ANNEX 3: METHODS OF MEASUREMENT

3.1 HOUSEHOLD SURVEYS

Household surveys are a data collection method in which information is collected from homes where people live. This is done by interviewing one or more persons at each home that represent the household. Household survey uses interviewer administered questionnaires in which the interviewer visits each household. When not all households can be visited a sample method can be used to reduce the number of households to visit. Key is that the selection of the sample is representative for the larger population to get accurate results.

Advantages:
- Household surveys are common as they allow for very standardised ways of data collecting.
- People are familiar with their use.
- Most people live in households so the population is largely covered in a household survey.
- People are usually at ease to be interviewed at home.
- A large number of households in surveys allows for precise results.

Limitations:
- Respondent needs to be at home for interview.
- Need to be willing to respond on sometimes sensitive issues.
- Respondent at the household might not be representative for the whole household.
- Respondent might not recall accurately past experiences.
- Questions might not be clear or in an unfamiliar language.
- Respondent might not be familiar with the topic and its related concepts.

Many of the limitations can be mitigated by a proper training of survey staff and testing (or piloting) of the questionnaire before their use.

UNSTAT provides a good manual on household surveys “Household Sample Surveys in Developing and Transition Countries” covering theory and practice:

http://unstats.un.org/unsd/hhsurveys

Examples of household surveys by the Centre of Disease Control for Water safety plans:

3.2 FOCUS GROUP DISCUSSION

A focus group discussion is a good way to gather together people from similar backgrounds or experiences to discuss a specific topic of interest\(^1\). It is a mean to collect qualitative data, or data that is descriptive in nature, rather than data that can be measured and subjected to mathematical and statistical analysis\(^2\).

Focus groups can vary in size, but many experts suggest the group should optimally consist of 10 to 12 people. The group of participants is guided by a moderator (or group facilitator) who introduces topics for discussion and helps the group to participate in a lively and natural discussion amongst themselves. A typical focus group session will last between one and two hours.

Focus groups are a useful method to\(^3\):
- investigate complex behaviour
- discover how different groups think and feel about a topic and why they hold certain opinions
- identify changes in behaviour
- investigate the use, effectiveness and usefulness of particular library collections and services
- verify or clarify the results from surveys
- suggest potential solutions to problems identified
- inform decision-making, strategic planning and resource allocation
- to add a human dimension to impersonal data
- to deepen understanding and explain statistical data.

<table>
<thead>
<tr>
<th>The main advantages:</th>
<th>The main disadvantages:</th>
</tr>
</thead>
<tbody>
<tr>
<td>they are useful to obtain detailed information about personal and group feelings, perceptions and opinions</td>
<td>there can be disagreements and irrelevant discussion which distract from the main focus</td>
</tr>
<tr>
<td>they can save time and money compared to individual interviews</td>
<td>they can be hard to control and manage (require some experience)</td>
</tr>
<tr>
<td>they can provide a broader range of information</td>
<td>they can be tricky to analyse</td>
</tr>
<tr>
<td>they offer the opportunity to seek clarification</td>
<td>they can be difficult to encourage a range of people to participate</td>
</tr>
<tr>
<td>they provide useful material eg quotes for public relations publication and presentations</td>
<td>some participants may find a focus group situation intimidating or off-putting; participants may feel under pressure to agree with the dominant view</td>
</tr>
<tr>
<td></td>
<td>as they are self-selecting, they may not be representative of non-users.</td>
</tr>
</tbody>
</table>

3.3 SEMI-STRUCTURED INTERVIEWS

This method can be used to collect data from traders.

A semi-structured interview is a method of research used in the social sciences. While a structured interview has a rigorous set of questions which does not allow one to divert, a semi-structured interview is open, allowing new ideas to be brought up during the interview as a result of what the interviewee says. The interviewer in a semi-structured interview generally has a framework of themes to be explored\(^4\).

---

1. www.odi.org/publications/5695-focus-group-discussion
2. www.evalued.bcu.ac.uk/tutorial/4b.htm
3. Adapted from and http://study.com/academy/lesson/focus-groups-definition-advantages-disadvantages.html
However, the specific topic or topics that the interviewer wants to explore during the interview should usually be thought about well in advance (especially during interviews for research projects). It is generally beneficial for interviewers to have an interview guide prepared, which is an informal grouping of topics and questions that the interviewer can ask in different ways for different participants. Interview guides help researchers to focus an interview on the topics at hand without constraining them to a particular format. This freedom can help interviewers to tailor their questions to the interview context/situation, and to the people they are interviewing.

