



LEARNING ABOUT

2 **1.2**
INDICATOR

SDG Indicator 2.1.2 – Using the Food Insecurity Experience Scale (FIES)

Lesson 2: Including the FIES in a survey

Text-only version

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Food and Agriculture
Organization of the
United Nations



working for Zero Hunger

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Including the FIES in a survey

This lesson explains how to include the FIES in a survey.

This includes choosing the survey vehicle and deciding upon the reference period.

Additionally this lesson considers the importance of linguistic and cultural adaptation, training of field interviewers and explores potential survey errors and how they may be avoided.

Learning objectives

At the end of this lesson, you will be able to:

- identify the type of survey that the FIES survey module can be included in;
- prepare to incorporate the FIES into a survey questionnaire;
- identify steps to prevent measurement errors that may arise when using the FIES.

What the FIES can be used for

The FIES can be used to measure food security for the following objectives:

- ① To **assess** the population's **prevalence of food insecurity** (for both SDG monitoring and national use)
- ② To **identify vulnerable** populations most affected by food insecurity
- ③ To **guide** and **monitor** the effects of national food security **policies and programmes**
- ④ To **identify risk factors and consequences** of food insecurity

The **focus** of this course is **objective 1**.

A National Statistics team scenario

Grace, a national statistics officer, is tasked with data collection for the FIES.

*“My first challenge is to work out how we will incorporate collecting FIES data into our work. We need to report on a number of indicators for the SDGs, so it's important that we **use our resources carefully**.”*

Choosing a survey vehicle for the FIES

There are different ways to implement the FIES for the purpose of food security monitoring:

Within an existing survey that can best meet the objectives for food security measurement using the FIES. The best option for measuring food insecurity with the FIES is **within a well-established, ongoing, government administered survey**. Linking FIES measurement to an existing survey structure is preferable, as adding a module is **less costly and less time consuming**.

As an **ad hoc survey** planned and carried out **exclusively to measure food security** and other related information in a population. This option is **not advisable**. If a new national survey is designed for the purposes of SDG monitoring, it should be carefully planned to include collection of additional information relevant to food security, and conducted on a periodic basis, not as a one-off event.

A versatile survey module

The FIES survey module can be administered in **approximately 5 minutes**, and requires **no specialized equipment or technical training**. This makes it **extremely versatile** and **easy to incorporate** into various kinds of individual and household surveys that are carried out periodically at national and subnational level. Many types of survey can serve as **appropriate vehicles** for measuring food security using the FIES. These include:

- Censuses
- National Household Income and Expenditure surveys
- Labour force surveys
- Health and nutrition surveys
- Any other surveys representative of the national population, if the aim is to produce SDG Indicator 2.1.2

Measuring individuals or households

Some surveys **sample households** and focus on household characteristics, while others (for example health and nutrition surveys) **sample individuals**. The FIES can be administered to either:

- ➔ an adult respondent who answers the questions **on behalf** of his or her **whole household**
- ➔ an adult respondent who answers the questions **about him or herself**. This is **preferable**, as the results for women and men can be analysed separately, but it is **not always possible**.

Let's consider some of the other survey features that will inform the choice of the best survey vehicle.

Features to consider when including FIES in an existing survey

In order to identify an **appropriate existing survey** into which the FIES survey module could be included, there are several features that should be considered.

Target population

All surveys have **target populations** from whom information is collected (often called the **universe**).

These may be: the **general population** or **specific population groups** (e.g. disaggregated by age group, gender, urban/rural residence, geographical location, and ethnicity).

Prevalence **rates of food insecurity**, using FIES, can only be computed for the **population** that is **covered by the survey** and represented by the survey sample, so it is important to understand what type of coverage is foreseen.

Representativeness (sampling design)

When the survey is designed to **produce national and subnational estimates of different characteristics**, including food security, the survey sample must be selected to offer an **accurate reflection** of the distribution and characteristics of individuals or households in the **target population**.

Sample size & unit

Appropriate sample selection and calculation of sample weights to ensure **representativeness** are **routine features** of large-scale national surveys. National surveys often have a large enough sample size to allow for disaggregation of results by:

- **subnational units** (such as state, province, administrative unit);
- several **population characteristics** (income, education level, language or ethnicity, etc.).

A **detailed discussion of sampling design** is beyond the scope of this course. **You can find more guidance** in this area, including probability and non-probability sampling techniques, such as stratification, cluster sampling, and multi-stage sampling strategies, in:

UN Statistics Division's Designing Household Survey Samples: Practical Guidelines

https://unstats.un.org/unsd/demographic/sources/surveys/Series_F98en.pdf

Periodicity of data collection

The **regularity with which data are collected** differs between surveys, ranging from smaller, focused annual surveys to more complex, multipurpose surveys, which are carried out at intervals of up to ten years. **Sporadic** or one-time surveys may also be conducted for specific purposes. However, these are **not appropriate** if the objective of including the FIES is to **monitor food security trends over time**.



