FEED THE FUTURE
The U.S. Government's Global Hunger & Food Security Initiative

M&E GUIDANCE SERIES

VOLUME 11: GUIDANCE ON THE MIDTERM ASSESSMENT OF THE FEED THE FUTURE ZONE OF INFLUENCE POPULATION-LEVEL INDICATORS[1]
### MARCH 2014

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[1] This guidance is based on the Feed the Future Indicator Handbook, and internal midterm assessment guidance prepared by the FTF FEEDBACK project.

1. BACKGROUND

Feed the Future monitors progress toward its goal of sustainably reducing poverty and hunger using a suite of indicators that capture key steps along the impact pathway reflected in the Feed the Future Results Framework (see Figure 1.)

Progress in reducing poverty, hunger, and under-nutrition among women and children; and increasing income, women's empowerment, dietary diversity, and appropriate feeding practices is tracked using thirteen performance indicators measured in representative population-based surveys in the zones of influence of Feed the Future focus countries.

Figure 1. Feed the Future Results Framework
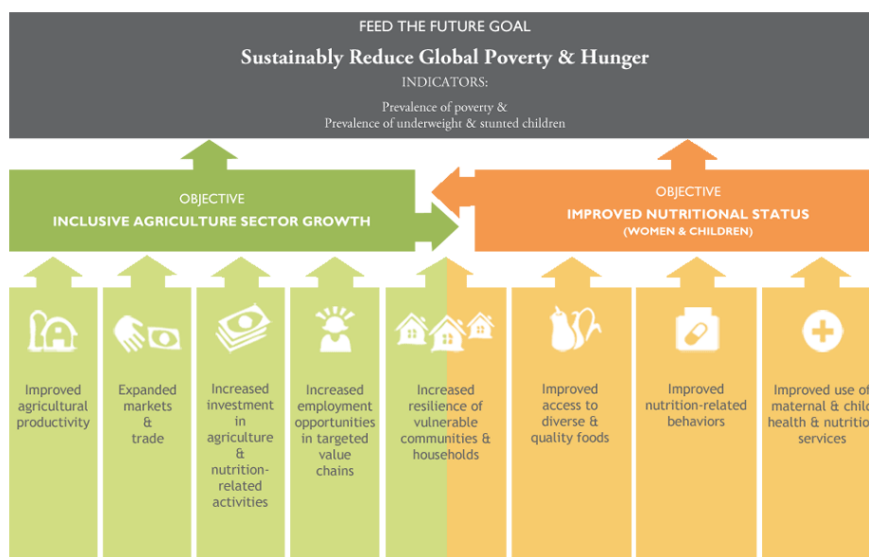
2. FEED THE FUTURE INDICATORS

Feed the Future's indicators fall into one of three groups:

1. **13 indicators representing conditions of the population of the Zone of Influence (ZOI)**, collected in focus countries through a population-based survey and reported at baseline, mid-term (excluding anemia indicators, as explained below) and final (hereafter referred to as the ZOI indicators).

2. Six indicators representing national- or regional-level conditions, collected through secondary data sources and reported annually. With the exception of growth in agriculture gross domestic product (GDP), all of these are contextual indicators and targets are not required for them.

3. 38 indicators representing results among Feed the Future direct beneficiaries, collected by implementing partners and reported annually.

Table 1 presents the Feed the Future indicators in each of these three groups, and Appendix 1 presents how the Feed the Future indicators are organized under the Feed the Future Results Framework. The focus of this guidance is on the first group of indicators, ZOI indicators.

Table 1. Feed the Future Zone of Influence Population-based Survey, National/Regional and Implementing Mechanism indicators

Zone of Influence Population-based Survey Indicators		National/Regional indicators
3.1.9-6 Prevalence of anemia among women (RiA) 3.1.9-11 Prevalence of stunted children (R) 3.1.9-12 Prevalence of wasted children (R) 3.1.9-13 Prevalence of underweight women (R) 3.1.9-14 Prevalence of anemia among children (S) 3.1.9-16 Prevalence of underweight children (R)	3.1.9.1-1 Prevalence of children receiving MAD (RiA) 3.1.9.1-2 Women's Dietary Diversity (S) 3.1.9.1-3/4.7-4 Prevalence of households with hunger (RiA) 3.1.9.1-4 Prevalence of exclusive breastfeeding (RiA) 4-17 Prevalence of Poverty (R) 4.5-9 Daily per capita expenditures (R) 4.5-19 Women's Empowerment in Agriculture Index (R)	3.1.9.3-1 Percentage of national budget to nutrition (RiA) 4-16 Ease of Doing Business rank (S) 4.5-3 Percent change in agricultural GDP (R) 4.5-12 Percentage of national budget to agriculture (RiA) 4.5.1-26 Average number of days to trade (S) 4.5.2-35 Percent change in value of intra-regional trade (RiA)

