



# FEED <sup>THE</sup> FUTURE

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

M&E GUIDANCE SERIES

## FEED THE FUTURE MONITORING AND EVALUATION GUIDANCE

### Guidance on the Feed the Future Phase Two Zone of Influence Midline Indicator Assessment

JULY 2021

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## ABBREVIATIONS

5DE	Five Domains of Empowerment
A-WEAI	Abbreviated Women's Empowerment in Agriculture Index
DHS	Demographic and Health Survey
FIES	Food Insecurity Experience Scale
MEL	Monitoring, Evaluation and Learning
OCS	Office of Country Support
RFS	Bureau for Resilience and Food Security
SMRFS	Surveys for Monitoring in Resilience and Food Security
TA	Technical Advisor
USAID	United States Agency for International Development
WDDS	Women's Dietary Diversity Score
WEAI	Women's Empowerment in Agriculture Index
ZOI	Zone of Influence



# FEED THE FUTURE

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## 1. INTRODUCTION

This document provides guidance on the Feed the Future phase two Zone of Influence (ZOI) midline population-level indicator assessment in Feed the Future target countries. This is the first assessment of the Feed the Future phase two ZOI indicators since the baseline indicator values were established. The ZOI midline indicator assessment will provide the U.S. Government interagency partners, U.S. Agency for International Development (USAID) Bureau for Resilience and Food Security (RFS), USAID Missions, host country governments and development partners with information about short-term progress of the ZOI indicators. All Missions overseeing ZOI Surveys as well as survey implementers collecting these data, are required to adhere to the policy and technical requirements contained in this guidance.

## 2. BACKGROUND

The ZOI is the targeted geographic area where Feed the Future aims to achieve the greatest impact in reducing poverty, hunger, and undernutrition; and increasing inclusive and sustainable agriculture-led economic growth, strengthening resilience among people and systems, and achieving a well-nourished population, especially among women and children, in target countries. Feed the Future monitors this progress using a suite of 20 indicators that measure conditions among the population in the ZOI, collected through a population-based survey (henceforth referred to as the ZOI survey). Ten of these indicators measure impacts (and an outcome in one case) at the goal or strategic objective levels. The remaining 10 measure outcomes at the intermediate result level. ZOI surveys are conducted every three years. The full set of ZOI indicators are collected at baseline and endline, and a sub-set of indicators are collected at midline. See Table 1 for the list of the ZOI indicators.

**Table 1: Feed the Future Zone Phase Two ZOI Population-Level Indicators**

- EG-c Prevalence of Poverty: Percent of people living on less than \$1.90/day 2011 PPP
- EG-e Prevalence of moderate and severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
- EG-g Percent of households below the comparative threshold for the poorest quintile of the Asset-Based Comparative Wealth Index
- EG-h Depth of Poverty of the Poor: Mean percent shortfall of the poor relative to the \$1.90/day 2011 PPP poverty line
- EG.3-f Abbreviated Women's Empowerment in Agriculture Index
- EG.3-h Yield of targeted agricultural commodities within target areas
- EG.3.2-a Percent of producers who have applied targeted improved management practices or technologies

- EG.4.2-a Percent of households participating in group-based savings, micro-finance or lending programs
- HL.8.2-a Percent of households with access to a basic sanitation service
- HL.8.2-b Percent of households with soap and water at a handwashing station on premises
- HL.9-a Prevalence of stunted (HAZ < -2) children under five (0-59 months)
- HL.9-b Prevalence of wasted (WHZ < -2) children under five (0-59 months)
- HL.9-d Prevalence of underweight (BMI < 18.5) women of reproductive age
- HL.9-i Prevalence of healthy weight (WHZ  $\leq 2$  and  $\geq -2$ ) among children under five (0-59 months)
- HL.9.1-a Percent of children 6-23 months receiving a minimum acceptable diet
- HL.9.1-b Prevalence of exclusive breastfeeding of children under six months of age
- HL.9.1-d Percent of women of reproductive age consuming a diet of minimum diversity
- RESIL-a Ability to recover from shocks and stresses index
- RESIL-b Index of social capital at the household level
- RESIL-c Percent of households that believe local government will respond effectively to future shocks and stresses

