WHO Household Survey to Measure Access to and Use of Medicines

Long Version

Instructions for Data Collection in Jordan

July 26, 2009

It is important to know…

- *if people have access to essential medicines;*
- *if they are getting medicines that are safe, effective and of good quality; and*
  - *if these medicines are being properly used.*

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1 Introduction

Indicators to measure access to medicines are most often obtained at health care facilities and retail medicines outlets. Little information is available from end users of medicines. While indicators measured at health care facility/provider level are useful, the household survey is an important tool to obtain accurate information on how people obtain and use medicines.

WHO has developed a household survey that measures people's access to and use of medicines when faced with either acute illnesses or chronic diseases. The questionnaire covers health-seeking behavior, as well as source, availability, cost, affordability, and appropriate use of medicines. It gathers information on household practices, as well as beliefs and other factors that influence the decision to seek professional advice or to take medicines. Through this information, the questionnaire provides important data on access to medicines in the community.

It is recommended to complete the household survey at a regular 2-3 year interval. Reports should describe the reference population included in the sample. Details on household sampling are discussed in Section 2.

For practical and logistical reasons, the household survey is implemented in conjunction with the Level II indicator survey (see the *WHO Operational Package for Monitoring and Assessing Country Pharmaceutical Situations*).

2 Sampling

The household survey is intended to be carried out in conjunction with a Level II health facilities indicators survey. Reference health care facilities for the Level II survey are selected *by geographic area, and by level and capacity of health care facilities.* The household survey sample will consist of a certain number of households per reference health care facility. These households will be selected purposively, according to their distance from the facility.

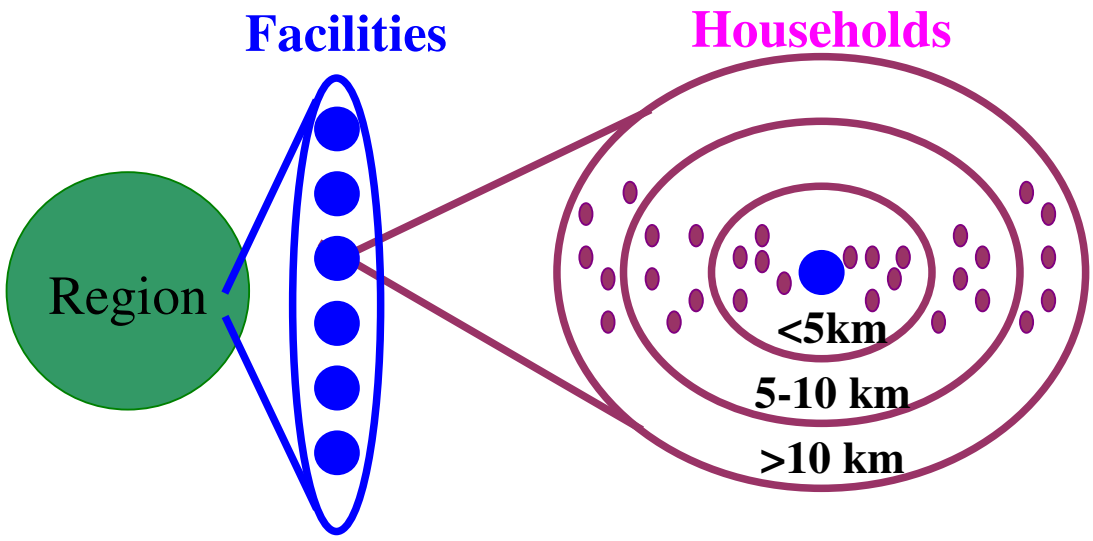
To simplify the logistics of the survey, households will not be selected randomly from a census list, tax list, or other formal listing. Instead, data collectors will select clusters of households at a given distance and in a given direction from the reference health facilities according to guidelines described below. It is important to select households that are reasonably representative of the geographic areas studied in order to obtain survey estimates close to true population values.

2.1 Selecting survey locations

The districts and reference public health care facilities that are included in the Level II survey should have been randomly selected within defined geographic areas. The appropriate methodology is described on pages 23-26 of the *WHO Operational Packages for Monitoring and Assessing Country Pharmaceutical Situations: Manual for Core Indicators on Country Pharmaceutical Situations*. The recommended sample of reference health facilities consists of 36 randomly selected public health care facilities distributed across 6 regions/districts.

Thirty households will be interviewed around each reference health care facility, a total of 1080 households. Assuming a design effect of 2.0 due to clustering (which would double the width of the confidence interval and halve sample efficiency), this size sample will estimate most percentage indicators in the entire survey sample with a 95% confidence interval of +/- approximately 6%.