Implementing Mechanism indicators	
3.1.9-1 Number of people trained in child health and nutrition (S) 3.1.9-15 Number of children reached by nutrition programs (S) 3.1.9.2-2 Number of health facilities with capacity to manage acute undernutrition (S) 3.1.9.2-3 Number of children who received Vitamin A (S) 3.3.3-15 Number of beneficiaries participating in productive safety nets (S) 4.5-2 Number of jobs (RiA) 4.5-10 Total increase in installed storage capacity (m³) (S) 4.5-11 Market discount (S) 4.5-16,17,18 Gross margin (RiA) 4.5.1-17 Kilometers of roads improved or constructed (RiA) (WOG) 4.5.1-21 Number of climate vulnerability assessments (S) 4.5.1-22 Number of rural hectares mapped and adjudicated (S) 4.5.1-24 Numbers of Policies… in stages of development (S) 4.5.1-25 Number of households with formalized land (RiA) (WOG) 4.5.1-28 Hectares under irrigation and drainage services (WOG) 4.5.2-2 Number of hectares of land under improved technologies (RiA) (WOG) 4.5.2-5 Number of farmers and others who have applied improved technologies (RiA) (WOG) 4.5.2-6 Number of individuals who have received USG supported long-term agricultural training (S) 4.5.2-7 Number of individuals who have received USG supported short-term agricultural training (RiA) (WOG)	4.5.2-11 Number of food security private enterprises…and CBOs receiving assistance (RiA) (WOG) 4.5.2-12 Number of public-private partnerships (S) 4.5.2-13 Number of rural households benefiting (S) 4.5.2-14 Number of vulnerable households benefiting (S) 4.5.2-23 Value of incremental sales (RiA) 4.5.2-25 Number of people with a savings/ insurance (S) 4.5.2-27 Number of members of producer organizations and CBOs (S) 4.5.2-29 Value of Agricultural and Rural Loans (RiA) (WOG) 4.5.2-30 Number of MSMEs receiving assistance to access loans (S) 4.5.2-32 Number of stakeholders using climate information (S) 4.5.2-34 Number of stakeholders implementing risk-reducing practices/actions (S) 4.5.2-36 Value of exports of targeted agricultural commodities (S) 4.5.2-37 Number of MSMEs receiving business development services (S) 4.5.2-38 Value of new private sector investment (RiA) 4.5.2-39 Number of technologies in phases of development (S) 4.5.2-41 Number of water resources sustainability assessments (S) 4.5.2-42 Number of food security private enterprises…and CBOs that applied improved technologies (RiA) (WOG) 4.5.2-43 Number of firms/CSOs operating more profitably (RiA) CBLD-5 Score of combined areas of organization capacity of local implementing partners (S)
(R) = Required indicator, (RiA) =Required if Applicable indicator, (S) = Standard indicator (WOG) = Whole of Government Indicator	

3. FREQUENCY OF ZOI INDICATOR DATA COLLECTION

In most focus countries, baseline values for ZOI indicators were established in 2010-13[2]. Baseline values were established using secondary data, where available, and primary data from representative population-based surveys in the ZOI (hereafter referred to as the ZOI surveys). Secondary sources were the country's Living Standards Measurement Study (LSMS) or equivalent (for poverty and per capita expenditure indicators) and the Demographic and Health Survey (DHS) or equivalent (for nutrition indicators except women's dietary diversity). Secondary sources were used *if* the data were collected within the two years of when the baseline survey was planned *and* a large enough sample was collected from clusters within the ZOI. Primary data were collected via population-based surveys conducted in the ZOI by Feed the Future Monitoring and Evaluation (M&E) contractors.

Secondary data from DHS, LSMS, or other internationally-sponsored surveys were used for baseline assessments in the Feed the Future focus countries shown in Table 2.

Table 2. Countries for which secondary sources were used for the baseline

Country	Secondary Data Source
Bangladesh	DHS
Liberia	Comprehensive Food Security and Nutrition Survey
Malawi	DHS, LSMS (IHS3)
Mozambique	DHS
Nepal	DHS, LSMS (NLSS)
Rwanda	DHS, LSMS (EICV3)
Tajikistan	Micronutrient Status Survey
Tanzania	DHS, LSMS
Uganda	DHS, LSMS (UNHS)
Zambia	DHS, RALS

Midterm assessment of ZOI indicators, with the exception of women's and child's anemia, will be conducted during FY 2015 with results available before mid-FY 2016. Final assessments will be conducted in FY 2017 with results available before mid-FY 2018. **To have the required data available to meet this time frame, focus country Missions should be planning for the ZOI indicator midterm assessment now**. The results from the midterm indicator assessment will be an important input for a possible independent review of Feed the Future that would take place in mid-2016.

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[2] Baseline data were collected in 2014 for Mali. Mali's baseline was late because most USG-funded activities, including baseline data collection, were stopped after the coup until a democratically-elected government was installed.

