

# 3

## Planning and conducting KAP surveys

This section details the key steps involved in planning and conducting a KAP survey, including preparatory activities (designing and translating the survey questionnaire, training surveyors, pre-testing the survey questionnaire and sampling the population) and procedures for collecting the data.

### 3.1 Activities to undertake before conducting a KAP survey

#### Designing the survey questionnaire

The first step in designing the survey questionnaire you will use for your KAP study is to define the objectives of your survey and the survey population. This will determine which topics your survey will cover and which modules you will use to create your survey questionnaire,

Appendix 6 (page 78) provides modules on core nutrition topics. These can be used to form your survey questionnaire.<sup>2</sup>

- Module 1: Feeding infants (less than 6 months old)
- Module 2: Feeding young children (6–23 months)
- Module 3: Diet of school-aged children
- Module 4: Nutrition during pregnancy and lactation
- Module 5: Undernutrition
- Module 6: Iron-deficiency anaemia
- Module 7: Vitamin A deficiency
- Module 8: Iodine deficiency
- Module 9: Food safety
- Module 10: Personal hygiene
- Module 11: Water and sanitation

<sup>2</sup> The KAP model questionnaires in MS Word format are available in different languages and can be downloaded for adaptation at: [www.fao.org/docrep/019/i3545e/i3545e00.htm](http://www.fao.org/docrep/019/i3545e/i3545e00.htm)

Module 12: Food-based dietary guidelines

Module 13: Overweight and obesity

Once you have decided which modules you will use, you must adapt them to your local context, for example by changing the specific foods covered and translating the survey questionnaire into local languages. If necessary, add questions to meet your specific needs. You should also select the appropriate informed consent form and sociodemographic questionnaire (Appendixes 3, 4 and 5), modify them as necessary and have them translated into local languages.

### ***Step 1: Define the survey objectives and modules to use***

Before choosing the modules to use in the survey, the survey manager(s) should define the survey's objectives and the project's survey population. These will determine what information to collect.

#### ***The survey objectives and survey population***

The survey's objectives are derived directly from the objectives of the project/intervention and should be tailored to a specific location, project and population.

For a *situation analysis*, the survey's objectives might be something like the following:

- Evaluate fifth-grade children's KAP related to the local food-based dietary guidelines using a KAP survey.
- Based on the findings of the KAP survey, identify poor dietary practices and gaps in knowledge and attitudes that could be addressed in a project or intervention.
- Identify priority needs in nutrition education with a view to informing project or intervention design.

In the case of an *outcome evaluation*, the survey manager(s) will need the following information from the project:

- the health and/or nutrition issues to tackle;
- the general or development objectives of the intervention;
- the specific objectives of the intervention; and
- the nutrition-related activities and participant population.

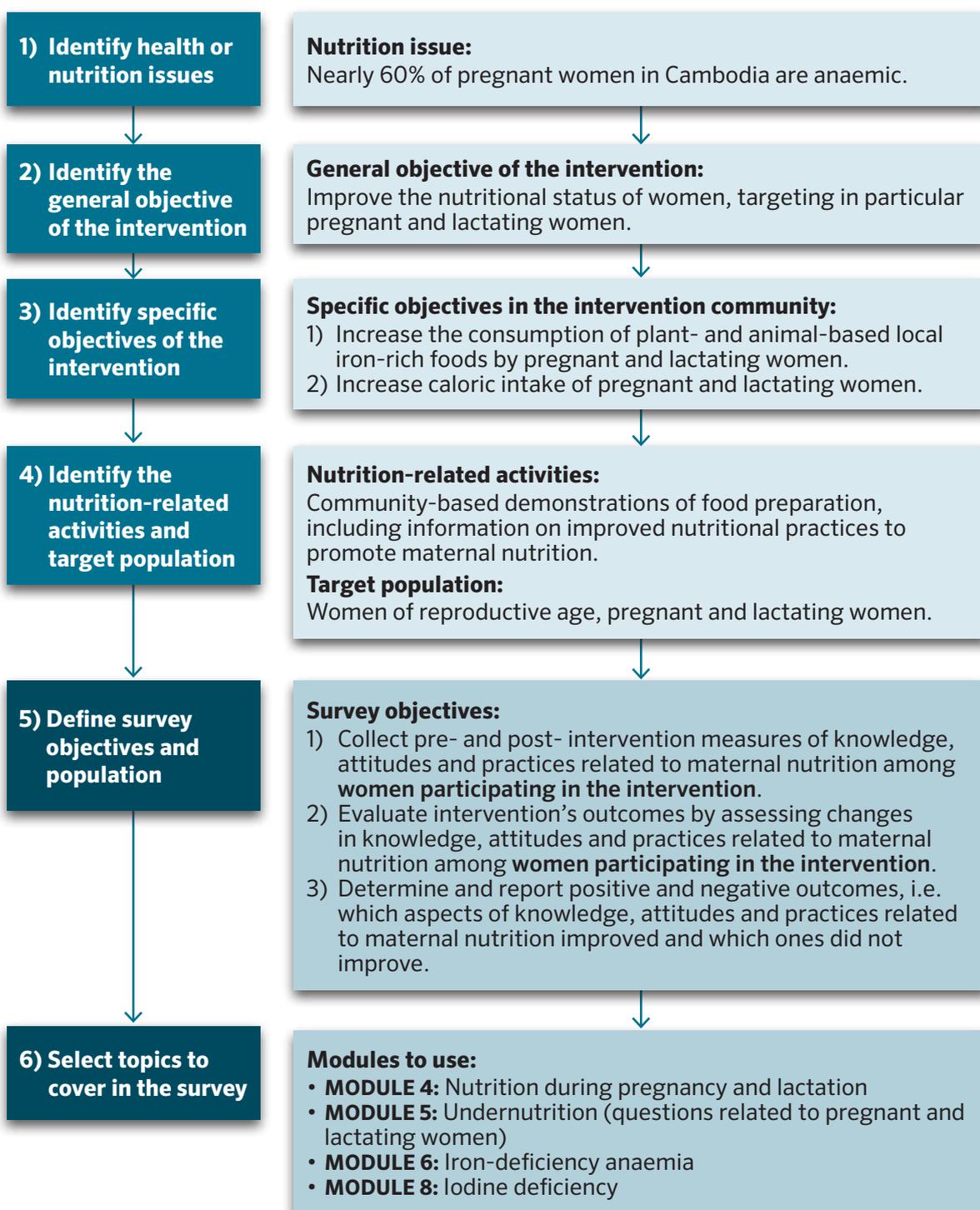
This information will allow them to identify the survey's objectives, the survey population and the topics the survey questionnaires must cover.

