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Background document
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Food data collection in household consumption and expenditure surveys.

Guidelines for low- and middle-income countries

Report on the Global Consultation

Prepared by the Statistics Division of FAO and
the Development Data Group of The World Bank
(February 2018)

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Guidelines for low- and middle-income countries

Report on the Global Consultation

Background

These Guidelines were prepared by a joint FAO-World Bank team, with inputs and comments received from representative of national statistical offices, international organizations, survey practitioners, academics and experts in different disciplines (statistics, economics, nutrition, food security analysis). The work on the Guidelines started with an expert workshop that took place in November 2014 in Rome. Successive versions of the Guidelines were drafted and discussed at various IAEG-AG meetings, and in another expert workshop organized in November 2016 in Rome.

In December 2017 a draft of the Guidelines was circulated to all Heads of National Statistical Offices for comments. Responses were received from 21 NSOs, 10 of which are from high-income countries (six from the European Union). Of the 21 countries who responded, five only acknowledged the Guidelines and provided no substantive comment. The comments received during the global consultation were incorporated in the document by the drafting team, and are reflected in the current version of the document. Individual responses were also sent to most countries that have provided substantive feedback.

Summary of the main comments and responses by the drafting team

- Overall the Guidelines were very well received and countries appreciated and recognized the effort and expressed support to the initiative.
- Some high-income countries highlighted that the Guidelines target Low and Middle-income countries and may not be relevant to Household Budget Surveys that in their context have a clear focus on measuring only food expenditures.
- A common observation was that a well implemented diary is commonly held as good practice for collecting data on food expenditures. The Guidelines already proposed the diary as an option, subject to careful supervision, but the wording throughout the document has been revised to provide a more balanced assessment of the performance of diaries vis-à-vis recall questionnaires.
- Some countries warned against making the survey instrument overly burdensome, as this could lead to an increase in non-response. This concern is now more explicitly recognized in the document.
- One respondent suggested distinguishing between “best” vs “most feasible given budget constraint” options in the recommendations section. While the Guidelines discuss the need to balance cost and accuracy consideration (and respondents’ burden) it was deemed impossible to provide such a distinction in abstract terms, as the difference between the two categories will vary according to the local context. To convey this message on page 51 the Guidelines now read as follow: “As for the

evaluation of survey costs, it is impossible to evaluate in principle these trade-offs with any level of accuracy and hence to be prescriptive about how to handle these survey design choices. When implementing the Guidelines in practice, however, care must be taken in finding the right balance between keeping the overall length of the survey manageable so as not to compromise, rather than improve, the quality of the information collected”.

- A suggestion was made to include a template of food consumption module. When the Guidelines will be publicly disseminated, concrete examples of questionnaire that comply with the Guidelines will be posted on the dedicated website and linked to the document.
- The Executive Summary provides an overview of all recommendations. This is to address some concerns expressed on the length of the document. When earlier, shorter versions had been circulated, the opposite comment had been received, complaining that there was not enough discussion of the rationale and background for the recommendations.
- On Food away from home an effort was made to clearly distinguish food prepared away from home to be consumed in the house and food consumed outside the house, taking into account the importance of snacks for both expenditures and calories, but also acknowledging that practices vary greatly across countries. This topic is still open for further research.

Conclusions

The drafting team thanks all countries that submitted suggestions, and is available to respond to specific question on how each comment was handled in revising the document in the follow up to the consultation.

Country comments

Table 1. Country's response to the consultation

Country	Comments	Country classification
Armenia	Acknowledge - no comment	lower middle income
Australia	Comments were incorporated in the document	high income
Azerbaijan	Acknowledge - no comment	upper middle income
Belarus	Comments were incorporated in the document	upper middle income
Canada	Comments were incorporated in the document	high income
Colombia	Comments were incorporated in the document	upper middle income
Croatia	Comments were incorporated in the document	upper middle income - EU
France	Comments were incorporated in the document	high income - EU
Latvia	Comments were incorporated in the document	high income - EU
Lithuania	Acknowledge - no comment	high income - EU
Mauritius	Comments were incorporated in the document	upper middle income
Mexico	Comments were incorporated in the document	upper middle income
Norway	Comments were incorporated in the document	high income - EU
Palestine	Acknowledge - no comment	lower middle income
Philippines	Comments were incorporated in the document	lower middle income
Portugal	Comments were incorporated in the document	high income - EU
Russian Federation	Comments were incorporated in the document	upper middle income
Switzerland	Acknowledge - no comment	high income
Thailand	Comments were incorporated in the document	upper middle income
United Kingdom	Comments were incorporated in the document	high income - EU
United States of America	Comments were incorporated in the document	high income

Australia

The challenges associated with collecting this type of information will vary across countries and depending on the particular population being surveyed but we thought it may be helpful to share our experiences in this area of collection with you.

1. Recall vs diary, and length of reference period.

In ABS' experience it is difficult for respondents to accurately recall information over an extended time period such as the 7 days proposed in the guidelines. This approach could therefore lead to concerns about the reliability of data collected using a 7-day recall period for food consumption surveys, especially if a food consumption survey is combined with an expenditure survey. The ABS collects food consumption over shorter periods (we use a recall of the previous day - 24 hours), but we go back to that person (one adult and one child) for a second 24 hour recall 8 or more days after the first interview to collect differences in food consumption over different days. A statistical modelling method developed by the US National Cancer Institute (NCI) and others have enabled researchers (including ABS) to

estimate usual food and nutrient intake distribution for the population based on these two 24-hour recalls. The imperative for developing this method was the public health need to evaluate population's nutritional intakes against nutrient reference values, but recognising that a single day's intake is not representative of the 'usual' intake, and extended or repeated recalls for an individual would impose an unfeasible respondent burden and collection cost. Has the IAEG-AG investigated whether the NCI method might be applicable to the current context?

