.
* They can provide you with baseline data for assessments over time. You can conduct the same surveys over time and see how people’s knowledge, attitudes, and practices are changing.
* They can be incorporated into evaluations of activities intended to stop the outbreak (“interventions”).

During an emergency response, KAP surveys are most successful if they are:

* **Simple –** They ask a reasonable number of clear questions in plain language, and put a limited burden on participants.
* **Strategic –** They aim to meet well-defined information needs:
  + They provide specific data needed at different points during the outbreak.
  + They provide critical information needed to ***take action*** that can help the community.
* **Sustainable –** They are designed to strengthen a local community’s capacity to develop and conduct surveys, analyze the findings, and share them with those who can apply the findings.
* **Systematic –** They are conducted in a logical, high-quality manner that can be replicated.
* **Sound –** They follow ethical standards that any data collection done in a community should be for the purpose of helping the community[[4]](#footnote-3), and it should be conducted in a way that maintains privacy, does no physical or social harm to anyone, and respects the right of individuals to decide whether to participate without pressure.
* **Specific –** They are tailored to fit a local community’s context and needs.

While every Ebola outbreak and every community where it occurs is different, we hope that these resources can provide the basis for KAP survey planning and design that are tailored to the specific context. This way, responders can quickly and effectively understand a community’s knowledge, attitudes, and practices related to Ebola and adapt local response strategies accordingly.

# Who this guide is for

This guide is the first in a series of documents you can use to plan and implement a KAP survey that will help you understand community perspectives and needs during an Ebola outbreak. You should use this information to strengthen response efforts to end the outbreak. A KAP survey process should be led by a team that includes local health experts and community representatives.

# How to use this guide

Each of the four documents in this series serves a different purpose that will guide you through planning a KAP survey to analyzing and using the findings:

* **Part 1. Planning KAP surveys:** The document you are reading now is meant to help you define what information you need, who will use that information, and for what purpose. We review the basic concepts behind the KAP survey, how to think about what information you want to collect, and to consider whether a KAP survey is the best way to get it. Once you have decided on a KAP survey, this guide will help you determine what survey strategy you will use to meet your information needs.
* **Part 2. Developing and conducting KAP surveys:** This document provides step-by-step guidance for every phase of the KAP survey, from adapting model surveys (or devising your own), through field testing, recruiting and training data collectors, collecting data, and cleaning and storing data.
* Part 3. Model KAP surveys: Using the tools above, two model KAP surveys are provided to be adapted for your use: one that focuses on EVD knowledge and self-protection, and a second survey that asks about community knowledge, experiences, and attitudes with Ebola response activities.
* Part 4. Analyzing KAP surveys: A future document is planned to provide step-by-step guidance on how to customize your data analysis program, run the analyses, and share the results. This document provides specific steps for analyzing data using the two model surveys.

Figure 1. below outlines the process of developing and conducting a KAP survey. KAP survey phases are color coded by the guidance documents where they are discussed (see legend).

**Figure 1.** KAP survey process and supporting documents

| **Defining social science needs** | **Developing, conducting  KAP surveys** | **Analyzing KAP surveys, sharing results** |
| --- | --- | --- |
| **Determine**   * What you need to know * Who needs the information * For what purpose   **Decide**   * If a KAP survey is the best method for obtaining the information you need   **Define**   * Overall KAP survey strategy bas on outbreak phases and available resources | **Plan**   * KAP survey dates, staff needed, budget   **Draft**   * KAP survey by adapting models based on what you need to know and local feedback.   **Validate/Finalize**   * Survey instruments by testing with local volunteers in local languages   **Select**   * Survey sample   **Program**   * Data collection equipment or data entry software   **Recruit/train data collectors**  **Collect survey data** | **Analyze data**  **Create reports**  **Share findings**   * With response teams and other partners |

# Recruiting partners

Whether you are a local or national health official, a foreign government representative, or a representative of a non-governmental partner agency, you will want to reach out to potential collaborators before undertaking a KAP survey. Here is a brief list of the roles that collaborators can play in the KAP process:

* **They can help you develop and refine what you want to know by doing a KAP survey –** Others may have already conducted research or may have experience working in the communities of interest. If you share your initial questions with them, they may already have answers, or they may have insights on how best get answers.
* **They can help you network with local community leaders and members of the community –** In addition to initial discussions about your questions, consulting with the community or holding focus groups will be very useful. If you establish connections at the outset with community leaders or local experts, you will be able to work through those networks more quickly to gain community feedback when needed.
* **They can help you understand the local context and develop community members’ scientific skills –** In most places where you will be working, there will be local or regional social scientists who can assist you with the entire process. Not only will they likely have expertise and contacts that will assist implementation, but you can also help develop local skills and knowledge by involving them.
* **They can help you access demographic data and data on special populations –** To better represent the community in the people who participate in your survey (your sample), you will need demographic information about the community – for example, how many males and females are in the community and how many people make up important sub-populations and occupational groups. Local and regional government or health officials as well as university scientists may be the best people to assist with this.