Under the **SDG monitoring framework**, countries will be encouraged to **report annually** on the SDG indicators. For this reason, annual or continuous population surveys would be the preferred vehicle for including the FIES survey module.

Survey context

It is important to look at food security as measured by the FIES in association with **other variables of interest**. This will help to ensure a better understanding of potential determinants, risk factors and consequences of food insecurity. You should look at the **type of information** that is routinely gathered in the surveys under consideration, and see how this data could **deepen** your **understanding** of food security.

Example: other variables of potential interest

Demographics and socioeconomic status

Employment status	Education level
Marital status	Type of employment/livelihood
Income/poverty indicators	Quality of housing
Access to water and basic sanitation	Female or male-headed household
Race/ethnicity/caste or class	Number and ages of children in household

Illness or disability of household members

• Access to healthcare	• Nutritional status (underweight, overweight/obese, stunting)
• Illness or disability of adults	• Self-reported health
• Household food production for own consumption	• Dietary diversity (and other measures of diet quality)

Programme participation

(e.g. cash transfer, agricultural development, school feeding)

This relates to the fourth objective of FIES, i.e. studying the **determinants and consequences of food insecurity**.

Choosing the reference period

The FIES survey module is flexible with regard to the reference period (during the previous 30 days or 12 months). The choice of **reference period depends on the purpose** for which food security is being measured.

For SDG monitoring, a 12-month reference period is recommended. This is because it covers possible seasonal changes in food security, and for this reason, improves comparability of results across countries, or across national regions with different environmental and climatic zones.

If the survey is conducted **continuously** throughout the year, with **nationally representative samples at each data collection point** - as is the case with some national Living Standards Monitoring Surveys - a 30-day reference period can be used. Annual prevalence rates of food insecurity can still be calculated for monitoring purposes.



When a 30-day reference period may be preferred

When the FIES is being applied to **identify risk factors** and **consequences of food insecurity** rather than for population monitoring, a 30-day reference period is preferred when surveys are time stratified during the year in order to capture seasonality.

The shorter reference period might be more appropriate when food insecurity is being studied in relation to data collected in the same survey on food consumption during the previous day, week or month.

A National Statistics team scenario

“We are convinced it would be best to include the FIES module into an existing survey. We will need to identify which one would be most appropriate in our country, even if it’s not possible to collect the data for SDG monitoring every single year. I need to carefully consider several features of the surveys that we conduct in our country, in order to select the most appropriate one.” –

Grace, a national statistics officer

Grace is reviewing the various surveys conducted in her country that are available to her team to use as a vehicle for the FIES. Grace has chosen the **HCES** (household consumption and expenditure survey) as the best choice survey, because it is carried out with a fairly good

frequency, it targets the general population and will be conducted again within the year. Although it targets households and not individuals, it is still preferable to the Demographic and Health Survey, which focuses on a limited population group, or the total population Health and Nutrition survey, which will not be held for another 6 years.

Placing the FIES within the survey questionnaire

Once the decision has been made that food security measurement will be included in a large-scale survey, it is important to **decide where the FIES survey module will be placed in the questionnaire relative to questions on other topics**. Bear in mind that the FIES series of eight questions takes no more than 5-8 minutes to administer. There are several considerations when deciding on its placement.

- ➡ Typically, the standard sequence of a survey begins with the **basic demographic** or "personal information" questions.
- ➡ If the FIES is inserted after a series of income questions, people may associate the FIES questions with their answers on income.
- ➡ If FIES is inserted after a **food consumption or food expenditure module** with a different reference period than FIES, respondents may become **confused** about the time period they are supposed to respond to. In cases where the FIES module **must be placed adjacent** to questions on income and/or food consumption, interviewers should be instructed to **clarify the relevant reference period**, and **carefully distinguish** the FIES survey module from preceding questions.
- ➡ To improve the flow and to avoid confusing respondents with somewhat similar modules, it is better to include the FIES survey module somewhere:
 - **after the demographic section**, but
 - **well before** long modules on **income and food consumption or expenditure**.

*What about the **order** in which the eight **questions** are asked? Does it matter?*

The **order in which the FIES questions are asked** should not affect how they are answered by respondents. However, it is recommended to use the standard administrative order, which moves roughly from questions associated with less severe to more severe food insecurity.



The standard administrative order

Now I would like to ask you some questions about food. During the last **12 months**, was there a time when...

You were **worried** you would not have enough food to eat because of a lack of money or other resources?

You were unable to eat **healthy and nutritious food** because of a lack of money or other resources?

You ate only a **few kinds of foods** because of a lack of money or other resources?

You had to **skip a meal** because there was not enough money or other resources to get food?

You **ate less** than you thought you should because of a lack of money or other resources?

Your household **ran out of food** because of a lack of money or other resources?

You were **hungry** but did not eat because there was not enough money or other resources for food?

You went **without eating for a whole day** because of a lack of money or other resources?

