

Food Insecurity, the 4th primary objective of the Household Budget Survey; *a brief introduction of this methodological concept*

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Introduction

The purpose of this article is to introduce the reader briefly to an increasingly acclaimed research and policy purpose of the Household Budget Survey (HBS), especially in developing countries, namely “food insecurity”.

After looking at the main objectives of the HBS and defining the term “food insecurity”, the reliability and relevance requirements of the HBS are highlighted, followed by a look at “Food (In)security” in the context of the Sustainable Development Goals and a paragraph on the strengths and shortcomings of the HBS in researching and analyzing food insecurity. The article ends with a few closing remarks. One should bear in mind that the scope and purpose of this article are such that presentation and analysis of results, in any way, shape or form, fall outside the realm of this article.

Household Budget Surveys (HBS): four primary objectives

In most countries food consumption data are collected through a variety of household budget surveys (HBS), also called Household Consumption and Expenditure Surveys (HCES). In this article the terminology “household budget survey (HBS)” will be used. Through HBS’s data can be collected simultaneously on income, expenditure and consumption.

Usually HBS’s have one or more of the following three primary objectives: to measure poverty, to derive consumption patterns required for the calculation of consumer price indices (CPI), and to provide input for the compilation of the national accounts. Increasingly the collected data in HBS’s are also used to calculate food insecurity indicators, thus creating a fourth primary objective.

What is food insecurity?

Food security, the opposite of food insecurity, is defined by the World Bank as: "access by all people at all times to enough food for an active and healthy life " (Smith, 2003) or more extensively by the FAO as "a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life" (Smith, Dupriez and Troubat, 2014). In other words, food insecurity occurs when a person (or a household, or a country) does not (always) have physical, social and economic access to sufficient, safe and nutritious food that meets his or her dietary needs and food preferences for an active and healthy life.

Reliability and relevance regarding Food Insecurity when conducting a Household Budget Survey

A reliability and relevance assessment is a crucial requirement in order to conduct a Household Budget Survey (HBS) successfully, in order to achieve the specific goals one wants to achieve, whether it is related to poverty research, CPI, National Accounts or Food Insecurity.

Assessing the relevance of the HBS means that the survey should meet the information needs. In the case of food (in)security, survey relevance depends on the indicator that the researcher is interested in, so what he or she wants to measure with the HBS questionnaire: 1. the economic vulnerability of the respondent to food insecurity, 2. the diet quantity or 3. the diet quality. A study of Smith et.al (2014) shows that it is the easiest to measure economic vulnerability (by calculating the percentage of expenditures spent on food) and the most difficult to measure diet quality. In the HBS's that have been held in Curaçao up to now, only the first indicator is being measured, by gathering data on income and on food expenditures.

Assessing the reliability of the HBS consists of assessing how the information is collected, i.e. whether the survey design and method complies with good practice. Reliability of the HBS can be assessed based on seven areas of investigation:

1. Recall period for at-home food data collection: recall periods greater than two weeks (such as the "typical month") are not recommended, as it would not provide accurate report of household food consumption or food expenditures.
2. Modes of food acquisition: it is recommended that the HBS collect data on food purchases, food consumed from own production, and food received in kind.
3. Completeness of enumeration of either food acquisition or food consumption is important. Not making a clear distinction between acquisition and consumption in the questionnaire design may result in incomplete reporting.
4. Comprehensiveness of the at-home food list. It is recommended to collect data on all of the types of food and beverages that make up the modern human diet. For example if using a set of 14 basic food groups, each food group must be represented by at least one item in the survey questionnaire.
5. Specificity of the at-home food list. Specificity of the food list refers to the degree of detail with which food items are classified. It is recommended that the food list be as specific as possible.

6. Quality of data collected on food consumed away from home: the data collected should be as complete as possible, representing a variety of places of consumption and a broad view of the specific foods and dishes consumed.
7. Accounting for seasonality in food consumption is vital.

Food Insecurity in the context of the Sustainable Development Goals

One should keep in mind that in researching food insecurity through the HBS the 17 Sustainable Development Goals (SDG's) can serve as a stimulating framework, especially the first, second and third SDG: “no poverty”, “zero hunger” and “good health and well-being”. The SDG's were formulated by the United Nations (UN) as a guideline for world development over the period 2016 till 2030. The 17 SDGs build on the 8 MDGs (Millennium Development Goals),

a UN world improvement and transformation framework with 8 specific goals for the period 2000 till 2015¹. The 17 SDG's are an even more ambitious set of goals for world improvement and transformation, as can be seen in the UN poster.