#### ***The topics to cover (modules to use) in designing the survey questionnaire***

The survey questionnaire should cover important topics related to the intervention and address the objectives of the survey (16, 36). The survey team should prepare a list of the main topics that the KAP survey will investigate and discuss the potential usefulness of the data to be collected (20). Given limited resources, it is important to prioritize the most important topics.

Figure 3 illustrates the steps involved in evaluating outcomes of a nutrition education intervention, based on a concrete project example in Cambodia (available at: [www.mdgfund.org/country/cambodia](http://www.mdgfund.org/country/cambodia)).

FIGURE 3: Flowchart for defining survey objectives, survey population and selecting topics to cover for an outcome evaluation



## Step 2: Select questions

Just as not all the modules may be used in a given survey, not all the questions in a module may be needed. The modules are a list of sample questions from which you should select the ones that serve the objectives of the survey.

The survey team should prepare its own survey questionnaire by selecting questions that will allow them to obtain the information they need (i.e. relevant to the specific project's and survey's objectives and activities). Leave out questions that are only partly related to the survey's objectives, no matter how "interesting" they might appear. It is important to keep only those questions that provide the information you need and to reject those that provide information that would only be nice to know (42).

Use the survey's objectives to determine the balance between questions about knowledge, those about attitudes and those about practices. For example, if the survey aims at assessing only practices, there is no need for questions about knowledge or attitudes.

To facilitate the selection of questions, each question in the modules has been categorized based on its level of importance/specificity.

**1** **Category 1: Core/essential questions.** These form the basis of any nutrition-related KAP survey and should always be included in KAP survey questionnaires related to food security and/or nutrition interventions that include a nutrition-education component.

**2** **Category 2: Optional questions.** These may be included in the survey questionnaire to measure more-specific aspects of KAP, if these are addressed in the project/intervention.

**3** **Category 3: Specific questions.** These questions gather comprehensive information on a nutrition topic, i.e. very specific aspects of KAP.

Do not change the order of questions in the modules; some questions contain answers to previous ones. For this reason, in most modules questions concerning practices are placed at the beginning of the modules, before those related to knowledge or attitudes. Modules 6, 7 and 12 are the exception, as the questions related to practices may bias the responses to knowledge questions.

### **Important**

*Keep the survey questionnaire as short as possible. Select only questions strictly related to the objectives of the survey. In other words, when constructing your survey questionnaire, think only about the specific pieces of KAP that:*

- ✓ *you must know to design the intervention (situation analysis)*
- ✓ *you would expect to see change as a result of the nutrition intervention (outcome evaluation)*

### **Step 3: Adapt the questions**

Once you have selected the questions you should adapt them to the content of the intervention as well as to the local context. Additional adaptation might be needed if the survey questionnaire is used with children or if the respondent is required to fill out the questionnaire himself or herself.

#### **Adapting the questions to the intervention**

The modules contain open questions with pre-categorized options to facilitate recording and analysis. You may need to adapt or change these options, depending on the intervention. Similarly, questions relating to attitudes towards an ideal or desired practice must be tailored to specific practices targeted in the intervention.

#### **Adapting the questions to the local context**

You must have a basic knowledge of the local culture in order to adapt questions and response options to the local reality in terms of language, education level and habits. These may differ even from region to region within the same country (e.g. urban–rural differences).

Modify the response options based on the responses most often cited by respondents during pre-testing (see “Pre-testing the survey questionnaire,” page 42). Adding the most common responses as pre-categorized response options will help surveyors to record and analyse the responses more easily.

In addition, throughout the modules there are statements that appear in [**bold font in square brackets**]. These are adaptation instructions for the survey manager(s) to follow in order to adapt the survey questionnaire to the local context.