# Defining what you want to know

Before proceeding with a KAP survey, it is important to carefully think through what you hope to learn from doing the survey. For example, you may want to know if people in the communities where there is an Ebola outbreak ***are aware*** of the outbreak, if they ***understand*** what Ebola is, and if they ***know*** what they should be doing to protect themselves. On the other hand, you may be working in an area where this information is already known. Therefore, you might be more interested in knowing other things, like what ***people’s opinions*** are about Ebola response actions, (such as contact tracing and vaccination) and whether these opinions differ by gender or ethnicity. Because you will need to ask multiple questions to meet each information need, it is important that you limit and prioritize your information needs.

In the example below, information is needed about safe and dignified burials. You can see how just this single topic requires multiple questions. This is why you must limit and prioritize the information you need from a KAP survey.

**Table 1.** Example of information needed, KAP survey questions to fill that need, and how the information would be used in an Ebola response

| **Information needed** | **Examples of component questions** | **Intended uses** |
| --- | --- | --- |
| * How much do people know about safe and dignified burials? * How much do community attitudes and practices support/ conflict with such burial practices? | * Do people know what a safe and dignified burial is? | * To better understand levels of support and potential barriers and facilitators to safe and dignified burials. * To share information with burial teams so they can consider program modifications. * To share with community engagement teams, who cancan take action to reduce barriers, increase facilitators. |
| * Are safe and dignified burials supported by their community and religious leaders? |
| * Do they feel safe and dignified burials are consistent with their values? |
| * Would they consent to a safe and dignified burial for a family member? |
| * Do they know of anyone who has had a family member buried this way? |

To define the most important information needs, it is helpful to think about the current issues in the community, and what information you would need to take action. Here are some examples of how current response issues might indicate what specific information needs are:

* If community cooperation with Ebola response activities is not strong, you might need to ***identify influential community members and people who are trusted sources of health information***.
* If the community has been hostile toward safe and dignified burial teams, you might need information about ***what might be influencing community attitudes about safe and dignified burial teams****.*
* If a significant proportion of people newly infected with Ebola are getting infected while in a health facility, you might need information about ***current barriers to and facilitators of preventing such infections among healthcare workers in health facilities****.*
* If contact tracers are not reaching enough children aged 12 and under, you might need information on ***how outbreak responders (contact tracers, vaccinators, healthcare personnel) view collecting information about children 12 and under, and how they engage the community to do this***.

## Looking at existing knowledge about Ebola-related behavior

The next step is to learn more about the community and the current situation by reviewing reports on past Ebola outbreaks and talking with community members:

**Past data collections and summaries –** Search online for publications about past outbreaks (examples of search terms to use: ***West Africa 2014 or DRC 2018***). Also search for reports on current outbreaks from social science and community engagement partners. The following links may be useful:

* <https://reliefweb.int/report/democratic-republic-congo/social-science-epidemics-ebola-virus-disease-lessons-learned> **–** This webpage has several social science-related reports from both the 2014 and 2018 outbreaks.
* <https://www.socialscienceinaction.org/emergency/ebola-outbreak-drc-2019-20/> – The Social Science in Humanitarian Action Platform website contains a number of reports about the three most recent Ebola responses in the Democratic Republic of the Congo.
* <https://drive.google.com/drive/folders/1cLcIsF84qn9Akqz-l4t7Tz3jLdWdOj20> – This set of UNICEF folders contains results from several qualitative and quantitative studies conducted during the 2018-2020 Ebola response in eastern DRC. The work was done by the Social Sciences Analytic Cell of the DRC Ebola response, led by UNICEF. [Is this publicly available, or only to response partners?]
* Earle-Richardson, et al., New method for monitoring community perceptions of Ebola and response efforts — Democratic Republic of Congo (DRC), August 2018–February 2020 (under review). This is an analysis of over 300,000 community member comments from Ebola-affected communities collected by the Red Cross of the DRC, showing leading concerns, questions, beliefs and suggestions about Ebola and the Ebola response in eastern DRC.
* Barriers and motivators for community participation in the response to Ebola in the Democratic Republic of Congo, 2018–2019 — This review of numerous social science analyses conducted during the 2018 Ebola outbreak in eastern DRC includes findings related to key strategies of the Ebola response Analysis of Barriers to Participation in Ebola Response Activities [G working on clearing this document and putting up on CDC Ebola website.].

**Community focus groups and interviews to clarify information needs –** When you begin planning data collection, it can be very helpful to listen to community members sharing their perspectives on your questions. This will bring up any issues you may be missing, and will help you understand the context of the outbreak quickly. A focus group is gathering of usually between 5-9 people who are demographically similar, who can discuss your ideas for the KAP survey, and who can help you design it effectively.

