

Antibiotics and Activity Spaces: An Exploratory Study of Behaviour, Marginalisation, and Knowledge Diffusion

Survey Manual and Training Notes

Responsibilities of the Fieldworker

- In general, the responsibilities of the interviewer will include:
 - Locating the households in the sample that are assigned to them, and administering the questionnaires
 - Identifying all the eligible respondents
 - Interviewing all the eligible respondents in the households assigned to them
 - Making call-backs to interview respondents who could not be interviewed during their first visit for whatever reason
 - Ensuring that the information given is correct by keeping the respondent focused to the questions
 - Noting down any issues with the data collection or questionnaire
 - Uploading the recorded interviews

General Points

- **Make a good first impression:** The first impression a respondent has of you is formed through your appearance. The way you dress may affect whether your interview is successful or not. Dress neatly and simply. A good first impression raises the chances of not being rejected, therefore speeding up the survey process. When first approaching the respondent, do your best to make her/him feel at ease. With a few well-chosen words, you can put the respondent in the right frame of mind for the interview. Open the interview humbly, with a smile and greetings, and then proceed with your introduction as specified on your questionnaire. If and when necessary, tell the respondent that his/her cooperation will be highly appreciated and that they will receive a 50 baht gift for their valuable time during the 30-to-45-minute interview.
- **Gain rapport with the respondent:** The villagers should have received a notification from their village heads that we are going to do a survey, so they might not be surprised to see you. Introduce yourself by name and show your identification. Explain the survey and why you want to interview a person in the household, exactly as your introduction tells you to. Be prepared to explain what is meant by confidentiality and to convince respondents to participate if they are reluctant. If the respondent refuses to be interviewed, record this in the questionnaire. Remain calm and polite at all times, and accept without bad feelings if somebody really doesn't want to be interviewed – they may have better things to do!
 - Always have a positive approach. Never adopt an apologetic manner, and do not use words such as “Are you too busy?” Such questions will obviously invite refusal before you start. Rather, tell the respondent, “I would like to ask you a few questions”
 - Always stress confidentiality of the information you obtain from the respondent. Explain to the respondent that the information you collect will remain confidential and that no individual names will be used for any purposes, and that all information will be grouped together and depersonalized when writing the report. Never mention information you received from other respondents because this will automatically erode the confidence the respondent has in you.
- **Probe for adequate responses:** The interviewer should phrase the question as it is in the questionnaire. If the interviewer realizes that an answer is not consistent with other responses, then seek clarification through asking indirect questions or some additional questions so as to obtain a complete answer to the original question. This process is called probing. Questions, while probing, should be worded so that they are neutral and do not lead the respondent to answer in

a particular direction. Ensure the meaning of the original question is not changed. Pause and wait if the respondent is trying to remember difficult items. Ask the respondent to clarify her/his answer if necessary. You may have misunderstood the response. Check for consistency between the answers a respondent gives. Treat the questionnaires as tools that you are using to converse with the respondent. Try to understand and remember the responses, and if there is an inconsistency, ask the questions again.

- **Answering questions from respondent:** The respondent may ask you some questions about the survey or how he/she was selected to be interviewed or how the survey is going to help her/him, before agreeing to be interviewed. Be direct and pleasant when you answer and consider that we have nothing to hide. The respondent may also be concerned about the length of the interview. Please be frank to tell him/her that the questionnaire normally takes 30 to 45 minutes.
- **Interview the respondent alone:** The presence of a third person during the interview can prevent you from getting frank and honest answers from the respondent. It is, therefore, very important that the interviews are conducted privately and that all the questions are answered by the respondent only. If other people are present, explain to the respondent that some of the questions are private and request to talk to her/him while alone. However, we also realise that this is not always possible and some respondents might feel more comfortable having a friend or family member with them when answering the questions. If this happens, you will be able to record the presence and involvement of other people at the end of the questionnaire.
- **Handling hesitant respondents:** There may be situations where the respondent simply says, "I don't know," or gives an irrelevant answer or acts in a manner suggesting he/she is bored or contradicts earlier answers. In all these cases, try your best to make him/her get interested in the question. Spend a few moments talking about things unrelated to the interview (e.g. his/her town or village, the weather, his/her daily activities etc.). If needed, it may also help to remind the respondent that he/she will receive a small gift in the end.

Selecting, Approaching, and Interviewing the Respondent

- We have randomly pre-selected households in a village. The supervisor will instruct each fieldworker in the village/segment how to reach these houses. Within the household, one respondent will be selected – this need not be the respondent who is first encountered, but any person above the age of 18. If the selected respondent is not at home, make an appointment if necessary, visit them at their current location (e.g. in the field) if possible. Or revisit the household later.
- Once a household is selected, approach it and kindly introduce yourself. Make clear that you intend to interview one person for one hour in return for a small gift. Then complete the enumeration by recording all household members – the questionnaire software will select the respondents from those who are above 18 years and who will be available for the interview.
- The interviewer and the respondents are strangers to each other and therefore one of the main tasks of the interviewer is to establish trust and rapport with the respondent. The respondent's first impression of you will influence her/his willingness to participate in the survey. Make sure that your appearance is neat and you also appear friendly as you introduce yourself.
- On meeting the respondent, the first thing you do is to introduce yourself, stating your name, organization you are working for, the objectives of the survey, and what you want the respondent to do for you. Try to avoid long discussions on issues which are not related to the survey and which may consume a lot of time.
- After building rapport with the respondent, ask questions slowly and clearly to ensure the respondent understands what he/she is being asked. After you have asked a question, pause and give the respondent time to think. If the respondent feels hurried or is not allowed to form his/her opinion, he/she may respond with "I don't know" or give an inaccurate answer.
- Specifically, the following guidelines will guide you on how to handle interviews:

- Ensure that you understand the exact purpose of the survey and each question. This will help you to know if the responses you are receiving are adequate.
- Remember the survey schedule, and remember that you are part of a team. Do not stay and talk for too long, but do not rush the interview either.
- Ask the questions exactly as they are written (at least as much as this is possible in practice). Small changes in wording can already alter the meaning of a question.
- Ask the questions in the same order as they are given on the questionnaires. Do not change the sequence of the questions by skipping forwards and backwards.
- Help your respondents feel comfortable, but make sure you do not suggest answers to your questions. For example, do not ‘help’ a respondent remember the various healthcare providers in and around the village because we want to hear what they can think of.
- Do not leave a question unanswered unless you have been instructed to skip it. Questions left blank are difficult to deal with later. In the office it may look as though you forgot to ask the question. Always write a 0 when a “zero” answer is given or “NA” if a question is not applicable. For some questions, the code “Don’t know” will already be provided, and you can choose this response if you are sure that the respondent is unable to provide you with an answer. In questions where a code “Don’t know” response is not printed on the questionnaire, you must make sure that the respondent comes up with an answer. If an answer does not match the category of a text field (e.g. number of doses of medicine), then record “999.”
- With some exceptions, you do not normally read out the answer categories because we want to hear what the respondent thinks, and a long list of answer options will be confusing for the respondent. Sometimes, the respondent’s answer will not fit the given options exactly, which means that you have to ask for clarification and/or translate it into the categories in the questionnaire.
- Record answers immediately on the questionnaire when the respondent gives you the responses. Never rely on writing answers in a notebook for transfer to the questionnaire later.
- Check the whole questionnaire before you leave the household to be sure it is completed correctly.
- Thank the respondent for her or his cooperation and giving you time to interview her/him. Do not forget to hand over to the respondent the small gift that we provide. Avoid overstaying in the respondent’s household even if he/she is very friendly and welcoming.

How to Fill in the Survey Questionnaire

General Remarks

- **Answering questions**
 - Find a comfortable place for the interview. Sit in front of the respondent or in a place where what you record cannot easily be seen by the respondent. It is better not to show the informant or respondent what you are writing or recording unless they really want to see it. Be as discrete as possible while documenting responses or taking notes.
 - Do not hold the tablet with the questionnaire like a barrier between you and the respondent.
 - Try to record answers while the informant/respondent is talking. This will help reduce the interview time.
 - For open text answers, record ideally what is said and the way it is said, and check your spelling if there is enough time
 - Don't get too absorbed recording. Keep the respondent’s interest by saying the respondent’s response aloud as you record it.

- **Corrections**
 - Questions can be corrected during the interview or before uploading by navigating to the question and saving the questionnaire form.
- **Question styles**
 - Not all questions have the same format.
 - **General questions (without instructions):** General questions may have answer categories, may be open-ended, or may be both (e.g. one answer category is “other”, which requires to add extra information).
 - **General questions with answer categories:** Do not read out the answer categories unless (a) you are instructed to, (b) the respondent asks you what the categories are, or (c) the respondent is unsure. For example, when asking “What is your current marital status?”, the respondent might respond immediately, but if they don’t know what kind of answer we expect, then it will be helpful to explain: “The possible answers are ‘never married’, ‘currently married’, ‘cohabiting’, ‘separated or divorced’, or ‘widowed.’”
 - **General questions without answer categories:** For these questions, the respondent is expected to report a number (e.g. the highest grade of education) or a word or statement (e.g. the main occupation). If it is a word or statement, it is important to record this as accurately as possible if time permits.
 - **General questions with categories and “specify” instruction:** Some questions have answer categories, but it is not possible to cover all kinds of responses. For example, we ask in Question 14.9i why people used a mobile phone during an illness. We have eight different options, but that may not be all. So the respondent may say something that is not in our list. This would require you to also code “Other (specify)” and to fill in the response on the next screen as clearly as possible. You can also use this answer category if you are not sure where a response would fit, and we can then categorise it later.
 - ***Record as observed* or *Interviewer assessment:*** These questions are not asked to the respondent, but being entered by the fieldworker as observed. For example, it may be inappropriate to ask a person for their sex because it can normally be seen. However, when filling in these questions, make clear what you are filling in so as to not leave the respondent wondering what is being done. For example, in the case of Question 1 (Sex), simply state that you are recording that the respondent is a man or a woman.
 - ***Mark all that apply:*** Sometimes one question can have more than one answer. For example, we ask in Question 14.9e why the respondent has chosen a particular treatment during an illness, and there may clearly be more than one reason (e.g. the respondent ran out of medicine and the illness got worse). All these answers can and should be recorded.
- **Skips**
 - Skip instructions are given in the paper version of the questionnaire to ensure that you understand the logical flow of the question, but they do not appear on the tablet that you are using. Instead, the tablet will automatically skip irrelevant questions and go directly to the relevant questions.

Questionnaire Items

Interview Data

- Prior to the interview, the fieldworker will be allocated a number of houses, and every investigator should try to interview at least 5 people in one day, but ideally more. If a selected house cannot be interviewed (e.g. because it turns out that nobody lives there), then you will record this house as unavailable in the questionnaire and then proceed with the nearest neighbour of that house.
- Note that household members are those who normally live together in the same dwelling and eat together for more than six months per year, who share the same living arrangements and may or may not be related. People who have separate eating arrangements would be considered separate households. A household is not necessarily the same as a family.