The quota sample of 30 households per facility should be divided into 6 clusters: ten households (2 clusters of 5) should be selected within a 5 km radius from the facility, 10 households (2 clusters) between 5 and 10 km from the facility, and 10 households (2 clusters) more than 10 km from the facility. Selection of the location of each cluster can be purposive, since it would be impractical to randomly pick the location of individual clusters, especially in areas with low population density. Beginning with the health facility as a central reference point, the clusters should be divided such that they are in two opposite directions, as illustrated in the figure below.



2.2 Selecting households

Within each cluster, select a random starting household at the required distance from the health facility in one of the two opposite directions determined by spinning a bottle. Identify whether it is possible to interview an appropriate household informant (see section 2.3). Not every household will be able to participate in the survey; in such cases, the next household should be chosen as a replacement. After completing an interview (or scheduling one for a later time), skip 3 or 4 households before selecting another household in the cluster. This will minimize including too many households from the same extended family. If the sample is selected in this way, the confidence intervals around estimates in the three subgroups of households at each defined distance from the reference facilities (< 5 km, 5-10 km, >10 km) should be approximately +/-10%.

Interviewers should be trained to use judgment in selecting the households and respondents for the sample. General rules of thumb include:

- Households should not be next to each another;
- Households should not be excluded if respondents are not immediately present but an appointment can be scheduled to interview them later in the same day;

- Households should have an economic status that is generally representative of the area in terms of dwelling condition, size, organization of the household premises, and water supply.

2.3 Selecting an appropriate respondent

After introducing the survey in a given household, the interviewer should seek to identify the best household informant or an appropriate substitute who meets at least three of the following criteria:

- Main health care decision maker
- Most knowledgeable about health of household members
- Most knowledgeable about health expenditures of the household
- Most knowledgeable about health utilization by household members
- Designated care giver for sick household members

It is important to remember that the definition of respondent for the purpose of this household survey is not equivalent to that of household head. It is possible that the respondent meets three of the above criteria without being head of the household.

3 Survey logistics and training

3.1 Selecting data collectors

In general health care workers who deal with medicines can participate in data collection. In most settings, pharmacists, pharmacy assistants, nurses, community health workers, pharmacy or nursing students during periods when they are not in classes can serve as data collectors. Their familiarity with medicines will be very useful. When the household survey is conducted in conjunction with the Level II survey, it is possible to have a combined team composed of local data collectors from the community and national data collectors who are also engaged in the Level II survey.

It may not be advisable for local health care staff to serve as data collectors. First, their perspective as health system employees may consciously or unconsciously introduce bias into the data collection process. If respondents are aware that data collectors work for local health facility, they may tend to make more socially desirable responses. Methods to reduce possible bias should also be discussed during training.

Data collectors should be familiar with the community and local language as this will minimize cultural barriers, e.g. choice of words to explain certain concepts or mistrust of strangers asking questions about family situations. If necessary the household questionnaire should be translated into the local dialect. Safety and security are also better assured if data collectors know the area. They need to have patience and be sensitive to issues that may arise during the introduction and interview.

The best times for data collection will often be early in the morning or late in the afternoon when people are less likely to be at work. As much as possible, interviews should not be conducted at mealtime. With good planning and preparation, a team of two data collectors can survey up to 8

households in one day. In remote areas, it may be advisable to have someone such as a community leader contacting households and scheduling time for the respondents to be at home on a given day and assemble their household medicines beforehand. Such planning will help data collectors and will improve data collection efficiency.

The number of data collectors depends on the sample size (see sampling) and how much time is allotted to do the actual fieldwork. In general, increasing the number of data collectors will allow the survey to be completed in less time, but will involve more complicated training and logistics.

3.2 Training data collectors

This survey will often be carried out as a component of the Level II assessment of the country pharmaceutical situation. As such, training and field-testing of the household survey will either be done at the same time using the same data collectors or at the same time using two groups of data collectors. Generally, doctors, pharmacists, nurses, or students in these disciplines are the most prepared for collecting the Level II data in health facilities and pharmacies because of their familiarity with medicines. As described above, local teachers, NGO representatives, or school leavers can be trained to collect household data. Pairing of teams should be done carefully to ensure optimal distribution of tasks.

Data collectors will be trained to ask survey questions in a standardized way, to prompt without leading respondents to an answer, and fill in answers on survey forms. During training, role-playing exercises are essential for practicing introducing the survey, gaining consent, asking questions, and filling in forms. If the questionnaire must be translated in local dialect, this translation should be done ahead of the training so that translated questions are available during the training. Training should also cover the following questions:

- *Which households should be included /excluded?*

Households should be representative of the economic status of the area. A household will be included in the survey if an eligible respondent can be identified and interviewed on the day of data collection in the local area.