A National Statistics team scenario

“Now we have resolved a number of issues and are clearer about how we will collect the data for the FIES. We have chosen the HCES survey because it is a regular, ongoing survey conducted by our office, and there is time to include the FIES in it before the next round. It is a household-based survey, so we will use the household version of the FIES. Since the FIES asks respondents about fairly sensitive issues, we will place it about a third of the way into the survey, but well before the food consumption and expenditure modules.” - Grace, a national statistics officer

Translation and adaptation of the FIES survey module

Before applying the FIES in a new setting, it is essential to carefully prepare a **linguistically and culturally adapted translation** of the FIES into **all the languages** in which it will be administered.

The validity and accuracy of results from the FIES are highly dependent on the **words and terminology** used in the questions. The FIES questions were **designed to capture distinct behaviours** or experiences, but the way to **describe these experiences** varies considerably across languages. Literal translations often do not work well.

Questions that clearly refer to **different** experiences in the English language can become **indistinguishable** in meaning when a translation is poor. This can easily lead to **misunderstanding**, and **bias** in the measurement of food security. The challenge is to identify the words and phrases used to describe that behaviour or experience in the local language.

For example, in many languages, a **literal translation** does not work for the question which asks about **skipping** a meal, as this would be a term that refers to **jumping over** a meal, which is one **literal translation** of the word skipping. The word "diet", when discussing food security and nutrition, refers to the **combination of foods** that people customarily eat, or to their eating patterns. When translated literally in some languages, a word may be incorrectly selected that implies a **weight loss diet**.

Linguistic and cultural adaptation

All questions in the FIES are worded to be as **concise and universally relevant** as possible. However, it is important to ensure that in the language of administration, the **translated terms used** in the questions faithfully capture the **underlying concepts and original meaning** of the food insecurity scale.

FAO has a repository of the 2017 FIES versions in nearly 200 different languages from the Gallup World Poll, which can be **used as a starting point** for translating and preparing the FIES survey module. Please note, these are the individual versions, so adaptation is necessary if using the household version.



Problems related to poor translation may be detected through statistical validation of the FIES data. However, **after the data have been collected**, it is **too late to correct any errors**, and the accuracy of the **results may be compromised** for this application of FIES. Corrections of translations (or any other data collection problems identified during the analysis phase) can only be made for **subsequent applications** of FIES.

Considering the intended meaning of the eight questions of the FIES survey module

The language should contain words and phrases that are **easily understood** by both the enumerators and the respondents. The most appropriate terms **may not be** a **literal translation**. Translation of FIES should be guided by considering the **intended meaning** of the **eight questions**.

QUESTION 1

*During the last 12 months, was there a time when you were **worried** you would not have enough food to eat because of a lack of money or other resources?*

The question refers to a state of being **worried, anxious, apprehensive, afraid or concerned** that there might not be enough food, or that the respondent will run out of food (because there is not enough money or other resources). It is **not necessary** for the respondent to have **actually experienced** not having enough food or running out of food to answer yes to this question.



This question refers to the **emotional state** of the respondent.

Alternative phrases:

... you were **preoccupied** about not having enough food to eat.

... you were worried that you might not have enough food to eat.

... you were anxious that you **might not** have enough food to eat.

... you were **worried** that food would **run out**.

... you were **anxious** about not having enough food to eat.

The worry or anxiety is due to circumstances affecting their ability to procure food, such as:

environmental or political crises;

disrupted social relationships;

insufficient food production for own consumption;

poor health/sickness/disability;

loss of employment or other sources of income;

loss of customary benefits or food assistance.

insufficient food available for hunting and gathering;



These circumstances may also be the underlying causes of more severe forms of food insecurity.

QUESTION 2

*During the last 12 months, was there a time when you were unable to eat **healthy and nutritious food** because of a lack of money or other resources?*

This question asks respondents whether, because of a **lack of money or other resources**, they were unable to get foods they considered healthy or good for them, foods that make them healthy, or those that make a **nutritious or balanced diet**. The answer depends on the **respondents' own opinion** of what they consider to be healthy and nutritious foods.



Are respondents really able to determine whether their diet is healthy or not?

It is quite common for people to **question respondents' ability** to give an **accurate reply** to the question in the FIES survey module about whether or not they were able to eat "healthy and nutritious" foods. This particular question is intended to capture **respondents' own perspective** regarding how healthy and nutritious their diet is, rather than that of nutritionists or economists. The question is **not intended to measure nutritional adequacy** of the diet.

Accumulated experience with food insecurity scales, including **focus group research**, has shown that people are in fact relatively **good judges** of what constitutes a healthy and nutritious, or balanced diet.



This question refers to the **quality** of the diet, not the quantity of foods eaten.

Alternative phrases:

... *you were unable to eat foods that are **healthy or good for you**.*

... *you were unable to eat foods that **make you healthy**.*

... *you were unable to eat foods that are **good for your health**.*

... *you were unable to eat a **healthy diet**.*

... *you were unable to eat a **nutritious or balanced diet**.*



Experiences of linguistic adaptation

In **Angola**, some people interpreted "healthy food" as meaning food that is hygienic and safe, while "nutritious food" was associated with having a varied diet.