### 3. SUPPORTING HIGH-QUALITY, STANDARDIZED DATA COLLECTION

Past rounds of ZOI surveys have demonstrated variable comparability and quality of survey data within and across countries. To reduce variability in survey methods and protocols used across countries and survey rounds, RFS developed a toolkit to improve methodological rigor and standardization. To reduce variability due to different survey implementation mechanisms used across countries and survey rounds, RFS has put in place an RFS-managed contract to centralize survey implementation and support Missions to conduct ZOI Surveys.

#### *Feed the Future ZOI Survey Methods Toolkit*

The [Feed the Future ZOI Survey Methods Toolkit<sup>1</sup>](#) developed by RFS will help streamline the process of ZOI Survey design, data collection, and analysis; save time and money; and support the collection of high-quality data. All Missions overseeing a Feed the Future ZOI Survey as well as survey implementers are required to use the tools and templates contained in the toolkit. Missions that need to deviate from the technical direction contained in the Toolkit should first consult with their RFS Office of Country Support (OCS) Monitoring, Evaluation and Learning Technical Advisor (MEL TA).

#### *Surveys for Monitoring in Resilience and Food Security (SMRFS) mechanism*

The SMRFS mechanism is an RFS-managed contract through which Missions can procure ZOI Surveys and other specific population-based surveys. RFS encourages Missions to use the SMRFS mechanism to procure their ZOI Surveys as this will increase standardization and

<sup>1</sup> <https://www.agrilinks.org/post/feed-future-zoi-survey-methods-toolkit-midline-2021>. Accessed 7/8/21.

improve data quality across surveys. It will also reduce Missions' management burden and the need to have at post the specialized expertise necessary to oversee this complex, highly technical activity. Missions interested in accessing SMRFS should contact their RFS OCS MEL TA ([rfsocsmel@usaid.gov](mailto:rfsocsmel@usaid.gov)) and the SMRFS COR, Lindsey Anna ([lanna@usaid.gov](mailto:lanna@usaid.gov) or [rfs.ald@usaid.gov](mailto:rfs.ald@usaid.gov)).

#### 4. TIMING OF ZOI BASELINE, MIDLINE AND ENDLINE SURVEYS

Eight of the twelve current target countries established full or partial baseline values for ZOI indicators between 2018 and 2020. RFS anticipates that baseline data for the remaining ZOIs will be collected in 2021 or early 2022. Table 2 presents the anticipated timing of Feed the Future phase two ZOI surveys in target countries.

**Table 2: Timing of Feed the Future Phase Two ZOI Surveys**

Target Country	Baseline field work began/will begin	Midline field work begins	Endline field work begins
Bangladesh	Nov 2018	Nov 2021	Nov 2024
Mali Sikasso <sup>2</sup>	Feb 2019	Feb 2022	Feb 2025
Kenya	Mar 2019	Mar 2022	Mar 2025
Nepal	May 2019	May 2022	May 2025
Uganda	Sep 2019	Sep 2022	Sep 2025
Ghana	Jan 2020	Jan 2023	Jan 2026
Nigeria <sup>3</sup>	Feb 2020	Feb 2023	Feb 2026
Mali North	Jan 2021	Jan 2024	Jan 2027
Ethiopia <sup>4</sup>	Sep 2019	Sep 2023	Sep 2026
Niger	Jun 2021	Jun 2024	Jun 2027
Senegal	Nov 2021	Nov 2024	Nov 2027
Honduras <sup>5</sup>	TBD	n/a	TBD
Guatemala <sup>5</sup>	TBD	n/a	TBD

<sup>2</sup> USAID Mission Mali collected baseline data in 2019 for the Sikasso region of their ZOI. Security considerations in the Mopti/Timbuktu region required revisions to the data collection approach and baseline data will be collected in these areas of the ZOI in 2021 using a pilot non-permissive environment data collection approach.

