



Household Food Insecurity Access Scale (HFIAS)

Overview

The Household Food Insecurity Access Scale (HFIAS) is one of the four experience-based food insecurity scales included in Data4Diets, which also contains the [Household Hunger Scale](#) [1] (HHS), the [Latin American and Caribbean Food Security Scale](#) [2] (ELCSA), and the [Food Insecurity Experience Scale](#) [3] (FIES). The HFIAS was developed between 2001 and 2006 by the USAID-funded Food and Nutrition Technical Assistance II project (FANTA) in collaboration with Tufts and Cornell Universities, among other partners. The HFIAS has since provided the foundation for the development of the [HHS](#) [1], another household-level experience-based scale, which resulted from cross-country validation of the HFIAS ([Ballard et al., 2011](#) [4]).

Like other experience-based indicators, the HFIAS is constructed from a short questionnaire that captures households' behavioral and psychological manifestations of insecure food access, such as having to reduce the number of meals consumed or cut back on the quality of the food due to a lack of resources. Responses to the questionnaire enable the household to be pinpointed on a spectrum that indicates the degree of severity of insecure food access.

Method of Construction

The HFIAS module covers a recall period of 30 days, and consists of two types of questions: nine "occurrence" and nine "frequency-of-occurrence" questions. The respondent is first asked if a given condition was experienced (yes or no) and, if it was, then with what frequency (rarely, sometimes, or often). The resulting responses can be transformed into either a continuous or categorical indicator of food security. When calculating the HFIAS as a continuous indicator, each of the nine questions is scored 0-3, with 3 being the highest frequency of occurrence, and the score for each is added together. The total HFIAS can range from 0 to 27, indicating the degree of insecure food access. As a categorical variable, households are categorized as food secure, mildly food insecure, moderately food insecure, or severely food insecure (for more details see Table 4 in [Coates et al., 2007](#) [5]). Households that respond affirmatively to the more severe behaviors (or experience them more frequently) are classified as more severely food insecure. For more in-depth information on using and interpreting the HFIAS, refer to the guide created by FANTA ([Coates et al., 2007](#) [5]).

Uses

Information gathered from the HFIAS can be used to assess prevalence of household food insecurity of a population, as well as changes in food insecurity over time. This is useful in the context of population-level targeting and program monitoring and evaluation of food access-related activities. The HFIAS has been used in myriad ways to measure food insecurity in various contexts. For example, the HFIAS is part of several household surveys and an adapted version is used in the publicly available [Bangladesh Integrated Household Survey](#) [6] and in the Malnutrition and Enteric Infections: Consequences for Child Health and Development (MAL-ED) Network cohort study, which assessed relationships between food security and child growth ([Psaki et al., 2012](#) [7]). Another illustrative example is the inclusion of the HFIAS among Action Against Hunger's (ACF) core indicators in program evaluation ([ACF, 2011](#) [8]).

), as well as one of the tools used for rapid Emergency Food Security Assessments conducted by the World Food Programme ([WFP, 2009](#) [9]).

Like all experience-based food insecurity scales, the HFIAS does not quantify food consumption nor assess diet quality; doing so requires other methods and indicators, such as a quantitative [24-hour dietary recall](#) [10] to quantify food consumption to calculate the [Mean Adequacy Ratio](#) [11] (MAR) or a diet diversity index to determine the [Minimum Dietary Diversity Score for Women](#) [12] (MDD-W) in order to gain a picture of the "adequacy" aspect of diet quality.

Strengths and Weaknesses

One strength of the HFIAS, and other experience-based food insecurity scales, is that it is uniquely able to detect aspects of food insecurity involving decreased access to a sufficient quantity or quality of food and also the psychosocial manifestations of anxiety and uncertainty around food access, which can also affect health and wellbeing ([Ballard et al., 2013](#) [13]). Additionally, it has been found to be understandable and applicable across varying contexts, including both urban ([Mohammadi et al., 2012](#) [14]) and rural ([Knueppel et al., 2010](#) [15]) settings. It is also relatively short and can easily be added as a module to other household surveys.

One of the weaknesses of this indicator is that some of the items in the questionnaire do not meet strict psychometric criteria for cultural invariance, meaning that it should not be used to make comparisons across diverse socio-cultural countries and contexts ([Deitchler et al., 2010](#) [16]). In the process of testing the HFIAS for cultural invariance, the [HHS](#) [1] was developed as a cross-culturally valid alternative. It consists of three of the more severe items from the HFIAS and has been validated for cross-country comparison ([Ballard et al., 2011](#) [4]). The HFIAS is more comprehensive than the HHS and has a broader measurement range, meaning that it can capture conditions ranging from mild food insecurity to very severe food insecurity, whereas the HHS focuses only on the most severe end of the food security spectrum. The HFIAS should undergo some basic adaptation of terms for the context in which it will be used in order to improve its performance (guidance for this process can be found in Section 2 of the HFIAS user manual, [Coates et al., 2007](#) [5]). The HFIAS is meant for population-level use only, meaning that it should not be used, for instance, to screen households for program eligibility.

When data are collected at the household level, the selected respondent, usually the primary food preparer, may not always be in a position to accurately represent the experience of all household members in considering responses to the questionnaire. That said, if any member of the household is reported as experiencing a food insecurity condition on the questionnaire, the entire household is classified as having experienced it too. This means that the indicator could potentially overestimate the number of *individuals* in households who are food insecure, while providing an accurate count of households with at least one member experiencing food insecurity. Relatedly, bias may be introduced from the fact that the selected respondent's perception of their household's experience is not representative of all other household members ([Coates et al., 2010](#) [17]).

Data Source

The data required to calculate this indicator are collected using the HFIAS module ([Coates et al., 2007](#) [5]), which can be easily integrated into a broader household survey.

Links to guidelines

- [Coates et al. \(2007\). "Household Food Insecurity Access Scale \(HFIAS\) for Measurement of Food Access: Indicator Guide. Version 3"](#) [18]

Links to validation studies

- [Gebreyesus et al., \(2014\). "Is the adapted Household Food Insecurity Access Scale \(HFIAS\) developed internationally to measure food insecurity valid in urban and rural households of Ethiopia?"](#)

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- [Knueppel et al., \(2010\). "Validation of the Household Food Insecurity Access Scale in Rural Tanzania"](#) [15]
- [Deitchler et al., \(2010\). "Validation of a Measure of Household Hunger for Cross-cultural Use"](#) [16]

Links to illustrative analyses

- [Becquey et al., \(2010\). "The household food insecurity access scale and an index-member dietary diversity score contribute valid and complementary information on household food insecurity in an urban West-African setting."](#) [20]
- [Nagata et al., \(2011\). "Social determinants, lived experiences, and consequences of household food insecurity among persons living with HIV/AIDS on the shore of Lake Victoria, Kenya"](#) [21]
- [Weiser et al., \(2014\). "Longitudinal assessment of associations between food insecurity, antiretroviral adherence and HIV treatment outcomes in rural Uganda"](#) [22]

Expert review conducted by:

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Food Security Dimensions

- [Secure access to food of sufficient quantity](#) [24]

Data Collection Levels

- [Household](#) [25]

Data Sources and Methods

- [Experience-Based Scales](#)

Requires Food Composition Database

- [No](#) [26]