Field Officer Manual
Household Questionnaire and Sample Collection

March 2017
This manual is to guide TUMIKIA field officers during cross-sectional parasitological surveys. It relates directly to the Household Questionnaire and Sample Collection Form.

In the Household Questionnaire and Sample Collection Form, households are pre-selected from existing household listings. The form pulls and confirms household information before proceeding with the questionnaire. The questionnaire includes questions on household demographics and education, household assets and construction, water and sanitation access, and observations of the household’s sanitation and handwashing facilities. Household questions were adapted from several sources including Demographic and Health Surveys and the WHO and UNICEF Joint Monitoring Programme and other instruments provided by study collaborators. Using the entered household members, the form randomly selects a member to be asked to provide a stool sample. For selected individuals who agreed to participate, additional questions on their sanitation-related practices, recent deworming, and observations of shoe wearing are recorded. Following the questionnaire, the QR code on the sample pot is scanned to link the collected stool sample with the household questionnaire data. The QR code on this sample pot is also utilised by the laboratory reporting forms.

The form was designed by members of the TUMIKIA Project team and programmed by Dr William Oswald and Stephen Okiya. The manual was produced by members of the TUMIKIA Project team.

Please contact Dr William Oswald (william.oswald@lshtm.ac.uk) if you have any questions about the Household Questionnaire and Sample collection form and Dr Katherine Halliday (katherine.halliday@lshtm.ac.uk) if you have any questions about the cross-sectional parasitological surveys.
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TUMIKIA Project

Section 1: Introduction

The Government of Kenya is committed to eliminating intestinal worms in Kenya. Approximately 15 million Kenyans are estimated to be infected with intestinal worms - hookworm, ascaris and trichuris - and more than 5 million of them are children. The current control strategy for intestinal worms recommended by the World Health Organization (WHO) is annual treatment of all school-aged children. In Kenya, the successful National School-Based Deworming Programme (NSBDP), jointly implemented by the Ministries of Health and Education with support from the Deworm the World Initiative at Evidence Action, covers a large number of school-aged children: 5.9 million children in 2012-2013 and 6.4 million children in 2013-2014.

Building on the success of the NSBDP the Government of Kenya is keen to expand coverage and reach other members of the community also infected with worms. The use of community health workers to deliver deworming treatment to community members is likely to be an effective strategy, while also strengthening current health systems. Knowing who to treat, for how long and how to reach them are vital for designing effective treatment programmes and will help us move closer to elimination of intestinal worms. The ultimate test is to investigate the effect of different deworming strategies within the ongoing national programme.

We want to learn whether combining school- and community-based deworming is a more effective method of controlling and ultimately eliminating intestinal worms in Kenya than school-based deworming alone. We will do this through the TUMIKIA Project, a cluster randomised trial conducted by The Kenya Medical Research Institute (KEMRI) in collaboration with the Ministry of Health and Ministry of Education, Science and Technology, the London School of Hygiene & Tropical Medicine alongside Deworm the World Initiative at Evidence Action and Imperial College London. This is a two-year study nested within the NSBDP.

TUMIKIA Project aims to determine whether combining school and community based deworming is more effective at controlling and eliminating soil transmitted helminths (STH or intestinal worms) in Kenya than school based deworming alone, and what frequency of deworming is required to stop transmission.

To do this a comparison will be made between three different interventions. A total of 120 clusters (community units of approximately 1000 households, comprising varying numbers of villages) will be selected by chance into one of the three groups:

1. **Base**: Annual school-based deworming (2-14 yrs)

2. **Increased coverage**: Annual school- and community-based deworming (2-99 yrs)

3. **Increased coverage & frequency**: Bi-annual school- and community-based deworming (2-99 yrs)
For all three groups, the school-based deworming (both annual and bi-annual) will be provided by the NSBDP, which targets all school-aged children (enrolled and non-enrolled) aged 2-14 for treatment with 400mg Albendazole distributed by trained teachers at primary schools. In groups 2 and 3, community-based treatment of all individuals not treated through the school-based deworming will be delivered household to household by trained community health volunteers (CHVs).

**Evaluation methods**

The primary outcome will be the prevalence of hookworm infection among all sampled individuals during 24 months of follow-up by means of repeat cross-sectional surveys. We selected hookworm among the three STH species because it was common in the study site and occurred at the highest prevalence. It is also the species which contributes most to morbidity, being responsible for the most DALYs lost. New populations of individuals will be selected for each survey (baseline, 12 months and 24 months) due to ethical considerations of treating those found infected during the surveys. Selected individuals will be asked to provide a stool sample which will be examined in duplicate within one hour of preparation using the Kato-Katz method. Individuals found infected will be revisited by the study team and treated with albendazole.