<sup>3</sup> Nigeria field work was suspended due to the coronavirus pandemic in March 2020. Given that the majority of the sample (76 percent) had been collected prior to field work suspension, the length of time before data collection could resume, and the lack of comparability in the circumstances of the households sampled before and after field work suspension, USAID Mission Nigeria, RFS, and the World Bank, the ZOI data collection partner, agreed not to resume data collection post-pandemic.

<sup>4</sup> Ethiopia's midline will be conducted four years after the baseline to better align with their program cycle.

<sup>5</sup> Given the delay in implementing the baseline and the desire to complete all endlines before the end of 2027, Honduras and Guatemala may only be required to collect an endline four or five years after the Phase two ZOI baseline.

## 5. FEED THE FUTURE MIDLINE INDICATORS

To reduce the burden and cost of the ZOI survey at midline, RFS conducted a series of consultations within RFS and with field missions to identify which indicators to prioritize for midline data collection. It was agreed that the set of indicators to prioritize were those that:

- Had the potential to change over the short-term
- Provided important information on food security and resilience in the ZOI in the face of shocks such as the coronavirus pandemic
- Were intermediate level results that were useful to inform programmatic adaptations

RFS recognizes that, while slower to change and burdensome to collect, having no information on changes in the poverty and malnutrition high-level indicators for the six years between baseline and endline is not ideal. Therefore, approaches to partially meet data needs for these indicators were also identified.

Missions will assess the midline values for each of the Feed the Future ZOI indicators using one of the following data collection approaches:

1. collecting all the data required to directly compute the indicator value
2. collecting a subset of data for the indicator to monitor progress toward the overall indicator
3. collecting the data required to impute the indicator value
4. using secondary data to compute the indicator

In addition to collecting data for Feed the Future indicators, the midline survey will capture information on the extent of coverage of the types of interventions that Feed the Future promotes within the ZOI, although it will not be able to directly link household participation or exposure to Feed the Future activities specifically.

The core ZOI Survey instrument to be used in the midline ZOI Survey is available at the ZOI survey methods [website](#).

### *Directly collected and computed indicators*

Missions should collect data in the ZOI midline survey to directly compute the indicators listed below.

1. EG-e Prevalence of moderate and severe food insecurity in the population, based on the Food Insecurity Experience Scale (FIES)
2. EG-g Percent of households below the comparative threshold for the poorest quintile of the Asset-Based Comparative Wealth Index

3. EG.3.2-a Percent of producers who have applied targeted improved management practices or technologies
4. EG.4.2-a Percent of households participating in group-based savings, micro-finance or lending programs
5. HL.8.2-a Percent of households with access to a basic sanitation service
6. HL.8.2-b Percent of households with soap and water at a handwashing station on premises
7. HL.9.1-a Percent of children 6-23 months receiving a minimum acceptable diet
8. HL.9.1-b Prevalence of exclusive breastfeeding of children under six months of age
9. HL.9.1-d Percent of women of reproductive age consuming a diet of minimum diversity
10. RESIL-a Ability to recover from shocks and stresses index
11. RESIL-b Index of social capital at the household level
12. RESIL-c Percent of households that believe local government will respond effectively to future shocks and stresses

### ***Directly collected subset of indicator data***

Missions should collect A-WEAI module data only from primary adult female decision makers, rather than from female and male decision makers. Because A-WEAI data will not be collected from males, we will not be able to compute the gender parity sub-index of the A-WEAI, and thus we will not be able to compute the A-WEAI score. However, we will still be able to compute the five domains of empowerment (5DE) sub-index, track progress in the proportion of women who are empowered, and measure changes to and progress in the key constraints to empowerment in agriculture for women in the ZOI.