#### **Adapting the food lists**

Food lists must be adapted to reflect locally available foods and then translated into local languages before enquiring about food consumption practices. The survey team should take the following steps before starting to collect data (adapted from FAO, 2011 (34)):

1. **First review:** Prepare lists of food groups of locally available foods, translated into commonly used, locally-recognized names for each. Modules 6 and 7 include lists of iron- and vitamin-A-rich foods. Replace the food names with the names of locally-available foods and add other locally available foods. Consult food composition tables or nutrition experts if you are not sure how to categorize a certain food or whether it is considered, for example, a vitamin-A-rich food.
2. **Meet with key informants and the community to refine the food lists and translations:** The survey team should organize a series of meetings with key informants in each survey locality.

Typical key informants include:

- » national or local experts (e.g. nutritionists);

- » community leaders, agricultural or health extension workers at community level; and
- » women in the community who are responsible for planning and preparing meals.

This phase of adaptation is used to gather several critical pieces of information. Key actions include the following:

- » Review and add locally available food items to the food groups.
  - » Identify local words for foods and liquids, including semi-solids (e.g. mashed or pureed food, porridges, thick gruels and stews) and solids (e.g. bananas, mangoes, potatoes and bread).
  - » Identify appropriate local terms for “food” and “meal.”
  - » Discuss issues of food availability (such as season for consuming a particular fruit, insect or other food item) during the season when the survey questionnaire will be administered.
  - » Gather information on ingredients used in local dishes and local meal customs and terminology.
3. **Final translation of the food lists:** Create a final version of the food lists in the official national language once key informants from each locality have been visited and appropriate terminology has been agreed on. If necessary, translate this final version of the food lists into local languages or dialects. It is essential that the interviewers do not translate “on the spot” from one language to another; the lists should be translated into each local language and printed before any interviews are conducted.

### ***Adapting questions for use with children***

The questions in the modules were developed to be administered to adults. If you are preparing survey questionnaires to use with children, pay special attention to the age and cognitive ability of the children (39). Table 4 presents an overview of general and nutrition-related cognitive characteristics of children of three age categories to take into account when adapting the modules (15, 32, 44, 45).

TABLE 4:

**Overview of general and nutrition-related characteristics of children of three age categories**

Pre-operational stage	Concrete operational stage	Formal operational stage
Early childhood/pre-school: 2-5 years old	Middle childhood: 6-10 years old (Grades 1 to 5)	Adolescence: 11-18 years old (Grade 6 and beyond)
<ul style="list-style-type: none"> <li>• Have a concrete thinking; understand physical actions that involve concrete objects, e.g. washing hands with soap, eating an apple</li> <li>• Do not consider transformation, therefore cannot understand that ingested foods are changed in the stomach (digestion)</li> <li>• Food classification and preferences are based on perceptual attributes, such as size, colour and shape, but not nutrient content</li> <li>• Can mention healthy foods but cannot explain why foods are healthy</li> <li>• Have some knowledge of meal planning, food preparation, table preparation, food serving, eating and cleaning up</li> <li>• Cannot make distinction between meals and snacks</li> <li>• Have no idea of contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Have a more logical thinking but still concrete, limited to objects and specific experiences. Still do not understand abstract notion like nutrients</li> <li>• Their capacity for description is still wider than their analytical ability</li> <li>• Can focus on two or more functional food attributes; for example, they are able to understand that healthy foods make you strong, healthy and grow</li> <li>• Understand that ingested foods are somehow changed in the stomach</li> <li>• Can make a distinction between meals and snacks</li> <li>• Can put foods into categories such as shape, taste or other physical properties</li> <li>• Motivation starts playing a role in their food choices</li> <li>• Have a basic idea of contamination</li> </ul>	<ul style="list-style-type: none"> <li>• Significant cognitive development</li> <li>• Logical reasoning and abstract thinking; understand terms such as nutrients</li> <li>• Have more control on the food they eat</li> <li>• Their criteria for food choice become progressively more complex; increased reasoning about consequences</li> <li>• Able to understand the effect of food choices on their health and that of their family, community and environment</li> <li>• Able to identify what influences their food choices and eating practices (e.g. barriers, pressures, etc.)</li> <li>• Able to evaluate their own eating habits</li> <li>• Have a full adult idea of contamination</li> </ul>

SOURCES: 15, 32, 44, 45.

From the information presented in Table 4, it is clear that it would make no sense to explore pre-school and middle-childhood children's knowledge about foods containing specific nutrients and the health-related consequences of a lack of those nutrients or to explore the factors influencing their eating practices. In contrast, adolescents can be asked the same questions as adults.

If children are able to read and write, you can prepare a self-administered survey questionnaire (see “Creating a self-administered survey questionnaire,” here below). Ideally, the surveyor should read the survey questionnaire aloud to young school-aged children, especially in disadvantaged communities, and then allow the children to complete the questionnaire by themselves (15, 30). Add pictures, drawings or other visuals to add interest to the survey questionnaire to make it inviting and interesting to children.

**Note:** *It is recommended that parents/caregivers do not help their children answer questions so as to avoid any bias in their responses. A trained surveyor is the most suitable person to help children complete the survey questionnaire.*

**Example:** Question assessing children’s preference for papaya

How much do you like the taste of papaya?