4. PURPOSE OF THE MIDTERM ASSESSMENT

The midterm assessment will provide the U.S. Government interagency partners, U.S. Agency for International Development (USAID) Bureau for Food Security (BFS), USAID Missions, host country governments and development partners with information about short-term progress of the ZOI indicators. The midterm indicator assessment is not designed to capture statistically significant changes in indicator values between the baseline and midterm, because those changes are likely to be small and therefore the sample size required to capture them would be unfeasibly large. Rather, as with other major global data collection efforts such as the DHS and LSMS, the midterm indicator assessment is designed to provide point estimates of the indicators with an acceptable level of statistical precision (see section 9 for more details). This will allow us to state what the indicator value is at midterm but, unless the difference between the baseline and midterm values is large enough so the confidence intervals do not overlap, we will not be able to discern with certainty whether the midterm value is statistically different from the baseline value.

5. OBJECTIVE OF THE MIDTERM ASSESSMENT GUIDANCE

The objective of this midterm assessment guidance is to support Missions in planning for and conducting the midterm assessment. Guidance is provided on which indicators to collect, selecting the data source for each indicator, determining the timing of data collection, determining sample size and sample frame, selecting a survey implementer, developing a country data plan and planning for data analysis.

6. SELECTION OF MIDTERM INDICATORS

Missions should collect midterm data for all the ZOI indicators for which baseline values were established, except for women's and child's anemia.[3] BFS is currently working with Women's Empowerment in Agriculture Index (WEAI) partners (IFPRI and the Oxford and Poverty Development Initiative) to develop a streamlined approach to collect WEAI data for the midterm. The streamlined approach would still collect critical variables to measure the five WEAI domains of empowerment, but will hopefully reduce the amount of data collected and improve areas that have been problematic for collection. BFS plans to provide the guidance and new tool by September 2014. However, for planning purposes, Missions should assume that the full WEAI will be implemented. If the timing of the Mission's midterm requires the WEAI module earlier than September 2014, please advise your BFS M&E Point of Contact.

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[3] Midterm data collection for the two anemia indicators is not required because we are unlikely to see changes plausibly associated with Feed the Future's efforts given current coverage and focus of nutrition programs, and because they require more intrusive data collection, increase the cost of the survey, and increase the time and complexity of data collection and of obtaining in-country institutional review board approval.

BFS is proposing to add two population-based indicators to the Feed the Future Results Framework to capture results under the new Standardized Program Structure and Definition framework Nutrition-Sensitive Agriculture element: percent of women of reproductive age and of children six to 23 months of age who consume the targeted nutrient-rich value chain crop(s) and/or product(s). Missions that have selected value chain commodities for nutrition objectives due of their nutritional value should consider disaggregating the relevant food groups used in the woman and child dietary diversity modules as necessary to capture consumption of these targeted high-nutrient value chain commodities. This will allow Missions to easily quantify the two new indicators in addition to the existing Women's Dietary Diversity Score and Minimum Adequate Diet among Children 6 to 23 Months of Age. See Figure 2 for an example.

BFS is undertaking a review of the Feed the Future indicators with the aim of filling gaps that have been identified in the Feed the Future results framework. This review may result in the addition of new indicators to the list of population-based indicators that should be included in the midterm ZOI survey questionnaire or calculated using data from questions already included in the standard ZOI survey questionnaire. BFS will provide Missions with guidance on data collection and analysis for any new population-based indicators when the review process concludes.

Figure 2: Collecting data for new nutrition-sensitive agriculture indicators in Malawi

The three value chain commodities –soy, groundnuts, and dairy -- selected by Feed the Future Malawi were selected in part because they are highly nutritious, and specific processing and marketing strategies and nutrition behavior change interventions have been integrated into their programming to encourage greater consumption of these products. Dairy products are already a specific food group under the list of food groups in the women and children dietary diversity module, so the module can be used to track consumption of dairy without change. However, legumes and nuts are grouped in a single food group. To allow measurement of the new nutrition-sensitive indicators while maintaining the ability to qualify WDDS and MAD, the ZOI survey questionnaire in Malawi should ask specifically about soy and soy products, then ground-nut and ground-nut products, and finally about any other foods made from beans, peas, lentils, nuts, seeds and other local legumes such as pigeon peas and cow peas. A *yes* response to any one of the three sub-groups of legumes/nuts will count as consumption of the overall food group, while responses to the disaggregated sub-groups for soy and groundnuts can be used to quantify the nutrition-sensitive indicators on consumption of targeted nutrient-rich value chain commodities by women and children.

In addition, Missions may consider adding a select number of agricultural outcome indicators to the midterm questionnaire. Adding ZOI-level agricultural production- or sales-related outcome indicator(s) will assist Missions in linking project level outcomes to population-level impacts, and in tracking progress towards higher level impacts on poverty and, in some cases, nutrition. However, collecting agricultural production or sales data at the ZOI level may substantially increase the length and complexity of the survey, for example, by requiring more visits per household to complete the lengthy questionnaire. Additionally, the population-based sample frame used for the midterm indicator assessment is not optimal for collecting agriculture data, because it draws from a list of all households in the ZOI, not just agricultural households. Missions should weigh the costs and benefits of adding agricultural outcome questions to the midterm survey, especially in cases where reliable and accurate secondary data sources for these indicators exist.