### ***Imputed indicators***

Missions that collected the full consumption module at baseline should use a survey-to-survey imputation approach to estimate the following poverty-related indicators:

1. Prevalence of poverty: Percent of people living on less than \$1.90/day 2011 PPP
2. Depth of poverty of the poor: Mean percent shortfall of the poor relative to the \$1.90/day 2011 PPP poverty line
3. Prevalence of people who are 'Near-Poor', living on 100 percent to less than 125 percent of the \$1.90 2011 PPP poverty line [Context Indicator]

The survey-to-survey imputation approach involves four steps:

1. Develop a regression-based predictive model that estimates a household's consumption aggregate, using the Feed the Future phase two ZOI baseline survey data set

2. Include questions to collect data on the model's predictors (i.e. independent variables) in the midline survey questionnaire.
3. After data collection, use each household's values for the set of predictors, the model coefficients and a simulated error term to estimate the consumption aggregate for each household.
4. Use each household's estimated consumption aggregate to compute the three poverty-related indicators.

RFS is working with the World Bank's Living Standard Measurement Surveys team to develop technical guidance to support scale-up of this survey-to-survey imputation approach in the ZOI midline indicator assessment. This guidance will be available in mid-2021.

However, in target countries that collected poverty-related indicator data before the pandemic shock, and where midline data collection is scheduled for during or soon after the shock, the predictive models developed with pre-shock data may not be valid in the post-shock environment. RFS will fund a separate, parallel survey to be implemented on an additional 300-household sample to collect the full consumption module as well as non-consumption predictor variables. The data collected in this parallel survey will be used to validate the model and provide a backup method to compute the indicator if necessary.

The 300-household parallel survey will be conducted separately from the ZOI survey, using an independent sample and separate field teams. The sample should contain 30 EAs with 10 households per EA. The 30 EAs should be allocated equally (i.e. not probability proportional to size) among the sample strata across which the baseline sample was allocated. After allocation, EAs should be selected using fractional interval systematic sampling in the first stage. Subsequent sampling stages should follow standard ZOI survey sampling guidance.

The field team(s) should include an agricultural interviewer in addition to the 2 social interviewers, to collect the production practices, plot area, and production information. RFS recommends that two field teams be used to complete the parallel survey and estimates that each interviewing team should be able to visit 2 to 3 households per day. However, the survey implementer should take into consideration the final content of the questionnaire, geography, and other considerations to estimate the time to complete the survey. The parallel survey should be conducted within the same time frame as the ZOI survey.

Missions that used a within-survey imputation approach to estimate poverty at baseline should use the same approach at midline.

## **Secondary data**

### *Anthropometry*

Missions should use Demographic and Health Survey (DHS) data from the ZOI to compute the following four anthropometry indicators. While Feed the Future ZOI survey methods largely align with DHS methods, to ensure maximum comparability, ZOI baseline values should also be recomputed using DHS data for the baseline-midline comparison.

1. Prevalence of stunted (HAZ < -2) children under five (0-59 months)
2. Prevalence of wasted (WHZ < -2) children under five (0-59 months)
3. Prevalence of underweight (BMI < 18.5) women of reproductive age
4. Prevalence of healthy weight (WHZ  $\leq 2$  and  $\geq -2$ ) among children under five (0-59 months)

For most countries, the planned or estimated timing of the next round of the DHS is within one year of the scheduled midline, and could meet ZOI progress monitoring needs once the data sets become available. However, for Ethiopia, Ghana, Honduras and, possibly, Guatemala, the next round of DHS are unlikely to provide timely data. Where that is the case, we would not report midline results for the four anthropometry indicators.

#### *Yield of Feed the Future-targeted commodities*

Missions are not required to directly collect data at midline for the yield indicator, because we do not have a valid alternative streamlined approach to collect or estimate indicator values that would be comparable to baseline values. However, Missions should use secondary data to report on yields if datasets using comparable data collection methods are available to compute baseline and midline values.