In **Malawi**, there seemed to be a thin line between "different kinds of foods" and "healthy and nutritious foods". The phrase "healthy and nutritious foods" was interpreted as meaning "food

that **gives energy**", and even after probing, the respondents indicated that if food is healthy and nutritious it will "give you energy to do your farming activities". Most respondents indicated that **healthy and nutritious** diets are composed of **different kinds** of foods.

In **Niger**, healthy and nutritious food was associated with "food that is **not harmful** to the health of the person (healthy) and **builds the body** (nutritious)". Such food contains everything the body needs and helps to have **strong, healthy and shiny skin**. Healthy and nutritious diets are composed of different kinds of foods.

QUESTION 3

*During the last 12 months, was there a time when you ate **only a few kinds of foods** because of a lack of money or other resources?*

The question asks if the respondent was forced to eat a **limited variety of foods**, the **same foods**, or just a **few kinds of foods every day** because there was not enough money or other resources to get food. The implication is that:

- ✓ the diversity of foods consumed would probably increase if the household had better access to food;
- ✓ the reason for limiting the variety of food is lack of money or resources, rather than customary habits, or health or religious factors.



This question refers to the **quality** of the diet, not the quantity of foods eaten.

Alternative phrases:

... you **had to** eat a **limited variety** of foods.

... you **had to** eat just a **few kinds** of foods.

... you **had to** eat the **same foods** every day.

... you ate the **same foods**, or just a **few kinds of foods**, every day.

QUESTION 4

*During the last 12 months, was there a time when you had to **skip a meal** because there was not enough money or other resources to get food?*

This question enquires about the **experience of having to miss or skip a major meal**, because there was not enough money or other resources to get food. It refers to not eating a meal that would

normally be eaten, such as breakfast, lunch or dinner. However, the norm for the number and times of meals varies from culture to culture.



This question refers to an insufficient **quantity** of food, not quality.

Alternative phrases:

... you **missed** a meal.

... you **failed to eat** a meal.

... you **omitted** a meal.

... you missed a meal that you would **normally have eaten**.

... you did not eat in the **morning, at mid-day or in the evening** because...



Experiences of linguistic adaptation

In some languages, such as **Djerma** in Niger and **Chichewa** in Malawi, there is **no single term for meal**, or way to express skipping a meal. In both languages, the question was modified to ask if food was skipped in the morning, afternoon or evening.

In Niger, focus group participants indicated that:

- during "**normal**" periods, when there is good food availability, following the harvest season, people eat **three meals a day**.
- during the **lean** season, the frequency declines and varies between **1 and 2 meals per day**.
- when **crops fail**, the number of meals can be reduced to **one**.

Thus, focus group participants indicated that the number of meals that people eat during a day really does reflect their ability to access food.

QUESTION 5

*During the last 12 months, was there a time when you ate **less than you thought you should** because of a lack of money or other resources?*

This question enquires about **eating less than** what the respondents considered they **should have consumed, even if they did not skip a meal** (because the household did not have money or other resources to get food). The answer depends on the **respondents' own opinion** of how much they think they should be eating. This question does not refer to special diets to **lose weight**, or to follow for **health** or **religious** reasons.



This question refers to an insufficient **quantity** of food, not quality.

QUESTION 6

*During the last 12 months, was there a time when your household **ran out** of food because of a lack of money or other resources?*

This question refers to any experiences when there was actually **no food in the household** (not just staple foods, such as maize, rice or cassava), because respondents did not have money, other resources, or any other means to get food.



This question refers to an insufficient **quantity** of food, not quality.

Alternative phrases:

... *your household **ran out** of food because of a lack of money or other resources?*

... *the **food ended** in your household.*

... *you **stayed without food** in your household.*

... *your household was **without food**.*

... *the **food ran out** in your household.*

QUESTION 7

*During the last 12 months, was there a time when you were **hungry** but **did not eat**, because there was not enough money or other resources for food?*

This question asks about the **physical experience of feeling hungry**¹, and specifically, feeling hungry and not being able to eat enough (because of a lack of money or resources to get enough food). It does not refer to special diets followed for health purposes, such as to lose weight, or fasting for health or religious reasons.



This question refers to an insufficient **quantity** of food, not quality.

QUESTION 8

*During the last 12 months, was there a time when you went **without eating for a whole day** because of a lack of money or other resources?*

¹ Hunger is usually understood as an **uncomfortable** or **painful sensation** caused by **insufficient food energy consumption**.

This question asks about a specific behaviour - **not eating anything all day** (because of a lack of money and other resources to get food). It does not refer to special diets followed for health purposes, such as to lose weight, or fasting for health or religious reasons.



This question refers to an insufficient **quantity** of food, not quality.