The main secondary outcomes include:

- Prevalence of *Ascaris lumbricoides* and *Trichuris trichiura* in an age-stratified sample, based on expert microscopy and (in a random subsample) PCR.
- Intensity of infection for each STH species, based on quantitative egg counts.
Field officer roles
As a field officer role is to conduct the research evaluation activities. These include:

- Standard baseline and follow up surveys at 0, 12 and 24 months in 120 communities.
  - A random sample of 225 households (HH head and sampled individual)
  - Parasitological outcomes (stool sample), including levels of infection, will be assessed.
  - Household surveys will be conducted to collect information on sanitation and hygiene

- Intensive baseline and follow up surveys every 3 months in 6 communities.
  - A random sample of 225 households (HH head and sampled individual)
  - Parasitological outcomes (stool sample), including levels of infection, will be assessed.
  - 7-day whole stool collection will be carried out to assess worm burden
  - Household surveys will be conducted to collect information on sanitation and hygiene

- Additional activities in all communities:
  - Adherence and coverage of the strategies will be measured using routine and scheduled survey data.
  - Feasibility and acceptability of using CHWs to deworm will be assessed by focus group discussions.
  - The costs and cost-effectiveness of different deworming strategies will be measured.

This SOP describes the standard cross sectional endline survey to be conducted for the TUMIKIA Project.

Teams
- For the standard endline survey there will be 12 teams each with 9 field officers.
- Each team will have its own car every day to take them to the field.
- Each team will cover one cluster across three days sampling a total of 225 individuals
- Each FO team will be linked to a lab technician team, who will read their samples every afternoon. The lab team will be stationed in a lab or dispensary nearby.
- The FO teams will start early in the morning and aim to be finished by 3pm.
- The samples will be delivered to the lab teams and they will prepare and read the slides
- Meanwhile the teams will proceed back to the office, check in, and collect together their materials for the next day.
In addition to the team above there will be 11 other teams in different clusters.

Sample numbers will vary depending on clusters and numbers of call backs per day. Increased numbers of samples are anticipated for days 2 and 3 and less for day one as call-backs will be left.
Section 2: Before Leaving for the Field

There are numerous tasks to be completed every morning before leaving for the field. This section covers the daily preparations for the field. There are **12 teams of 9 field officers**. Responsibilities should be divided up equally within the team so that the whole group is working efficiently, especially in the morning when preparing to leave for the field.

Dress code

There is no uniform for field officers, but a practical dress code is necessary when in the field walking in the communities and visiting households. The reasons for this are to:

1. Develop and maintain respect and trust during the surveys
2. Establish credibility as a KEMRI field officer
3. Ensure you are cool and comfortable and able to walk extensively in tough terrain

Comfortable shoes such as trainers should be worn by all. No high heels or wedge shoes. Skirts at or below the knee and no strapless dresses or vest tops without a shawl for women. Smart T-shirts or shirts for males.

You all have a TUMIKIA cap and t-shirt which you can wear in the field.

Arrival time

Arrival time at the office is set as 6.00am. Vehicles will leave for the field between 6.30 and 7.00am. When heading to clusters far from the office such as Kinango and Lunga Lunga, the cars will leave as close to 6.30am as possible.

Establish destination

The lists of teams, destinations and cars will be sent out and posted on the wall in advance. Please start by checking this and noting down the car you will be travelling in. You will be travelling to the same cluster for three days in a row. However, you may be in a different car for each of those three days, so be sure to check the number plate each morning. This list also documents which team member is responsible for each item to be taken to the field. Make sure you know what your responsibility is.

Collecting Smartphones

The member responsible for the team’s smartphones must see Tuva to collect the bunch of 9 phones. Each field officer is assigned the same smartphone for the duration of the survey period. The ID on the phone will relate to your enumerator ID so they can be kept track of. If a team member is absent, please inform Tuva and the phone will be kept safely in the office.

Once given the smartphone, please switch it on and make sure the battery is fully charged and the correct survey version is loaded. Ensure the WIFI and GPS are switched off. Then switch the phone off and make sure you do not switch it on again until you are dropped off by the vehicle in your starting location.

Collect list of households & stool pot stickers

The team leader must collect the household lists and village elder lists for the team on the first day of each new cluster, which will be used for the three days. Stool pot stickers should
also be collected from at the start of each cluster. Each member will have their own list and set of 33 stool pot stickers. The 300 households will be divided by the team into 9 sets of households on the way to the field. Or when the village elders are met at the clusters. These lists and any remaining stool pot stickers should be collected by the team leader once the last sample has been collected from the cluster, and returned to the office.

Collect Water
The member responsible for water is to collect a 500ml bottle of water for each FO in the team, as well as their guide, and for the driver (a total of 19 bottles). These will be collected from the storeroom. Due to the hot weather it is advised that you bring additional drinking water to put into your backpacks.

Collect piki piki money
Every day you will be provided with 100ksh for piki piki transport in the field. You will have an allowance form you will use for the week to sign for this allowance. If by Friday you have been in work every day – on top of the 100ksh allowance you will receive a 300ksh bonus. Thus 100+100+100+100+400=800. If you have been absent for a day this will be 100+100+100+100=400. Half is to be used coming to and from the office in the morning and evening as we understand it is often dark when travelling. The other half is to be used when in the field at your discretion. It is assumed that some days you will need a piki to travel to some households and other days you will not need this.

Collect village guide allowances and allowance forms
The office will have communicated that a team will be visiting the cluster in advance and will have requested that guides be made available. These guides may be village elders or community health volunteers. The member responsible for collection of the village guide allowance form must collect 9 sets of 400ksh allowance for each of the 9 team members.