RFS is working with NASA Harvest to refine and expand existing capabilities in the use of satellite data to estimate crop yields for Mission-prioritized commodities at endline. This approach uses ground-referenced data on farmers' plots collected during the ZOI Survey baseline, ground-referenced data aggregated through complementary efforts like Radiant Earth Foundation's ML Hub, and satellite imagery from NASA and ESA to train and validate machine learning models capable of generating yield estimates. To support validation of these models, at midline, RFS will collect data on yield and production practices for these crops in the 300 household sample added to validate poverty survey-to-survey imputation parameters.

#### *Data on coverage of Feed the Future interventions*

An important gap in our ability to interpret changes in ZOI indicators and Feed the Future's potential contribution to those changes is the lack of ZOI-level information on household and individual participation in development activities. Attempting to collect information on whether households participated in specific Feed the Future activities delivered by specific implementing partners is not likely to generate reliable data, because respondents often are unaware of the name of the project or prime implementing partner that is delivering the service they benefited from or the training they accessed. However, respondents should be able to provide information on whether they did receive a service or access a training of the types that Feed the Future facilitates or directly provides. Missions should work with RFS and the ZOI survey implementor

to develop a set of questions for a country-specific ZOI survey module to be added to the core questionnaire that will capture information on whether households accessed or participated in the kind of services or activities that their Feed the Future portfolio is designed to deliver to households within the ZOI.

### ***New water insecurity indicator***

RFS is adding a new module to the Feed the Future ZOI survey, starting with the midline surveys, to collect data on household water insecurity. The Household Water Insecurity Experience (HWISE) Scale measures the experiences of water insecurity across low- and middle-income countries to determine the magnitude of water insecurity, track its change over time, measure the effectiveness of various interventions, and inform the development and implementation of effective policies and programs<sup>6</sup>. There is a 12-question and 4-question version of the HWISE Scale module. For the midline survey, RFS will use the abbreviated 4-question version. The four questions are:

- In the last 4 weeks, how frequently did you or anyone in your household worry you would not have enough water for all your household needs?
- In the last 4 weeks, how frequently have you or anyone in your household had to change schedules or plans due to problems with your water situation?
- In the last 4 weeks, how frequently have you or anyone in your household had to go without washing hands after dirty activities (e.g., defecating or changing diapers, cleaning animal dung) because of problems with water?
- In the last 4 weeks, how frequently has there not been as much water to drink as you would like for you or anyone in your household?

## **6. TIMING OF MIDLINE DATA COLLECTION**

Field data collection for the midline surveys should take place at the same time of year as baseline data collection.

## **7. MIDLINE SAMPLE SIZE**

The purpose of the midline indicator assessment is to provide point estimates of the ZOI indicators at an acceptable level of statistical accuracy, which for Feed the Future performance monitoring purposes is a five percent margin of error. The midline sample size is not designed to detect statistically significant changes in indicator values since baseline. However, it will be possible to detect statistically significant differences if the difference between baseline and midline values is large enough.

Given the global coronavirus pandemic shock and the evidence we have so far on its documented impacts on poverty and nutrition in low-income countries, RFS recognizes that

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<sup>6</sup> For more information on the HWISE Scale, see <https://sites.northwestern.edu/hwise/>. Accessed 2/17/2021.

determining midline sample size based on pre-pandemic assumptions of improvement in indicator values from baseline may not be realistic. Preventing backsliding from baseline levels should be considered a positive result under the circumstances. Therefore, missions can use baseline indicator values when computing the required midline sample size.

To determine ZOI midline survey sample size, missions should:

1. Compute sample size (see the section “Computing Sample Size” below) for all of the directly collected and computed indicators, with the exception of *Prevalence of exclusive breastfeeding of children under six months of age* (EBF).
2. Identify the largest required sample size across all indicators (n). This should be the starting point for the overall midline sample size.
3. Check if at least 70 children between 0 - 5 months are likely to be included if n households are visited, to make sure we end up with statistically valid estimates of exclusive breastfeeding rates by sex. The formula to estimate the number of households that would need to be visited to have 70 children 0 – 5 months old is :

$$n_c = \frac{70}{(1 - \exp^{-PP \times HHSZ})}$$

Where

$n_c$  = number of households to capture 70 children 0-5 months old in the sample

PP = proportion of the ZOI population that is 0 – 5 months old

HHSZ = average household size in the ZOI

4. If the number of households to capture 70 children 0 – 5 months old ( $n_c$ ) is greater than the sample size (n) identified in step 2 above, use  $n_c$  as the ZOI midline survey sample size rather than n.