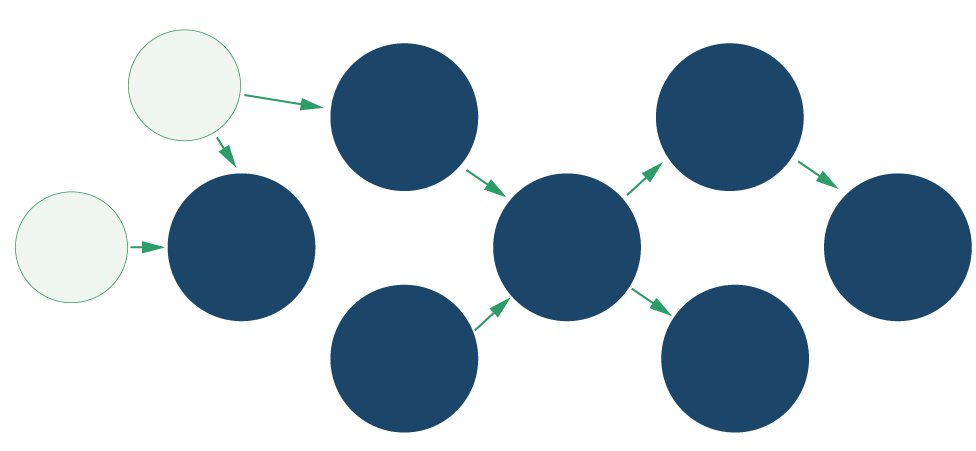
While these discussions less structured than a survey, focus groups and interviews are most productive when you have a written guide to make sure you address all of your questions cover everything and extensive notes on everything that was said. (Section 5.5 below provides information on how to conduct a variety of assessments, including interviews and focus groups).

If you decide that a KAP survey is the best method to gather the information you need, interviews and focus groups are a useful additional tool to help you develop the survey. They can provide a clear description of the social context in which the KAP survey will be undertaken, allowing for better design of questions, response options, and question formats that will be understood by participants. This is described in more detail later in the Part 2, Planning KAP surveys.

## Explaining why people behave the way they do

After reviewing what has been learned about Ebola-related behavior and conducting focus groups or interviews, if you still have questions, you can use several tools to hone in on what you hope to learn from a KAP survey. One such tool is presented below in Figure 2, which shows:

* How past experiences and other factors influence our knowledge and attitudes
* How our knowledge and attitudes as well as social norms affect our intentions to behave a certain way
* And how facilitators and barriers influence whether the we act on our intentions to behave a certain way

**Figure 2.** Model of the factors that contribute to health behaviors, as measured in KAP surveys



As you fine tune your prioritized list of information needs, look at where your questions are located on the diagram: For example, if your questions are mainly about practices, you may want to also look at the factors that may contribute to those practices.

Figure 2 is based on the four health behavior theories described below and the experience of researchers working in the field to conduct KAP surveys during past Ebola outbreak responses.

**Theories of health behavior**

Here are some examples of health behavior theories that can help you think about the reasons why people behave the way they do in the communities you are working with.

* **Health Belief Model –** This is one of the oldest models that has been widely used to understand a wide range of behaviors. It highlights how one’s knowledge or experience with a disease influences how they make decisions about behavior. It describes the most important factors in decision making as components of attitude: one’s ***perceived likelihood*** of being affected by a disease, ***the perceived severity*** of the disease, the ***perceived benefits*** of taking action, and ***confidence*** in one’s own ability to act. This model also emphasizes that behavior is often stimulated by a ***trigger or a cue***. Here is a reference for further reading: [Jones et al. The Health Belief Model as an explanatory framework in communication research: exploring parallel, serial, and moderated mediation](https://www.tandfonline.com/doi/pdf/10.1080/10410236.2013.873363).
* **Theory of Reasoned Action –** According to this theory, most influences act on one’s intention to behave, and ***intention*** is closely tied to actual behavior. This theory also places ***attitudes and norms*** as highly influential and highlights the roles of ***perceived control*** and ***perceived power***. If power dynamics are of particular interest, you may want to read more about Theory of Reasoned Action (also called Theory of Planned Behavior) here: (<https://www.sciencedirect.com/science/article/pii/B0126574103008175>)
* **Socio-ecological Model –**This model emphasizes that all individual decision-making and behavior occurs within a social environment, and this environment can be thought of as existing at different levels: the ***innermost level*** being the family or close personal network, then the neighborhood or ***local community***, to broader and ***broader contexts***. While not typically used alone as a theory, the notion of social context and how it can influence behavior is often applied to other theories to add an important element to understanding behavior. Another closely related theory is Social Learning Theory, which focuses on how behavior is often learned from observing others within important social groups. For further reading more about the Socio-ecological Model: [Figueroa, A Theory-Based Socioecological Model of Communication and Behavior for the Containment of the Ebola Epidemic in Liberia](https://www.tandfonline.com/doi/pdf/10.1080/10810730.2016.1231725). For details on how behavior can be highly influenced by group membership, read more about Social Learning Theory: (<http://www.asecib.ase.ro/mps/Bandura_SocialLearningTheory.pdf>)
* **Transtheoretical Model (also called the Stages of Change Model) –** This theory classifies people’s willingness to adopt a new behavior along a continuum from “***I have never even thought about it***” to the other end: “***I already do it***.” It then separates people in the community according to where they are on the continuum and looks at group norms and values to see how they relate to desired behaviors so that behavior change supports can be tailored to each group. This theory could be quite useful in situations where sub-groups of the population have diverse Ebola-related behaviors. If you are interested in exploring influential values and norms, see [Prochaska et al. The Transtheoretical Model of Health Behavior Change.](https://journals.sagepub.com/doi/pdf/10.4278/0890-1171-12.1.38)

A widely used text reviewing these theories and their application in greater detail is *Theory at a glance: A guide for health promotion practice. (*Rimer, B. K., Glanz, K., & National Cancer Institute (U.S.). (2005).  <https://cancercontrol.cancer.gov/sites/default/files/2020-06/theory.pdf>