The village guide must write their name, the amount, the date and their signature on the form rather than the field officer filling in all the details and just having the village guide sign.

At the end of the week each officer must return the signed form with a village guide having signed for the allowance for each of the 5 days to account for the 2000ksh.

**NO FIELD OFFICER IS TO WALK AND CONDUCT SURVEYS IN VILLAGES WITHOUT A GUIDE**

Collect forms
The members responsible for forms collect:

1. 13 information sheets per team member (1 per household) [120 per team]
2. 40 adult consent forms per team member [360 per team]
3. 20 parent/guardian consent forms per team member [180 per team]
4. 16 adolescent assent forms per team member [140 per team]

Collect stool collection kits
The member responsible for the stool pots collect one plastic bag per team member. Each plastic bag will have 13 stool collection kits in it. Collect one bag of 10 stool collection kits for the vehicle so there are spares for the team should they need them. These empty kits can be carried in the backpack, and once full, in the carrier bags. Each team is given a box of 100 latex gloves per week per team.
Confirm all required materials
• 1 backpack
• 1 TUMIKIA cap
• 1 smartphone with neck strap and flip cover
• 1 battery extension pack
• 1 list of sampled households to visit
• 1 set of 33 stool pot stickers
• 1 name badge
• 1 laminated introduction letter
• 2 bottles of 500ml water
• 1 village guide allowance form
• 1 piki piki allowance form
• 1 clipboard
• 2 pens
• 1 notebook
• 1 stamp pad
• 1 copy of the Frequently Asked Questions
• 2 copies of the hardcopy questionnaire
• 13 copies of Kiswahili information sheets
• 40 copies of written informed consent forms (adults)
• 20 copies of written informed consent forms (parent/guardians)
• 16 copies of written informed assent forms (children 13-18yrs)
• 1 sealable plastic folder
• 13 stool collection kits (a black bag containing 3 pieces of newspaper, 3 squares of toilet paper, a stool polypot)
• latex gloves
• Any additional snacks and drinks of your choice
Introduction
It is very important to follow protocol when entering a village. It is a sensitive topic, and if the numbers were low for the sensitization meetings, this may need to be repeated to ensure everyone is aware why you are there and what you plan to do. This section of the SOP covers the steps to follow when arriving in the communities.

Selection of guides
The office will have informed the chief, assistant chief, ward administrators, village assistants, PHO (public health officer) and CHA (community health assistant) that the team will be working in the cluster for the next three days and will request guides, either CHVs (community health volunteers) or village elders. If there is a specific place that we have been told for you to meet the guides we will let you know. When you arrive, please make contact with the village elders and assistant chief to let them know you have arrived.

The first choice for guides will be CHVs, and the second choice is village elders. The team of nine individuals may use a combination of CHVs and village elders as guides. If on arrival there are insufficient guides available please ensure you find another local villager who can assist in accompanying you to the households. Guides must be 18 years or above.

YOU MUST NOT WALK ALONE OR EVEN IN PAIRS WITHOUT A LOCAL GUIDE.

Payment of guides
Each field officer has 400ksh and a bottle of water for their guide. Please make sure that before they accept to walk with you for the day, they know what they will receive at the end of the day. The guides should be paid at the end of the day. If you would like to work with the guide for the three days as you will be in the same village for the duration, this is OK. If you will be in a different village each day, you will need a different guide each day from each of the villages. This decision will depend on how the team divides the work.

Work by day
Day 1 is expected to be the slowest, as the team will be familiarizing themselves with the new cluster and meeting the guides and dividing up the work across the villages, so the surveys will start later. The surveys on days 2 and 3 should start earlier, there should be call backs to conduct and the guides can be arranged the day before. Also days 1 and 2 call-backs will be set so on day 1 it is expected that less samples will be collected.
Section 4: Seeking Informed Consent and Assent

Introduction
On arrival at the household, following introductions and the presentation of the letter of introduction, the first activity is to explain the TUMIKIA Project and seek informed consent (and in some cases, assent) from the required individuals in the household. This section describes the key principles of informed consent and the processes undertaken in the field when seeking and obtaining this.

Definitions
"Informed consent" is the voluntary agreement of an individual, or his or her authorized representative, who has the legal capacity to give consent, and who exercises free power of choice, without undue inducement or any other form of constraint or coercion to participate in research. The individual must have sufficient knowledge and understanding of the nature of the proposed research, the anticipated risks and potential benefits, and the requirements of the research to be able to make an informed decision. (Levine, R.J. "Ethics and Regulations of Clinical Research."

"Assent" is a term used to express willingness to participate in research by persons who are by definition too young to give informed consent but who are old enough to understand the proposed research in general, its expected risks and possible benefits, and the activities expected of them as subjects. Assent by itself is not sufficient, however. If assent is given, informed consent must still be obtained from the subject's parents or guardian.