- *Who should be interviewed*?

The ideal respondent is the household member who fits all of the following five criteria. However, an appropriate respondent who fills at least three of the criteria can be substituted.

  - Is main health care decision maker
  - Is knowledgeable about health of household members
  - Is knowledgeable about health expenditures of the household
  - Is knowledgeable about health utilization by household members
  - Is the designed care giver for sick household members

- *How the interview should take place?*

The interviewer should be familiar with all the questions and responses choices of the questionnaire.

  - Accuracy of answers will depend on the skills of data collectors. Problems may arise from rephrasing questions so it is important that the interviewer read each question as it is written, but not the responses unless specified on the questionnaire.
  - The interviewer should listen carefully to the responses provided by the respondent, and record the response by ticking the most appropriate boxes or filling in the blanks as instructed.

- Responses should be marked right away on the questionnaire. Frequent responses that are not included in the options provided should be identified and mentioned to supervisors.
- Any unusual circumstances for a specific respondent should be written on the questionnaire (e.g., elderly respondent unable to hear well or multiple people in the household answering the questions).

3.3 Field testing

Field-testing is an essential component of training. Data collectors will need practice on selecting households, introducing the study, and interviewing household respondents to be certain that they understand all aspects of the survey and to standardize methods. Generally field-testing will be conducted in an area near the training site. During the field test, it is important to use households that will be similar to the ones encountered in all actual survey locations (urban, suburban, and rural).

All persons collecting household data should field test the survey in at least 5 households to gain practice and ensure familiarity with the questionnaire. After the field test, the data collectors should have a chance to ask questions and discuss problems in order to standardize the methods.

3.4 Preparation prior to data collectors training and survey visits

The national coordinator should seek appropriate assistance to create a list of country-specific household assets and obtain a worksheet of household expenditures ranges in advance of the training. Once the list of assets is consolidated, it can be inserted in the final questionnaire. The data coordinator will provide data collectors a printed copy of the table of ranges of expenditures that they will carry when visiting households.

The national coordinator should inform community and health system leaders of the survey in advance and contact them again close to the day of the intended visit. The community leader may play a role in contacting households in advance of the interviews. In some cases, it may be necessary to have local community leaders accompany data collectors as they visit households to ensure trust and cooperation.

4 Instructions for completing household survey forms

4.1 General Instructions

- Data collectors will bring copies of the questionnaire to the interviews. In addition, they will carry additional color-coded sheets corresponding to the acute and chronic modules as well as a reference worksheet describing the 4-week range of household expenditures according to number of household members.

- The interviewer should explain the reason for the survey in simple, clear terms. Participation in the survey is voluntary, and the respondent can refuse to be interviewed.

- Before starting with the questionnaire, the interviewer should identify the household informant (or appropriate substitute), and then go through the Household Informant Consent Form with the respondent. If the respondent agrees to participate, the interviewer should complete the top part of Household Survey Form. If the household informant (or appropriate substitute) is not available or if the respondent does not want to answer questions, the interview will stop and no questions will be asked.

- Consent should be documented according to locally applicable standards for protection of human subjects. In some cases, local community leaders will provide general consent. When individual consent is required, each respondent will be asked to sign an Informed Consent Form before starting the interview. The interviewer must check that the respondent has understood the form before signing it. If the respondent is illiterate or unable to read the consent form (e.g. due to visual impairment), the form should be read by the interviewer and explained to the respondent.

- Interviews with respondents will be face-to-face, in local language(s), using paper and pencil questionnaires. Interviewers will read questions (and possible responses, if indicated) and mark the respondent's answers on the questionnaire. Responses may be verified by repeating the answers or by asking the respondent to explain. If local language is used, the questionnaire should be translated in advance of interviews.

- Every data collector should check their work at the end of each interview to capture transcription errors, omissions, and poor handwriting. In addition, the survey coordinator should check completed household questionnaires for completeness, correct and clear handwriting immediately after collection from interviewers. Systematic errors should be discussed to prevent them from re-occurring.

4.2 Guidelines for completing headers of the questionnaire

- The first line of every page is identical and must be completed as follows:
    - "Survey record number" in dark shade should never be completed during data collection. It is reserved for data entry (see instructions for data entry).
    - "Facility" is the name of the reference facility. This name should always be completed and written on each page of the questionnaire where information is collected
    - Households are numbered according to the reference facility to which they are related, usually 30 households per each reference facility. "Household number" is a