Alternative phrases:

... you went **without eating for a whole day** because of a lack of money or other resources?

... you ate **no food** during a whole day.

... you **stayed without eating** anything all day.

... you **ate nothing at all** during a whole day.

... you did not eat from **sunrise to sunset** (i.e. the entire day).



In some African and Asian countries, "**eating**" refers only to the **staple food**. This means that if they did not eat their staple food (e.g. rice, maize, manioc) people may say they did not eat, even if they did in fact eat another food (e.g. rice). It is important to explain that we mean it to be **not eating any foods**.

Translating other key phrases

It is important to take **particular care** with **key phrases** that are part of each FIES question:

PAST 12 MONTHS

There are different ways to refer to the **12-month period preceding the interview**, including "the past year". Care should be taken to find the best phrase to **avoid confusion with other common conceptualizations** of a 12-month period, such as an agricultural season or religious calendar year.

Example

In Malawi, many people understood "the **past 12 months**" to mean the **calendar year 2012**, so the phrase was modified to reflect the period between 12 months ago and the present. For example, in an interview in August, the period would be described as "from last September until the present...".

HOUSEHOLD

Translation of the term "household" may be a challenge in some cultures, particularly those that are more collective in nature, without nuclear family units. Another way of communicating the concept of a household is "a group of people eating out of the same pot".

Example

During focus group research in Malawi, communities in Central Region, where traditional Chichewa is spoken, referred to a household as "pakhomo", meaning **people living together and sharing food** and other resources.

The communities also referred to "pabanja", a term which means someone's **blood line or clan**, and is therefore not appropriate.

However, this was different in the Southern Region, where there was no distinction between the meaning of the two words. The linguistic adaptation team decided that both words should be used when administering the questions.

LACK OF MONEY OR OTHER RESOURCES

Aside from **money** to buy food, "**other resources**" refers to the lack of **other usual means for getting food**, such as:

- | | |
|--------------------------------|-----------------------------------------------------------------------------|
| own production; | barter; |
| trade; | small livestock for sale or own consumption; |
| fishing, hunting or gathering; | the transfer of food from; family, community members, government or donors. |

Example

In Angola, "lack of **means**" was understood **better** than "lack of money or other resources".

In Niger, in both Djerma and Haoussa languages, lack of money or other resources was understood as the **lack of any means to cope** with a certain situation, to find a solution to a problem. Participants in the focus group discussions stressed the need to have money to procure food, especially during the lean season, as well as the importance of relying on **other resources**, such as **livestock** or other informal **social safety net systems**, including barter or the regular collection of money to distribute to vulnerable families.

A National Statistics team scenario

“With a deeper understanding of the meaning of the FIES questions, I can see how important it will be for us to translate and adapt them carefully.

There may be cultural differences that lead to different ways of understanding the same phrase, even among population groups who speak the same language! Clearly, it is very important to conduct the translation and the linguistic and cultural adaptation with care. First, we will put together a list of experts from our contacts who will be willing to contribute. We can schedule a meeting to discuss some approaches, and then after that we will have a clearer idea of how to proceed.” – Grace

Beyond translation to linguistic and cultural adaptation

Linguistic and cultural adaptation means **modifying** the translated FIES to reflect **cultural norms** and **vocabulary** that will be easily understood. It is necessary to **go beyond literal translation** of the questions and ensure that the **original concepts captured** by the questions are expressed using culturally appropriate terms and phrases.



Even if the FIES is to be administered in English, it is a good idea to carry out a linguistic adaptation, because the **Standard English** in which the FIES questions are written **may be quite different from the English spoken** in different parts of the world.

Ensuring a good translation and adaptation

Several methods can be used to carry out the translation and linguistic adaptation of the FIES questions. We will consider a few of them in more detail. The methods aim to:

- ✓ gain in-depth insight into how the questions are **understood** by potential survey respondents;
- ✓ identify potential sources of **misunderstanding** and any **difficulties** people may have in responding;
- ✓ identify common words and phrases people in the country or cultural group use to talk about the experiences referred to in the FIES questions;
- ✓ **guide refinement** of the questions with locally/nationally appropriate language and terms.



It is usual to start the process with the expert consultation, but there is **no standard order** in which to use the following three methods, which may also be used as stand-alone activities.

[Read Cross-cultural Survey Guidelines for translation and linguistic adaptation recommendations](http://ccsg.isr.umich.edu/index.php)

<http://ccsg.isr.umich.edu/index.php>

Panel of experts

Expert panels can contribute to the translation and adaptation of the FIES survey module in a number of different ways, providing guidance regarding next steps in the translation/adaptation process. For example, they can suggest geographical locations and population groups for the informant interviews, focus groups or semi-structured interviews.