Statement of Consent

- After having selected and approached the potential respondent, read out the statement of consent to the respondent. You may change the wording of these introductory sentences as appropriate, but do retain the same content. Only start the audio recording of the consent process after the respondent has agreed to it, and afterwards record in the questionnaire whether the respondent has given consent for the interview and the sharing of data. Some respondents may say that they want to hear all the questions first before making a judgement on data sharing, in which case the consent to data sharing can be given also at the end of the interview.
- Don't forget to fill in and sign the "record of oral consent" form and remember that a person's participation in the survey must be on a voluntary basis, and potential respondents must never be forced or tricked into participation.
- Should a respondent refuse, then thank him/her and select another adult household member on the basis of availability. Should nobody in the house consent to be interviewed, then you can stop the questionnaire and select the again the nearest neighbour of that house for enumeration and interviewing. Later, discuss the refusal with your supervisor.

Part I: Personal and Household Characteristics

- **Question 1:** Record the gender of the respondent as observed.
- **Question 2:** Record the age of the respondent in years. Some older respondents may not know their exact age, which is not uncommon. If the respondent cannot (or does not want to) give an exact age, ask for the approximate age within a range. The possible ranges are 18-24, 25-34, 35-44, 45-59, and 60 and older.
- **Question 3:** Record the work that the respondent carries out. The respondent may have more than one occupation at the same time or during the year. The main occupation is the activity that the respondent spends the most time with throughout the year. The respondent may not have an income-generating occupation, so it is also important to record whether he or she is student, retired, unemployed, or working at home on a farm for subsistence, for example.
- **Question 4:** Record the mother tongue of the respondent. This is the language they speak normally at home. If the language is anything other than Thai (in Thailand) or Lao (in Lao PDR), then you will be prompted on the next screen to specify the mother tongue of the respondent.
- **Question 5:** If the respondent indicated before that their mother tongue is not Thai/Lao, then ask the respondent whether they can speak this language.
- **Question 6:** Record the highest grade of schooling completed. This is the highest grade from primary school onwards (nothing before primary school). For example, if the respondent repeated the first grade of primary school but then completed the fourth grade before leaving the school, record "4". If the respondent completed six grades of primary school and three grades of secondary school, record "9". It is important to record the number of completed grades, not the total number of years spent at school.
- **Question 7:** Record "yes" if the respondent is also the head of the household. Note that a household head is a usual resident member of the household acknowledged by the other members of the household as the household head. This person may be acknowledged as the head on the basis of age (older), sex (generally, but not necessarily, male), economic status (main provider), or some other reason. It is up to the respondents to define who heads the household. You are not required to assess who the household head is most likely to be, or whether the person stated as the household head has the relevant characteristics to be the household head.
- **Question 7.1:** If the respondent is not the household head, then this question will ask for the name of the household head in the network survey.
- **Question 8:** Ask the respondent for their current marital status. Somebody who has never married or is divorced but is living together with a partner should be recorded as currently "cohabiting." Somebody who is divorced and married again should be recorded as "currently married."

- **Question 9.1-9.4:** Ask the respondent whether his or her parents, spouse, siblings, and children live outside the respondent's village and circle the answer. If the respondent does not have for example a spouse, record "no." Parents and brothers and sisters "in-law" are not to be included here. If any of the persons lives in another hamlet of the same village, then record "no."

Part II: Social Networks

- These questions are only being asked in the first round of the social network surveys and during training. In the second round of the social network survey, we will only check whether everything has stayed the same.
- **Question 10:** We want to understand where the respondent might spend time with other people so that we can later find out who is hanging out in the same places and might therefore talk about health and share information with each other. We are therefore interested in the locations where the respondents spend most of their time with other people, rather than every single place where they might see people. Because the answers are specific to each village, we will record places in free text, so try to be as specific as possible so that we can later find out whether two people spend time in the same location. We would assume that if you do not fill out information on a location that the respondent has not mentioned it. For example, if the respondent simply says that she spends time at "the temple" but provides no further details (name or location), then record "yes" for temple.
- **Question 11:** This question aims to construct a social network of adults in a village, which means that we try to understand who talks with whom on a regular basis – outside of their household. At this point, we want to understand the 10 most important relationships (we ask more questions specifically on health-related conversations later).
- **Question 11a:** Please record the nickname, and, if known, the official name of the person.
- **Questions 11b-e:** To be able to create a network of relationships, we need further information about the people so that we know who is who if several people happen to have the same name. We therefore ask how the respondent is related to named contacts, what their sex is, where they live, and what the name of the household head (or their parents) is. For contacts who live within the village, we need a description of where they live so that we can match the names later. For example, it would be helpful to know in which direction from the house the contact lives, how far away, or whether there is any important building nearby. If somebody of the respondents' contacts lives outside of this village, then we still want to know that, but we do not need detailed information about their names, family relationships, or place of residence.
- **Questions 11f-h:** We want to understand what kind of interaction takes place between the respondent and the named contacts, so we ask how often they talk with each other, how they do that (e.g. on the phone), and whether they talk about health and well-being at all.
- **Question 11i:** We ask whether the respondent talks with anybody in their household about health.
- **Question 12:** In the second survey round of the network survey, we want to find out whether the respondent had participated in, or heard anything about, our educational activities. First ask the respondent whether he or she participated in the activity (**Question 12.1**) – they may have only attended parts of it, however. Because there might have been other activities in the village over the past two months, it will be helpful to mention that this was the activity that lasted half a day (Chiang Rai) / 2 days (Lao PDR) and involved things like a chair game, poster-making, and storytelling (Chiang Rai) / role playing (Lao PDR). Regardless of whether the respondent attended the activities, you then ask whether they have talked with anybody about them (**Question 12.2**). For up to ten people with whom they talked about the activity, we want to learn whether they talked for example about role plays and acting or about germs, antibiotics, and drug resistance, so that we know whether our message was effective.

