



International Food Policy Research Institute (IFPRI) and icddr,b

ONE NUTRITION COVERAGE SURVEY (ONCS)

DATA QUALITY ASSURANCE (DQA) PLAN

November 2025

Project Note

DataDENT (Data for Decisions in Nutrition, www.datadent.org) aims to transform the availability and use of nutrition data by addressing gaps in nutrition measurement and advocating for stronger nutrition data systems. This work was carried out by the following DataDENT partner: International Food Policy Research Institute (IFPRI). Collaborator includes the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b). This work was funded by the Gates Foundation. The findings and conclusions contained within are those of the authors and do not necessarily reflect positions or policies of the Gates Foundation.

As part of DataDENT, the One Nutrition Coverage Survey (ONCS), is a methods-focused survey aimed at improving nutrition data availability by addressing gaps and promoting better coverage measurement. Ensuring high-quality data is critical to these efforts and will be achieved through rigorous strategies implemented both at the field level and in central data management. This Data Quality Assurance (DQA) plan outlines stepwise procedures for ensuring data quality, focusing on the prevention, identification and where possible, rectification of errors during the data collection period.

The following sections describe the stepwise procedures to be implemented by members of the DQA team. These team members are responsible for assuring data quality in-country, namely:

- Survey Coordinator (n=1)
- Senior Research Officer (SRO) (n=1)
- Data Management Officer (DMO) (n=1)
- Supervisor (n=10)
- Co-supervisors (n=16)
- Quality control (QC) staff members (n=6)

(see Appendix for explanation of roles).

Throughout the survey period, a variety of field- and central office level checks are required. While some checks are scheduled regularly, the frequency and intensity of monitoring may increase at specific times. Early in the survey, interviewers may make errors due to lack of experience or unfamiliarity with the questionnaire. These errors can be addressed through additional training and guidance. Toward the end of the survey, interviewers may become less attentive or rushed in anticipation of completing fieldwork, which can lead to carelessness in data recording. To maintain high data quality, the DQA team will closely monitor interviewer performance and the implementation of survey procedures. The team may need to increase the frequency of checks to ensure meticulous attention to detail.

The data collection will be closely overseen by the DQA team, led by a survey coordinator. The day-to-day operation and quality of the data collection will be managed through three main channels:

1. Hotline (via telephone, email and WhatsApp)
2. Field supervision
3. Distance monitoring using tablet technology for real-time data management.

I. Data collection: field level

During data collection, ensuring data quality will be primarily the responsibility of interviewers, survey team supervisors, and field monitors using the following procedures:

i. Hotlines (Responsible individuals: Supervisors, Survey Coordinator, SRO, DMO)

All issues arising in the field encountered by the survey teams will be solved immediately with the support of the survey team supervisor and coordinator. For prompt action, these members will be assigned to deal with specific issues as follows:

- Technical issues related to sample selection.
- Technical issues related to the questionnaires.
- Issues related to tablet PC and data collection devices: software, data saving and uploading, etc.
- Issues related to the fieldwork plan and local communication.
- Issues related to the survey team's human resources (this includes persistent issues related to personnel's ability to correctly implement survey procedures).

Frequency: As needed

ii. Review of questionnaire (Responsible individuals: Interviewers, Co-supervisors)

After each interview, interviewers should thoroughly check the questionnaire before submitting it to the server. This allows them to correct any errors made while recording responses. They will carefully document any questions flagged as difficult during the interview, and offer suggestions or explanations about why these questions were challenging.

Additionally, co-supervisors will review 25% of questionnaires completed by interviewers in a given EA (less than 6 households per EA). If any inconsistencies are found, a co-supervisor should discuss them with the respective interviewer and correct minor errors. For significant errors, a re-visit to the household, or in some cases, a re-interview might be necessary. Additionally, the co-supervisor will provide overall feedback to the interviewers based on their findings during the review.

Frequency: Daily

iii. Daily debriefs (Responsible individuals: Supervisors)

The main objective of the daily debrief is to discuss any issues encountered in the field related to scheduling and conducting interviews, survey procedures, etc. This might include questions that were difficult or sensitive for respondents. If the supervisor cannot resolve an issue, they must contact the central office team (SRO) in Dhaka for guidance and resolution. During these meetings, interviewers can share questions they found difficult or sensitive, or discuss problems that respondents faced while answering. Interviewers can also exchange effective probing techniques that could be helpful.