If steps 1 through 4 yield a sample size that is too large given financial resources available, missions may cap the sample size at 2,200 households.<sup>7</sup>

### Computing sample size

Missions should use the sample calculator in the ZOI Survey Methods Toolkit to compute their sample size requirements. Missions should use the “Descriptive for proportions” tab to compute the sample size for indicators that are percentages (no sample size should be computed for EBF), which are most of the Feed the Future indicators, and the “descriptive for means” tab for the remaining indicators (*Ability to recover from shocks and stresses index* and *Index of social capital at the household level*). Table 3 below describes the parameter values to be used in the

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<sup>7</sup> Five is the median value for FIES DEFF from Gallup multi-stage cluster sample surveys in 140 countries, sponsored by the Food and Agriculture Organization of the United Nations (FAO). Availability of the DEFF values for FIES for Feed the Future ZOIs was limited when this guidance was written.

sample size calculator for the percentage indicators and Table 4 describes those to be used in the sample size calculator for means indicators.

**Table 3: Parameters to enter in the yellow cells in the “Descriptive for proportions” tab of the ZOI survey sample size calculator**

Initial sample size parameters		
$P_{est}$	Estimate of proportion	Baseline value of the indicator from <u>Table A1.1. Feed the Future ZOI Survey indicator estimates and module response rates</u> in the baseline report
$\alpha$	Alpha	0.05
MOE	Margin of Error (between 0.05-0.10)	0.05
$D_{est}$	Design Effect	Baseline value for DEFF of the indicator from <u>Table A1.1. Feed the Future ZOI Survey indicator estimates and module response rates</u> in the baseline report
<b>Adjustment 1: Choose “Household” for all indicators except MAD. Choose “Individual” for MAD. When “Individual” is chosen, fill in the two requested parameters to adjust the sample size to account for households without children aged 6 to 23 months.</b>		
(1)	Proportion of the population in the age group underlying the indicator	Approximate by computing $((\text{Mean number of children under 2 years of age} \times 0.75) / \text{Mean household size})$ from <u>Table 3.1.1 Household Demographic Characteristics in the ZOI, in Total and by Gendered Household Type</u> in the baseline report
(2)	Average household size	Use <i>Mean household size</i> from Table 3.1.1 in baseline report
<b>Adjustment 2: Adjust the sample size to account for potential non-response.</b>		
	Anticipated household non-response rate (%)	Compute as $((100 - \text{Household response rate (\%)}) / 100)$ from <u>Table 2.1 Results of Household and Individual Interviews for the Feed the Future ZOI Survey, in Total and by Residence</u> in the baseline report

**Table 4: Parameters to enter in the yellow cells in the “Descriptive for means” tab of the ZOI survey sample size calculator**

Initial sample size parameters		
$P_{est}$	Estimate of mean	Baseline value of the indicator from <a href="#">Table A1.1. Feed the Future ZOI Survey indicator estimates and module response rates</a> in the baseline report
	Estimate of Standard Deviation Available?	Yes
$\sigma_{Xest}$	If YES, write estimate here (in units of indicator):	Baseline value for SD of the indicator from <a href="#">Table A1.1. Feed the Future ZOI Survey indicator estimates and module response rates</a> in the baseline report
$\alpha$	Alpha	0.05
MOE	Acceptable Error (between 0.05-0.1)	0.05
$D_{est}$	Design Effect	Baseline value for DEFF of the indicator from <a href="#">Table A1.1. Feed the Future ZOI Survey indicator estimates and module response rates</a> in the baseline report
<b>Adjustment 1: Choose “Household” for the two indicators that are means, because both are measured at the household level.</b>		
<b>Adjustment 2: Adjust the sample size to account for potential non-response.</b>		
	Anticipated household non-response rate (%)	Compute as $((100 - \text{Household response rate (\%)}) / 100)$ from <a href="#">Table 2.1 Results of Household and Individual Interviews for the Feed the Future ZOI Survey, in Total and by Residence</a> in the baseline report

