Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)

Sustainable Development Indicator 2.1.2

April 2021
Virtually - ESCWA

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Introduction to the Food Insecurity Experience Scale (FIES)
Objectives

- Define experience-based food security scales and the benefits of using them;
- Become familiar with the eight FIES questions;
- Describe what the FIES measures and what it does not measure; and
- Explain the reasons for countries to adopt the FIES for monitoring food insecurity.
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The origins of the Food Insecurity Experience Scale

Researchers at Cornell University in the late 1980s sought a new approach to measuring hunger that would be appropriate for use in a wealthy country like the USA, where rates of child stunting and wasting are very low, and many food insecure people are overweight. Aiming to develop a new measure, they interviewed women who said they had experienced hunger, and based on their conversations, identified various dimensions and components of the experience of hunger.
Measuring food insecurity from the perspective of people’s experiences

The Cornell researchers identified a sequence of experiences that characterized hunger and food insecurity as described by the women – a sequence that reveals increasing severity of food insecurity.

Years later, a review of studies in many countries around the world concluded that these dimensions of the experience of hunger appear to be common across cultures.

<table>
<thead>
<tr>
<th>Mild</th>
<th>Severe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty regarding ability to obtain food.</td>
<td>Experiencing hunger</td>
</tr>
<tr>
<td>Compromising on food quality and variety</td>
<td>Reducing food quantities, skipping meals</td>
</tr>
</tbody>
</table>

The consequences of food insecurity become more severe as the situation worsens, negatively affecting physical, mental and social well-being.
Measuring food insecurity from the perspective of people’s experiences

The FIES and similar experience-based food security scales are all composed of a series of questions that refer directly to people’s ability to access food.

The series of questions are part of a scale that covers a range of experiences of food insecurity at increasing levels of severity.
The Experiences & Consequences

The FIES questions span a range of severity

Food security

Adequate food access

Worries
- Compromising food quality and variety
- Compromising food quantity
- Hunger

Consequences

Physical, mental & social wellbeing

Welfare reduction
- Psycho-social costs, reduction of other basic necessities

Malnutrition
- Overweight, nutrient deficiencies, morbidity, reduced work capacity

Undernutrition
- Stunting, wasting, serious consequences for health and wellbeing

Undernutrition

Food insecurity

The Prevalence of moderate or severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
The FIES survey module

The FIES survey individual/household module is composed of eight questions with simple dichotomous responses (“yes” or “no”).

Respondents are asked whether any time during a certain reference period (12 months) they have had any of the experiences described in the questions due to lack of money or other resources to obtain food.

These experiences range from worrying about their ability to get enough food to whether they have been forced to compromise the quality or quantity of the food they ate.

Note that each question is conditioned on the lack of money or resources to get food and NOT due to other reasons to reducing food consumption or alter diet, such as religion or health reasons.
The eight FIES questions – Individual frame

“During the last 12 months, was there a time when, because of lack of money or other resources”:

1. You were worried you could not get enough food to eat?
2. You were unable to eat healthy and nutritious food?
3. You ate only a few kinds of foods?
4. You had to skip a meal?
5. You ate less than you thought you should?
6. Your household ran out of food?
7. You were hungry but did not eat?
8. You went without eating for a whole day?”
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The eight FIES questions – Household frame

“During the last 12 months, was there a time when, because of lack of money or other resources”:

1. You or any other adult in your household were worried you could not get enough food to eat?
2. You or any other adult in your household were unable to eat healthy and nutritious food?
3. You or any other adult in your household ate only a few kinds of foods?
4. You or any other adult in your household had to skip a meal?
5. You or any other adult in your household ate less than you thought you should?
6. Your household ran out of food?
7. You or any other adult in your household were hungry but did not eat?
8. You or any other adult in your household went without eating for a whole day?”
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.

• Because the **validity** and **accuracy** of results from the FIES are highly dependent on the **words** and **terminology** used in the questions.