Accurate and timely agriculture statistics are important for evidence-based policy and program decision-making and for efficient functioning of agricultural markets, among other things. In cases where national agricultural and rural data availability is limited, Missions should consider investing to build country systems and strengthen government capacity to regularly collect and report on these types of data. As part of the Feed the Future initiative, USAID is funding and collaborating with the United States Department of Agriculture's (USDA) National Agricultural Statistics Service (NASS) and Economic Research Service (ERS) to support improved collection and analysis of agriculture and food security related data in Feed the Future countries. Missions should contact Emily Hogue ehogue@usaid.gov for more information on accessing this support.

7. SELECTION OF DATA SOURCE FOR EACH INDICATOR

7.1. DATA SOURCES FOR INDICATORS

There are three sources of data for the ZOI indicators:

- Major internationally-funded surveys such as the LSMS or similar (hereafter referred to as LSMS), DHS, and Multiple Indicator Cluster Surveys (MICS)
- Other surveys conducted in country
- Primary data collection by Feed the Future monitoring and evaluation contractors

As was the case with the baseline assessment, secondary data should be used whenever feasible. Section 7.2 lists the required conditions for using secondary data. Table 3 indicates possible major international secondary sources for each of the ZOI-level indicators.

Missions should carefully consider the likely availability for analysis of any secondary data when assessing the feasibility of using major international or other surveys being conducted in-country. Missions should consult with in-country planning teams, the national statistical office (or equivalent), and other donors to see if other surveys are being conducted during 2014 or 2015. If data are being collected in these years, confirm that the data sets could be analyzed for or made available to USAID within an acceptable timeframe. Given the requirement that midterm data be reported on before mid-FY 2016, it is unlikely that the major international sources can be used in most cases.

When in doubt, it is better to plan to collect the data and drop the related questions from the questionnaire later if it becomes clear that data will be available. This is preferable to running the risk that secondary data will not be available for your country when the independent review of Feed the Future performance is conducted in FY 2016.

Table 3. List of ZOI-level indicators and possible sources of major international secondary data

ZOI Indicator	Possible Secondary Sources
Prevalence of underweight children	DHS, MICS
Prevalence of poverty	LSMS
Prevalence of stunted children	DHS, MICS
Prevalence of wasted children	DHS,MICS
Prevalence of underweight women	DHS
Per capita expenditures (as a proxy for incomes)	LSMS
Women's empowerment in agriculture index	None. Requires ZOI survey
Prevalence of households with moderate or severe hunger	None. Requires ZOI survey
Prevalence of children 6-23 months receiving a minimum acceptable diet	DHS[4]
Women's dietary diversity	None. Requires ZOI survey
Prevalence of exclusive breastfeeding	DHS, MICS
Prevalence of anemia among children 6-59 months	DHS
Prevalence of anemia among women of reproductive age	DHS

7.2. CRITERIA FOR DETERMINING THE APPLICABILITY OF SECONDARY DATA SOURCES

To determine whether secondary data sources can be used to calculate indicator values for the midterm indicator assessment, Missions should consider the following issues:

1. When the data from the secondary source were or will be collected. To be used for the midterm, data collection should take place from January 2014 through September 2015, and the timing should be at least two years after baseline data for the indicator(s) were collected.
2. As much as possible, the data collected from the secondary sources should be collected in the same season of the year in which the data used for the baseline surveys were collected (either through the ZOI survey or from other secondary sources used for the baseline).
3. The data must be collected using a comparable survey instrument with the same questions and recall period. Variation in who in the household serves as a respondent is allowed.
4. The data must be available in time to be analyzed for the midterm indicator assessment, meaning the data must be available in time for FY 2015 reporting.
5. The sample size for the indicator to be reported must be sufficient in the ZOI. Section 9 contains more information on determining whether the size of the sample that falls within the ZOI is adequate.
6. The sample design has to be representative of the population within the ZOI. This means that the sample frame for the survey must include all of the households within the ZOI.

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[4] The DHS collects exclusive breastfeeding and acceptable diet (MAD) only on the youngest child in the eligible age range in the household, which differs from the recommended World Health Organization (WHO) and Feed the Future approach of collecting the information for all children or a randomly chosen child in the eligible age range in the household. However, because it is important to align Feed the Future ZOI indicators with the same country-level indicators collected by country governments, and since the DHS is the source of nutrition indicator information in those countries that conduct a DHS, it is acceptable to use DHS data for this indicator despite this difference.

8. TIMING OF DATA COLLECTION FOR MIDTERM ZOI SURVEY

8.1. CRITERIA FOR DETERMINING TIMING

The following issues need to be considered in deciding when field data collection should take place:

- Time of year when baseline data were collected. See Section 8.2.
- Date by which final values must be entered in the Feed the Future Monitoring System (FTFMS) and final reports made available. See Section 8.3.
- Seasonal issues (e.g., major holidays, weather that impedes fieldwork).
- Political and security issues (timing of elections or other events that may preclude fieldwork).
- USAID Mission requirements.

Experience suggests that, to have final indicator values by the March 2016 final deadline (See Section 8.3) and assuming tablets or similar devices are used, all **field data collection** should be **completed by the end of October 2015**.