## 8. GEOGRAPHIC FOCUS AND SAMPLE FRAME

The geographic focus of the midline, and thus the geographic areas reflected in the 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 since changed its ZOI definition. If the ZOI definition has changed such that areas have been removed, baseline indicator values will need to be recalculated on the basis of the sample falling within the revised ZOI for comparison with the midline estimates.

If new areas have been added to the ZOI, they would probably be added as a separate stratum to the midline sample frame. In any case, Missions should contact their RFS OCS MEL TA to discuss in more detail how the sample design for the midline should be modified.

## 9. DATA ANALYSIS, AND SURVEY REPORT AND DATASETS

USAID Activity Managers should assist the COR to ensure that survey implementers follow the guidance and protocols set forth in the ZOI Survey Data Processing and Finalization Procedures (forthcoming July 2021) and the Feed the Future Guide to ZOI Survey Statistics (forthcoming January 2022) in the ZOI Survey Methods Toolkit to clean the data, produce the datasets, perform the analyses, and compute the indicators<sup>8</sup>. Survey implementers are also asked to present the results and describe the methodology of the survey using the ZOI Midline Survey Report Template (forthcoming Nov 2021) to ensure that all required information is included in the report. However, Missions are able to add sections to and adjust tables in the template to report on country-specific indicators and analyses.

For all analysis, survey implementers must use appropriate specialized statistical software packages, such as Stata, SPSS, R, or Python that account for the complex design features of the ZOI survey, such as clustering and unequal probabilities of selection, to generate indicator estimates, confidence intervals and standard errors. Spreadsheet packages such as Excel should not be used for analysis. It is critical that the correct syntax for complex survey designs be used.

In addition to the report, survey implementers are required to prepare and submit three datasets: one for USAID internal use, one for restricted use by USAID-approved users, and one for public use prepared according to the U. S. Government's Open Data Policy.<sup>9</sup> Survey implementers should follow the instructions in the ZOI Survey Methods Toolkit Protocol for Preparing Datasets (forthcoming Nov 2021) to ensure the datasets are properly prepared and submitted. The public use dataset will protect respondent privacy and confidentiality by removing or masking identifying information from the data, including direct identifiers (information such as names, addresses, global positioning system coordinates, or any other personally identifying number or characteristic) and indirect identifiers (data that do not specifically identify a person or location but that can be used to do so, one variable at a time or in combination, because they uniquely describe a person or household).

Once the ZOI midline survey report is complete, missions should share the report with the host country government and seek approval to disseminate the report and dataset. To expedite availability of results for internal and external reporting purposes, RFS may request that

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<sup>8</sup> The ZOI Survey Methods Toolkit also contains template Stata program files to compute the main variables and indicators.

<sup>9</sup> In addition to the proprietary data formats, at least one version of the dataset for public use must be in a non-proprietary format such as CSV. USAID contractors should submit the data package (data, metadata, codebooks, etc.) to the Development Data Library (<https://www.usaid.gov/data>) within the time frame outlined in the terms of the award.

missions first share the executive summary results table with the government for approval while the report is being finalized.

## **10. DATA USE**

RFS encourages missions to include capacity building activities around the ZOI survey results and datasets for Mission, implementing partner, and government staff to encourage more in-depth analysis and better use of survey results for learning and adaptive management. This could include activities such as workshops on data analysis and presentation of findings developed around research, policy or programmatic questions pre-identified by participants, or a workshop specifically for Mission and implementing partner staff on how to accurately read and understand statistical tables in the ZOI survey report and interpret and apply the findings in light of their program and objectives. Mission should ensure that a diverse and inclusive group of people participates in these capacity building activities focusing particularly on including women and youth.