For other surveys where information needs to be collected over time, such as household expenditure information the ABS asks respondents to keep a weekly diary of the expenditure of all members of the household over 2 consecutive weeks.

2. Respondent burden.

As you note in the paper it is important to have the survey purpose clearly identified as to whether they are collecting data on food acquisition and/or food consumption (noting food acquisition should cover food purchases, own production and food received in-kind). This will help reduce potential confusion for respondents participating in the survey about what is being asked of them. ABS would also recommend that care be taken to limit the amount of information being sought from respondents in any one survey as respondent fatigue can lead to mis-reporting which can affect the quality of the information produced.

3. Mutual exclusive definitions

ABS would also suggest that care be taken to provide advice to practitioners to ensure that the survey approach doesn't result in double counting and/or difficulties with weighting the survey results. In particular, the guidelines suggest that there could be a situation of double counting food consumption if individuals were asked to report 'Food consumed away from home' along with households reporting meals consumed by all people in the house including those who not usual residents. Conceptually where a person in the sample reported eating at another house they would represent all people in the population eating at other people's houses. Similarly a household reporting that they had fed people not usually resident in the house would also represent all food given to people in the population eating at other people's houses - a direct overlap. It would be good to note this in the guidelines and recommend that practitioners choose one or other approach - not both.

Commented [TN(1)]: ABS is referring to the use of 24HR to collect individual consumption.
Comment not considered

Commented [TN(2)]: One sentence was added to page 51 to address this comment

Commented [TN(3)]: One footnote has been added to page 35 to address this comment

Belarus

In Belarus the information on food expenditure and consumption is collected through the sample household living standards survey.

The data are recorded in the Diary which is completed by a household during two subsequent weeks of every quarter. Households participate in the survey during the whole calendar year, so the Diary is completed by one household four times a year, which allows for taking into account the seasonality in consumption.

Besides, the Diaries are completed by households on a rotation scheme, i.e. during the survey year every household keeps records in the Diary in different weeks of the month, which allows for smoothing the impact of income inflow in the household on consumption volumes.

Commented [TN(4)]: Overall Belarus reports its own experience in implementing the HBS. Good practice but very costly to implement!

To reduce the impact of high record activity in the first days of Dairy completing with further reduction of interest on the number of records by weekdays, households of one rotation group start completing diaries not from one and the same day of the week (for example, from Monday), but from different days of reporting week (some from Tuesday, some from Wednesday and so on). We think it is worth mentioning in the Guidelines.

Commented [TN(5)]: Example of the Belarus was quoted on page 26

In Belarus food consumption in Belarus is measured taking into account food purchases and consumption of food received from other households, harvested forest berries and mushrooms, and received from other sources. To improve the quality of information on consumption of irregularly acquired products (with periodicity of more than once in two weeks), the diary also comprises records on the consumption of food that had come to household before the diary completion started. The records are organized in such a way that an analyst can analyze the sources of food supply to household.

For the units of measurement to be used, a respondent receives recommendations on recording of weighted products in grammes/kilogrammes, liquids in litres and eggs in units. And only in rare cases, when a respondent is not able to indicate a necessary unit of measure, he/she may record the quantity in units. With a huge variety of food packaging, we think that such approach suits best to improve the accuracy of recording.

In order not to overestimate household consumption due to the products purchased for feeding farm animals, the Diary records such expenditures separately.

In order to receive quality information, interviewers provide detailed explanations to respondents on the rules of diary completion, visit households after the first week of completion to control if records are kept correctly, to revise the records made and to provide further consultations to respondents. Moreover, the diary includes a memo on the rules of completion, a sample of records and reference information on measures of weight of some food products.

A respondent records all products in detail (e.g., not just simply 'cottage cheese', but 'cottage cheese, low-fat', including the type of processing (raw, canned, dried, etc.). Such approach allows for a more accurate estimation of nutrients (proteins, fats, carbohydrates) and food energy value For coding foods and non-alcoholic beverages, 257 codes are used in the national practice. The national classification is harmonized with COICOP.

We agree that it is necessary to record food away from home as well individual food consumption. However, we think it is impossible to collect such detailed information under the surveys conducted the program of which is already highly intensive. Increasing the burden on respondents will result in lower response rates.

Commented [TN(6)]: Issue of respondent burden is addressed on page 51

In order to study the consumption of food away from home not only through expenditure, but also from the point of view of nutrient content and caloric value, to study the diet taking into account physiological aspects of eaters (for example, pregnant or breast-feeding women), it would be relevant to conduct a separate survey with definite periodicity (e.g. every five years). Methodological approaches to such thematic survey and to processing of its results require more detailed elaboration and more specific recommendations than those provided in the Guidelines.

Commented [TN(7)]: Good comment to be addressed in further research

In general, the Guidelines are useful for studying the accumulated international experience in food consumption data collection with a view to improving the national statistical practice in this field.