**Risk communication models**

These four additional models aim to explain how people receive and process information and may be useful in identifying KAP questions you need to ask:

* **Mental Noise Model –** This model emphasizes the importance of understanding ***multiple stressors on a population*** when you are trying to communicate public health messages. This is particularly relevant in lower-resource or conflict settings where the challenges of daily living may hinder a person’s belief that they can protect their own health (self-efficacy). For example, in eastern DRC, the ongoing political violence was a major stressor that seemed to influence people’s ability to focus on Ebola. If this is an area of interest, questions about people’s priority concerns outside of Ebola might be useful.
* **Negative Dominance Model –** According to this model, in high-stress situations, there is an imbalance in people’s processing of ***positive and negative information***, with greater weight on the negative. In an outbreak setting, it is helpful to create positive counter-messages that resonate with communities in response to the negative information they are receiving.
* **Trust Determination Model –** This model focuses on ***levels of trust*** and how trust relates to ***effective calls to action***. Trust is built over time through ongoing actions, listening, and communication skills, including caring and empathy, dedication and commitment competence and expertise, and honesty and openness. You can find more information about theMental Noise, Negative Dominance, and Trust Determination models here: [Davis et al. What you Should Do to Prepare for and Respond to Chemical, Radiological, Nuclear, and Biological Terrorist Attacks.](https://www.rand.org/pubs/monograph_reports/MR1731z2.html) URL: <https://www.rand.org/pubs/monograph_reports/MR1731z2.html>
* **Risk Information Seeking and Processing Model –** This model seeks to explain how and when people are likely to seek information about various risks. It is based on the idea that people's engagement with risk information is determined by many factors, including ***characteristics of the hazard***, their ***beliefs about the channel*** where the information is available, their own ***skills in gathering the information***, their ***past experience***, and the extent to which they feel ***knowledgeable about the risk***. See [Risk Information Seeking and Processing Model, Sharon Dunwoody and Robert Griffin](https://pdfs.semanticscholar.org/d6d6/a64114594d6ea139f8ecd3e119c4cefa9588.pdf).

## Deciding how information will be used

The next step is to think about how the results from your KAP survey can provide information that will lead to impactful action during the response. List the action steps you expect to occur as a result of the survey to help you stay focused on prioritizing ***useful***information. For example, if a survey asks about peoples’ willingness to participate in contact tracing, it is for the purpose of increasing participation in contact tracing. If contact tracing participation is not perceived to be a problem or there is no intention or ability to address it, the survey should not collect information about it. Any information you collect should have a practical use.

The model surveys provided as part of this series outline the information needs of all partners in the response. If these outlined actions do not match your specific situation, the surveys may need to be modified. Table 2 below gives some examples of information needs and the action steps that become possible once you have the information.

**Table 2**. Examples of how to align the information collected by a KAP survey with how it will be used

| **Information need** | **Actionable information expected** | **What steps will be taken  as a result** | **By whom** |
| --- | --- | --- | --- |
| What are attitudes toward safe and dignified burials? What might make people not want to have a family member buried this way? | Willingness to participate in safe and dignified burials, good or bad past experiences, family or community norms, misconceptions, questions, suggestions | **Enabling:** aspects of the safe and dignified burial process that conflict with cultural norms will be reviewed and possibly revised  **Persuading:** outreach to local opinion leaders to collaborate on acceptable approaches and promotion of safe and dignified burials  **Empowering:** establishment offeedback mechanism for communities to raise concerns going forward | Safe and dignified burial team, community engagement team |
| What are practices when a family member is ill in Ebola-affected areas? Are people contacting health authorities? Is doing so viewed as a means of getting help for the family member? | Perceptions of the Ebola treatment center and response staff, experiences in the healthcare system, family or community norms, misconceptions, questions, suggestions | **Addressing the context:** if there are real problems with healthcare delivery, information will be shared with health authorities  **Training:** showing people what actually happens when a person is tested and treated at an Ebola treatment center  **Persuasion:** providing opportunities to hear from Ebola survivors about their experience | Healthcare team, community engagement team |

## Suggested information needs based on the phase of the outbreak

As you consider what information you need to attain from your KAP survey, keep in mind that your information needs may change over the course of the response. For example, in early phases of the outbreak, questions about how people view the disease or what behaviors contribute to its spread will be most important. Later in the outbreak, it may be more important to understand community perceptions and experiences related to ongoing response activities.

Because of the limited space in a KAP survey, different surveys may need to be conducted at different times. Also, some questions may need to be asked throughout the response while others need to be asked during just one phase. This section describes how to structure and conduct KAP surveys that collect the most important information during each stage of an outbreak. In Figure 3 below, we have adapted a diagram created by the World Health Organization (WHO)[[5]](#footnote-4) to show how the data you need will change in each stage of an Ebola outbreak.