Please note, these are the individual version, so adaptation is necessary if using the household version.
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 the FIES should be guided by considering the intended **meaning of the eight questions**.
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Existing Previous Applications

• **US Household Food Security Survey Module (HFSSM)**
  - Used in the US since 1995 and in Canada since 2004
  - Annual reports published in the US since 1995. Used to evaluate the effectiveness of the largest USDA program on food subsidies

• **Escala Brasileira de Insegurança Alimentar (EBIA)**
  - Based on the HFSSM, has been developed in Brazil to provide the means to monitor the success of the Zero Hunger program.
  - Applied to the national population through the PNAD since 2004

• **Escala Latinoamericana y Caribena de Seguridad Alimentaria (ELCSA)**
  - Developed as a harmonized scale for use in Spanish speaking countries
  - Validated in Colombia, Mexico, Nicaragua, Guatemala, El Salvador, Paraguay

• **Escala Mexicana de Seguridad Alimentaria (EMSA)**
  - Used by CONEVAL to provide evidence used as part of the multidimensional poverty assessment
  - Included in the intermediate General Population Census survey
Existing applications

- **Household Food Insecurity Access Scale (HFIAS)**
  - Developed by the second Food and Nutrition Technical Assistance (FANTA – II) program, funded by US-Aid, to target and monitor food security intervention throughout the world

- **Household Hunger Scale (HHS),**
  - Developed based on the most severe items of HFIAS due to difficulties in validating the consistency of severity associated to different experiences across countries
Voices of the Hungry project

In 2013 FAO launched the **Voices of the Hungry (VoH) Project** to bring this accumulated experience with food security scales to the global level.

This project developed the **Food Insecurity Experience Scale (FIES)** with the aim of providing a global tool to facilitate valid and reliable monitoring of progress towards eradicating hunger and ensuring universal access to food.

As the developer of the FIES methodology, **FAO is committed** to helping all member countries **develop the capacity** to use the FIES for monitoring food security.
Voices of the Hungry project

• In 2014, FAO began collecting FIES data by leveraging on the Gallup® World Poll (GWP), a branch of Gallup, Inc. that surveys nationally representative samples of the adult population annually in nearly 150 countries, covering 90% of the world’s population.

• This has enabled FAO to collect information from individual respondents at a relatively low cost and to compute country-level estimates of the prevalence of food insecurity at different levels of severity that are valid, reliable and comparable across countries.

• As a result, the VoH project is able to provide, for the first time, nationally representative data on the food access at the individual level on an annual basis.
Voices of the Hungry project

- In 2017 and 2018, *The State of Food Security and Nutrition in the World* publishes a list of SDG indicators related to food security and nutrition, including FIES.

- The prevalence of severe food insecurity in the population, based on the FIES is reported for those countries that authorized the publication of the results.
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Questions?
The FIES can be used to measure food security for the following purposes:

1. To **assess** the population **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.
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The primary result from the FIES is the prevalence of food insecurity in the population.

By “prevalence” we mean the percentage of people in the total population that are affected by food insecurity at different levels of severity.

It is possible to use the same set of questions across cultures to estimate food insecurity at different levels of severity and to compare the results in a way that is meaningful and statistically valid.
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The FIES can be used to identify sub-populations vulnerable to food insecurity, to understand who they are and where they live.

The full potential of the FIES to generate information that provides actionable information for policy is realized when the tool is applied in large national population surveys that allow more detailed analyses of the food insecurity situation in relation to income, gender, age, race, ethnicity, migratory status, disability, geographic location, or other policy-relevant characteristics.
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Use of the FIES to monitor changes in the **prevalence** of food insecurity **over time** and to **identify trends** is a powerful way to assess the effects of national policies and development programmes on reducing food insecurity nationally and among vulnerable populations.

The FIES may also be used with the objective of **project evaluation**.
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Conducting researches to identify determinants and consequences of food insecurity on health and well-being.

This involves exploring food insecurity in relation to other variables. These may be measured on the same individual (or household) in the same survey, or analysed using ecological studies.

By studying associations between food insecurity and characteristics or conditions such as livelihood strategies, access to public services, basic sanitation, food habits, health and nutritional status, we will have a better understanding of the complex phenomenon of food insecurity.
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Benefits of using the FIES to measure food insecurity

Direct

Easy

Low cost

Statistically sound

Distinguish between severity levels

Results can be disaggregated
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- **Statistically sound**
  - FIES and similar scales have been shown to be valid in different settings, and by using the FIES methodology, food insecurity prevalence rates can be compared across countries and populations.

- **Distinguish between severity levels**

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*Food and Agriculture Organization of the United Nations*
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Able to reflect the depth of food insecurity.

Observe differences in food insecurity by population characteristics e.g. gender, age, occupation, etc. and among sub-populations (i.e. location, ethnicity, language etc.)
Conclusion

• FIES can be used to fulfil monitoring requirements on SDG indicator 2.1.2 AND for national policy purposes.

• The FIES module is short and simple, and it is easy implementable in nationally-representative surveys.

• The data can be analyzed to produce valid and reliable estimates of food insecurity in the country on a regular basis.
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Thank you