Part III: Healthcare Seeking

- **Question 13:** The purpose of this set of questions is to understand the health provider landscape from the point of view of the respondent. It does not matter in this case whether a specific

healthcare provider is actually available in the village, but only whether the respondent knows and considers any providers for treatment. Some of them may be far outside the village (e.g. a private hospital in Chiang Mai / Pakse). If any healthcare provider is considered, then we want to know whether they would consider them for medical treatment, for advice, access to medicine, or any other reason. The response for each healthcare provider consists of two questions:

- First, we ask whether the respondent considers the provider when he/she or her/his children feel unwell.
 - If yes, then we ask the respondent to specify whether that is for treatment, advice, medicine, or anything else.
 - If not, then we ask the respondent to specify whether that is because they are not aware of any such a provider, or whether they know such a provider but simply choose not to go there (e.g. because they don't like it or because it is too far/costly to access).
 - Repeat this sequence for each provider and ask eventually whether there are any other providers or Internet sources that you haven't yet talked about. Ask the respondent to think about them first, and then ask how many there are so that you know how many to record on the next screen. Then for each additional provider, ask the respondent to specify what kind of provider/source it is, and whether it is considered for treatment, advice, medicine, or anything else.
- **Question 14:** This question is for the social network survey only and follows up about the relationships of the respondent. Whereas the first social network question asked about the ten most important contacts generally, this question asks whether there is anyone else with whom the respondent talks about health in particular – regardless of how often they talk. The same logic as in Question 11 applies.
 - **Question 15:** The purpose of these questions is to understand the process through which the respondent receives any kind of care when he or she has an acute illness. We only ask about acute conditions and not chronic/long-term ones that the respondent always has (e.g. diabetes, hypertension). We also ask about the respondents' children if they were involved in the process, but the most important response will be the respondent themselves. We are interested in any acute illness or accident in the last two months, but the illness itself can have lasted longer than that. For example, if the respondent had a 4-month-long fever that was healed in the past 4 weeks, then we would record the whole process from the first day on which the respondent felt sick. In contrast, if the respondent had a 2-week-long fever that was cured 3 months ago, then we would not consider this illness. All this is from the perspective of the respondent, so it does not require a medical evaluation or medical accuracy. The three questions are similar in structure.
 - **Question 15a:** So that we later know to whom the illness refers, please indicate here whether the respondent is reporting their own illness, or the illness of a child if they were involved in it.
 - **Questions 15b and 15c:** If you are talking about the illness of a child, then please enter the information about the child's age and sex.
 - **Questions 15.1 – 15.2:** Ask the respondent to describe briefly the symptoms and record the statement as closely as possible ("e.g. pain and paralysis in left arm", "abdominal pain", "was diagnosed with appendicitis", "had extreme headache and could not focus at all", and so on). This does not require the respondent to have been diagnosed (it can be a lay description), but if he or she received a diagnosis then we will record the diagnosis and its source separately in Questions 15.2a and 15.2b. The sources of diagnoses need not only be doctors but can also include personal contacts or any information looked up on the internet.
 - **Question 15.3:** Ask the respondent when the illness started (or when the accident took place) – from the moment the condition was detected by the respondent (a diagnosis from a doctor may have come much later). This need not be the exact date, but it can be approximate depending how the respondent remembers it. To make the recording easier, the fieldworker can choose whether to record the time in days, weeks, or months, depending on the

response. For example, if the respondent says “it lasted 10 weeks in total”, then please record “Duration: _____ days / 10 weeks / _____ months”. If the duration is longer than 365 days / 52 weeks / 12 months, we regard it as a chronic condition. In this case, ask if there was another condition and begin again from Question 15.

- **Question 15.4:** Ask if the respondent considered the illness or accident as a mild, moderate, or severe illness. Again, the definition is up to the respondent – it does not matter whether we think that it was severe or not.
- **Question 15.5:** You will now capture the healthcare-seeking process step-by-step before going into details of each individual activity. Record up to ten discrete steps in the process, starting from the moment the respondent first had a discomfort. Because it is probable that the respondent initially did not do anything, double-check answers for the first step like “I went to the doctor.” For example, you could ask then: “So you went straight to the doctor when you realised you had a fever? You did not take any rest before that, or were hoping that the fever goes away on its own? I am only asking because many people say that they would wait a few days first.” It is also important that each step is one discrete activity, not multiple ones at a time. For example, going to a pharmacist to get advice and medicine, which is then taken for the next week at home should be considered 2 steps (step 1: go to pharmacist; step 2: treatment at home). (Later, the duration for accessing the pharmacist would be “1 day” and the duration for treatment at home would be “1 week.”) After each step, ask: “What did you do next?” If the answer is difficult to code with the existing categories, then specify it in the free text field. The next questions will remember this sequence of steps and go through them one-by-one:
 - In **Question b**, ask where this activity took place – the intended response is in terms of the time it takes to reach the point of treatment from home. Make this clear without reading out the answer categories (ask: “How long did it take you to get there, or was that at home?”). If the respondent ignored the issue, did nothing about it, or engaged in self-care, it is very likely that this happened at home. It is also possible that a doctor treated the patient at his or her home.
 - In **Question c**, ask how the place of the activity was reached. If the respondent did not travel, then code “at home” and otherwise choose one answer as the primary means of transport (we do not need to reconstruct the entire journey but only want to know how they travelled mainly – e.g. whether they walked or whether they took the bus for most of the distance).
 - In **Question d**, ask how long this stage took and choose days/weeks/months according to the response of the respondent. If only one call was made, if medicine was bought from a pharmacist, or if the respondent went to outpatient treatment at a clinic, then code it as “1 day” (the smallest unit we have here).
 - In **Questions e to k**, ask for any medicine that the respondent received at that stage and how it was used – even if it was only used in later stages. Should the category for the numerical answers (e.g. duration) not match the way in which the respondent took the medicine (e.g. because they took it only if a symptom appeared), then enter the code “999.” Record answers for medicine stored at home only if the actual step is “self-treatment at home.” If a respondent continues to use medicine over several steps, only record the total medicine use in the first of these steps, not repeatedly.
 - **Questions l to m** ask whether a mobile phone was used at this stage in connection with the health condition. This does not mean that the respondent used the phone her- or himself. It could also be that someone else used the phone for her or him. This also includes whether family and friends were called to tell them about the illness, or other private persons were asked for their car, for example. Such examples should be given to make sure that the respondent understands the scope of the question. Every phone use that is in direct connection with the health condition at this stage is to be included here.