Remember to test the questions on a small sample of children. Ask the children which questions were difficult to understand and answer.

### **Creating a self-administered survey questionnaire**

If you are working with literate audiences, such as school-aged children and teachers, you may be able to get the respondents to fill in the survey questionnaire themselves. This will require fewer or no surveyors. If you are going to use this approach, you will have to adapt the questions in the survey questionnaire because the questions in the modules were developed on the basis that surveyors would be asking the questions of low-literacy respondents in personal face-to-face interviews. They are therefore not suitable for use in self-administered questionnaires, in particular because they include analysis instructions.

If you plan to use self-administered questionnaires, delete the analysis instructions and sections from the questionnaire and put them in a separate document that will be used by the survey team to analyse the results of the survey.

For questions about knowledge, delete the pre-categorized options. Participants will have to write down their responses to the short open-ended questions; the survey team will thereafter categorize them.

Questions on practices could have a yes/no format followed by a multiple choice question:

### Example

In the past week, did you eat vegetables?

- Yes
- No
- Don't know

*If Yes:*

Did you eat:

- |         |                                   |                             |
|---------|-----------------------------------|-----------------------------|
| Pumpkin | <input type="checkbox"/> Yes..... | <input type="checkbox"/> No |
| Carrot  | <input type="checkbox"/> Yes..... | <input type="checkbox"/> No |
| Squash  | <input type="checkbox"/> Yes..... | <input type="checkbox"/> No |

... and so on for all locally adapted list of vitamin-A-rich vegetables.

### Example

Do you usually have breakfast?

- Yes
- No
- Don't know

*If Yes:*

How many times did you have breakfast in the last week, that is, in the last 7 days?

- Every day (the seven previous days)
- 4-6 times per week
- 1-3 times per week
- Never

Questions relating to attitudes can be left as they are (i.e. scaled). The options can also be listed.

### Example

How difficult is it for you to breastfeed your child on demand?

- 1. Easy
- 2. Neither difficult nor easy, or unsure
- 3. Difficult



**Self-administered questionnaires can be used with literate audiences.**

#### ***Step 4: Select the appropriate informed consent form and socio- demographic questionnaire***

The interviewers should obtain the permission of all the respondents to administer the survey questionnaire. They should also collect the respondents' sociodemographic characteristics, also called background characteristics. Population-specific consent forms and questionnaires have been designed for this purpose and are included in the appendixes of this manual:

- Appendix 3: Informed consent form and sociodemographic questionnaire for caregivers of infants and young children (0–6 months and 6–23 months) (page 71)
- Appendix 4: Informed consent form and sociodemographic questionnaire for school-aged children (page 74)
- Appendix 5: Informed consent form and sociodemographic questionnaire for adults (page 76)

Select the consent form and questionnaire best suited to the survey population (i.e. caregivers of infants and young children, school-age children or adults). Adapt the consent form according to the project and to the objectives of the survey (i.e. whether the survey aims at collecting information for a situation analysis or at assessing the outcomes of an intervention). Once you have done this, incorporate the informed consent form and sociodemographic questionnaire at the beginning of the survey questionnaire, before the KAP questions.

There are a number of key points that you must take into account when seeking informed consent to participate in the survey and collecting sociodemographic information. These include the following:

- You must obtain parental consent before interviewing minors, i.e. children and adolescents (under 18 years) who still live with their parents. Verify at what age young people are considered adults in the country in which the survey will take place.
- Assign a number (code or ID number) to each participant to facilitate sampling and data handling, storage and analysis. This will also help ensure confidentiality of respondents. Create a list of the respondents' names matched with codes. Only the supervisor should have access to the list.
- If caregivers are unable to provide the child's age, ask them for the child's health card. If the child does not have a health card, and if this is a common occurrence in the survey area, the survey team should create a calendar of events that occurred in the area recently; caregivers can then be asked to identify events that occurred at the time of the child's birth. Train surveyors to use this support document (see "Training the surveyors," page 39).

Once analysed, the sociodemographic information collected will give the overall characteristics of the survey population, which can be used to put the survey findings in context.

### **Step 5: Prepare additional questions (optional step)**

Create additional questions if the modules do not include questions about specific aspects of knowledge, attitudes and/or practices you want to measure. However, before creating a new question, ask yourself the following questions:

- Why do I need to know this information?
- Is it in line with the survey's objectives?
- What information will I get from it? What will it tell me?
- In an outcome evaluation context: Is this information essential to assess a desired outcome of the intervention?

Formulating questions that are free from bias is not easy. It is best to follow the same format of questions as the ones used in the modules: partially categorized questions for knowledge and practices and scaled questions for attitudes (see "2.3 Key indicators: knowledge, attitudes and practices", page 8).

Take the following precautions in designing your own questions.

- **Avoid compound questions**

Compound questions comprise two or more questions. They might confuse respondents, who will not know how to answer.

Examples:

- » How important is it to give a child fish, eggs, meat and milk frequently?
- » Is food served to your child prepared separately or taken from the family meal?

- **Avoid leading questions (also called loaded or biased questions)**

Leading questions are those where the answer is suggested in the question itself, making the respondent feel inclined or obliged to answer in a particular way.

Examples:

- » You like eating soybeans, don't you?
- » Do you give fish to your child like a good parent should?