Canada:

Food data is collected through the expenditure survey in Canada but used mainly for the basket of the consumer price index and for national accounts. Our expertise is then very limited on understanding the requirements on food consumption and poverty measurements and on best survey methods to meet these requirements. That being said, this document is an excellent review of evaluation results and best practices to be used in the development of Household Consumption and Expenditure Surveys (HCES). It emphasizes the importance of the survey design and its impact on the quality and comparability. The main factors to be considered in the development of these surveys (interview vs. diary, length of recall and reference periods, seasonality, food away from home, etc.) are very well covered with special considerations for implementation in low and middle-income countries. Recommendations are based on an extensive review including several recent studies and documents. This document will be very useful to survey practitioners developing HCES. Statistics Canada is also looking forward to receiving the final version of the document since it will become a very relevant tool for some of our international cooperation projects.

Commented [TN(8)]: No comment

Section 1.1 Background and motivation

- It was good to see the growth in food, nutrition and health surveys worldwide. As countries move from little or no data to more data there may be a need for more advice and guidelines on how to properly compare the same dataset over time, or compare new datasets with existing complementary datasets. Generally, all data should be telling the same story, but from different angles (data coherence and comparability), and this could be fleshed out a bit more in the document. Statistics Canada includes coherence and comparability in its quality framework, available online. <http://www.statcan.gc.ca/pub/12-586-x/12-586-x2017001-eng.htm>

Section 2.1 Recall versus diary and length of reference period

- The number of food recalls is always an issue because of cost. In Canada we have dealt with the issue differently than the Americans, even though we use the U.S. Automated Multiple Pass Method (AMPM) to do a 24-hour recall. They do a 2nd recall for 100% of their sample, we have about 35% of the respondents do a 2nd recall by telephone, which is cheaper than a site visit. With the rapid growth in cellphone use in developing countries, this might be a cost-effective option. The quality of the 2nd recall data by telephone are fit for use; see the reference studies cited in Section 1.1.4.3 of *Health Canada's Reference Guide to Understanding and Using the Data 2015 Canadian Community Health Survey – Nutrition* : <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/reference-guide-understanding-using-data-2015.html?wbdisable=true>

Commented [TN(9)]: A sentence has been added on Page 25 to refer to the potential use of telephone interviews

Section 2.2 Seasonality, number of visits

- Collecting household data at the same time as agricultural data has its benefits and costs, especially respondent burden. To relieve the burden, it is important to note that agricultural data collection is transforming too with drones and satellites replacing surveys. Thus piggy-backing agriculture and household surveys may not be a long-term solution for collecting household data. For more information on how we are using satellite data at Statistics Canada, refer to Model-based Field Crop Estimates <http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvey&SDDS=5225>

Section 2.4 Food away from home (FAFM)

- The recommendation that data collection should be organized around meal events should be broadened if many calories are consumed at non-meal times e.g. snacks. In Canada snacks contribute more calories than breakfasts. Meal events are a good place to start to jog a respondent's memory, but non-meal consumption might grow in importance as income rises and food is more available.
- When people eat highly processed food at home, or eat away from home, it gets harder for respondents to answer questions on where the food was prepared. For our 2015 nutrition survey in Canada, the place of preparation was derived from the food list detail (e.g. canned soup, even if it was 'prepared' at home).

Commented [TN(10)]: A sentence has been added on page 45 to mention the importance of snacks in human diet

Section 3 Conclusions and recommendations

- The shelf-life of the guidelines is not inevitably going to be limited. Some guidelines are relevant regardless of the survey technology e.g. when doing something new, do a pilot study; when changing methods (classifications etc.) do a comparability study; when analysing results, compare and verify against other data sets.

Section 3.6 List of food items

- As noted, food lists will inevitably be country-specific. It is important to set aside time and money to update the list. Commercial market share data or food company data can be useful here.

Section 3.7 Non-standard units (NSU) of measurement

- Non-standard units can be very price-sensitive and yes, price surveys are a good way to monitor this. For developing and comparing nutrition surveys over time, it is useful to keep track of these changes, e.g. in Canada, a single-serving milk carton went from 250 ml in 2004 to 237 ml in 2015. Survey respondents just reported having a small carton.
- NSUs may be prone to data capture errors, depending up the CAPI specifications and knowledge of interviewers, but there are technical solutions to reduce amount of time needed to process these data, e.g. in Canada for the 2015 nutrition survey, every food in the CAPI had options to select from standard units and also from among up to 10 food-specific NSUs that had been used in the 2004 survey, and an option to put in a new NSU.

Other comments from concepts not seen in the document:

- Nutritional supplements i.e. vitamin and mineral supplements. Use of these commercial products increases with income and education. Targeted use of food-aid-related products can also help with nutritional deficiencies e.g. reducing childhood anemia in developing countries: <https://www.news-medical.net/news/2007/07/27/28131.aspx>. A discussion of how to collect data on these is missing from the document.
- Use of bio-markers to validate survey data. These studies are expensive to do, but even the awareness of them can help with survey design. See for example, the work of Alanna Moshfegh et.al. at the USDA <https://www.ncbi.nlm.nih.gov/pubmed/18689367> that shows that caloric under-counting increases with obesity in surveys using a food recall methodology.
- There were passing references to technology in the document, but there is much work being done to move collection to a web-based platform with food photos that are easy for respondents to understand. Some references might be merited: In the USA: <https://www.ars.usda.gov/research/publications/publication/?seqNo115=282817>. In France : <https://info.etude-nutrinet-sante.fr/en/node/2>

Columbia:

1. Recall vs diary and length of reference period

In low-income countries the data collected with recall interviews provides information about food consumption and monetary value that are similar than the information recorded in diaries. But if other information is required about the food: as the place of purchase, units of measurement, among others, ¿Have the recall interviews the similar information or better information than the diaries for these cases?