Frequency: Daily

iv. Interview observations (Responsible individuals: Supervisors and co-supervisors)

Supervisors are required to observe the interviews conducted. While it may not be possible for a single co-supervisor to observe all of the interviews, it is recommended that at least 21% of interviews in each Enumeration Area (EA) be observed (i.e, more than 4 households per EA). During observation, the supervisors and co-supervisors will complete the Quality Control (QC) Observation Checklist (see Appendix II). If interviewers make errors due to inexperience or unfamiliarity with the questionnaire, these should be addressed with additional training as needed. If a supervisor or co-supervisor identifies any inconsistencies, they should be discussed with the respective interviewer. Minor errors should be corrected immediately. Serious errors may require a household revisit or, in some cases, a re-interview. Co-supervisors will provide overall feedback to the interviewers based on their observations. If the interviewer's overall performance was sub-par, co-supervisors are responsible for sharing this with the team supervisor, and keeping the interviewer under close observation.

Frequency: Daily

v. Co-interviewing (Responsible individuals: Quality control (QC) staff)

QC teams will independently travel to the study EAs to observe interviews conducted and record the responses in CAPI. Later, they will compare their responses with those of the interviewers and check for inconsistencies. If any are found, these will be discussed with the interviewers, and corrections will be made as needed on interviewers' tablets; the QC is expected to have recorded the correct response. In case of uncertainty about the correct response, the QC can use the hotline to confirm. The quality controller will also provide feedback to interviewers on interview techniques and appropriate probing methods. Upon arrival in an EA, co-interviewing will be conducted in that EA for all six interviewers by the QC staff. For each enumerator involved in co-interviewing, the QC will also complete the Quality Control (QC) Observation Checklist.

Frequency: Daily/ongoing

vi. Surprise visits (Responsible individuals: QC staff)

Surprise visits are also unannounced but are broader in scope. They often include not only direct observation of interviews but also assessments of other factors like logistical arrangements, personnel readiness, and overall adherence to operational standards. This practice ensures that surveys are administered in strict adherence to the established protocols, and allows for any potential issues, such as data fabrication or deviations from the planned procedures, to be identified. Surprise visits will be conducted on an ongoing, random basis depending on the QC location.

Frequency: Daily/ongoing

vii. Tool for supervisor evaluation

Table 1. Summary table of QC observations to be completed by QC team member type

Quality control measures	Who	How many	When	Output
Review of questionnaire by interviewers	Interviewers themselves	All interviews	Daily	Data cleaning at the field level and feedback for enumerators
	Co-supervisors	~25% of the total sample (n= 984)	Daily	
Interview observations using QC Observation Checklist ^{1, 2}	Supervisors and co-supervisors and	~20% of the total sample (n=750)	Daily/ ongoing	Dataset with 750 observations (QC Observation checklist data)
	Quality controllers	~6% of the total sample (n=200)		Dataset with 200 observations (QC Observation checklist data)
Co-interviewing ³	Quality controllers	~15% of the total sample (n =550)	Daily/ ongoing	Dataset with 550 observations (Re-interview data)
Surprise visits	Quality controllers		Daily/ ongoing	Document with written feedback provided

¹ Observation by supervisors and quality and controllers should not overlap

² QC Observation Checklist is programmed using Kobo ToolBox and will be completed using this application

³ Co-interviewing conducted using CAPI

Any solutions that need to be applied in a standardized fashion across study sites, including changes in translation, must be reported to the SRO in Dhaka. The SRO is responsible for informing key IFPRI team members (Program Manager, Research Analysts, PIs) before implementation. During daily debrief meetings, supervisors should communicate any solutions identified by other teams to address field issues and any broader issues they may have identified during data collection. The team will adopt a collective learning approach rather than singling out individual data collectors.

II. At the central level

At the central level, data quality will be based on data inconsistency checks and simple descriptive analysis. icddr,b will be responsible for the initial checks and IFPRI will be responsible for frequency checks after the raw data has been received. The following are the steps we plan to implement:

i. Raw variables: frequency checks

To ensure the integrity and quality of data collected during the survey process, a systematic approach will be implemented to monitor and evaluate interviewer performance. A STATA do-file will be created on a weekly basis to run frequency for all raw variables, including those that take integer values. In addition to raw variables, we will compute a few variables to run frequency such as the time taken to complete the interview by respondent type and module and response rates. Frequency runs will be conducted daily or weekly, or at least for each EA, to identify errors such as (i) outliers, (ii) duplicate identifiers¹, or any other inconsistencies by icddr,b. The same do-file used for frequency checks will also include codes to run frequency analyses by interviewer. This will allow us to monitor the performance of individual interviewers, which is critical for maintaining high data quality.