It is quite possible that the respondent gives an intuitive answer such as “My mother called the doctor to ask what I should do and he recommended some medicine that I had at home.” In this case, Question i would be coded “ask for advice” and Question j would be coded “call.” If there are more than one different types of use, record them all in the multiple-choice answers for Questions i and j.

- Once you went through all steps of the illness, **Question 15.6** asks whether the respondent has recovered or is still ill or suffering from the condition.
- For the illness as a whole, we also ask in **Question 15.7** again about the people who were involved in the illness, for example by providing advice or helping in any other way. The questions are different for the district and the network surveys:
 - In the district survey, we only ask for summary information, recording in one question all the different kinds of contacts (e.g. spouse and other villagers) and their involvement (e.g. helping with housework and providing medicine).
 - In the network survey, we ask these questions specifically for up to 10 contacts, together with their nicknames and official names.
- Repeat this process for other acute illness episodes that the respondent would like to share.
- **Question 16:** We want to understand how people think about antibiotics, but the word “antibiotic” is often not known or ambiguous. We therefore ask very fundamental questions that will tell us something about people’s understanding and attitudes about antibiotic use. We also try to use the respondent’s language rather than ours. We start the question by showing a picture of common antibiotics, and try to understand if the respondent is familiar with them (**Question 16.1**) and, if so, what words they use to describe them (**Question 16.2**) and for which illnesses they would take them (**Question 16.3**). This technique helps us to understand whether people know what we are talking about even if they have not heard the word “antibiotic” before. Some respondents might indicate that they have seen or used capsules in other colours, which would also be relevant unless they explicitly describe them to be something other than antibiotics (e.g. vitamin pills, herbal medicine).
- You then ask specific questions about the respondent’s attitude about this medicine in **Questions 16.4, 16.5, 16.6, and 16.9** (the last one after a preparatory question on drug resistance). Because there are no clear yes/no questions for this purpose, we consider a range of “desirable” and “undesirable” responses, which are described with examples in the table below. However, a range of responses may fall outside of the desirable/undesirable classification. Based on our tests and cognitive interviews, some respondents might simply not be aware of antibiotics and drug resistance, and feel then very uncomfortable with forcing an answer (“*I don’t know – how do you want me to answer this?*” or uncomfortable silence). Other respondents might or might not be aware, but their answers do not relate to the question and we can therefore not make a judgement whether their attitudes and knowledge are desirable or not (e.g. “*I only know that other people take this medicine often*” in response to Question 15.4). Lastly, the respondent may also actively say that they do not have an opinion about the question.

	Desirable	Undesirable
16.4 Is there any situation for which you would buy this medicine?	Respondent would not buy this medicine without a prescription from a doctor. <i>No, I don't buy those. Only if the doctor says that I should. Why would I buy it?</i>	Considers buying (or has bought) this medicine for self-treatment without a prescription. <i>Yes, you can buy it in the shop over there! I haven't bought it, but why not? Only for a sore throat, not otherwise.</i>
16.5 Do you prefer other remedies such as herbs or cough syrup to this medicine for [sore throat]? [if respondent answered Question 15.3, use their example]	If presented with a choice, the respondent would choose alternatives before using antibiotics. <i>I try to avoid using these chemicals. I treat sore throats with herbal medicine first. I take sponge baths before going to the doctor.</i>	The respondent would intuitively choose antibiotics as a "stronger" medicine than other remedies like cough syrup. <i>I cannot afford to take time off, so I take them. Alternatives are not really effective. If it is really bad, I take it, but not otherwise.</i>
16.6 If you were prescribed this medicine by a doctor and did not finish the course, would you keep it for future use?	Respondent would not store this medicine at home or share it with other people. <i>I do whatever the doctor says. No, you must not do that! I am afraid of having medicine at home.</i>	Respondent stocks antibiotics at home for future use. <i>I do, but only if it is not expired. Yes, because I know my symptoms. Of course I share my medicine!</i>
16.9 Can your drug resistance ("due yah") spread to other people, for example if you sneeze on them?	Respondent appreciates explicitly or implicitly that drug resistance can spread. <i>Not necessarily – depends on the illness really. Yeah, it's scary.</i>	Respondent does not consider the spread of drug resistance. (unawareness is recorded separately) <i>Why would it? It's not a disease! Only if I breastfeed my child – the medicine might not work for the child anymore... (i.e. the chemicals from the medicine are passed on)</i>

- **Questions 16.7 and 16.8:** These questions ask specifically about drug resistance. First, ask the respondents if they have heard about the word "drug resistance," and then ask what they think the word means – irrespective of whether they heard about it. In Lao, there are two related terms about "drug resistance," so we have to ask the question twice. The answer categories are potentially very wide, although we expect that people who have not heard the word before will be very literal in their explanations (e.g. "drugs being resistant" or "the medicine does not work anymore"). Field-code the answers according to how general they are, meaning that you only code in relation to antibiotic/antimicrobial resistance if the respondent explicitly says that e.g. bacteria or microbes become resistant to medicine. For reference. Drug resistance means that infectious diseases caused by bacteria (specifically for antibiotics) or other microbes like viruses or fungi (generally for antimicrobials) do not work any longer because the microbes develop a resistance mechanism. Overuse of antibiotics/antimicrobials contributes to this resistance. Resistance is not specific to people but to microbes, so my antibiotic use can mean that you get a drug-resistant infection.