**Figure 3.** KAP information needs during different stages of an Ebola outbreak

| **1 Pre-outbreak** | **2 Initial outbreak** | **3 Cases increase, geographic spread, varying outcomes** | **4**  **After the peak: declining cases** | **5**  **Outbreak ends** |
| --- | --- | --- | --- | --- |
| **Information needed:**  **1. Ebola awareness:**   * symptoms * transmission * protective behaviors   **2. Level of trust in the health system**  **3.Trusted sources of information**  **Actions:**   * Raise awareness through trusted channels at the national level. | **Information needed:**  **1. Behaviors, beliefs,** and **attitudes** associated with the spread of Ebola  **2. Knowledge gaps** or **social environment factors** that contribute to spread  **3. Community leaders** and opportunities for community engagement  **4. Perceptions about participating** in contact tracing, vaccination, and other response activities  **Actions:**   * Work through community leaders to increase knowledge, invite participation and support for response activities, and identify possible barriers to participation in the response. | **Information needed:**  **1. With geographic spread, are the socio-cultural contexts** very different or largely the same?  **2. Are there approaches that are working well** in some places?  **3. Is participation with the response** different between the different regions?  **4. Can we borrow approaches from one region to another,** or do we need uniquely local solutions?  **5. Unintended consequences of response activities?**  **Actions:**   * Clarify similarities, differences and how they should affect response activities * Where there are similarities, replicate successful community engagement * Where there are differences, identify community leaders and novel approaches * Work with response teams to revise their approaches to encourage participation and to reduce negative impacts on the community and on the response. * Assist response teams in being responsive to the findings. | **Information needed:**  **1. Have frequencies changed for any behaviors that might explain the case drop:** self-protective behaviors, participation in contact tracing, vaccination, early transport to an Ebola treatment center, or safe and dignified burial?  **2. Are there unintended consequences** of response activities that may be leading to problems with seeking healthcare or other problems?  **Actions:**   * Build on successful community engagement activities; consider expanding to other health concerns. * Continue to use data to inform response leaders about issues raised by community. * Recognize that cases may be declining for reasons other than successful community engagement. and response interventions. Encourage response teams to respond to community feedback. | **Information needed:**  **1. Are people aware of the need for continued vigilance** for future outbreaks?  **2. What are people’s levels of trust** in the healthcare system?  **3. What other social impacts have resulted from the epidemic?**  **Actions:**   * Build on successful community engagement to develop long-term capacity for surveillance and health system strengthening. |

Here are more details about how information needs change during different phases of an Ebola outbreak:

1. **Pre-outbreak:** Before an outbreak even begins, it is useful to know whether there is a general awareness of Ebola, its symptoms, how it is spread, and how to prevent spread. Unless it is an area that has had an outbreak before, the only awareness-raising likely to have already occurred is national awareness efforts or news media from other regions. This period is not typically when data are collected as part of an Ebola response since health authorities and other partners are most likely to be engaged once the initial outbreak occurs. If data have already been collected on the region's general social context (for example, political history, largest ethnic and religious groups, languages spoken, economic characteristics), this could help you better understand community relationships with the health system.
2. **Initial outbreak:** This occurs when the first cases of Ebola are detected in a region. This is the stage when responses are activated and will need to quickly gather epidemiologic data about the outbreak and assess people’s knowledge, attitudes, and practices related to Ebola. One urgent question at this point is, ***What behaviors among affected populations may be facilitating the spread of Ebola?*** For example, if respondents report touching the deceased (preparing for or participating in a funeral), or if people report not being aware of Ebola symptoms or when to contact health authorities, this information suggests that awareness-raising might be a useful strategy for reducing the spread. A related and important question is, ***What beliefs, knowledge gaps, attitudes or feelings, social influences or logistical barriers might prevent people from protecting themselves from Ebola or from spreading it?*** These questions are directly linked to the action steps of reducing transmission through raising awareness and reducing barriers. In addition, at this early stage in the outbreak it will be important to identify ***local leaders who will be essential in garnering support for people practicing self-protective measures and for participating in contact tracing, vaccination, and other response activities.***

Lastly, we recommend that you gather baseline data and then follow-up measures of the community’s willingness to participate in response activities in the initial outbreak phase. When combined with demographic data (always included in KAP surveys), this information will enable you to identify the ***extent of diversity in people’s attitudes and opinions across the affected region*** and ***how that diversity may affect people’s attitudes toward Ebola response activities***. We recommend that this information be collected immediately in the health zone/area where the outbreak began and be repeated every 3 months throughout the outbreak period. (A more complete explanation of KAP survey strategy is provided in Section 6).

1. **Cases increase and geographic spread:** During this period, the number of cases continues to increase, but there is also spread to different health zones (or other geographic areas). This is important because different health zones may be socially and culturally different, and they may respond to the outbreak in different ways. Asking questions to assess social and cultural differences is important because these differences may also mean that opportunities for community engagement will be different. For example, in one region, religious leaders may be the most effective sources of health information and may be the most effective champions for community participation in Ebola response activities. In another region, civil authorities, family, or neighborhood leaders may be the most effective.

Important questions during this phase should also focus on participation in support of response activities, looking at reasons why control activities maybe going well in some places but not others, and whether the social environments in each of the zones suggest similar or different community engagement approaches.

Additional questions to ask during this phase aim to determine if participation in the response differs between regions; whether approaches from one region can be used in other regions; and whether any response activities are having unintended consequences that need to be addressed quickly.