Principles for informed consent
- The subject/guardian must be COMPETENT in the language of communication
- The research team must DISCLOSE all relevant information to the subject
- The subject must COMPREHEND the information and understand how their involvement in the study differs from normal clinical care.
- The subject must AGREE to the proposed intervention/procedures in the research study
- The subject’s agreement must be VOLUNTARY and free from coercion
- The subject must be informed that, even after voluntarily agreeing to take part, they may WITHDRAW their agreement at any time without penalty

In Kenya, children below the age of 18 years are not allowed to give consent, and informed consent for them to take part in studies is sought from their parents or legal guardians. Children between the age of 13 and 18 must give informed assent, in addition to parental informed consent.

If the parent or guardian is unable to read the informed consent documentation, the consent process must be witnessed by a literate witness unrelated to the research team.
Materials required for informed consent process

- 1 Frequently Asked Questions sheet
- 1 Information sheet per household
- 2 consent forms for every household head
- 2 consent forms for every individual adult sampled to provide stool sample
- 2 assent forms for every child aged 13-18 sampled to provide a stool sample
- 2 assent forms for every parent/guardian of child (2-18) selected to provide a sample
- 1 clipboard
- 1 pen
- 1 stamp pad

On arriving at the household

While introducing yourself, say:-

“Hello, how are you? I am……… from KEMRI (TUMIKIA Project). KEMRI is a government organization that carries out medical research. TUMIKIA is a project that aims to evaluate the impact of different treatment strategies on the transmission of intestinal worms in Kwale County by comparing school-based and community-based treatment of worm infections. If you are willing, I would like to tell you more about the study and ask if you (and an additional household member) would like to participate.”

Who is consent sought from?

Consent will be sought from one or more members of the household:

1. From the household head (or if not available, the primary caregiver or an adult who is able to consent on behalf of the household). He/she needs to provide consent for you to administer the household questionnaire in the first instance. If he/she refuses to consent for the family’s participation, you must move on to the next household.

2. From the individual in the household sampled to provide a stool sample. They will consent to provide the stool sample and answer the accompanying individual-level questionnaire. Please remember that it may be the household head selected to provide the sample, in which case only the consent from this single individual will be required.

The assumption is that the household head is an adult (over 18 years). However, the sampled household member can be any age individual 2 years or older.

<table>
<thead>
<tr>
<th>Individual</th>
<th>Form required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult over 18 years</td>
<td>Adult informed consent form</td>
</tr>
<tr>
<td>Individual over 13 years who is a parent</td>
<td>Adult informed consent form</td>
</tr>
<tr>
<td>Child aged below 13 years</td>
<td>Parent/guardian informed consent form</td>
</tr>
<tr>
<td>Child aged between 13 and 18 years</td>
<td>Parent/guardian informed consent form AND Child informed assent form</td>
</tr>
<tr>
<td>Forms per household</td>
<td>Form required</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------</td>
</tr>
<tr>
<td><strong>Individual sampled</strong></td>
<td>Adult consent</td>
</tr>
<tr>
<td>Adult over 18 years</td>
<td>✓</td>
</tr>
<tr>
<td>Individual over 13 years who is a parent</td>
<td>✓</td>
</tr>
<tr>
<td>Child aged between 13 and 18 years</td>
<td>✓</td>
</tr>
<tr>
<td>Child aged between 2 and 13</td>
<td>✓</td>
</tr>
</tbody>
</table>

The eligibility criteria for sampling is that the person is aged 2 years and above and who report usually living in the household. People who do not meet these criteria (e.g. infants under 2 years old or a child who lives at boarding school) will not be included in the random selection, so they will not be selected.

If the first individual selected does not consent to take part in the research, another eligible person will be randomly selected. If the second randomly selected individual does not consent, a third person will be randomly selected. If this third randomly selected person consents to provide a sample, the survey will not randomly select another.

If the individual is not present, they should be followed to the shamba/school etc and consented there. If it is not possible to find them at that moment arrange a time to call back for them later.

**Where and when will consent be taken?**

Consent will be sought as the first step having arrived at the selected household. You can carry out the consenting process wherever the household members feel most comfortable, either inside or outside of the house. Consent from the household head is required prior to administering the household questionnaire. However the individual selected to provide the stool sample and answer the individual questionnaire can only be identified after conducting the household census and household questionnaire, and so the second consent will be conducted after this step.

You may find the household head is in the compound, but the sampled individual is in a nearby location (<15 minute walk) and you may have to follow him/her there. In this case the informed consent for individuals in the household will still both be conducted, but in separate locations.

**How will consent be sought?**

The language used while conducting the informed process should be one which the subject can comprehend and understand while speaking. The informed consent team member should be proficient in both written and spoken mode of the language used.

If you are not proficient in the mother tongue language of the area, please utilise your accompanying CHV or village guide to assist in translating from Kiswahili to mother tongue so that you are sure the household members fully comprehend.

The literacy level of the subject will be assessed by asking the subject to read out a sentence in the information sheet or the written informed consent form. If a potential subject/guardian is considered illiterate, the consent documents and any other written study related materials must be read to them in a language best understood to them in the presence of an impartial literate witness (the CHV or village guide accompanying you).
Read the information sheet to the participant. Similar to the information provided in the sensitization meetings the key information about the study (both the evaluation activities – **surveys**, and the implementation activities – **deworming**) must be covered. The key points are as follows:

- **KEMRI** is a government organisation that carries out medical research. We are asking your permission for you/your child/ren to participate in a research study.