- **Avoid unanswerable questions**

This type of question asks the respondent to recall information that may be difficult or impossible to recall with accuracy.

Example:

- » How many fruits and vegetables have you eaten for the past three months?

- **Avoid hypothetical questions**

These force the respondent to provide an answer to something that has not happened and may not happen and that the respondent may not have thought about. It would thus be difficult for the respondent to provide an accurate response.

Example:

- » If your income increased, would you buy more meat?

Remember that a poorly developed questionnaire will lead to poor, if not useless, data and would thus invalidate the study. Aim to ensure that your questions can be understood by anyone, regardless of their educational level.

## Translating the survey questionnaire

Translate the questionnaire into the local language or languages. This is essential to avoid interviewers having to translate the questions while they are administering the survey questionnaire (9, 10). Surveyors are not professional translators and may not accurately translate the meaning of the original question or may suggest the answer, biasing the results of the survey. Asking the same questions to all respondents is essential to guarantee the validity of results.

### *Steps to follow for translation*

**Have the initial translation done by a professional translator:** If this is not possible, make sure that the original meaning of the questions is not lost in translation. Keep the wording of the questions simple to make sure that they are easily understood by all respondents, no matter their educational level.

**Have the survey team translate the questionnaire back to English:** This will show whether the translation accurately captured the original meaning of the questions. The survey manager should meet with the surveyors to review the original questions together with the translated ones. All surveyors should be involved and have their say on different possible translations of words and types of wording to decide and agree upon the most appropriate local terms. This step could be part of their training (see "Training the surveyors," page 39).

### **Important**

- ✓ *Translation is one of the most challenging steps of the preparation of the KAP survey as the meaning of the questions can change from one language to another.*
- ✓ *The idea is not to translate words but to translate meanings.*



The survey team should compare the original question and the translated version to ensure that the original meaning has not been lost.

## **Training the surveyors**

BOX 3

### **Tips for selecting interviewers**

Here are some tips for selecting surveyors:

- Select surveyors who can read, write and speak the local language fluently and know the geographic area of the survey.
- Assess their team working, organization and listening skills.
- Give priority to those who have experience in similar work.
- Be sensitive to cultural issues. For example, in some countries you should select female interviewers to interview females and male interviewers to interview males.

SOURCE: 9.



**Training the surveyors is a key step in ensuring effective interviews and high-quality data collection.**

Ideally, the KAP survey should be carried out by a team of surveyors in the field who conduct the interviews with respondents, with supervisors managing the survey and providing assistance to surveyors. It is essential that all members of the team understand the principles of the survey and the procedure for administering the survey questionnaire. The surveyors must be thoroughly trained so that they have the communication skills needed to conduct interviews and avoid bias that could significantly affect the results of the survey (16). This training should be provided through a mix of lecture-type presentations, participatory group discussions and role-playing.

### ***Essential topics in training surveyors***

The following are some essential topics that must be included in the training of surveyors.

#### ***Survey objectives***

- Present the survey's background, justification and objectives. This will ensure that the team members understand the principles of the survey.

#### ***Informed consent and confidentiality***

- Explain the need for the surveyor to present the objectives of the interview to the respondent, answer any questions related to it and seek the respondent's informed consent prior to the interview.
- Emphasize the need to guarantee the confidentiality of the respondent's identity and his or her responses. The pledge of confidentiality is crucial in attaining honest and complete answers from respondents (42).

- Stress the importance of respecting the respondent’s choice to accept or refuse to participate in the survey or to answer any question. In some cases, it might be pertinent to inform the respondent that their choice will not affect them or the services they receive (e.g. health services).

### ***Content and use of the survey questionnaire***

- Present the overall format of the survey questionnaire, its content (topics covered) and the instructions to the interviewer. Give surveyors a short training on the nutrition topics covered so that they have the necessary knowledge of nutrient-rich foods (i.e. iron-, vitamin-A- and iodine-rich foods) and good nutrition practices to be able to explain questions and probe if necessary.
- Review every single question, discuss its meaning and the reason it was included in the survey questionnaire. This step entails reviewing each question and all response options with the surveyors so that they become familiar with them. Arrange time for discussions in the local language and provide examples to help surveyors grasp fully the meaning of each question and response option. Make sure the wording of questions is understood by all members of the team.
- Emphasize the importance of exploring questions thoroughly with respondents and not trying to force their answers to match the listed response options. If the respondent hesitates when answering a question, the interviewer should not suggest possible answers. Explain that suggesting possible answers to the respondent can introduce bias.
- Make sure that the surveyors understand that they must ask the questions in the order in which they appear on the survey questionnaire. Stress that any change in the order of questions, no matter how slight, can have a significant influence on the responses.

### ***Approaching the respondent and administering the survey questionnaire***

Surveyors need basic skills to communicate with the respondents so as to develop trust and obtain accurate information. They also need to know precisely how to administer the survey questionnaire. Refer to “3.2 Collecting data: procedures for administering the survey questionnaire,” page 47, for detailed information about how surveyors should:

- introduce themselves;
- obtain informed consent from respondents;
- collect sociodemographic information;
- communicate effectively;
- ask questions and record responses;
- handle questions; and
- perform preliminary analysis (only if surveyors have sufficient analytical skills).