Information that compares one area to another as described above would need to be collected in KAP surveys administered simultaneously in different active regions beginning in this phase and continuing throughout the response.With answers to these questions, response teams should be better able to implement community engagement activities tailored to each zone and identify where response activities are going well (and why). They also would be able to share with different pillars of the response when issues of trust or non-participation are identified. In some instances, KAP survey data might provide enough information for action, or it could alert social scientists that more information is needed (from interviews and focus groups) to better understand problems and solutions.

1. **After the peak – declining cases:** This phase begins when we see a drop in overall infections, with continued declines until we can be relatively confident that the peak has passed. At this point, the response will be interested in understanding what has led to the reduction in infections, whether social factors or otherwise. It is important not to assume that the drop in case numbers means that people’s knowledge, attitudes, and behaviors have improved. They may have improved, and this may have contributed to a reduction in transmission of Ebola. However, this may have occurred independently of any changes in community behaviors, including supporting and participating in Ebola response efforts. Thus, the first question to answer is, ***Have frequencies changed for any behaviors that might explain the case drop: self-protective behaviors, participation in contact tracing, vaccination, early transport to an Ebola treatment center, or safe and dignified burials?*** Regardless of the answer to that question, it is important to ensure that any progress made with community engagement is not lost due to unrecognized problems or unintended consequences of response activities. To address this question, a second question to ask is, ***Are there unintended consequences of response activities that may be leading to problems with seeking health care or other problems?***

While these questions are unique to this phase, they are questions that can be answered using data already being collected by the KAP survey started in the first outbreak region (repeated every 3 months in that region) and the second KAP survey on knowledge, attitudes, and behaviors relative to the response, that also seeks to compare different active Ebola zones (collected every month in multiple regions initially, with less frequency as the situation dictates).

1. **Outbreak ends:** Once the number of Ebola cases remains at 0 for 42 days (twice the known incubation period), the outbreak is declared over. In past outbreaks, close surveillance of previously active areas continues during this phase along with efforts to develop local public health capacity to continue high-quality surveillance and to improve public health performance more broadly. At this point, there are different options for data collection, depending on the most pressing needs and unanswered questions. Perhaps the most pressing question is whether the health system and the community are aware that Ebola vigilance needs to continue, even after the cases are no longer appearing.

Three recommended questions that need to be asked at this point in the outbreak include:

* Are people aware of the need for continued vigilance for future outbreaks?
* What are people’s levels of trust in the healthcare system?
* What other social impacts have resulted from the epidemic?

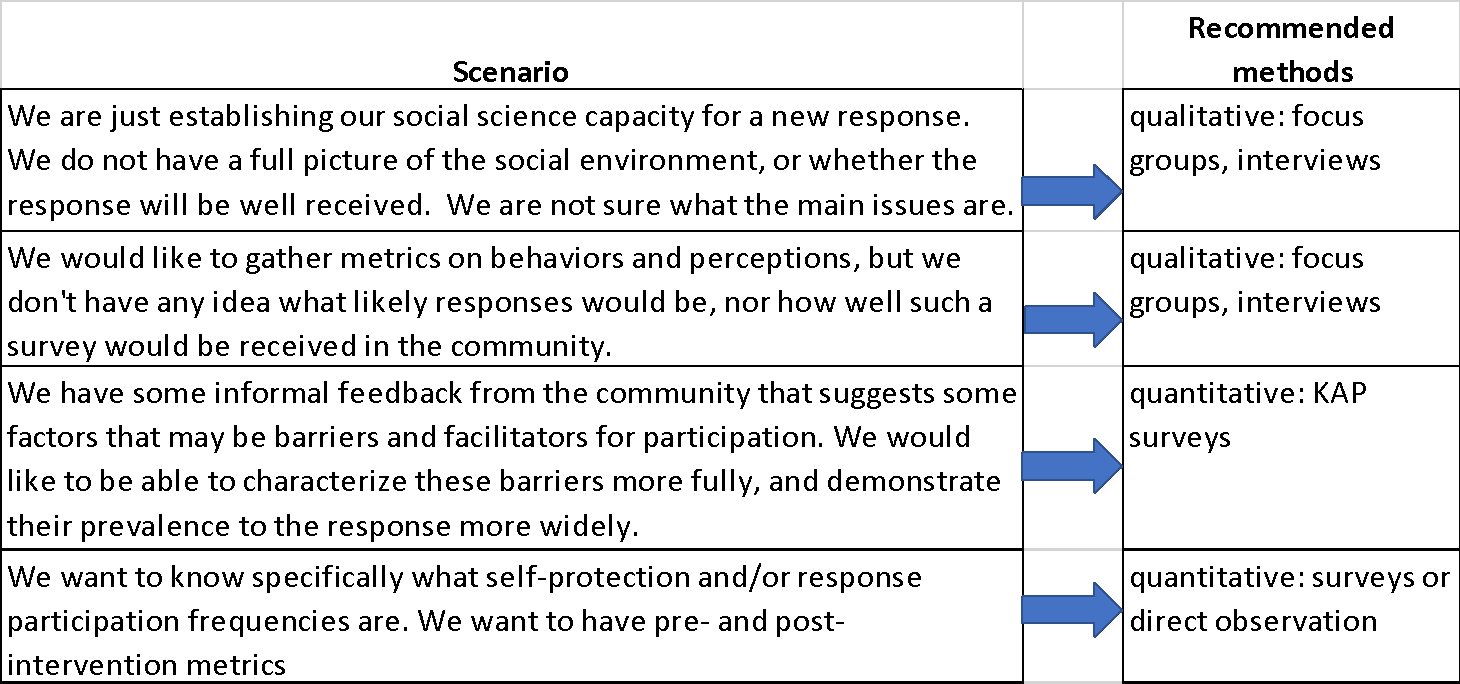
These questions could be answered using one or more individual surveys, administered in a single location, or possibly multiple locations, if it has been determined that different areas are socially distinct. However, it is also possible that the investment of time and resources to conduct additional KAP surveys might not be feasible at this point of the outbreak. These questions could also be answered by using focus groups, key informant interviews, or a rapid assessment (very brief, 5-10 item, sample survey administered at a public location, like a market).