8.2. SEASONALITY OF ZOI INDICATORS

All of the ZOI indicators, including stunting, are likely to vary seasonally. So it is important to collect data at the same time of year at baseline, midterm, and final. In countries where all baseline indicator data came from the same survey, Missions should schedule midterm data collection for the same time of year. In countries where baseline indicator data came from primary and secondary data sources, the months during which data were collected for different indicators will vary. In these cases, Missions will need to determine what time of year is most appropriate for the midterm.

While there is some seasonality in stunting, it is not as significant as possible seasonal variation in the expenditures of poor households. Since prevalence of poverty is one of the highest level Feed the Future performance indicators, is the focus of the majority of Feed the Future funding, and is based on household expenditures, the first priority should be to base the timing of midterm data collection on the timing of baseline expenditure data collection. If expenditure data were collected in a year-long survey, which is often the case for secondary data from the LSMS, midterm data should be collected at the time of year during which the majority of other indicators were collected.

8.3. DATE BY WHICH FINAL VALUES MUST BE ENTERED IN FTFMS AND FINAL REPORTS MADE AVAILABLE

BFS recognizes that ZOI indicator values may not be available in time to be entered by the time FTFMS closes for implementing partner-level data entry in December 2015. However, if they are, please enter them. Otherwise, **indicator values and population numbers** should be **entered in the FTFMS** and **final reports** should be available by the **end of March 2016** to inform the 2015 Progress Report and the possible Feed the Future independent review.

9. DETERMINING SAMPLE SIZE

As stated in Section 4, the purpose of the midterm indicator assessment is to provide estimates of the population-based indicators with an acceptable level of statistical accuracy. **The midterm surveys will therefore calculate sample sizes for point estimates of indicator values rather than estimating sample sizes to detect statistically significant changes in indicator values over time.**

9.1. SAMPLE SIZE FORMULAS

Standard formulas can be used to calculate sample size for point estimates. Equations to calculate the sample size for continuous variables and proportions are given below.

Sample sizes for point estimates of continuous variables, such as expenditures, can be calculated with:

$$N = Deff \left(\frac{Z\alpha_{/2}\sigma}{M} \right)^2$$

Where *N* is the sample size, *Deff* is the design effect, $Z_{\alpha/2}$ is the Z value (1.96 for 95% confidence level), σ is the standard deviation and *M* is the mean value times the percent margin of error.

Sample sizes for point estimates of proportions, such as poverty, stunting and wasting, can be calculated with:

$$N = Deff \frac{Z\alpha_{/2}^{2} \left(p(1-p) \right)}{M^2}$$

Where *p* is the proportion and *M* is the proportion margin of error.

For each indicator used in the sample size calculations, Missions should use the actual design effect observed in the baseline data for *Deff* and the baseline standard deviation for σ. The mean value in *M* for continuous indicators and the proportion *p* for proportion indicators should be estimated based on the Mission's 2015 targets.

The margin of error in these equations determines the degree of precision of the indicator estimates. For continuous variables such as expenditures, the margin of error should be based on the mean indicator value times 0.10, which implies that the margin of error in the confidence interval of the indicator estimate does not exceed 10% of the mean value. The margin of error for proportions (poverty, stunting, and wasting) should be calculated with 0.10, which implies an error of 10% of the indicator value range from 0 to 1. BFS recommends using a 10% margin of error because this provides an acceptable level of precision for performance monitoring purposes at reasonable cost. Lower margins of error (e.g., 5%) can result in very large sample sizes for some indicators in many cases.

Sample size should be adjusted to account for households that decline to be interviewed (i.e., non-responding households), and households without children under five. To compensate for these two factors, the base sample size should be inflated to ensure data will be collected from enough households or individuals to reach sample requirements for stunting and underweight,

even after screening out households that decline to be interviewed and households without children under five[5].

Missions should use actual non-response rates from the baseline survey to adjust for households that are likely to refuse to participate in the midterm ZOI survey. If non-response rates are not available, the rule of thumb is to increase the sample size by 10%.

To compensate for households without children under five, Missions will need to determine how many households must be visited to capture the required number of children for the stunting and underweight indicators. Assuming all children under five within the household would be measured, the formula to estimate the number of households that would need to be visited to encounter the required stunting or underweight sample is[6]:

$$N_A = {N}/{(1 - exp^{-PP \times HHSZ})}$$

where

N = sample size for stunting or underweight
N_A = number of households to visit to find N children 0-59 months of age
PP = proportion of the ZOI population that is 0 – 59 months old
$HHSZ$ = average household size in the ZOI

9.2. STEPS TO DETERMINE SAMPLE SIZE

A key part of calculating the sample size is determining the indicators upon which to base the sample size calculations. The Feed the Future guidance on population-based surveys lists poverty, child underweight and child stunting as the primary indicators for calculating sample size (*Volume 8: Population-Based Survey Instrument for Feed the Future Zone of Influence Indicators with Revised WEAI Module*[7]). Because changes in expenditure levels are likely to precede changes in poverty and are more likely to have occurred by midterm than reductions in poverty or child under-nutrition, BFS has added the daily per capita expenditure indicator to this list of indicators that should be used to determine sample size for the midterm.