### ***Role-playing for effective interviews***

Role-playing is a useful practical approach in training surveyors. Practicing interviews with surveyors will allow the trainers and supervisors to observe the surveyors’ performance and provide feedback to improve their technique. Put surveyors in pairs and have them conduct a practice interview in front of the other trainees. Ask the other trainees for their

impressions. Discuss with them strengths and weaknesses highlighted by the role-play interviews: focus on the introduction to the survey, the presentation of the survey, gaining consent, communication skills, handling of questions and time management. Check that the survey questionnaires are filled in correctly and annotations are legible.

Make sure that surveyors familiarize themselves with the survey questionnaire so that they are able to have a fluid conversation with respondents rather than just asking questions and recording answers.

### ***Pre-testing of the survey questionnaire***

The pre-testing of the survey questionnaire can be part of the training of surveyors; it is a way for them to continue practicing their interview techniques and for the trainers and supervisors to provide them with feedback on their performance before beginning the survey. See “Pre-testing the survey questionnaire,” here below, for more information on how to pre-test the survey questionnaire.

### ***Logistics***

Present the logistic planning previously prepared. Tell the surveyors which survey team they have been assigned to, the survey areas assigned to each team, days and times allocated to the survey, each team’s schedule, when the survey questionnaires will be printed and other relevant details. Give the surveyors their itineraries, including roadmaps, names of the villages, phone numbers and other information that might be useful to them.

**Note:** *Plan to conduct interviews at the most difficult or distant sites early in the survey because surveyors might lose motivation and become fatigued over time. Monitor weather conditions and modify the schedules if necessary.*

### ***Conclusion***

Summarize the key points of the training and answer any questions the trainees might have. You must ensure that the surveyors have understood the importance of closely following the procedures and have the knowledge and skills necessary to conduct interviews.

## **Pre-testing the survey questionnaire**

The questions in the modules were field-tested in several countries, but vocabulary and ways of asking questions or expressing ideas can vary from country to country or even between areas within the same country. It is thus essential that you pre-test your survey questionnaire before beginning the survey (14, 20, 28, 36). Pre-testing should ideally be part of the training of surveyors

Pre-test the survey questionnaire with 5-20 individuals from the survey’s participant population. The people used to pre-test the survey questionnaire should not be included in the actual survey.



**The survey manager is responsible of planning and managing the KAP survey, including forming teams, developing schedules, providing itineraries and giving clear instructions.**

*During the pre-testing interviews, surveyors should:*

- note if the respondent has difficulty understanding any question and, if they do, suggest how the questions should be rephrased;
- check whether there is sufficient space to annotate answers;
- assess if the wording of the questions leads to bias in the participants' responses (for example, the answer is included in the question);
- note how long it took to complete the survey questionnaire; and
- ask the respondent if the interview was too long or tedious.

*After the pre-testing interviews, the survey manager(s) should arrange a debriefing with the whole survey team to obtain their feedback, discuss problems encountered and identify possible solutions. This step will also allow the surveyors to share concerns with the rest of the team and ask questions. Each question should be addressed.*

Focus on the following aspects during the debriefing (see also Box 4, page 45):

- **Validity**
  - » What questions were not understood by the respondents or were subject to multiple interpretations?
  - » Did questions lead respondents to give a specific answer?

- » Was the answer provided in the question?
- » Were the items of the food checklists really representative of what is typical for the respondent population?
- **Readability and ease of administration**
  - » Were instructions clear to the surveyor?
  - » Were the language and questions understandable to the respondents in terms of vocabulary, sentence length and writing style?
  - » Were questions easy for the surveyor to read out? Did questions follow a logical flow and read well?
  - » Was there a need to clarify some questions?
  - » Is there a need to improve the wording of questions?
  - » Was there sufficient space for the surveyors' annotations?
  - » Was the questionnaire easy and quick to administer?
  - » Are response options relevant?
  - » Did respondents provide more responses than those listed, i.e. is there a need to add more response options to tick? Response options should be as exhaustive as possible; the most cited responses should be added as response options.
- **Respondent burden**
  - » How long did it take to complete the survey questionnaire?
  - » Did respondent show any verbal or non-verbal signs of impatience? Did they have trouble concentrating?
  - » Did respondents refuse to answer certain questions? If so, do you know why?
  - » Are there topics that make respondents feel uncomfortable and should be addressed with care?
  - » Are the terms and concepts expressed in the questions culturally acceptable?

Modify the questionnaire based on the information obtained; for example, add the most-cited responses as response options. This will result in the final version of the KAP survey questionnaire. If respondents have difficulty understanding questions, think about using probing questions and include them in the final version of the survey questionnaire. These should be also discussed during the training to ensure that all surveyors use the same probing questions.

**Important**

*Never omit pre-testing; pre-testing will determine the usefulness of questions in collecting the desired data (8, 14, 20). If resources are limited, conduct at least a short pre-test by asking a few respondents to go through the survey questionnaire and give their opinion, reactions and suggestions (in a focus group, for example). Make sure to pre-test the survey questionnaire in each language used in the survey.*

#### BOX 4

#### **Pre-testing debriefing: points to check with surveyors**

- **Validity:** degree to which the questions correctly measure knowledge, attitudes and practices (15, 36).
- **Readability:** ease of understanding the questionnaire and questions in terms of vocabulary, sentence length and writing style (36).
- **Ease of administration:** extent to which questions are coherently linked together to give a sense of unfolding smoothly.
- **Respondent burden:** degree to which the respondent's participation in a survey can be perceived as difficult, time-consuming or emotionally stressful (31).