- ▶ Discuss the preliminary version of the translated questions
- ▶ Suggest modifications to each question based on their experiences
- ▶ Identify different ways to express key concepts that will later be explored in the focus group discussions
- ▶ Review potential problems related to comprehension and field application of the questions in the module
- ▶ Provide **guidance** for planning **criteria** for focus groups and interviews

The output of the expert panel is a version of the **translated questions with modifications recommended** by the panel, including possible alternatives that need to be **explored further**. This serves as a basis for the focus group discussions and key informant interviews that follow.

A panel of experts is composed of people with **experience in issues related to food insecurity**, drawn from:

relevant government ministries;
national statistics institutes;
research institutions;
non-governmental and civil society organizations.

The expert panel can help to identify and prioritize the main sociodemographic differences to take into consideration when planning key informant interviews, focus groups or semi-structured interviews, such as urban, peri-urban, rural, and different ethnic or livelihood groups.

Key informant interviews

The FIES survey module can be discussed with individuals who may have insights into how members of their community might understand the FIES questions as formulated, as well as any potential misunderstandings and challenges, and better ways of posing the questions.

Key informants may also provide **contextual information about the communities** they live and work in, such as how people manage periods of food shortages, or whether there are beliefs and practices that may influence diets.

Focus group discussion

To ensure that the translated FIES module is understood by respondents as intended, the questions can be explored using a qualitative research technique known as **focus group discussions (FGD)**, with groups of individuals from the **target population**. These discussions are semi-structured but interactive, and are designed to elicit the **perceptions, opinions, beliefs and attitudes** of participants. The total **number of focus groups needed** will depend on the key sociodemographic differences likely to lead to different perspectives or understandings regarding the themes and questions in the FIES.

Focus group discussions with the purpose of adapting the food security questionnaire are led by a trained **moderator**, and typically follow four general steps.

Explanation of purpose

The moderator explains that the group's expertise both in their **own language** and in their **life experiences** will help the researchers to design a national survey about food security, using questions that **people will understand** and **can respond to** without difficulty.

Opening discussion

This discussion acts as an ice-breaker, and **introduces** the participants to the **topic** of the discussion. It is good to start with topics that are easy and pleasant to talk about, such as **what people typically eat** in the community, and where people get their food. Then the moderator can begin to ask whether they have ever experienced periods without access to food, and invite them to describe those situations.

Discussion of each question

Each question is read out and discussed by the group.

Participants' understanding of each question is explored in greater depth.

Phrases they use to express key concepts are identified and discussed with them.

These phrases are tested in subsequent focus groups.

Summary of discussion

The moderator summarizes the main points of the discussion and verifies these with the participants. Better ways of describing the core meaning of the questions are often suggested and validated by the group.



When deemed culturally appropriate, **focus groups may be conducted separately** for men and women and for younger and older adults, to ensure that everyone feels comfortable speaking.

Semi-structured individual interviews

The translated survey module can also be tested by conducting **semi-structured interviews** with individual **respondents from the survey population**. Following the response to each item, respondents are asked to elaborate further on their answer in an open-ended manner. The aim is to elicit how they understood each question as it appears on the questionnaire, and their thought processes as they arrived at their answers.

This step may serve to resolve doubts regarding the best choice of wording for the questions, including differences in comprehension among different groups of people. Respondents should be **deliberately selected from different sociodemographic groups**, so as to help resolve doubts. For **example**, if there is doubt regarding comprehension of the phrase chosen to express ‘healthy food’ among **rural compared with urban residents**, individuals from **each of these demographic groups** should be interviewed.



For more guidance, see the [UN ESCAP Guidelines for cognitive and pilot testing of questions for use in surveys](https://www.unescap.org/resources/guidelines-cognitive-and-pilot-testing-questions-use-surveys) www.unescap.org/resources/guidelines-cognitive-and-pilot-testing-questions-use-surveys.

Finalizing the translated and adapted FIES survey module

If more than one survey language is to be used:

- ✓ the steps above should be repeated for each language, to ensure that questions are clearly understood;
- ✓ translated versions of FIES in the additional languages should be **printed out for paper questionnaires**, or **included in tablets** for electronic data collection;
- ✓ on-the-spot *ad hoc* translation is to be avoided.



If time and resources permit, it may be advisable to repeat **several rounds** until some sort of consensus is reached. Alternatively, it may be more **efficient** to ask the **expert panel** to **arbitrate any remaining doubts** about how to express certain terms.

A National Statistics team scenario

“We have taken the necessary time and care to translate and adapt the FIES survey module. It was well worth it because now I feel confident that our interviewers will go into the field with high quality written translations in all the key languages, which will minimize the risk of misunderstandings and inaccurate or biased results. We are now ready to train the interviewers who will be collecting the data, and will pilot test the entire survey questionnaire, including the FIES survey module. Depending on the results of the pilot test, we may still need to make a few minor adjustments in the translations of the FIES survey module.” Grace

Interviewer training on administering the FIES

In order to obtain valid and accurate data from the FIES survey module, it is not only important to provide **clear written instructions for interviewers** and survey supervisors, but also to **deliver in-person training** on how to properly collect data from the FIES survey module.