The steps for calculating sample size are:

1. Calculate the sample size and required number of households for each of the key Feed the Future indicators (poverty, daily per capita expenditures, stunting and underweight).
2. If any of the four key indicators will be available from secondary data sources, determine whether the secondary source sample size within the ZOI will be large enough, based on the sample size calculation from Step 1.
3. If any of the four key indicators will need to be collected in the ZOI survey, use the indicator with the largest sample size to drive the survey. If the sample size that results is larger than the resources available for the survey can support, select the next largest sample size.
4. If none of the four key indicators will need to be collected in the ZOI survey because they will all be available with sufficient sample size and in a timely manner from secondary data sources, calculate the required sample size for the Percent of Households with

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[5] Enumerators will apply the non-child-related modules in households with no children under five; these households will only be screened out for application of the child-related modules.
[6] See 2012 addendum to Magnani, Robert. 1999. Sampling Guide. Washington, D.C.: FHI 360/FANTA.
http://www.fantaproject.org/sites/default/files/resources/Sampling-1999-Addendum-2012-ENG_0.pdf
[7] http://feedthefuture.gov/sites/default/files/resource/files/ftf_vol8_populationbasedsurveyinstrument_oct2012.pdf

Moderate or Severe Hunger (HHS) and the Women's Dietary Diversity Score (WDDS) indicators, and use whichever is larger to determine ZOI survey sample size.

5. Once the ZOI survey sample (N) has been determined by following steps 1 to 4 above, check to make sure that at least 70 children between 0 - 5 months are likely to be encountered if N households are visited, to enable statistically valid estimates of exclusive breastfeeding rates by sex. The formula to estimate the number of households that would need to be visited to encounter 70 children 0 – 5 months old is[8]:

$$N_C = {70}/{(1 - exp^{-PP \times HHSZ})}$$

where

N_c = number of households to visit to find 70 children 0-5 months of age
PP = proportion of the ZOI population that is 0 – 5 months old
HHSZ = average household size in the ZOI

If the number of households that need to be visited to find at least 70 children 0 – 5 months old (N_c) is greater than the sample size (N) calculated in steps 1-4 above, use N_c as the ZOI survey sample size rather than N.

10. GEOGRAPHIC FOCUS AND SAMPLE FRAME

The geographic focus of midterm, and thus the geographic areas that are reflected in the ZOI survey's sample frame, is the Feed the Future ZOI in the country. This will be the same as the baseline sample frame unless the Mission has changed the ZOI definition since the baseline. If the ZOI definition has changed, Missions should contact their BFS M&E POC with detailed information about the areas added to or removed from the ZOI to determine whether and how the sample design for the midterm survey should be modified.

If areas have been removed from the ZOI, baseline indicator values will need to be recalculated on the basis of the sample falling within the revised ZOI for comparison with the midterm estimates. If new areas have been added to the ZOI, they would probably be added as a separate stratum to the midterm sample frame.

11. SELECTION OF SURVEY IMPLEMENTER

As discussed in Section 6, a priority of Feed the Future is strengthening national agricultural and rural statistics systems. Many Missions have on-going relationships with national statistics institutions, including capacity strengthening efforts and collaboration with and support for country data collection exercises directly or via global efforts. BFS encourages active involvement in the midterm indicators assessment by national statistics organizations. Missions also use data needs as an opportunity to strengthen private sector capacity to provide data collection and analysis services. Regardless of whether public, private, or a combination of organizations is contracted, Missions must ensure that a well-qualified survey organization conducts the ZOI survey. Prior direct experience in organizing large-scale household surveys, and collecting and analyzing the types of data required for the Feed the Future indicators are essential.

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[8] See 2012 addendum to Magnani, Robert. 1999. Sampling Guide. Washington, D.C.: FHI 360/FANTA. http://www.fantaproject.org/sites/default/files/resources/Sampling-1999-Addendum-2012-ENG_0.pdf.

12. DEVELOPMENT OF COUNTRY DATA PLAN

Missions should consider documenting the proposed approach to completing the midterm indicator assessment in a country data plan, which can then feed in to the contract SOW and ZOI survey protocol.   Appendix 2 contains an illustrative outline for a country data plan.

13. DATA ANALYSIS

Missions should ensure that the following basic information is included in the midterm assessment report for all FTF indicators at the overall and disaggregate levels: unweighted N, indicator value (mean or proportion), standard deviation for continuous indicators, 95% confidence interval, statistical significance at 5% or less of differences between disaggregate categories and between other analytic variable categories, DEFF, and non-response rate. Reports should also include estimates of the ZOI population in the categories listed in Table 4. Instructions for how to analyze and present WEAI data can be found in the Instructional Guide on the Women's Empowerment in Agriculture Index[9]. As discussed in Section 6, if required, BFS will provide Missions with guidance on data collection and analysis for any new population-based indicators when the Feed the Future indicator review process concludes.

The baseline and midterm ZOI data sets are a resource beyond quantifying Feed the Future indicators. Missions should consider if staff would benefit from training in how to use the ZOI survey data sets for more in-depth analysis, and include such capacity-building in the midterm assessment contract.