- Intestinal worms are one of the most common infections in these communities and can cause issues such stomach pains, tiredness, weight loss, anaemia, and in children – poor physical and mental development.

- The Ministries of Health and Education have been providing a National school-based deworming programme in the last 5 years. This has been highly successful, treating millions of children every year in Kenya and 6.4 million children last year.

- In between the annual treatment children become re-infected from worm eggs in the community deposited by individuals not treated by the school programme. This problem is made worse in poor sanitation conditions.

- We want to investigate whether we can stop transmission of intestinal worm infections by treating all members of the community in addition to the school children.

- Communities will be selected by chance into three treatment groups: some will continue to receive only school-based deworming; some will receive community-wide treatment in addition to school-based deworming once a year; and some will receive both community-wide treatment in addition to school-based deworming twice a year.

- The decision on which communities receive school-based and community-wide treatment was decided by a system based on chance. This means that your community had an equal chance of being included in any of the three programmes.

- 225 different people living in the community are selected (again by chance) to participate in this study every twelve months.

- Depending upon which treatment programme the community is given, all community members or just school-aged children are offered treatment for worms by either a teacher or a community health worker as part of the National Deworming Programme.

- **Treatment is being provided by the National Control Programme, and is not being delivered by the research team. They are free to take the treatment and not participate in the research**
If they agree to take part, they will be asked some questions about themselves and their household. Then a member of the household will be randomly selected to provide a stool sample. For the individual selected to give a stool sample, a stool pot will be provided and an explanation will be given. They will be asked to provide a sample there and then, which will be examined for worm eggs in a laboratory.

**Risks:** The programme the community has been assigned may prove to be less effective than the other groups. This will not be known until after the study is completed. The drug used for this study (albendazole) is known to be very safe in most people.

**Benefits:** If found infected we will return to provide treatment. The information generated will be very useful for making decisions about worm control in the community and the country as a whole.

All participation in research is voluntary. The decision will not affect their ability to take part in the government treatment programme. Free to change their mind and withdraw at any time.

All of the tests that are needed as part of this research will be done locally in Kenya.

All our research records are stored securely in locked cabinets and password protected computers. The information documented from this work will not be revealed to anybody, and will be used by the study investigators alone for purposes of report writing. No information that can identify any individual will be used in the reports.

All research at KEMRI is approved by national independent expert committees in Nairobi to make sure the research is conducted properly.

After the information sheet has been read to/by the participant, ask one or two open questions to check understanding (note that it’s not a useful check to ask “have you understood?”). Answer all research questions asked by the potential subjects. Use the **Frequently Asked Questions**.

Once an individual has (1) had all their questions answered, (2) their comprehension has been confirmed using one or two open questions, and (3) they have agreed to voluntarily participate in the study, the subject should then sign and date the consent form.

The participant will be informed that even after voluntarily accepting to take part in the study; he/she may withdraw from the study at any time without penalty. If they have refused, this should be immediately accepted, and nothing further (such as signing anything) requested.
Signing the consent and assent form

If the consent giver can read there is no need for a witness
1. Ask the subject/guardian to print their name, sign and date the informed consent form in duplicate
2. Sign and date the informed consent form in duplicate
3. One copy of the informed consent form is given to the subject/guardian
4. The second copy is kept by the field officer and brought back to the office to be filed
5. If consent is declined, this will be recorded through the smartphone.

If the consent giver cannot read then a witness is needed:
1. The independent witness is required to print the name of the subject/guardian on the informed consent forms and sign and date the consent forms in duplicate, confirming that the information has been provided and that they have understood fully.
2. The subject/guardian should make their mark i.e. thumb print on the consent form.
3. Sign and date the informed consent form in duplicate
4. One copy of the informed consent form is given to the subject/guardian
5. The second copy is kept by the field officer and brought back to the office to be filed
6. If consent is declined, this will be recorded through the smartphone.

If informed assent is required (children aged 13-18 yrs):
1. The same processes apply as above, depending on whether the child is literate or not (sign and date the parent/guardian informed consent form in duplicate)
2. In addition, sign and date the informed assent form in duplicate
3. One copy of the informed assent form is given to the subject/guardian
4. The second copy is kept by the field officer and brought back to the office to be filed
5. If assent is declined, this will be recorded through the smartphone.
Please tick the relevant boxes below
☐ Yes ☐ No please tick I agree to participate in this research
☐ Yes ☐ No please tick I agree to stool samples being stored
☐ Yes ☐ No please tick I agree to share non-confidential information with the wider research community

Subject’s signature: __________________________ Date __________
Subject’s name: __________________________ Time __________
(Please print name)

I certify that I have followed all the study specific procedures described in the SOP for obtaining informed consent.

Designee/investigator’s signature: __________________________ Date __________
Designee/investigator’s name: __________________________ Time __________
(Please print name)

*Only necessary if the parent guardian cannot read:
I attest that the information concerning this research was accurately explained to and apparently understood by the subject and that informed consent was freely given by the subject.