After receiving the raw data, the IFPRI Research Analyst will carefully review the frequency of each variable, paying special attention to values that appear unusually high or low compared to the majority (outliers). If an outlier is identified, the survey partner will be contacted to verify the data with the interviewer responsible. If it is confirmed that the value was entered in error, the correction will be documented and corrected in the STATA do-file. A brief description of the correction process will also be included in the do-file. For example, if the number of rooms in a dwelling was recorded as 20 but the survey partner confirms that it should have been 2, the correction will be noted and updated accordingly. IFPRI will write a STATA do-file that will export the frequency results to the Excel file.

ii. Addressing data inconsistencies

Steps to address inconsistencies identified during frequency checks are outlined below in Table 2.

Table 2. Common raw data errors and corrective measures to be taken.

No.	Common data checks	Corrective/review measures	Responsible org
1	Deidentifying	Name, GPS, coordinates, phone number, any address.	icddr,b
2	Duplicates	Checking if there are any duplicates values or submissions and then drop or fix these values/submissions.	icddr,b
3	Basic checks (frequency checks)	Missing information, redundant information, outliers or mismatched codes among the data file. Check time stamp data by interview and module.	icddr,b
4	Logic	Review dataset to check skip patterns and other logic checks and identify conflicts.	IFPRI
5	Typos	Correcting all the typos (name, class sections, etc.)	icddr,b
6	Out of range/unusual answers about quantity, age and education (frequency checks)	Contacting the interviewers and supervisors to confirm and correct.	icddr,b
7	Interviewing the wrong respondents	Contacting the interviewers to check the situations when a respondent seems to be incorrectly chosen or recorded. In cases when the interviewers did interview the wrong respondents, the interviewers were asked to conduct the interviews again.	icddr,b
8	Translating “others (specify)” and comments from interviewers	All responses recorded under “other (specify)” will be entered in Bangla and then translated into English.	icddr,b

The raw dataset will be transferred by icddr,b to IFPRI by the end of the day Sunday each week starting February 23, to allow for the next level of frequency checks.

Frequency: Checks ongoing daily, reporting weekly

¹Duplicate identifiers likely not an issue given CAPI programming for ONCS per icddr,b team

iii. Cleaned variables: frequency checks

The cleaned data will be analyzed and the following will be tracked and reported by IFPRI:

1. Number of households selected
2. Number of households completed
3. Number of households refused
4. Number of households remaining
5. Number of households with women of reproductive age (WRA)
6. Number of households with children requiring care (CRW)
7. Number of households with women who were pregnant in the last two years
8. Number of households with children under 2 years of age
9. Number of households with children under 5 years of age
10. Number of households with adolescents
11. Number of each questionnaire type completed
12. Average time taken to complete the interview by respondent type
13. Average time taken to complete each module

These metrics—combined with data on interview duration, the number of surveys completed per day, and the frequency of outliers or inconsistent responses—will help determine whether an interviewer requires additional training or might be fabricating data. Feedback on interviewer performance will be based on these checks, ensuring interviewers understand areas where they can improve, thereby reinforcing data quality across the board.

To complement the data quality assurance approach described, the table and figures below could include an overview of the key metrics being tracked. Table 2 and Figure 1 provide an example of what that table and corresponding figures might look like.

Frequency: Checks ongoing daily, reporting weekly

Table 2. Example Table: frequency check of household data collection

Metric	Percentage
Number of households selected	100
Number of households completed	85
Number of households refused	10
Number of households remaining	5
Number of households with WRA	65
Number of households with CRW	35
Number of households with WRA pregnant in the last 2 years	20
Number of households with children under 2	30
Number of households with children under 5	40
Number of households with adolescents	25
Number of each questionnaire type completed	Various (by type)

Figure 1. Example tables and figures for frequency checks



Additional examples:

1. Bar chart: Number of households by key categories (WRA, CRW, Under-2, Under-5, Adolescents)

These bar charts could visually depict how many households fall into each category (WRA, CRW, etc.), giving an immediate sense of data distribution across key household demographics.