## You have your priority information needs. Is a KAP survey the best method?

At this point, after you have thought about what information you need, consider whether a KAP survey is the best way to get that information. Not all informational needs are best met by KAP surveys.

In addition to KAP surveys, there are a range of other possible tools for gaining information and insight. Here are some examples:

1. **Brief rapid assessment –** This is a short survey administered to whatever people are easily available, purely for descriptive purposes (no statistical testing is performed). Survey results are shared with focus groups or other gatherings of people with local knowledge, allowing them to reflect and respond to the data. For guidance on how to conduct a type of rapid assessment used for public health emergency responses, refer to this resource: [Centers for Disease Control and Prevention (2012). Community Assessment for Public Health Emergency Response (CASPER) Toolkit: Second Edition.](https://www.cdc.gov/disasters/surveillance/pdf/casper_toolkit_version_2_0_508_compliant.pdf)
2. **Surveys that measure things other than knowledge, attitudes, and behavior –** Surveys, particularly online and via text, can be used to answer any number of questions about people’s perceptions or experiences. There are number of free, online tools for making them. However, be cautious about these online surveys because they typically do not sample the population in systematic way, and the results may not be representative of the population. One example of a common use for surveys is program evaluation. The following is guidance for this type of survey: [Centers for Disease Control and Prevention (2018). Data Collection Methods for Program Evaluation: Questionnaires.](https://www.cdc.gov/healthyyouth/evaluation/pdf/brief14.pdf)
3. **In-depth interviews –** In an in-depth interview, a researcher poses questions to an individual to understand their perspective on a topic. The interviewer may have a set of pre-defined, typically open-ended questions and then follow up with additional questions or probes based on the person’s responses. The interviewer may take notes (better to have a second person taking notes) or may record the interview and then later review the recording or a transcript of the recording. For guidance on how to conduct an in-depth interview, refer to Page 29 in this resource: [Mack, N., Woodsong, C., MacQueen, K., Guest, G., and Namey, E. (2005). Qualitative Research Methods: A Data Collector’s Field Guide.](https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf)
4. **Participant observation –** In this type of data collection, the scientist observes people, typically in a public setting, performing behaviors as they usually would. The scientist may use a quantitative checklist or may take qualitative notes. For guidance on how to conduct a direct observation, refer to Page 13 in this resource: [Mack, N., Woodsong, C., MacQueen, K., Guest, G., and Namey, E. (2005). Qualitative Research Methods: A Data Collector’s Field Guide.](https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf)
5. **Review of epidemiological or medical records** – If the information needs relate to participation in Ebola response activities, you can use epidemiologic or medical records to determine, for example, whether an Ebola patient was being followed as part of contact tracing or had been vaccinated. For guidance on conducting reviews of records (document reviews), refer to this resource: [Centers for Disease Control and Prevention (2018). Data Collection Methods for Program Evaluation: Document Review.](https://www.cdc.gov/healthyyouth/evaluation/pdf/brief18.pdf)
6. **Focus groups –** Small discussion groups of generally 5–9 people can provide very helpful descriptive information about social norms, personal experiences, perceptions ,and possible community intervention approaches. The facilitator uses a written guide to lead the discussion into certain pre-determine areas but does not control the conversation. The data in this case are the people’s comments and discussions, which are recorded with notes or recording. For guidance on how to conduct a focus group, refer to Page 51 in this resource: [Mack, N., Woodsong, C., MacQueen, K., Guest, G., and Namey, E. (2005). Qualitative Research Methods: A Data Collector’s Field Guide.](https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf)
7. **Ethnography –** This method comes from anthropology, and it is focused on trying to understand, usually from a combination of unstructured interviews and direct observation, the cultural context of a community. The purpose is to describe the values, behaviors and functioning of the group of interest as objectively as possible. For guidance on how to conduct an ethnography, refer to this resource: [Hall, B. How to Do Ethnographic Research: A Simplified Guide.](http://web.archive.org/web/20110814082220/http:/www.sas.upenn.edu/anthro/anthro/cpiamethods)
8. The methods described above are only some of the most common data collection approaches used in public health. Figure 4 below presents several scenarios and recommendations of the type of data collection that would best meet each scenario. While these scenarios do not cover every situation, they provide a fuller sense of what KAPs are best used for. For further guidance on matching data collection methods with information needs, here is a helpful resource: [Pratt, B. and Loizos, P. (2003). Choosing Research Methods: Data collection for development workers. Oxfam UK and Ireland.](https://www.scribd.com/document/340832058/Choosing-Research-Methods-Data-collection-for-development-workers)