If the answer is affirmative, it is important to make it clear in the document. The household consumption and expenditure surveys (HCES) have several uses and require different questions about food, for this reason is necessary to know how efficient the recall interviews are when the number of questions increases.

Commented [TN(11)]: This comment can be considered as addressed in page 51

2. Food away from home

It is important to note that some food away from home (FAFH) may have additional expenses that make the value reported by the household would be overestimate, for example, the delivery food service usually generate additional costs to FAFH. In some households does not recognize what this additional value is, increasing the reported value of this food.

To consider this type of expenses in the module of food away from home (FAFH) the Survey of Household Budgets 2016-2017 conducted in Colombia, added the question "¿was delivered?", With this question can recognize that the expense in that of food away from home have an additional value.

Commented [TN(12)]: It seems that there is confusion between prepared food bought outside the house to be consumed in the household and prepared food bought and consumed away from home. The Guidelines already address this on page 58 under the section on recommendations.

Croatia

Croatian household consumption survey i.e. the Household Budget Survey (HBS) is in line with Eurostat's methodological recommendations and international standards and classifications. The household expenditures are observed according to the EU-COICOP. In that sense comparability at European level is ensured.

The recommendations presented in the Guidelines are in most applied in the HBS since its introduction into the statistical system. For the illustration that the Croatian HBS survey design and methods are being in correlation with guidelines are as follows.

1. The food data are collected using diary method and the referent period is 14 days. The food data collected within the diary includes purchased products, household's own production as well as products received as a gift in a referent period (14 days). Collected food data refers to values and quantities as well.
2. Data on quantities are reported mostly in standard units (kilogram, liter) but for some items it is allowed to report in non-standard units (piece, bunch, package). In order to convert non-standard units into standard units conversion factors are applied.
3. The sample of households was spread over 12 months i.e. survey data are collected for 12 months and this period corresponds to the calendar year. Field interviews are carried out during the course of a year in 26 fortnight intervals. This means that a part of the total sampled households are interviewed every two weeks. In a such way seasonal variation in food consumption and expenditure patterns are captured. Data are representative at the national level and published annually.
4. All types of foods and beverages listed in COICOP are collected in HBS.
5. Consumption of food away from home (FAFH) is covered within the household interview and refers to expenditures in restaurants, cafes, street vendors etc., school and work canteens and a like. The introducing of recommended individual module is a possible way for the improving FAFH data collection, it should be keep in mind that individual module will be a demanding for the household members.

Conclusions:

Issues from the methodological aspect: (i) the precise definitions and guidelines for food data collection is needed as well as descriptions of calculation models. (ii) Practical examples of diaries and individual modules as well as detailed explanations for enumerators and households are welcome in order to gather comparable data. (iii) The food composition table should be created or updated for the purpose of measuring calorie consumption which involve external nutrition and health experts

Issues from the household's point of view: (i) the purpose of such detailed food data needs to be clearly explained. (ii) The benefits for households should be presented in order to encourage them to willingly participate in such demanding survey which currently has very low respondent rate.

Commented [TN(13)]: Croatia mainly reports on its experience in collecting food data. Only comment related to the burden on respondent is addressed on page 51

Commented [TN(14)]: This is a very good comment. An examples of food consumption module will be published together with the guidelines.

Commented [TN(15)]: A footnote has been added on page 45 to address this comment

France (translated)

The major part of the recommendations seem pertinent.

Main comments are :

- Household budget surveys usually cover all the consumption expenditures and can adopt different protocols than those recommended for food consumption. These guidelines can be applied only to food consumption and not to non-food consumption ;
- It is important to make distinction according to the national context. Therefore when we talk about harmonization the approach "one size" should not be privileged.

Because of the marginal share of food expenditures in total expenditures compared to developing countries these guidelines do not apply to the household budget conducted in France. Some of the key recommendations, such as the use of recall versus diary, are not relevant in case of the survey conducted in France.

Commented [TN(16)]: No relevant comment

Latvia

The main data source for food data collection in our country is national Household budget survey (HBS).

For measuring of consumption we use the "gold standard" – the household consumption expenditure diary with registration period 2 weeks. Some comments:

1. The diary of 1 or 2 week recording period is more suitable instead of 7-day recall period as indicated in FAO guidelines on page 7 ("*HCES should adopt a 7-day recall period for food consumption measurement. Recall surveys are generally preferable to diary surveys which should only be deployed with careful and continuous supervision and should not exceed 14 days.*") and page 23 ("*Even in the US context, where the set of challenges for diaries and recall may be different than in lower income countries, evidence suggests that recall surveys might outperform diaries (Bee, Meyer and Sullivan, 2012)*") because recall survey does not cover all kinds of consumption expenditure and hence the quality of the data will be inaccurate
2. About Food away from home (FAFH) our experience in HBS shows that usually there is one person interviewed for all the income and expenses of a household. Practically it is very difficult to get contact with all adults of the same household.
3. Food consumption is only one of the main goals of HBS, all kinds of final consumption must be captured, that is the reason we cannot put a burden for respondents and add additional modules for meal participation for each individual adult in the household.

Commented [TN(17)]: A sentence was added on pages 7 and 23 to address this comment.

Commented [TN(18)]: Issue of burden added to page 51

Mauritius

We are much satisfied measuring consumption expenditure with our daily diaries over a reference period of one month for our Household Budget Surveys. This is because the expenditure done by

household is not evenly distributed over a month. Therefore it would be difficult to use recall periods even on short reference period for measurement of food consumption expenditure.