2. Line graph: Progress of household completion over time

Such graphs could show the cumulative number of households completed over time for each EA, helping identify any delays or inconsistencies in field progress.

3. Pie chart: Completion vs. Refusal Rate

These kinds of pie charts could represent the proportion of households completed versus those that refused, giving a quick snapshot of response rates in each EA.

4. Bar chart: Average time taken for the interview by respondent type and by modules

iv. Modifications to raw data

Following the central-level data review by icddr,b, any necessary changes to the raw dataset must be documented and communicated to IFPRI. The preferred method is to make adjustments using a shared STATA do-file. If the survey partner identifies inconsistencies that require modifications to the raw dataset, these will be made directly in the shared STATA do-file. Alternatively, the survey partner may send a detailed email outlining the errors or required changes, and IFPRI will incorporate them into the STATA do-file.

III. Preliminary data analysis: Cross tabulations

Cross-tabulations are key tools for initial data exploration and quality assurance by IFPRI. These tables summarize important variables across different groups, allowing for the early identification of patterns, inconsistencies, or unexpected results during the review process. Cross-tabulations can reveal discrepancies that may indicate data errors or misreporting, prompting further investigation.

Prior to data collection, IFPRI will develop dummy cross tables and set up a STATA do-file to export these tables as an excel file. Cross-tabulation may vary for different variables. A few examples include tabulating coverage of interventions during pregnancy by wealth quintile, districts etc. Such cross-tabulations are not only helpful for data quality checks but also serve as a quick reference for planning analyses, even after data collection is complete.

This step will be completed once the final dataset is received.

I. Preliminary data analysis: Estimates related to various indicators

An essential part of quality assurance involves examining estimates for key indicators. This includes checking whether estimates align with known benchmarks (for example comparing our estimates with estimates in the Bangladesh Demographic and Health Survey, 2022 if available), prior research, or logical consistency. Any unusual or unexpected estimates will be flagged and reviewed to ensure they are not due to data collection errors, coding issues, or survey design biases. IFPRI will setup a STATA do-file to execute these checks.

A few examples of indicators to check during data collection are as follows:

1. Received any iron supplementation in the past 3 months
2. Received MM supplementation in the past 3 months
3. Received deworming tablets in the past 6 months
4. Received food supplements/NSSP foods in the past month
5. Received nutrition or health education in the past month
6. Number of Iron-containing supplementation received in the past 3 months



**SEE COMPLETE
LIST OF
INDICATORS
[INDICATORS LIST](#)**

This step will be completed once the final dataset is received.

II. Data sharing and protection

All data collected through the ONCS must adhere to strict confidentiality protocols to secure personally identifiable information (PII), and ensure it is accessible only to authorized personnel (Gulshan Ara, Md. Jahiduj Jaman, Rafid Hassan and Samira Dilruba Ali). Data must be encrypted both in transit and at rest, and stored in a secure, confidential repository. Data will be synced in the icddr,b's server from the field. IFPRI will set up a confidential Dropbox folder to save the data from icddr,b's server. Additionally, icddr,b wherever possible, will anonymize data to protect respondent privacy. The same protocol should be followed when sharing the household listing data.

Any data sharing with external stakeholders must comply with legal and ethical guidelines, requiring the necessary consents to be obtained beforehand.

III. Establishing Regular Coordination and Feedback Mechanisms

Lastly, it is essential to maintain regular feedback loops throughout the data collection process. This includes conducting weekly meetings between the core IFPRI team and key members of icddr,b during both the data collection and data cleaning phases. These meetings will facilitate sharing survey updates, discussing data trends, and addressing any unexpected results. Additionally, they will cover updates on scheduling, challenges encountered, and any required protocol adjustments, ensuring both teams remain aligned throughout the process.

Frequency: Weekly and more regularly as needed

IV. APPENDIX

Appendix Table 1. Quality control roles and responsibilities

Title	Quality control roles and responsibilities
Survey coordinator	Survey coordinator will lead the Quality Control (QC) team
Senior Research Officer (SRO)	SRO will resolve issues that cannot be addressed by supervisors. He/she will coordinate standardized solutions across sites, oversee translation changes, and report to key IFPRI members before implementation.
Data Management Officer (DMO)	DMO will conduct data checks for de-identification, duplication, and validation. DMO will correct typos, unusual responses and translate “others specify” fields and comments from interviewers.
Supervisor	Supervisor will be responsible for spot checks, managing co-supervisor activities, resolving issues during data collection and organizing daily debriefing meetings.
Co-supervisors	Co-supervisor will conduct interview observations and perform questionnaire checks.
Quality control (QC) team	Quality Controllers will visit study sites independently to observe interviews, record responses on tablets and provide feedback to interviewers on techniques and probing methods.