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[9] See http://www.ifpri.org/sites/default/files/weai_instructionalguide.pdf. An updated instructional guide will be provided for the modified WEAI, if required.

Table 4. Population categories required for FTFMS ZOI indicator data entry

Total population of individuals
Population in male and female adults households
Population in female adults only households
Population in male adults only households
Population in child no adults households
Total number of households
Number of male and female adults households
Number of female adults only households
Number of male adults only households
Number of child no adults households
Women of reproductive age (15-49 years)
WRA non-pregnant
WRA pregnant
Children 0-59 months
Males 0-59 months
Females 0-59 months
Children 6-59 months
Males 6-59 months
Females 6-59 months
Children 6-23 months
Males 6-23 months
Females 6-23 months
Children 0-5 months
Males 0-5 months
Females 0-5 months

Appendix 1. Feed the Future Indicators organized by the Feed the Future Results Framework

SPS #	Indicator title
(R) = Required indicator, (RiA) =Required if Applicable indicator, (S) = Standard indicator (WOG) = Whole of Government Indicator	
SPS #	Indicator title
Goal: Sustainably Reduce Global Poverty and Hunger	
3.1.6-16	Prevalence of underweight children under five years of age (R)
4-17	Prevalence of Poverty: Percent of people living on less than $1.25/day (R)
First Level Objective 1: Inclusive Agricultural Sector Growth	
4.5-3	Percent change in agricultural GDP (R)
4.5-9	Daily per capita expenditures (as a proxy for income) in USG-assisted areas (R)
4.5-19	Women's Empowerment in Agriculture Index (R)
First Level Objective 2: Improved Nutritional Status Especially of Women and Children	
3.1.9-11	Prevalence of stunted children under five years of age (R)
3.1.9-12	Prevalence of wasted children under five years of age (R)
3.1.9-13	Prevalence of underweight women (R)
IR 1: Improved Agricultural Productivity	
4.5-16,17,18	Gross margin per hectare, animal or cage of selected product (crops/animals selected varies by country) (RiA)
Sub-Intermediate Result 1.1: Enhanced Human and Institutional Capacity Development for Increased Sustainable Agriculture Sector Productivity	
CBLD-5	Score, in percent, of combined key areas of organization capacity amongst USG direct and indirect local implementing partners (S)
4.5.2-5	Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance (RiA) (WOG)
4.5.2-6	Number of individuals who have received USG supported long-term agricultural sector productivity or food security training (S)
4.5.2-7	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (RiA) (WOG)
4.5.2-11	Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance (RiA) (WOG)
4.5.2-27	Number of members of producer organizations and community based organizations receiving USG assistance (S)
4.5.2-32	Number of stakeholders using climate information in their decision making as a result of USG assistance (S)
4.5.2-34	Number of stakeholders implementing risk-reducing practices/actions to improve resilience to climate change as a result of USG assistance (S)
4.5.2-42	Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) that applied improved technologies or management practices as a result of USG assistance (RiA) (WOG)

SPS #	Indicator title
Sub-Intermediate Result 1.2: Enhanced Technology Development, Dissemination, Management, and Innovation	
4.5.1-21	Number of climate vulnerability assessments conducted as a result of USG assistance (S)
4.5.1-28	Hectares under new or improved/rehabilitated irrigation and drainage services as a result of USG assistance (RiA) (WOG)
4.5.2-2	Number of hectares under improved technologies or management practices as a result of USG assistance (RiA) (WOG)
4.5.2-13	Number of rural households benefiting directly from USG interventions (S)
4.5.2-39	Number of new technologies or management practices in one of the following phases of development: …in Phase I: under research as a result of USG assistance …in Phase II: under field testing as a result of USG assistance …in Phase III: made available for transfer as a result of USG assistance (S)
4.5.2-41	Number of water resources sustainability assessments undertaken (S)
Sub-Intermediate Result 1.3: Improved Agriculture Policy Environment	
4-16	Ease of Doing Business rank (S)
4.5.1-24	Numbers of Policies/Regulations/Administrative Procedures in each of the following stages of development as a result of USG assistance in each case: Stage 1: Analyzed Stage 2: Drafted and presented for public/stakeholder consultation Stage 3: Presented for legislation/decree Stage 4: Passed/approved Stage 5: Passed for which implementation has begun (S)
Intermediate Result 2: Expanding Markets and Trade	
4.5.2-23	Value of incremental sales (collected at farm-level) attributed to FTF implementation (RiA)
4.5.2-35	Percent change in value of intra-regional trade in targeted agricultural commodities (RiA)
4.5.2-36	Value of exports of targeted agricultural commodities as a result of USG assistance (S)
Sub-Intermediate Result 2.1: Enhanced Agricultural Trade	
4.5.1-26	Average number of days required to trade goods across borders (S)
Sub-Intermediate Result 2.2: Property Rights to Land and Other Productive Assets Strengthened	
4.5.1-22	Number of rural hectares mapped and adjudicated (S)
4.5.1-25	Number of households with formalized land (RiA) (WOG)
Sub-Intermediate Result 2.3: Improved Market Efficiency	
4.5-10	Total increase in installed storage capacity (S)
4.5-11	Market discount of targeted agriculture commodities (S)
4.5.1-17	Kilometers of roads improved or constructed (RiA) (WOG)
Sub-Intermediate Result 2.4: Improved Access to Business Development and Sound and Affordable Financial and Risk Management Services	
4.5.2-29	Value of Agricultural and Rural Loans (RiA) (WOG)
4.5.2-30	Number of MSMEs, including farmers, receiving USG assistance to access loans (S)
4.5.2-37	Number of MSMEs, including farmers, receiving business development services from USG-assisted sources (S)