Commented [TN(19)]: No specific comment, except that this is an example of upper middle income country using a diary

Mexico

1. The document refers to the fact that the measurement of expenditures, both in food and general expenses, is fundamental to carry out a correct analysis of the poverty issue, as well as food security.
2. As a statistical institution, INEGI agrees with the analysis made and shares the vision expressed by the experts involved in the development of the document, in terms of the importance and relevance of the subject, as well as the need to move towards an agenda that establishes homogeneous and consensual criteria regarding the collection instruments and methodologies of the projects in question.
3. The collection of this type of information is part of the daily work of the Institute because INEGI is immersed in continuous improvement procedures, with full adherence to methodological and conceptual criteria.
4. In this sense, both the Income and Expenditure National Household Survey “ENIGH” (which is raised every two years), and the Expenditure National Household Survey “ENGASTO” (whose last survey was carried out in 2013), are two household surveys carried out by INEGI that allow satisfying the needs of gathering information regarding the household spending.

Commented [TN(20)]: Mainly report their experience in implementing the ENIGH and ENGASTO and ask how these surveys can be revised to adhere to the guidelines

Based on these recommendations, the experience of Mexico is described below:

Neither of the two projects mentioned above fully satisfies the recommendations made in the analysis. Topics such as those referring to caloric contributions and nutrient intake, based on the number of meals per day and the content of them; flexibility for the household to report the expenses in food in the unit that they deem convenient, among others, are not considered in the ENIGH or ENGASTO. There are other aspects analyzed that are common to both projects, such as the capture of the subjects of purchases, self-production, remunerations in kind, as well as the criterion of acquisition based on the moment of purchase of the good or service, independently of the moment in which they are consumed.

In the same way, there are more recent works carried out by the Institute, within the scope of its competence, and which are directed towards the 2030 Agenda; in particular, the Direction of Sociodemographic Statistics and the Direction of Economic Statistics (Price Index), worked jointly in an updated classifier, based on the Classification of Individual Consumption According to Purpose (COICOP) developed by the United Nations, so the ENGASTO used the most recent version of COICOP at that time. Under the premises set out in the document, it is considered that the project that most resembles the aforementioned is the ENGASTO, given that the purpose of the household survey was to provide continuous information on the behavior of consumption expenditures of goods and services of the household, which fully satisfies the considerations of the experts. However, while it is true that the Institute has made progress in the development of a Classifier according to the latest requirements of the United Nations, several aspects are pending, such as those referring to the timely analysis of a correct periodicity of the different goods and services captured in the aforementioned Classifier, with the purpose of generating the necessary collection instruments. Likewise, it is necessary to consider the information

needs for the construction of the Price Index, given that the ENGASTO is contemplated as the project that allows to update the price-weighted index.

At the time, the ENGASTO was based on the Family Budget Survey project, carried out in Spain, taking as a statistical design the rotation scheme of the sample, with which the survey allowed to give an estimate of the inter-annual change in the aggregate expenditure.

The quarterly sample was divided into two rotation panels, each of which remained in sample one quarter, the remaining three quarters and returned to visit another quarter. After his second visit, he left the exhibition definitively. Thus, the houses were visited twice. The second visit was made one year after the first one. For example, if a home was visited for the first time in the third fourteenth of the year, it will be revisited in the third fourteenth of the following year.

The household collaboration scheme consisted of the information being obtained by face-to-face interview and self-registration of the informant.

The information by self-registration consisted of two expense journals. The appropriate informant recorded for 14 days (fourteen) all the expenses of the goods and services purchased by the household during those days in the expenditure notebook; and each member of 14 or more years registered for seven days all their expenses of goods and services acquired during those days in the book of individual expenses.

The interviewer applied five face to face questionnaires in four visits: Sociodemographic; Characteristics of the dwelling, payment of receipts and periodic payments; Monthly expenditure; Quarterly expenditure and Annual expenditure. During these visits the interviewer could answer questions about the filling of the expense journals (notebook and individual book).

The information was collected during three weeks, in which the interviewer carried out the following main activities: Four visits to each household to collect information, deliver and review the information of the expenditure notebook; codification of expenses, based on the classifier of consumer goods and services; as well as investigation of prices and quantities not specified.

On the other hand, the ENIGH is a survey that presents and overview of the behavior of income and expenditure at the household level, in terms of amount, origin and distribution. Additionally, the ENIGH provides information on the labor participation and socio demographic characteristics of household members. It also provides information on the dwelling characteristics and its equipment; therefore, although it satisfies the theme corresponding to household expenses, it covers other topics that may divert attention from the main objective that has been raised in terms of food information. This does not mean that this project is exempt from being subject to the necessary adaptations that satisfy the changing needs of information, for which it will be necessary to carry out a series of analyzes jointly with the society, users of the information and specialists in the matter, through Public Consultation, as well as the necessary field tests, in order to guarantee the robustness of the project itself.

As for the collection of information, in the ENIGH the selected dwelling is visited for seven days. The same period is needed for the registration of food expenditure information, for which the appropriate informant collaborates with the corresponding information, through self-registration. However, there is no individual self-registration, like in the ENGASTO. The rest of the expenses are captured through face-to-face interviews, contemplating the monthly, quarterly and semi-annual periods.