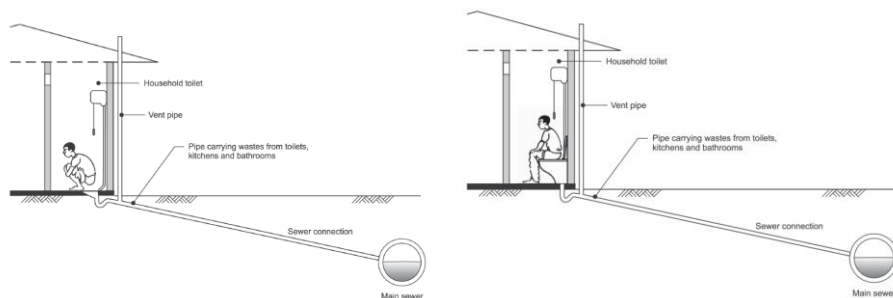
Part IV: Household assets

- People often find it suspicious if you suddenly start asking questions about their house and their assets. Introduce this section therefore by saying that we want to understand their living situation.
- **Question 17:** Ask and record the number of rooms of the household. This does not include toilets / bathrooms or hallways, and it is not limited just to bedrooms (e.g. a 2-bedroom house may also have a kitchen, a storage room, and a living room, which would mean five rooms in total).
- **Question 18:** Ask and record the electricity situation of the household. If the respondent is unsure, read out the categories (but not the percentages). It is very possible that a house has power all the time except during very heavy rainfall – this should be coded as "Power at all times, no power cuts (90-100%)." If these power cuts are long-lasting or otherwise occur also sometimes outside of the rainy season, then the code should be "Power most of the time, occasional power cuts (>50%)."

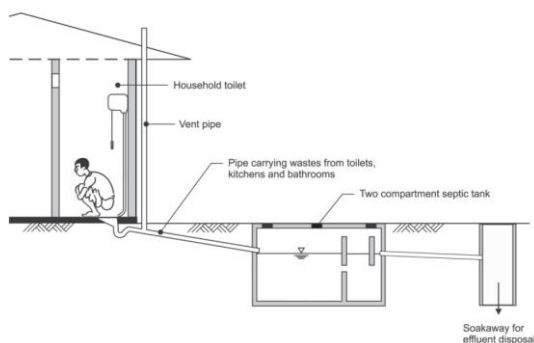
- **Question 19:** Ask the respondent to describe the toilet facilities that they use and whether they are shared. Field-code the answer according to whether the toilet is an unshared flush toilet or a shared flush/non-flush toilet. Below is a list of possible toilets that the respondent might refer to, only the first and second of which are flush toilets. If the house of the respondent has more than one toilet, then choose the “best” unshared toilet (“unshared” means that only the people in teth household or yard use it).

○ The following definitions apply:

- A piped sewer system is a system of sewer pipes, also called sewerage, that is designed to collect human excreta (faeces and urine) and wastewater and remove them from the household environment. Sewerage systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater.



- A septic tank is an excreta collection device and is a water-tight settling tank normally located underground, away from the house or toilet.

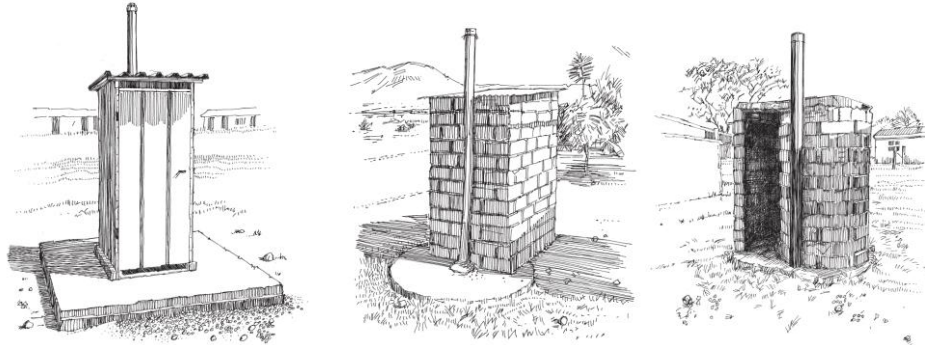


- A flush/pour flush to pit latrine refers to a system that flushes excreta to a hole in the ground and has a water seal.

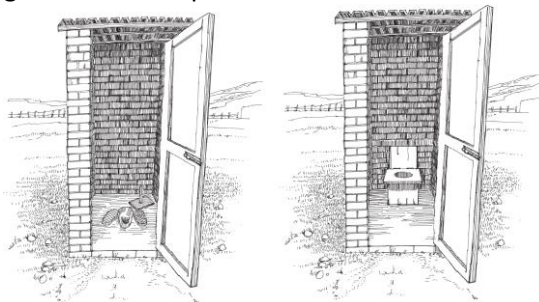


- A flush/pour flush to somewhere else refers to excreta being deposited in or nearby the household environment (may have a water seal but deposited not into pit, septic tank or sewer); excreta may be flushed to the street, yard/plot, drainage way or other location.
- Flush to unknown place/Not sure/DK where should be coded in cases when the respondent knows that the toilet facility is a flush toilet, but does not know where it flushes to.