**A debriefing with the survey team is needed after the pre-test to discuss problems encountered while administering the questionnaire and identify possible solutions.**

### **Sampling the survey population**

Unless the whole participant population is small and sufficient resources are available to interview the entire population, most surveys must be conducted with only a sample of the population (43).

The objective of sampling is to gather information from a representative segment of the population in order to be able to draw conclusions about the whole population through testing of statistical hypotheses.

Details of methods that can be used to sample the survey population for a KAP study can be found in other manuals (10, 44). In practice, the number of respondents to include in the survey will depend on the resources available: time, budget, number of surveyors and other resources available to collect and analyse information. It will also depend on the objectives of the survey and the degree of accuracy and representativeness desired.

For example:

- If the aim of the study is to give a rough idea of the KAP of a group but not to collect statistically representative data, for example in case of a situation analysis, then 30 or 40 respondents may be enough (28). However, a sample of this size is too small to generalize the results to the entire population and thus cannot be used for outcome evaluation.
- In the case of an outcome evaluation, if the participant population is large (several hundred) and the study's resources are limited, a sample must be selected that is smaller than the whole population but large enough to provide reliable information about the whole population. On the other hand, if the whole participant population is small (up to about 200 people) and resources are available, all of its members should be interviewed. The sample of participants should be selected only at the beginning of the survey, and the same respondents should participate in both the baseline and the endline survey.

Consult with a statistician before conducting the study to make sure that the sample size is reasonable.

#### BOX 5

### **Planning a KAP survey: summary**

#### ***Designing the survey questionnaire***

##### **Step 1: Define the survey objectives and modules to use**

Define the survey objectives and the survey population in order to identify the topics to cover (or modules to use) in designing the survey questionnaire.

##### **Step 2: Select questions from the modules**

Select only those questions that serve the objectives of the survey based on their level of importance/specificity.

##### **Step 3: Adapt the questions**

Adapt the questions to the content of the intervention and to the local context. If necessary, also adapt food lists and questions for use with children or create a self-administered survey questionnaire.

##### **Step 4: Select the appropriate informed consent form and sociodemographic questionnaire**

Select the consent form and questionnaire best suited to the survey population (i.e. caregivers of infants and young children, school-age children or adults; Appendixes 3, 4, and 5) in order to explain the survey objectives and background and obtain the permission to administer the survey questionnaire.

(cont.)

**Step 5: Prepare additional questions (optional step)**

Create additional questions if the modules do not include questions about specific aspects of knowledge, attitudes and/or practices you want to measure. Follow the same format of questions as the ones used in the modules and take care in designing your questions to avoid any bias.

***Translating the survey questionnaire***

Translate the survey questionnaire into the local language(s). Discuss with the survey team different possible translations of words and types of wording and agree upon the most appropriate local terms. Do not expect surveyors to translate the questions while administering the survey questionnaire.

***Training the surveyors***

Provide training through a mix of lecture-type presentations, group discussions and role-playing. Include the survey objectives, the informed consent form and confidentiality issues, the content and use of the questionnaire, and the way of approaching respondents and administering the questionnaire. Pre-test the survey questionnaire as part of the training and present the logistics of data collection (teams, schedules, survey areas, itineraries, etc.)

***Pre-testing the survey questionnaire***

Pre-test the survey questionnaire with 5–20 individuals from the survey's participant population. Arrange with the whole survey team to obtain their feedback, discuss problems encountered and identify possible solutions. Focus on validity and readability of questions, ease of administration of the questionnaire and respondent burden.

***Sampling the survey population***

Define whether you need to select a sample of the participant population to conduct the survey. The sample size (number of respondents to the survey) will depend on the resources available – time, budget, number of surveyors and other resources available to collect and analyse information – and the degree of accuracy and representativeness desired.

## 3.2 Collecting data: procedures for administering the survey questionnaire

This section describes the procedures that all surveyors should follow when conducting individual interviews. These procedures should be included in the training given to the surveyors.

## Follow surveyor's written instructions

In the modules, instructions to the surveyor are written in *italics*. The surveyor should act on these instructions, but not read them out to the respondent. The surveyor should also not read out the pre-categorized answers included in knowledge and practice questions (see “Asking survey questions,” here below).

## Record the date and surveyor's name

Before approaching the respondent, surveyors should put the date of the interview and their name on the first page. They should also put their initials on all pages of the questionnaire.

## Introduce yourself

The first contact with the respondent is critical in creating trust in the surveyor. Surveyors should start the interview by introducing themselves, the organization and the principles of the survey.

## Obtain informed consent

The surveyor must ensure that the respondents agree to participate in the survey and must obtain oral informed consent from each respondent. The surveyors should present the principles and objectives of the survey to respondents in a positive and respectful way. They also have the responsibility to ensure the respondents understand the objectives of the survey and that they answer any question the respondents may have. In addition, they should assure the respondent that his or her identity and responses will be treated in confidence.