It is necessary not to lose sight of the fact that INEGI is responsible for providing society and the State with quality, pertinent, truthful and timely information, .However, poverty measurement is the responsibility of CONEVAL (National Council of Social Development Policy Evaluation), so it is necessary to consider the contributions that this institution must make in this area.

Mexico, and in particular INEGI, must define clearly and precisely what are the objectives that the household survey must meet to capture the information regarding food: whether the decision is to retake

Commented [TN(21): The example of the ENGASTO was added on page 28

the ENGASTO, with the necessary adaptations, or that the COICOP is adapted to the ENIGH with the necessary adjustments, so that the proposed objectives can be fully met, as well as the need to have homogeneous information internationally speaking.

In turn, it is necessary to consider the proposals regarding the way in which certain questions should be applied, such as those related to self-production, as well as the relevance of having or not filter questions. The same situation is presented with regard to food away from home, which is already captured in the ENIGH, but it is necessary to consider the recommendations made by the experts regarding the need to be more exhaustive in the recruitment of such information.

Norway

First and foremost, we would like to congratulate you with a very good piece of work! This is a good step towards improving the use of household budget surveys for welfare analysis, as well as serving as foundation for discussions of harmonisation. Well documented and nice guide to the most interesting research in the field, as well as pointing out limitations to the present knowledge base.

It is still a bit long – being that it raises issues and is not an actual manual. Much of this is due to repetition from summary to main discussion to recommendations. We suggest you keep an eye on repetition when the document is edited, and we suggest reducing the length of the executive summary to for example a one-pager.

Commented [TN(22)]: Comment will be considered in the final editing.

Experts who uses the food purchase and consumption type data are consulted. The general view is that the issues you present as needed for poverty and food security analysis covers, or at least do not remove, data covering needs for CPI and economic statistics.

- An important issue is that all items are still clearly possible to classify using COICOP. And thus – since you are working towards harmonisation – it might be good to have an even clearer recommendation to ensure COICOP compatibility. On page 45 it sounds like FoodEx2 is an equally good choice. (Not to mention how much time that can be saved – and how reduced the potential for mistakes is - in data processing if the COICOP code is used as variable name rather than random numbers.) Be aware that the UN is updating the COICOP at the moment. Apparently to be put into use in 2019. Maybe worth a footnote.
- The collection of prices /valuation is of course important for other users, including poverty. It is stated clearly that this document does not make recommendations on that part, but only in the middle of the text. It could be good if it somewhere in the introduction is clarified that this is a document focussed on the needs of food and nutrition analysis, and not covering all needs. The word Guideline and the comment on limitations to Deaton and Grosh on page 12 may give the impression that you are.
- CPI is also an additional argument for capturing real seasonality in the survey. The CPI needs in the chapter on seasonality is not mentioned, but it is important to take into account. CPI may

Commented [TN(23)]: A footnote has been added to the guidelines on page 45.

Commented [TN(24)]: Last sentence page 12 was revised to include this comment.

however also have their own surveys which can be a relevant source of information to use where the HCES itself is not collecting seasonal variation.

- Be aware that Statistics Norway is using other data than consumption survey for some statistics where consumption survey is still the only source in low income countries, so this feedback has not looked at all potential needs. Our main recommendation is that it is made clear to the reader that all core users of the data must be consulted while developing the questionnaire, sampling plan and fieldwork. To avoid the situation where the users think they will get what they need, while a technical working group, knowing (or caring about) only some of the analysis areas, do not ensure holistic view on priorities.

Commented [TN(25)]: This comment could not be addressed.

Commented [TN(26)]: A sentence was added to page 18 to reflect this comment

Under summary and main recommendations:

If someone decides to follow all the recommendations proposed the module will be very long and resource consuming to answer. Hence we would like to suggest that you add one more recommendation to the main list; *to keep the overall length down*.

The ongoing household budget surveys in developing countries have many other purposes, and it is important that the informants have some energy (and willingness) left for the non-food consumption and other modules too. It is of course different if the survey is only aimed at food security analysis, but it is our impression that you mainly focus on improvements to the existing household budget surveys. We probably all have experiences where special interest groups (often with funding) get too many of their wishes through negotiations ahead of surveys and harm the overall survey. Some comment to ensure awareness of the whole could be good to have together with the most important points. You do mention it here and there in the document, also in relation to cost, so it sounds like you agree and that our recommendation is just to put it higher on the agenda.

Commented [TN(27)]: This is addressed on page 51.

Some other comments to the main document

On page 11 it is listed the most relevant food security indicators calculated from food consumption data in a footnote. It would be good if Energy deficiency (Smith and Subarando 2007) and Cost of the Diet is added to that list.

Commented [TN(28)]: These indicators were not added as energy deficiency is just another (and incorrect) way to estimate PoU. Moreover, the cost of the diet is just one among many other indicators of Food Security.

It would be good to recommend finalising the survey specific FCT before the survey goes to the field. Mainly to ensure that the most important issues relating to choice of food items and their nutritious value have been dealt with while there is still a chance to adjust. But also to ensure that analysis after fieldwork goes as fast as possible and that all users of kilocalorie and micronutrients agree on which FCT to use. And with the use of CAPI/tablets it can even be used for total kilocalorie consumption being summarized in the field and flagged if it is out of range.

Commented [TN(29)]: A footnote on page 45 was added

We support the recommendation to use Non Standard Units. A reference to the new LSMS guidebook "The use of non-standard units for the collection of food quantity" may be useful. We need the local units, but restrict the number of such and collect conversion factors at regional level because for instance a "tin" is not necessarily the same everywhere.