Large-scale, multi-topic surveys always conduct thorough interviewer training prior to starting data collection. The **training activity** may last **up to two weeks**. It is ideal to schedule **at least a half-day** time slot within the overall interviewer training schedule, which **focuses specifically on the FIES**.



The FIES specific training should include **practice in administering the FIES** questions in the **different survey languages**, in order to familiarize the interviewers with the formulation of the questions as they will be posed to respondents.

Thorough **training of interviewers is key** to ensuring that interviews are conducted in a way that is both technically correct and fully respectful of respondents. Interviewers must strive to be

considerate and non-judgmental in their approach, so as to elicit honest responses from interviewees.

In some cultures and contexts, gender matching of respondents and interviewers may be necessary. Food insecurity is a socially and emotionally sensitive subject. The quality of data resulting from the inclusion of the FIES in a survey is highly dependent on how well the survey is carried out in the field, since it must be administered in a way that elicits complete and honest responses.



When possible, **field supervisors should attend the training session** on administering the FIES. Given that they are responsible for ensuring the quality of the data collected, it is essential that they **thoroughly understand the module and its purpose**.

Data collection training for the FIES

Throughout the training, be sure to allow sufficient time for **questions and comments** from interviewer trainees, as this may indicate the **need to reinforce** certain steps. There are **three key steps to include** in interviewer training for the FIES.

1. Introduction to and meaning of the FIES questions

Begin the training with a **short discussion** on what **food security** means, and how people might experience food insecurity. Explain the **overall objectives** of the FIES survey module, i.e. to enquire about a series of experiences related to constraints on ability to obtain food, due to lack of money or other resources. As highlighted earlier in this lesson, **review each question** with trainees – considering the elements phrase by phrase, and what they are intended to **mean**.

2. Methods for asking the questions to elicit valid responses and avoid errors

Provide a **standard interviewing approach** to be followed, and set out **ground rules** during training. For example:

- ✓ the FIES **questions** should be **read** to the respondent **as written**;
- ✓ interviewers are **discouraged** from spontaneously **interpreting** questions, **prompting** for answers or **rephrasing** questions if the respondent does not understand.

These types of poor practices can **compromise the accuracy** of the responses, and lead to **bias** in the information obtained. They are minimized when the linguistic adaptation of the FIES has been carefully carried out.

3. Exercises for FIES interviewing techniques

Provide ample **opportunity for trainees to ask questions** on the meaning of the FIES questions, and to **practise interviewing** through **role play**. The instructors can **create different scenarios** that

interviewers may encounter, allowing practice of techniques for overcoming difficulties, such as respondents' reluctance to answer or inability to understand the questions.



Interviewers will continue to learn during survey implementation through: **direct feedback** from supervisors, **debriefing** and **group discussions** during field staff meetings, and (if data collection is over an extended period), through **periodic retraining** if problems are identified.

A National Statistics team scenario

"I've been in touch with the organizers of the HCES survey. Luckily they have scheduled two weeks for a thorough training of interviewers and agreed to allot at least a half-day for FIES training. We need to be sure to structure the training to cover the different aspects of administering the FIES survey module." -Grace

Pilot surveys

When the FIES is being administered in the context of existing surveys that include multiple topics and modules, a **pilot study is usually carried out to practise all the survey steps**, from start to finish, including all survey modules and procedures. The pilot survey is the final step to be carried out in preparation for the full survey. Often a convenience **sample of approximately 50 respondents** is interviewed, and their responses coded and analysed.



The pilot should be carried out separately for different language versions of the questionnaire.

FIES questions that are not clearly understood are modified, problems administering the questionnaire are addressed, and the **final revisions** of the FIES survey module **can be made** at this time.

Survey errors

Measurement is never perfect – at every phase, from sampling and preparation of the questionnaire to data collection and data entry, there is potential for introducing error.

While we must accept that **eliminating all error is impossible**, it is important to **minimize** any errors in the administration of FIES, which can bias food insecurity estimates in a population.

Careful attention to sources of errors, and application of **methods to prevent or reduce** these, will **improve the validity** of the measurement of food security.

Good survey practice involves **constant supervision** and **monitoring of interviewer performance**, including checking questionnaires at the end of the day for:

- incomplete responses to the FIES survey module;
- obviously erratic response patterns (e.g. a pattern of all no answers except to the last item (not eating a whole day);
- particular patterns for specific interviewers (e.g. same response pattern in all questionnaires).

These types of patterns, if systematic, may point to problems with specific interviewers, or systematic misunderstanding of one or more questions in the FIES survey module.

There are **three main types of error** that can **compromise the validity** of a measure. These occur at different stages of administering the FIES – either during sample selection, or during data collection.

DURING SAMPLE SELECTION

① Sampling error

Sampling error is error caused by sample selection. It is the degree to which the selected sample deviates from the "true" characteristics, traits, experiences and behaviours of the entire reference population. These kinds of errors occur because the sample selected was not representative of the reference population.