Witness’s signature: __________________________ Date __________
Witness’s name: __________________________ Time __________
(Please print name)

*A witness is a person who is independent from the trial or a member of staff who was not involved in gaining the consent.

Thumbprint of subject as named above if they cannot write: __________________________

REMEMBER TO COMPLETE TWO COPIES OF ANY CONSENT/ASSENT FORMS USED AND LEAVE ONE WITH THE SUBJECT AND RETURN ONE TO THE OFFICE.
Introduction
Each field officer in the team has a smartphone and is required to conduct a **household census** (in which the individual to be sampled is selected), a **household questionnaire**, and an **individual questionnaire** with the individual sampled to provide a stool specimen.

Starting the questionnaire through Survey CTO Collect

1. We will be using the *Survey CTO Collect* application to collect questionnaire data. You can find the survey from the ‘Apps’ button at the bottom of the smartphone screen.

2. Once you open the *Survey CTO Collect* application, an interface will appear which allows you to do the following things:
   - *Fill Blank Form* to enter new data
   - *Edit Saved Form* to modify previous entries
   - *Send Finalized Form* to upload data to server
   - *Get Blank Form* to load the questionnaire on your phone (you will be told which questionnaire to load and/or if you need to replace with a different version).
   
   For now click on *Fill Blank Form* to start entering new data.

3. Click on *TUMIKIA endline household questionnaire* to select the questionnaire type you are going to carry out.

   The version number is a 10-digit number made up of the form creation date and the version. The last 2 digits are the version number.

   **Check with your supervisor and/or team leader that you are using the latest version of the questionnaire form.**
4  

You are at the start of TUMIKIA Endline Household Questionnaire. Swipe the screen as shown below to go backward and forward.

[Image of swiping hands]

**Swipe** to start the questionnaire. You can also swipe to go backward and forward.

Swipe from **right to left** to go forward and from **left to right** to go backward.

---

**Entering the household status**

5  

**HOUSEHOLD CENSUS AND QUESTIONNAIRE**

**HOUSEHOLD IDENTIFICATION**

This page will announce the start of the *household census and questionnaire*. **Swipe forward** to start with the first question.

---

6  

**Select** your **enumerator name** from the provided list. This is also linked to the **enumerator ID** although this does not show on the smartphone. It is therefore important that you use the correct name.

Select from the provided list by clicking on the small circle. The next question will automatically appear.

If you have made an error you can swipe backwards and change your selection.

---

7  

Select the **Sub County** where the household is located from the provided list by clicking on the small circle. The next question will automatically appear. If you have made an error you can swipe backwards and change your selection.
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Select the <strong>Location</strong> where the household is located from the provided list. The list will only contain locations that are located within the Sub County that you selected in the previous step.</td>
<td>Select the <strong>Location</strong> where the household is located from the provided list. The list will only contain locations that are located within the Sub County that you selected in the previous step.</td>
</tr>
<tr>
<td>9</td>
<td>Select the <strong>Sub Location</strong> where the household is located from the provided list. The list will only contain sub locations that are located within the Location that you selected in the previous step.</td>
<td>Select the <strong>Sub Location</strong> where the household is located from the provided list. The list will only contain sub locations that are located within the Location that you selected in the previous step.</td>
</tr>
<tr>
<td>10</td>
<td>Select the <strong>Cluster</strong> where the household is located from the provided list. This list will only contain clusters that are located within the Sub Location that you selected before. The household will not know which cluster they are in. That information is on the household sampling list.</td>
<td>Select the <strong>Cluster</strong> where the household is located from the provided list. This list will only contain clusters that are located within the Sub Location that you selected before. The household will not know which cluster they are in. That information is on the household sampling list.</td>
</tr>
<tr>
<td></td>
<td><strong>Pongwe/Kidimu location is officially in Lunga Lunga Subcounty – but for TUMIKIA we include it in Msambweni.</strong></td>
<td><strong>Pongwe/Kidimu location is officially in Lunga Lunga Subcounty – but for TUMIKIA we include it in Msambweni.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>If you are surveying in Clusters: Mzizima A or B, Rise and Shine, Majoreni A or B or Wasini Mkwiro. Select Msambweni even if the household say they are in Lunga Lunga or else you won’t find the clusters</strong></td>
<td><strong>If you are surveying in Clusters: Mzizima A or B, Rise and Shine, Majoreni A or B or Wasini Mkwiro. Select Msambweni even if the household say they are in Lunga Lunga or else you won’t find the clusters</strong></td>
</tr>
<tr>
<td>11</td>
<td>Select the <strong>Village</strong> where the household is located from the provided list. The list will only contain villages that are located within the Cluster that you selected in the previous step.</td>
<td>Select the <strong>Village</strong> where the household is located from the provided list. The list will only contain villages that are located within the Cluster that you selected in the previous step.</td>
</tr>
<tr>
<td></td>
<td>The village elder may have indicated to you that a particular household is listed in the wrong village. To find this household in the survey form, you will need to select the village as listed on the household listing.</td>
<td>The village elder may have indicated to you that a particular household is listed in the wrong village. To find this household in the survey form, you will need to select the village as listed on the household listing.</td>
</tr>
</tbody>
</table>
Households listed in white on sampling list are “selection stage 1” and households in grey are “selection stage 2”. Stage 3 will not be listed on your sampling list.