Commented [TN(30)]: Reference added in the document and in the bibliography.

Things worth commenting among the "...relevant, but needs more research" section:

Given the sensitivity to changes, moving from paper questionnaires to tablets may have significant impact on results and complicate time series. One is the expected quality improvement through having checks

built into the interview, but there are more. Could maybe be mentioned around the area where you talk of recall times and mention methods to allow valid comparisons. (Chapter 2.1)

Interview-language is not mentioned anywhere. Food items often have different names in different languages and even dialects, despite being close to each other geographically. Would it be good to say something about translation of food lists? Thinking about countries where the interview for many respondents is in their second language.

Commented [TN(31): In order to preserve the continuity of the time series standard techniques (data collection with both modalities) should be used.

Philippines

1. The document on Guidelines on Food Data Collection in Household Consumption and Expenditure Surveys acknowledges that among the family of household surveys dealing on food consumption and expenditure is the survey on income and expenditure. A survey that covers both income and expenditure will understandably require a “big” questionnaire. This size may have to be increased if questions on meal participation have to be integrated in the existing questionnaire.
2. The questionnaire should account for all the details under each food group based on the COICOP. The details should be based on national/local consumption records and should allot space for “others” to capture the household consumption patterns/practices. This means to cover all types/varieties of a particular food item as these would have differences in prices.
3. To ensure capture of data on consumption versus acquisition, the questionnaire should specify question items about them...how much was acquired (thru purchases, own-produced and in kind transfers) and how much was actually consumed?
4. The survey should be able to account for NSUs; data collection can be facilitated by the design of the questionnaire that asks for “local” unit and the conversion into standard units.
5. If the survey is only about consumption, in terms of quantity and value, most if not all the recommendations as spelled out in the Guidelines would be relatively easy to adopt. However, the country’s statistical office may also opt for developing a “smaller” module out of the national household survey dealing on both income and expenditure. This module would focus on food consumption that would cover quantities, values, patterns and practices.
6. The choice of 7 day recall period on consumption should do away from the timing of holidays, festivals and other occasions as this would not represent the habitual consumption of the households or the individuals.
7. In addition for poverty and hunger measurement, nutrition programs and policies, etc., the draft guideline has missed out to mention that, one among the uses of the Household Consumption Expenditure Surveys (HCES), is for the national accounts compilation, in particular, for the estimates of the Household Final Consumption Expenditures (HFCE). Food component under the HFCE, in most countries, accounts for 50 percent or more of the total household consumption. Hence, the need for better capture in the HCES.

Commented [TN(32): Addressed on page 51

Commented [TN(33): Already addressed on page 55 of the guidelines

Commented [TN(34): This was already mentioned in page 18

It will be more useful if the guidelines will consider the recording of expenditures of household for items that are not necessarily used for direct consumption e.g. live chicken, swine, etc. but for capital formation or possibly, for inventory for future meat consumption. The guidelines should consider the COICOP to appropriately capture these household purchases. Or the guide should include conversions regarding this.

Commented [TN(35)]: This refers to stock or capital.
Comment not considered

8. The guidelines should clearly explain how food consumption on "Partakers" are captured to avoid the double counting especially when the food consumption of partakers maybe recorded under the households during special occasions when partakers are present in the said households.

Commented [TN(36)]: Comment has been addressed in footnote 19 at page 36

9. Relevant indicators can be designed to help validate the aggregate consumption, say for instance, indicators on domestic production, imports, etc. Likewise it will help if, in addition to the list of indicators, the data and the data sources of these indicators are available in the guidelines.

Commented [TN(37)]: This comment was not addressed.

Portugal

1. The document "*Food data collection in household consumption and expenditure surveys – Draft guidelines for low- and middle-income countries*" presents the methodological recommendations for carrying on Household Consumption and Expenditure Surveys (HCES), with a view to increase the harmonization of data collection on Food consumption. Food consumption is one relevant issue for the Agenda 2030 and for monitoring the sustainable development goals related to poverty (SDG 1) and hunger (SDG 2). The guidelines presented concern the low-income and middle-income countries, a group in which there is some lack of comparison among the HCES in different countries.
2. In contrast, the European Union countries (which are classified as High-income) have been working towards the voluntary harmonization of this kind of data, by means of the Household Budget Survey program and the use of COICOP. The EU countries currently follow a set of technical guidelines that in general are in accordance with the criteria described in the document, and which are discussed and implemented on a voluntary basis: in Portugal this application is called "Household Expenditure Survey".
3. Furthermore, we welcome any attempt to improve food data, particularly on food consumption and nutrition. In this context, collecting data on food waste would allow better targeting of prevention efforts, as well as tracking progress in reducing food waste over time and as such could contribute to the implementation of SDG 12, in particular its target 12.3.

Commented [TN(38)]: Portugal complies with the EU guidelines
No comment

Commented [TN(39)]: A footnote has been added to page 13 to address this comment

Russia

1. implementation of a module for individual consumption of food at home in the Household Expenditure Survey (HCES);

The implementation of a specialized module on individual consumption of food within the HCES leads, first of all, to the need of solving a complex issue of the operationalization of such accounting.

According to the basic concept of HCES, the total accounting of quantity of food products of industrial production, directly ready for consumption, as well as raw products intended for subsequent cooking at home is kept at the household level. Ultimately, the supplementary module on individual consumption of food products suggests further survey about the distribution of these volumes among the members of the household. However, if the category "food products of industrial production directly ready for consumption" can be distributed on individual level, the category of the raw products intended for subsequent cooking at home can be taken into account on an individual level only in the form of specific food dishes with the subsequent transformation of the received information into primary products. This procedure essentially means carrying out within the HCES of a specialized survey on the individual nutrition that requires the use of appropriate survey techniques and databases on the nutritional value of all types of food.