Appendix II: ONCS Quality Control QC Observation Checklist (Data collection tool to be programmed in Kobo ToolBox)

ONE NUTRITON COVERAGE SURVEY QUALITY CONTROL (QC) OBSERVATION CHECKLIST

Administration level 1 (Division) [Select from drop-down list]
Administration level 2 (District)..... [Select from drop-down list]
Administration level 3 (City corporation) [Select from drop-down list]
Administration level 4 (Upazila) [Select from drop-down list]
Administration level 5 (Union)..... [Select from drop-down list]
Administration level 6 (Mouza) [Select from drop-down list]
Administration level 7 (Village)..... [Select from drop-down list]
Administration level 8 (Enumeration Area)..... [Select from drop-down list]
Household number [Ask your enumerator]
Supervisor or Quality controller ID..... [Select from drop-down list]
Date..... [Auto filled]

Q.NO.	GENERAL INTERVIEWING SKILLS	RESPONSE
1.	Did the interviewer identify the correct structure, dwelling, and household?	01. No, explain _____ 02. Yes
2.	Did the interviewer administer the informed consent forms correctly? Did the interviewer respond appropriately to questions/concerns about the survey?	01. No, explain _____ 02. Yes
3	Did the interviewer administer the questions as they were written? If not, note which questions were not asked appropriately.	01. No, explain _____ 02. Yes
4	If the respondent answered, "I don't know", did the interviewer appropriately probe for a response?	01. No, explain _____ 02. Yes
5	Did the interviewer remain neutral during the interview?	01. No 02. Yes
6	Was the interviewer polite, patient, and respectful with the respondent?	01. No 02. Yes
7	Did the interviewer correctly use the CAPI and save all completed forms? Did all modules turn blue before syncing?	01. No 02. Yes
8	Did the interviewer complete the household listing correctly, identifying all the eligible household members to interview for the survey?	01. No 02. Yes
9.	Did the interviewer correctly observe:	

9.1	The main material of the roof?	01. No 02. Yes
9.2	Observe availability of water at the place for handwashing?	01. No 02. Yes
10	Did the interviewer correctly fill in and probe for the month and year for dates of birth? If no, briefly summarize any errors.	01. No, explain _____ 02. Yes
11	Did the interviewer use the visual aid per protocol? If no, summarize any errors.	01. No, explain _____ 02. Yes
12	Did the interviewer ensure that there was privacy?	01. No, explain _____ 02. Yes
13	Did the interviewer encounter any challenges that affected the quality of data (e.g., respondent refusal, technical issues, distractions)? How did the interviewer address these challenges?	01. No, explain _____ 02. Yes
14	Was the interviewer able to complete interviews within the expected timeframe based on the number of household respondents?	01. No, explain _____ 02. Yes
15	Did the interviewer make the respondent feel comfortable and engaged throughout the interview process?	01. No, explain _____ 02. Yes
16	Did the interviewer verify and cross-check responses for consistency and accuracy during the interview? [YES/NO]	. No 02. Yes

17	Did the interviewer follow all fieldwork protocols, including dress code and ID display?	01. No 02. Yes
18	Is a re-interview of this household required based on issues noted?	01. No, explain _____ 02. Yes
19	OVERVIEW: Please note any strengths, weaknesses, and recommendations that might help the interviewer improve.	[FREE TEXT]
QC Checklist to assess supervisor's performance		
1	Supervisor/co-supervisor's name	[Drop-Down List]
2	Is the supervisor/co-supervisor properly fulfilling their duties?	01. No, explain _____ 02. Yes
3	Did the supervisor/co-supervisor debrief at the end of the day?	01. No 02. Yes
4	Did the supervisor/co-supervisor randomly check the data before syncing it?	01. No 02. Yes
5	Has the supervisor/co-supervisor taken any initiative to improve the work quality of the data collector?	01. No 02. Yes