**YOU MUST TRY & LOCATE THE HOUSEHOLDS IN WHITE FIRST**

Survey form must be filled out and finalised for every household on stage 1 of your list. Even households that you cannot locate, or are unknown, or are vacant, must have a form documenting why you were unable to complete the questionnaire and census.

The 75 HOUSEHOLDS IN GREY are only to be visited once you have visited and logged all the 225 households in white

We will monitor how many households in grey were visited by each field officer at the end of each day to confirm they are only being used as a last resort!

To access the grey households select [2] for **Selection Stage**.

Select the name to locate the household as it appears on the sampling list

All names on the sampling list will appear on the survey form in the village in which they are listed as living

The locator name will be shown then the household head and hhid both in brackets

Locator name – name to locate the dwelling

Locator type:
1=“**Head of household**” -- name is head of only this household and lives in the house

2=“**Head of multiple households**” -- name is head of multiple households. His name should only be included in the list of household members in the house he lives in

3=“**Landlord**” -- name is a landlord who does not live in the house. Do not include their name in the household census.

4=“**Relative not living in household**” – If the name is a relative or individual who does not live in the house. Do not include their name in the household census.

Head of household name – name of individual who makes household decisions or who exercises family control to support dependent members of household
| 14 | Did you intend to select:  
  Household ID:  
  10101001  
  Locator:  
  JUMA MOHAMMED DUNGA  
  Head of household:  
  JUMA MOHAMED DUGA  
  □ Yes  
  □ No | The next screen will then show the ID, locator and head of household names and ask you to confirm that this is the household you meant to select.  
  Confirm that you have selected the same household head name as you intended, and that the ID matches. |
| 15 |  
  Is MSUMBE the correct village for this household?  
  Enter ‘yes’ here unless the elder has informed you that the household is listed in the wrong village.  
  □ Yes  
  □ No | Confirm whether the household is in the correct village according to your household list, based on what the village guide tells you.  
  If you select [yes], you will continue on to record the household status. |
| 16 | Choose the correct village based on what the village elder has told you.  
  If the village that the elder has told you it should be is not listed here, then return to the previous question and select ‘yes’ and proceed with the questionnaire. Note the change on your sampling list.  
  □ MSUMBE  
  □ ZIWANI  
  □ MTSENGO  
  □ TULIANI  
  □ Don’t know | If you select [No], i.e. the household is in the incorrect village and should be in another village you will be taken to this screen to select the correct village for the household. Only villages in the cluster will appear rather than a list of all villages in the sublocation or location.  
  Select [don’t know] if the village guide is unsure which of the villages the household is in.  
  Mark the change in village on your sampling list. |
| 17 | Are you able to visit household?  
  □ Yes  
  □ No | If you are able to visit the household even though it is in a different village, select [Yes], walk to the household and proceed with the survey.  
  If you are not able to visit the household in the different village select [No]. |
| 18 |  
  Please notify the team member working in that village. They may be able to survey the household using this ID and selecting to correct the village. | If you select [No] to being able to visit the household, the survey will then finalise.  
  If another team member is working in the other village and could visit the house, call them and let them know. They should select the same ID, go through the process of selecting the correct village and select that they can visit the household and proceed. |
Confirm whether you have located the household and whether the household head (or their family) are currently resident.

If the household head name can be identified by your guide, you must make all reasonable effort to locate the dwelling and conduct the survey.

For each name in the list, you should record the relevant status of the household.

- If the household is located take the coordinates and continue
- If the village guide does not know the household it will finalise without presenting the GPS screen
- If the household is known and you arrive but then discover the family has moved away or is absent for extended period of time, you can record the coordinates and then finish the survey
- If the household is a duplicate of another on the list, select you will be taken to another screen to indicate which it is the duplicate household ID of.
- If you find the household has already been surveyed when you arrive, take the coordinates and finalise.
- If at the end of the three days you did not reach the household select the last option and finalise.
- For any other reasons select [Other]

Make sure your GPS is turned on. Press the grey button to record the coordinates of the household. Make sure this recording is taken just outside the front door, in the open air.

Once the accuracy shows as below 8m, press “record location”. The phone may take a few minutes to get a lower accuracy.

Turning on the phone’s wifi may improve the GPS signal in urban areas. The time needed to get a good GPS signal will improve with each form during the day.

If you need to record the location again, press ‘replace location.’
During the household visit, you will only be able to obtain informed consent from an adult member of the household

**An adult member is anyone 18 years or older or 16 years or older who has a child**

You will first record if there is an adult member present or not. This will then determine how you proceed with the questionnaire.

<table>
<thead>
<tr>
<th>Image</th>
<th>Text</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td>During the household visit, you will only be able to obtain informed consent from an adult member of the household. <strong>An adult member is anyone 18 years or older or 16 years or older who has a child.</strong> You will first record if there is an adult member present or not. This will then determine how you proceed with the questionnaire.</td>
</tr>
</tbody>
</table>

If there is **NO adult member** of the household present then ask the household members present, if you can return later (i.e. call back) when an adult member is present.