2. implementation of integrated practice for collecting information on food products consumed outside the home (FAFH) from external (with respect to HCES) sources of information.

Recommendations for the implementation within the HCES of integrated practice of collecting information on food consumed outside the home (FAFH) from external sources of information are noteworthy, but it seems to us that the cost of implementing it can significantly exceed the effect expressed in the amount of added amount natural volumes and nutritional value of consumption.

Perhaps it would be worth to consider the computational method of obtaining this information only in terms of the caloric content of the consumed food (using the information on expenditures for FAFH and the estimated cost of one calorie for food products consumed in households for personal consumption).

Commented [TN(40)]: Russia recognizes the difficulty to collect individual FAFH and also recommend to have an individual intake survey within the HCES.
Comment not considered

Commented [TN(41)]: Added a comment to page 59 on the need to do more research work on imputation methods.

Rosstat supports the work of FAO and the World Bank in developing a preliminary set of internationally agreed recommendations for the collection of data on food in household consumption and expenditure surveys and is ready to actively participate in the continuation of this work.

Thailand

The National Statistical Office, Thailand would like to comment on the 2.7 Non-standard units of measurement. As this draft guideline did not mention an example of the conversion factors which can be referred to the practical use or implementation. If this draft could show the example or lesson learnt from successful countries, then the draft will be more beneficial.

Commented [TN(42)]: A box added to page 49 to report on the experience in conducting the survey to collect LUM.

United Kingdom

1. The guidelines have been prepared for low and middle income countries and so are not directly applicable to the UK
2. The guidelines focus on improving existing data collection methods in a traditional survey sense- there is no consideration of the potential to make use of alternative data sources/innovative

methods. Whilst this is likely to reflect the intended audience referenced above, combining different data sources is likely to be an important means of improving food data collection

3. Section 2 page 18 states the main uses considered in setting the criteria for guiding survey design are food security assessments, poverty measurement, and nutrition policy and programming. This seems to contract the definition of Household Consumption and Expenditure Surveys (HCES) set out at the top of page 11 to which the guidelines are stated to apply- in that it includes Household Budget Surveys who's primary use is to feed into measures of inflation and GDP.
4. Some suggestions are not practical for implementation within a Household Budget Survey given the additional burden that would be added to an already burdensome survey, e.g.:
 - Switching from a self completion diary to a 7-day recall period would significantly increase interview length for HBS surveys and the UK therefore do not consider this to be a practical option. It is good to see the initial recommendation presented in the executive summary expanded on in section 3 to highlight diary methods may still be appropriate
 - Separating out meal events for food consumed away from the home would also be too burdensome
 - As would recording the number of people who consumed the total amount of food reported by the household
 - And including additional questions to quantify the amount of food purchased that is subsequently consumed
 - As well as inclusion of a meal module for individual members of the household
5. First paragraph of page 50- making survey data relevant for a wider user base brings significant challenges in the context of falling response rates and the need to reduce respondents burden. Combining survey data collection with alternative existing data sources would be a better approach.
6. Page 52- whilst piloting and testing new methods before implementation is a robust approach, is it realistic to expect low and middle income countries to fund quantitative testing of these new methods?

Commented [TN(43)]: See addition on page 7

Commented [TN(44)]: Addressed on page 51

Commented [TN(45)]: This is addressed in "Box 5. A research agenda for food consumption data collection" with the proposal of creating a global fund to support this pilot testing.

United States

The report does an excellent job of providing the justification for the collection of food consumption data that is of high quality and comparable across countries, and in providing a comprehensive list of guidelines for data collection. It is a very impressive effort that will provide valuable guidance to researchers and country statistical offices. ERS just has a few suggestions for edits or additions that could improve the report.

- (1) The report rightly acknowledges that cost considerations must play a role in a country's decision about survey design and implementation. However, it is not always clear just how much weight is given to cost considerations in each recommendation, and so it would be helpful to see the report more clearly distinguish when a guideline recommends a method that is "best" versus "most feasible given budget constraints". For example, the Executive Summary says that recall is preferable to diary, but the more nuanced discussion in the body

of the article recognizes that diary with supervision may be the most accurate method, but is probably not feasible because of cost constraints.

Commented [TN(46): This is addressed when discussing recall vs diary.

- (2) There seems to be relatively little attention paid to the unique aspects of collecting data from children. There is some mention of this, mainly in the discussion of food away from home in Section 3.5. But the report recommends a proxy respondent for children without discussion of the justification for or implications of this approach. Given the growing importance of food away from home, and particularly publicly-financed feeding programs, on children's diets, a more detailed discussion of how best to capture children's food consumption is warranted.

Commented [TN(47): Further research is needed on this topic.

- (3) The report does a very nice job of discussing areas where it is not possible to provide clear guidelines because of lack of credible research. For example, on page 53, the report notes that it might be possible to capture seasonality by making multiple visits on a sub-sample of households, but that the approach has not been widely tested. It would be very useful if the authors could include a section that outlines the research questions that would provide the most insight into how to improve food data collection. This could help guide research as well as serving as a justification for the investments that would be needed to do some of the survey experimentation that could improve data collection methods.

Commented [TN(48): Addressed in Box 5. A research agenda for food consumption data collection