Usual steps in conducting semi-structured interviews include (Harrell and Bradley, 2009):

- Frame the research,
- Sampling
- Designing questions and probes
- Developing the protocol
- Preparing for the interview
- Conducting the interview
- Capturing the data

### 3.4 REVIEW OF SECONDARY DATA SOURCES

Secondary data analysis is the analysis of data or information that was either gathered by someone else or for some other purpose than the one currently being considered, or often a combination of the two. If secondary research and data analysis is undertaken with care and diligence, it can provide a cost-effective way of gaining a broad understanding of research questions.

Secondary data is also helpful in designing subsequent primary research or can provide a baseline with which to compare primary data collection results. Therefore, it is always wise to begin any research activity with a review of the secondary data. Secondary data sources include government documents, official statistics, technical reports, scholarly journals, trade journals, review articles, reference books, research institutions, universities, libraries, library search engines, computerized databases, the world wide web etc.

#### Questions to consider when evaluating secondary data quality:
- Is source credible?
- What methods were used?
- Is the information up-to-date?
- Who is intended audience?
- Is the document’s coverage of the topic area broad or too narrow?
- Is it a primary or secondary source? If it is a secondary source, does it accurately cover and report on the primary sources?
- Does the author provide references for the data and information reported?
- Do the numbers make sense? Are they the numbers you want – cases versus percentages? When compared to related data are the measures somewhat consistent?

For tips on collecting, reviewing, and analysing secondary data, please see: https://cyfar.org/sites/default/files/McCaston,%202005.pdf

---

5 Adopted from https://cyfar.org/sites/default/files/McCaston,%202005.pdf
3.5 MARKET MONITORING

Prices, availability and stock levels of essential WASH NFIs is collected weekly within the first month after the intervention, and later once a month to enable tracking of prices over time. The data will be used to assess the programme’s impact on supply, demand and pricing in the market system. Example of the tool for data collection are presented in below.

EXAMPLE OF THE PAPER-BASED MARKET MONITORING FORM

<table>
<thead>
<tr>
<th>Questionnaire Number</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time at the beginning of the interview</td>
<td></td>
</tr>
<tr>
<td>1.1 Name of data collector</td>
<td></td>
</tr>
<tr>
<td>1.2 Name of trader interviewed</td>
<td></td>
</tr>
<tr>
<td>1.3 Trader contact phone number</td>
<td></td>
</tr>
<tr>
<td>Location of Shop</td>
<td></td>
</tr>
<tr>
<td>1.4 Village / Town</td>
<td></td>
</tr>
<tr>
<td>1.5 District</td>
<td></td>
</tr>
<tr>
<td>1.6 Region</td>
<td></td>
</tr>
<tr>
<td>1.7 Shop type (code)</td>
<td></td>
</tr>
<tr>
<td>(Codes: 1 = kiosk, 2 = retailer, 3 = wholesaler)</td>
<td></td>
</tr>
<tr>
<td>1.8 Name of the market</td>
<td></td>
</tr>
<tr>
<td>1.9 NGO</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No</th>
<th>Item</th>
<th>Quantity</th>
<th>Available (yes=1, no=0)</th>
<th>Stock (pcs)</th>
<th>Price/item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6 Market monitoring form is added to Supplier Survey in SurveyCTO (as a repeating group of questions). SurveyCTO forms are available at https://goo.gl/2NPBEX.
3.6 OBSERVATIONS

Observation is the process enabling researchers to learn about the activities of the people under study in the natural setting through observing and participating in those activities. It can also provide the context for development of sampling guidelines and interview guides. Observations can be done before, during or after conducting interviews but during the household or traders visit. Surveyor can observe:

- Presence, quality and hygiene of sanitation facilities for male and female, as well as presence of handwashing place and MHM facilities,
- If sanitation facilities fulfil Sphere standards related to safety, distance to dwelling and environmental safety,
- If beneficiaries use toilets/latrines instead of open defecation,
- If sanitation facilities and handwashing place is accessible for all, with emphasis if there is an access for people with physical disability,
- Wiping material and baby excreta are disposed of safely,
- If soap (or soap alternative) and water is present together at a handwashing place,
- Handwashing practice with soap and water at any or specific critical event (after using toilet, before the meal).