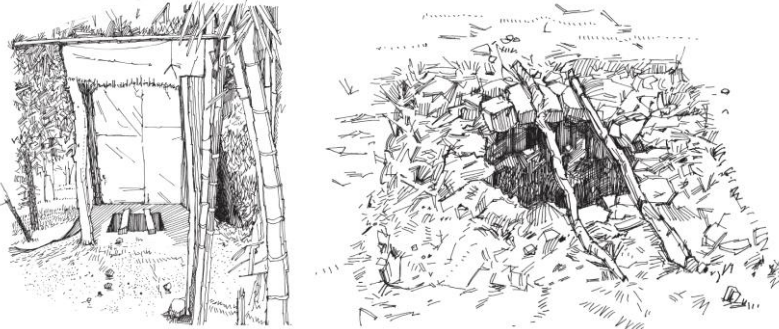
- A ventilated improved pit latrine or VIP is a type of pit latrine that is ventilated by a pipe extending above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting and the inside of the superstructure is kept dark.



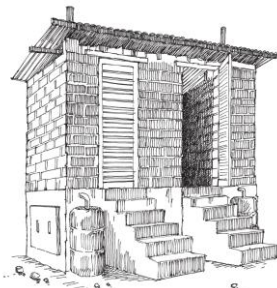
- A pit latrine with slab uses a hole in the ground for excreta collection and has a squatting slab, platform or seat (made of concrete, steel, or wood to allow standing with ease) that is firmly supported on all sides, easy to clean and raised above the surrounding ground level to prevent surface water from entering the pit.



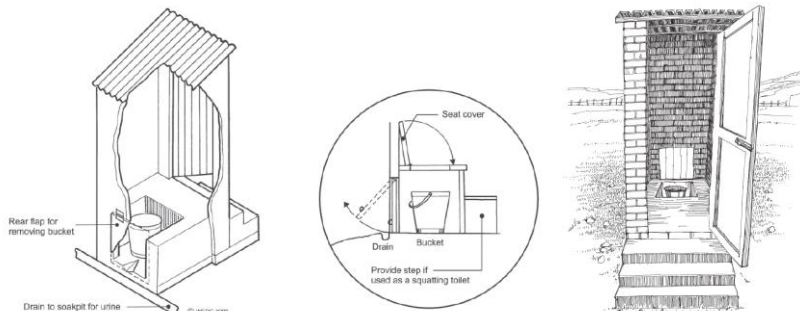
- A pit latrine without slab/Open pit uses a hole in the ground for excreta collection and does not have a squatting slab, platform, or seat. An open pit is a rudimentary hole in the ground where excreta is collected.



- A composting toilet is a toilet into which excreta and carbon-rich material are added (vegetable wastes, straw, grass, sawdust, ash) and special conditions maintained to produce inoffensive compost.



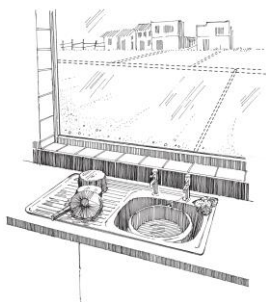
- Bucket refers to the use of a bucket or other container for the retention of faeces (and sometimes urine and anal cleaning material), which is periodically removed for treatment or disposal.



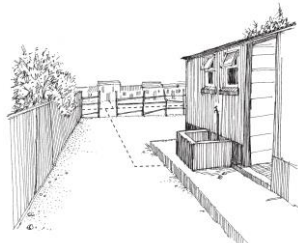
- A hanging toilet/hanging latrine is a toilet built over the sea, a river, or other body of water into which excreta drops directly.



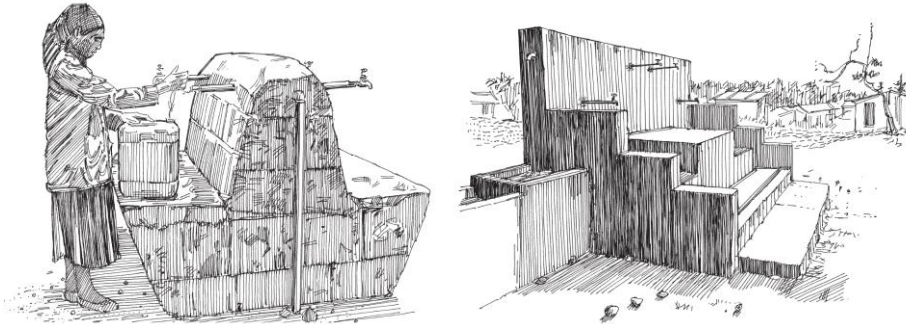
- No facilities/bush/field includes excreta wrapped and thrown with garbage, the 'cat' method of burying excreta in dirt, defecation in the bush or field or ditch, and defecation into surface water (drainage channel, beach, river, stream or sea).
- **Question 20:** Ask the respondent to describe the water source that they typically use and whether it is shared. Field-code the answer accord to whether water is piped directly into the house or yard. Below are illustrations of different types of water sources, of which only the first and second would be coded as "water piped into house or yard."
 - The following definitions apply:
 - Piped into dwelling, also called a house connection, is defined as water service connected by pipe with in-house plumbing to one or more taps, for example, in the kitchen and/or bathroom.



- Piped into compound, yard or plot, also called a yard connection, is defined as a piped water connection to a tap placed in the compound, yard or plot outside the house.