¹ The 8 MDG's are: 1. eradicate extreme poverty and hunger; 2. achieve universal primary education; 3. promote gender equality and empower women; 4. reduce child mortality; 5. improve maternal health; 6. combat HIV/AIDS, malaria and other diseases; 7. ensure environmental sustainability; 8. develop a global partnership for development.
<http://www.un.org/millenniumgoals/> and <http://www.mdgmonitor.org/>

Source:

<http://www.un.org/sustainabledevelopment/blog/2015/12/sustainable-development-goals-kick-off-with-start-of-new-year/>

For the Caribbean sub region the food and nutrition security challenges can be addressed through the consumption of healthy, diversified diets that incorporate more locally produced foods. Sustainable agricultural systems are required to achieve this. Almost all the SDG's are building blocks to achieve food security in a household, a country or a region. (Fletcher & Raney, 2016)

First and foremost, it's worthwhile taking a closer look at the interrelations between SDG's 1, 2, 3 on the one hand and SDG's 4, 5, 8 and 9 on the other hand. By educating people (SDG 4), investing in rural development (SDG9), creating economic growth and employment (SDG8) and establishing social protection systems, e.g. gender equality (SDG 5), the three Food Security Goals "enough food" (zero hunger, SDG 2), good nutrition (good health and well-being, SDG 3) and enough money to buy sufficient food or to produce one's own food (no poverty, SDG 1) can be achieved.

Furthermore, a vital aspect of sustainable agricultural systems is the sustainable management and use of natural resources, such as energy, water and land, which are critical inputs to agricultural production and this is promoted by the SDG's 6, 7, 12, 14 and 15. When it comes to managing the impact of climate change (SDG 13) on agriculture, the Caribbean region faces an even greater challenge. And from a regional or an international perspective, global partnership(s) for sustainable development (SDG17) is vital in enhancing the food security of nations.

Adding the measuring of "Food Insecurity" as part of the methodology & goals of the HBS: strengths and shortcomings

The use of household budget surveys (HBS's) for compiling and analyzing data on the food (in) security amongst people (individuals, households, countries) can be especially interesting in developing countries, based on 4 main strengths:

- 1) HBS's are a source of multiple, policy- relevant and valid measures of food (in) security. These are: (a) household food energy deficiency; (b) dietary diversity, a measure of diet quality; and (c) the percent of expenditures on food, a measure of vulnerability to food deprivation. These correspond with the 3 "relevance-indicators" addressed earlier in this article in the paragraph "*Reliability and relevance regarding Food Insecurity when conducting a Household Budget Survey*": a) diet quantity, b) diet quality and c) economic vulnerability.
- 2) HBS's allow multilevel monitoring and targeting: within-country (neighborhoods, regions, social-economic classes, types and sizes of households) national, regional and amongst all developing countries. Furthermore, by matching the food data with various demographic characteristics of households, they can also be used to identify who the food insecure individuals, households and groups are.
- 3) Through causal analysis of the HBS data, policy-makers and program designers can obtain vital information for effective actions to reduce food insecurity.

- 4) Given that food insecurity manifests itself at household and individual levels, as the data on expenditures are collected directly from households themselves, they are likely to be more reliable than those derived from data collected at more aggregate levels.

Notwithstanding the above mentioned strengths, there are also some shortcomings related to the use of household budget surveys (HBS's) for measuring food insecurity:

- 1) The low frequency of HBS's in developing countries.
- 2) The high costs, time and expertise required to undertake an HBS successfully. Especially in developing countries these barriers can become an almost unsurmountable challenge, taking into account the limited human and financial resources of these countries.
- 3) In the HBS, usually data are not collected on the access to food by individuals within households but on the access to food by households.
- 4) Although reasonably reliable estimates of food (in) security can be obtained through HBS data, estimates may be biased as a result of various systematic, non-sampling errors.

Closing remarks

Measuring Food Insecurity is an important and interesting concept to include in the objectives and methodology of the Household Budget Survey, as it addresses and integrates health, education, wealth and environment development goals of individuals, households, neighborhoods, nations, regions, continents and the world. This is even more so for developing countries, like for instance Curaçao.

Even though the Household Budget Survey (HBS) that is currently being conducted by the Central Bureau of Statistics Curaçao (2015/2016/2017) is not specifically focused on measuring “food (in)security”, the 4th primary objective of HBS's, it is a realistic possibility that this HBS can be a stepping stone for more research in the future amongst the inhabitants of Curaçao (households and individuals) into this topic. With the results of aforementioned HBS at any rate the expectations are that it will be possible to measure one aspect of “food (in)security”, that is the (relative) amount of money households spend on food, resulting in one of the three head-indicators of Food Insecurity: “the economic vulnerability of the respondent to food insecurity”.

In the meantime one should bear in mind that an important key to achieve food security in developing nations now and for the future is by enabling “innovations guided by smallholder farmers, adapted to local circumstances and sustainable for the economy and environment.” And that “technology is only one part of the puzzle. Small farmers also need training and resources to grow these enhanced seeds, and access to stable markets that offer them a fair price for their crops.”² So a bottom up approach and integrating people, planet and profit are crucial in order to attain food security and other sustainable development goals.

² Source: <http://www.thedailybeast.com/articles/2010/01/25/5-questions-for-bill-gates-the-full-interview.html>

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