**Figure 4.** Scenarios depicting the need for information and recommended methods for collecting data

# Defining a KAP survey strategy

If you have decided that a KAP survey is the best way to get the information you need, the next step is to decide how and when the surveys will be administered. The simplest strategy is to administer a single survey, at one time and in one place. However, if your information needs relate to changes over time, you will need to repeat the KAP survey at least once to capture those changes. You may also want to compare communities, or collect data from a specific sub-population. Multiple KAP surveys may be needed to meet all these needs, and they will need to be coordinated in time and place. The diagram below takes all of the suggested information needs from section 5.4 and shows how KAP surveys could be administered over the outbreak to meet the information needs.

**Figure 5.** Sample strategy for administering surveys that meet priority information needs

| **Before the outbreak** | **Initial** **outbreak** | **Continued overall increase, geographic spread, declines in some places** | **After the peak:  declining cases** | **After the outbreak** |
| --- | --- | --- | --- | --- |

The overall strategy being shown here is to have two major surveys of the general population:

1. A KAP survey focusing on knowledge, attitudes, and practices relative to Ebola transmission that is administered in only one location and repeated every 3 months from beginning to end of the outbreak
2. A second KAP survey more focused on the community’s reaction to, and participation with the response, that compares two or more other regions.

Both surveys would be administered once every 3 months (staggered), and both would sample the general populations of different health zones. A third type of KAP survey might be used if there were a special population, for example, healthcare workers, from whom you wanted information.

In Figure 5, five different KAP surveys are implemented at different points of time and with different frequency in order to meet a total of 10 different types of information needs. The colored boxes numbered 1, 2, 3a, 3b, and 3c are all separate KAP surveys. The diagram of the phases of the Ebola outbreak show when and for how long each KAP survey would be administered. While the frequency of doing the survey is your choice, we recommend starting with surveys once every 3 months frequency, as a good balance between data needs and logistical burden. While it is not necessary to have such an extensive list of information needs as the 10 shown here, this provides an example of a feasible strategy for collecting data to respond to all of these types of information needs. You may decide to do fewer KAP surveys, and if so, you can copy Figure 5 and delete the parts that don’t apply to your work.

The frequency of collecting social science data will also depend on the capacity of the response to use the data to revise community activities and to initiate new outreach. Also, it is important to give communities enough time between measurements to become aware of and respond to changes in community activities.

## KAP surveys of special populations

Table 3 shows some examples of special populations and information needs (for KAP surveys and other types of collections) from the 2018 Ebola outbreak in eastern DRC and how the data were used.

**Table 3.** Special populations, information needs, and how data were used In the 2018 Ebola outbreak in Eastern DRC

| **Special population** | **Information needs** | **How the data were used** |
| --- | --- | --- |
| Healthcare workers | Did healthcare workers feel prepared to handle a suspected Ebola case? Did having the health structure involved with Ebola preparedness training affect this response? | To improve the content of Ebola preparedness training |
| Traditional healers | Were they caring for possible Ebola cases? What was their level of knowledge about Ebola? | To develop Ebola education programs for traditional healers |
| Women/mothers | What was their level of knowledge about Ebola? What were their roles in making decisions about participation in Ebola response activities? What were their concerns about child health? | To inform response leaders about the special concerns of women so that they could do outreach with women’s groups |
| Ebola survivors | How have they been treated in their communities? What is their level of knowledge about preventing transmission? What services are they receiving? | To inform a new educational campaign around survivors late in the outbreak. |

## Model KAP surveys in this set

Because there is no existing published Ebola KAP survey with validated questions that meet the information needs laid out above, we are providing two KAP model surveys. These were developed after reviewing questions from more than 13 publicly available Ebola KAP surveys as of August 4, 2020 (See Appendix for a list of publications in which Ebola KAP surveys were provided.).

# Appendix

## List of Ebola KAP survey sources

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Health Communication Capacity Collaborative, & Government of Liberia Ministry of Health. (2017). *National knowledge, attitudes and practices (KAP) survey on Ebola virus disease in liberia*. Johns Hopkins Center for Communication Programs.

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Raab, M., Pfadenhauer, L. M., Millimouno, T. J., Hoelscher, M., & Froeschl, G. (2020). Knowledge, attitudes and practices towards viral haemorrhagic fevers amongst healthcare workers in urban and rural public healthcare facilities in the N’zérékoré Prefecture, Guinea: A cross-sectional study. *BMC Public Health*, *20*(1), 296. https://doi.org/10.1186/s12889-020-8433-2

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3. Bearak, M. (2020, April 10). Here’s why Ebola has been so hard to contain in Eastern Congo. The Washington Post. <https://www.washingtonpost.com/politics/2019/06/25/heres-why-ebola-has-been-so-hard-contain-eastern-congo/> [↑](#footnote-ref-2)
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5. IFRC, appendix in WHO, UNICEF, IFRC, “Risk Communication and Community Engagement Preparedness and Readiness Framework: Ebola Response in the Democratic Republic of Congo in North Kivu,” September, 2018. <https://apps.who.int/iris/handle/10665/275389> [↑](#footnote-ref-4)