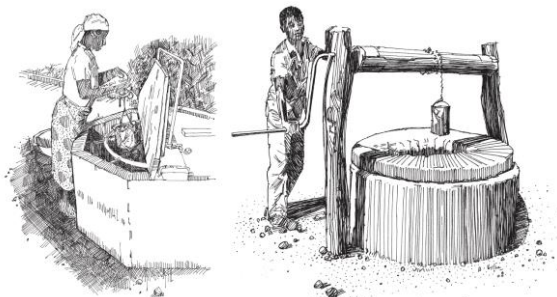
- Piped to neighbour - the household may be obtaining water from a neighbour's house or yard connection.
- A public tap / standpipe is a water point from which the public may collect their water. A standpipe may also be known as a public fountain or public tap. Public standpipes can have one or more taps and are typically made of brickwork, masonry or concrete.



- A tube-well or borehole is a deep hole that has been driven, bored or drilled with the purpose of reaching groundwater supplies. Boreholes/tube-wells are constructed with casing, or pipes, which prevent the small-diameter hole from caving in and provide protection from infiltration of run-off water. Water is delivered from a tube-well or borehole through a pump that may be powered by humans, animals, wind, electricity, diesel fuel or solar energy.



- A protected dug well is a dug well that is protected from run-off water through a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well. Additionally, a protected dug well is covered so that bird droppings and animals cannot fall down the hole.



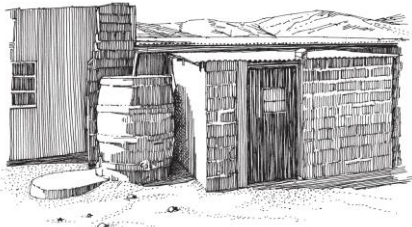
- An unprotected dug well is a dug well for which one or both of the following are true: (1) the well is not protected from run-off water; (2) the well is not protected from bird droppings and animals. If at least one of these conditions is true, the well is unprotected.



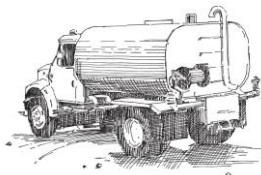
- A protected spring is a spring that is free from run-off and from bird droppings and animals. A spring is typically protected by a 'spring box' that is constructed of brick, masonry or concrete and is built around the spring so that water flows directly out of the box into a pipe without being exposed to outside pollution.



- An unprotected spring is a spring that is subject to run-off or bird droppings or animals. Unprotected springs typically do not have a 'spring box' (described above).
- Rainwater collection refers to rain that is collected or harvested from surfaces by roof or ground catchment and stored in a container, tank or cistern until used



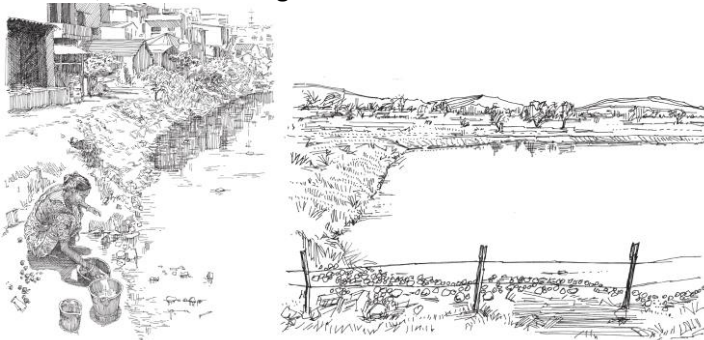
- A tanker-truck water source transports and sells water by means of a tanker truck.



- Cart with small tank/drum is used by a water provider who transports water into a community and then sells the water. Types of transports may include donkey cart, motorized vehicle or other means.



- Surface water is water located above ground and includes rivers, dams, lakes, ponds, streams, canals and irrigation channels from which water is taken directly.



- Bottled water is purchased water sold in bottles. Note that the code refers only to bottled water that is commercially available. Sometimes household members may store water from other sources in bottles – this should not be coded as bottled water.
- **Question 21:** Ask the respondent to describe the cooking fuel source that they typically use. Field-code the answer into improved or unimproved sources. Improved sources are smoke free, for example electric or gas stoves.
- **Question 22.1 to 22.11:** Ask the respondent for each item, whether they have a functioning <ITEM> and, if so, how many. If the item appears to be out of use only temporarily, include it in the count. Do not leave any blank but write “0” in case there are none.
- **Question 23.1 to 23.3:** This question asks for the time it takes the respondent to reach (from their home) the nearest market, village centre / village hall / public gathering place (whichever is closer); and public or private doctor (c). The time is based on the respondent’s normal mode of transport to reach these places, e.g. walking or via motorcycle.
- **Question 24 to 26:** Because these questions are sometimes a bit sensitive, we only ask the respondent now for his or her religion, nationality, and ethnic background. Because not much information is available about the composition of the villages in which we work, there might well be a number of answers that we did not foresee. Please record and specify any new information as “others.”
- The interview ends here. Do not forget to thank the respondents and to give them their cash gift. Then ask for a second to complete the final section on interviewer observations.

Part V: Interviewer Observations

- After the interview has ended, record the following observations outside of the household in the absence of the respondent: Whether the interview was complete (i.e. it was not aborted and no questions were refused or misunderstood), whether anyone else was present during the interview; whether the responses were reasonably trustworthy and accurate; and whether there were any unusual circumstances during the interview.
- If the respondent agreed to participating in the interview, also indicate which message was delivered to the respondent, at what time, and which mode was chosen (this may be done at a later stage if the message was not delivered immediately after the interview).

References

This manual was produced with inputs from the following sources:

UNICEF. (2014). *Multiple indicator cluster survey manual*. New York, NY: United Nations International Children's Emergency Fund.

WHO. (2014). *WHO Study on global AGEing and adult health (SAGE)* Retrieved 9 July 2014, from WHO Web page: <http://www.who.int/healthinfo/sage/en/>

WHO. (2002). *World health survey: guide to administration and question by question specifications*. Geneva: World Health Organization.