It is the responsibility of the survey organizers to develop and implement a sound sample selection plan, so as to reduce the risk of missing out on elements of the target population. When writing up the results on the FIES survey module, it is essential to **identify and report** the segments of the population that were **not covered in the survey sample**, and clarify that the FIES results cannot be extended to these groups.

DURING DATA COLLECTION

② Non-response error

Non-response errors occur when a household or individual selected for the survey **does not participate** in the survey at all, or participates but **does not provide complete information**.

This may occur because a household or person is reluctant or refuses to answer the questions, due to a language barrier, a health limitation, or the fact that no one is at home during the survey period.

If some of the eight FIES questions are not answered, **responses should not be imputed** to complete the FIES score. When the FIES is **incomplete**, even if one question remains unanswered, the **case should be eliminated** from the analysis. This reinforces the **importance of reducing non-response errors** during data collection.

If a non-response rate is particularly high (for example if 15% or more of the sample give incomplete answers to the 8 questions), it is important to **explore the characteristics of individuals who did not respond** completely, using descriptive statistics. There are various causes of non-response error that can bias the population level estimates of food insecurity. By anticipating the different causes, potential problems in obtaining accurate and representative estimates of food insecurity in the population can be minimized.

➤ **Language barrier**

To overcome potential language barriers, it is important to use the process explained earlier in this lesson, to linguistically and culturally translate the FIES into the major languages used in the survey. When a household or individual is surveyed who does not understand any of the survey languages, on-the-spot translations are discouraged. It may be decided to exclude certain language groups. This decision should be clearly stated in the survey methodology report, and any potential bias of results related to this should be mentioned.

➤ **Unreachable interviewees**

In the case of not being able to interview selected households or individuals because they are **unreachable**, techniques to address this challenge include:

- ✓ **making repeated visits** over a determined number of times or days;
- ✓ **replacing the sample unit** if these attempts are unsuccessful;
- ✓ **adjusting the original sample size for non-response**, and computing **compensatory weights** to provide an adjustment ex-post.

➤ **Reluctance or refusal**

It is possible that the nature of the FIES questions causes feelings of discomfort or shame, contributing to a reluctance to answer. In the case of refusal or reluctance to respond, non-response rates can be reduced through **careful interviewer training**. Techniques should be taught for avoiding refusals by **tailoring** the interviewer's **approach to the different reactions** they receive from respondents, while respecting the person's **right to ultimately not respond**.

③ Measurement error

This may be due to:

- **poorly worded or translated questions;**
- **inappropriate interview techniques;** or
- **incorrect reporting of responses** on the questionnaire or during data entry.

Practices for avoiding measurement errors include:

- ensuring a linguistically and culturally adapted translation;
- testing survey materials, questionnaires and procedures;
- implementing high standards for the recruitment of qualified field staff;
- developing and implementing intensive training programmes and well specified and clearly written instructions for field staff.

Measurement error is not totally avoidable. There is always uncertainty over individual responses, as well as regarding the overall food insecurity prevalence rates.

However, the degree of measurement error is much greater for individuals' set of responses than for population level results. As a result, the food insecurity level of individuals, based on their responses to the FIES, **should never be used for individual targeting to assign benefits or programme participation**. Measurement error is reduced by careful application of the FIES and larger sample sizes, which will yield more reliable estimates of food insecurity at population level.

Example

A supervisor is reviewing surveys at the end of the day and comes across two situations requiring action to correct potential errors.

The supervisor will **reorganize** the next day's plan to accommodate this change. There is a large number of missing responses to the FIES questions among surveys of women interviewed by men. **Gender matching** of interviewer and respondent may be necessary in this culture to elicit full and honest responses.

All eight of the FIES questions have "yes" responses in all the interviews conducted by a certain interviewer. The supervisor **suspects the interviewer** is filling in the responses without administering FIES to respondents. She must **bring up this problem** with the interviewer and ask this person to avoid doing this in future interviews.

A National Statistics team scenario

“The process of linguistic adaptation was a little time consuming, but well worth it because it will help reduce important potential sources of error and bias into our results, and of course we will use these translations for some years to come.

The survey’s interviewer team is now trained in administering the eight FIES questions, and their supervisors have a good understanding of how to avoid potential problems and errors that may arise during data collection. There will be a small pilot survey soon of the entire survey questionnaire, including the FIES module, and the questionnaires will be reviewed for obvious problems. If everything looks good, we can proceed with the real survey.” - Grace

Summary

In this lesson, you have learned how to incorporate the FIES into a survey, including:

- choosing the survey in which to include the FIES, such as censuses, national surveys on income and expenditure, labour, agriculture or health and nutrition;
- the recommended use of a 12 month reference period;
- considerations for placement of the FIES within the survey vehicle
- the importance of appropriate linguistic and cultural adaptation, and the steps required to carry it out;
- an outline for a half-day training on FIES for field interviewers;
- potential errors that are made either before (sampling error) or during (non-response and measurement errors) data collection;