SPS #	Indicator title
Intermediate Result 3: Increased Investments in Agriculture and Nutrition-Related Activities	
4.5.2-12	Number of public-private partnerships formed as a result of FTF assistance (S)
4.5.2-38	Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation (RiA)
4.5.2-43	Number of firms (excluding farms) or Civil Society Organizations (CSOs) engaged in agricultural and food security-related manufacturing and services now operating more profitably (at or above cost) because of USG assistance (RiA)
Sub-Intermediate Result 3.1: Increased Public Sector Investment	
3.1.9.3-1	Percentage of national budget allocated to nutrition (RiA)
4.5-12	Percentage of national budget allocated to agriculture (RiA)
Intermediate Result 4: Increased Employment Opportunities in Project-level, targeted Value Chains	
4.5-2	Number of jobs attributed to FTF implementation (RiA)
Intermediate Result 5: Increased Resilience of Vulnerable Communities and Households	
3.1.9.1-3	Prevalence of households with moderate or severe hunger (RiA)
4.7-4	
3.3.3-15	Number of USG social assistance beneficiaries participating in productive safety nets (S)
4.5.2-14	Number of vulnerable households benefiting directly from USG interventions (S)
4.5.2-25	Number of people with a savings account or insurance policy as a result of USG assistance (S)
Intermediate Result 6: Improved Access to Diverse and Quality Foods	
3.1.9.1-1	Prevalence of children 6-23 months receiving a minimum acceptable diet (RiA)
3.1.9.1-2	Women's Dietary Diversity: Mean number of food groups consumed by women of reproductive age (S)
Intermediate Result 7: Improved Nutrition-Related Behaviors	
3.1.9.1-4	Prevalence of exclusive breastfeeding of children under six months of age (RiA)
Intermediate Result 8: Improved Use of Maternal and Child Health and Nutrition Services	
3.1.9-1	Number of people trained in child health and nutrition through USG-supported health area programs (S)
3.1.9-6	Prevalence of anemia among women of reproductive age (RiA)
3.1.9-14	Prevalence of anemia among children 6-59 months (S)
3.1.9-15	Number of children under five reached by USG-supported nutrition programs (S)
3.1.9.2-2	Number of health facilities with established capacity to manage acute under-nutrition (S)
3.1.9.2-3	Number of children under five years of age who received vitamin A from USG-supported programs (S)

Appendix 2. Illustrative outline for a country data plan

1. Purpose of midterm and country data plan
2. Indicators to be reported for the midterm
    2.1. Feed the Future population-based indicators
    2.2. Mission-specific indicators
3. Sources of data for indicators
    3.1. Description of possible secondary sources
    3.2. Planned data source for each indicator (Table)
        3.2.1. Source of data
        3.2.2. Timing of baseline data collection
        3.2.3. Timing of midterm data collection
        3.2.4. Timing of data availability
4. Geographic focus of midterm
    4.1. Zone of influence
        4.1.1. Summary of geographic coverage of ZOI
        4.1.2. Map
    4.2. Changes in geographic definition of ZOI (if relevant)
    4.3. Implication of change in ZOI definition
        4.3.1. Sample design
        4.3.2. Baseline-midterm-final comparisons
5. Timing of midterm data collection
    5.1. Proposed timing for midterm data collection with rationale
    5.2. Timing of data collection for midterm vs. baseline
        5.2.1. Difference of timing by indicator
        5.2.2. Implication of change in timing on comparisons with baseline
    5.3. Potential logistical or other challenges to conducting fieldwork in this timeframe and contingency plans
6. Sample Size
    6.1. Method for calculating sample size
    6.2. Sample size requirements for 4 key indicators, and for HHS and WDDS if required. Table with baseline value, *Deff* and standard deviation (if a mean), estimated midterm value, margin of error (based on .1), sample size to capture estimated midterm value before adjusting for non-response and number of households that need to be visited, final sample size for each indicator
    6.3. Justification for selection of indicator that will determine ZOI survey sample size
7. Sample Design
    7.1. Number of clusters and number of households per cluster
    7.2. Stratification and sample allocation
    7.3. Stages of sampling
    7.4. Source/process of household listing
8. Timeline for midterm indicator assessment
    8.1. Dates for contract award, in-country ethical review, survey material preparation and pre-test, training including pilot, field work, data cleaning and analysis, entry of information into FTFMS, production of survey report, and provision of Open Data data sets
9. Process for contracting the survey