## Collect sociodemographic information

The survey questionnaire should include sociodemographic questions appropriate to the age of the respondent (see Appendixes 3, 4 and 5). Surveyors should ask the questions in the second column and probe if necessary. Record the responses in the right-hand column.

## Ask survey questions

### ***Communicate effectively***

Surveyors must show respect towards the respondents. They should speak in a polite and kind way so that the respondent is comfortable answering questions. They should be patient and give the respondent time to answer questions; i.e. do not pressure him/her to reply. Authoritative interviewers might intimidate the respondents and therefore lead to bias in their responses. Ideally, the interviewer should keep his or her head about level with the respondent's and not tower over him/her. Surveyors should not judge the responses or react to them, either negatively or positively.



Surveyors should adopt a similar posture to the respondent and speak in a polite and kind way to help put the respondent at ease.

### ***Keep to the order of questions***

Surveyors should ask the questions in the order in which they are presented in the questionnaire because some of them contain the answers of the previous ones.

### ***Ask questions and record responses***

Surveyors should ask each question as it is written on the questionnaire and not change the content or format of the questions. This will ensure that the surveyor does not introduce any bias.

Pre-categorized questions include a list of pre-coded answers. The surveyor should read the question to the respondent, but not the answers (unless told to do so in the instructions to the surveyor). After asking a question, the surveyor should listen carefully to the response, write it down and tick the box next to the pre-coded response options that best matches it.

If the respondent refuses to answer to a question, surveyors should make a note of this in the margin of the survey questionnaire.

### ***Probe for further information***

If the respondent does not understand the question, the surveyor should probe with other questions (ideally identified during pre-testing). If the respondent does not know the answer

to a question despite the probing questions, the surveyor should not leave the answer blank, which may give the impression that the question was forgotten, but record an answer and tick “Don’t know/no answer” or “Don’t know.”

### **Do not offer answers to questions**

Respondents might ask the surveyor for the “right answer” to knowledge questions. The surveyor should not provide answers or suggest different possible answers. Instead, they can explain that the respondent can refuse to answer any question and reiterate the survey’s objectives.

### **Conduct a preliminary analysis**

The survey questionnaire includes boxes that the surveyor can use to categorize responses to knowledge questions. The surveyors should record whether the respondent knows or does not know the answer to a question by ticking one of the options in the grey box and by indicating the number of correct responses (for questions with several possible correct answers). This assumes that the surveyor has adequate analytical skills to categorize the answers. If this is not the case, the supervisor(s) or survey manager(s) should perform this step. In that case, the analysis instructions and sections should be deleted from the questionnaire and placed in a separate document that will be used exclusively for analysing the results of the survey questionnaire.

### **Thank the respondent**

At the end of the interview, the surveyor should thank the respondents for their participation.

### **Give compensation to respondents**

In some cultures, respondents might expect a reward for their participation. Check if this is the case in the survey area and determine what kind of reward is acceptable in the respondents’ culture. A pen or a piece of soap might be sufficient.

### **Check the survey questionnaire**

Before leaving the survey area, the surveyor should ensure that he or she has asked all questions and recorded the corresponding responses. If information is missing, the surveyor should go back to the respondent to fill in the gaps.

#### **Important**

*Surveyors should try, as much as possible, to interview the respondent privately, i.e. alone and not in the presence of other people, so as to prevent other people from interfering in the responses.*

BOX 6

### Limitation of KAP surveys

- **Descriptive, not exploratory:** There is an assumption that knowledge is based on scientific facts and universal truths (45). In a KAP survey, knowledge questions are used to assess specific pieces of nutrition-related knowledge that nutrition educators consider important for the participant population to know. A KAP survey can be used to measure progress towards acquiring these specific pieces of knowledge but cannot be used to explore the culture-specific knowledge that communities possess (e.g. indigenous knowledge related to food systems, different meanings and notions of nutrition-related problems).
- **Instability of attitudes:** Attitudes are not stable over long periods (14). Responses may change depending on the interviewing situation and other circumstances. Attitudes cannot be considered as reliable indications of stable viewpoints.
- **Self recall vs objective measurement:** A KAP survey is based on self-reported statements, not objective measurements. Responses can be influenced by the judgement, cooperation and memory of the respondent as well as by the surveyor's skills (37, 42, 45). Gaps may exist between what is said and what is done. The quality of the data obtained can be improved by training and supporting surveyors to increase their data-collection skills.
- **Scientific validation:** Knowledge and attitudes do not refer to physical objects but to psychosocial and subjective concepts. It is therefore not possible to validate the results concerning knowledge and attitudes in KAP surveys because no objective benchmark or reference exists. Some of the practice measurements included in the modules have been validated, including dietary diversity (34) and infant and young-child feeding practices (13). The format of questions concerning other practice measurements was informed by the UNICEF Multiple Indicator Cluster Surveys<sup>1</sup> and the Demographic and Health Surveys,<sup>2</sup> whose questions have been tested and are considered reliable and valid.

<sup>1</sup> [www.measuredhs.com](http://www.measuredhs.com)

<sup>2</sup> [www.childinfo.org/mics3\\_background.html](http://www.childinfo.org/mics3_background.html)