- If the household member says “No,” then the household does not consent to participate. Select [No] and follow the instructions on the phone and save and finalise the form.
- If the household member says “Yes” then you can return later to ask if they wish to participate in the study. Select [Yes] and the form will then jump to the: **Survey Status Screen**

You will use this screen to record the status of incomplete or completed surveys.

- In this case, a call back visit is necessary for informed consent with an adult member of the household. Select [Callback for consent needed] and save and finalise the form.

After selecting [Callback for consent needed] you will be shown a note.

- You can now save and exit the form.
- **OR**

Click on the green link to return to the question about whether an adult is present or not.
If you wish to save a form in order to return to it during a callback visit, use the “back” button in the bottom, right corner.

You will be asked if you wish to save changes or ignore changes.

Saving changes will save the form, so you can re-open it to edit later.

Ignoring changes will discard the information that you have entered.

Cancel will return to the previous screen.

If you save a form, it can be found in the main menu by opening “Edit Saved Form”.

Saved forms on your phone will be listed by household ID with the head of household name. Click on the form to re-open it.
Re-opening the form you can press “resume” and go automatically to the page with the link to the Informed Consent Page from before:

If you are unable to make the callback visit, then re-open the form and resume as before:

1. From the page with link, swipe left to return to the survey status form
2. Now update the status to “Callback for consent not made”
3. You will be asked to confirm that a callback was not made. Select “Yes”.
4. You can now mark the form as finalised.

If an adult member (over 18yrs) is present in the household (at the first visit or your return), select “Yes” for this question and then proceed with introduction and consent process

On the next screen, record whether or not written consent was obtained from the adult to continue with the questionnaire

If the adult agrees to participate, select “Yes,” and proceed with the questionnaire.

If the adult does not agree to participate, select “No,” and you will prompted to finalise the form.

On the next screen, put a tick by “Mark as finalized” save and exit. Record the household status on your sampling list. You will not revisit this household.
## Entering the household census

### 29

You will need to enter the number of people in the household. It is important you get this number correct at this stage, as it will determine how many individual members the form will allow you to enter.

*A household is a family sharing the same cooking pot. An individual(s) that sleeps or shares meals here most evenings and consider it their primary residence and/or an individual who is affected by the decisions of the head of the household.*

Do not miss any members. This is very important and it is used for the random selection of the individual who should provide the stool sample in the household.

### 30

The questionnaire will automatically show the **unique ID** of the first individual. This ID is comprised of:

- **Cluster ID** – DIGITS 1-3, starts with 1-4 depending on subcounty
- **Village ID** - DIGITS 1-5, 1st 3 digits are cluster ID
- **Household ID** – DIGITS 1-8, 1st 5 digits are village ID
- **Individual ID**–DIGITS 1-10, 1st 8 digits are household ID

**Confirm** that the first 8 digits are the same as the household ID on the household list.

### 31

Enter the name of the first household member. Try to record all three names so that they can be identified if needed in the future.

The first household member recorded must be the adult who you explained the study to and who gave you consent to continue with the survey.

Does not have to be the locator or head of household as on the sampling list.
By listing the relationship of each member to the **HEAD OF HOUSEHOLD** we can get an idea of the make-up of the household.

Record the relationship of the person whose name you have entered to the household head **as printed on the form and the survey**, even if the head of household has recently changed.

If they are the same person as the name at the top of the question, select [Same person].

A [Related household member] is anyone who is a blood relation to the listed person.

If they are not related to the household head but are considered part of the household select [Non-related household member].

If they are not related to the household head name and they are not a household member then select the [other] option.

For example – the name on the sampling list may be dead now but everyone still refers to it as his house, it may be the wife listed but the husband regards himself head of the household, etc.

It may be obvious from the name which sex the member belongs to, but it is not always the case as some names can refer to either sex (e.g. Hope, Bahati).

Ask how old the listed household member is. If they are less than 1 year old, select [<1 year]. If they are 1 year old or older, select [1 year or older].

If less than 1 year, enter the age in months.

If 1 year or older, record the age in years **COMPLETED**

For example:
If a child is 2 years 2 months old, record the age as 2
If a child is 2 years 11 months old, record the age as 2
Select the **most appropriate** option to the household member:

**Household head:** makes household decisions or exercises family control to support the dependent members of the household. Can only have one per family

**Primary care giver:** primary responsibility for someone who cannot care for themselves. E.g. they may be a family member, or trained professional who lives permanently at the house. Can have more than one per family

**Household head/Primary Care Giver:** e.g. a wife who lives alone in the household but her husband lives in another household with another wife

**Household member:** member of the household but do not clearly fit one of these descriptions.

<table>
<thead>
<tr>
<th>Present: the answer is <strong>yes</strong> if the person is currently in the house, at school or <strong>nearby</strong> conducting chores, e.g. collecting water</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usually live here: regularly lived here in the last 6 months, e.g. children away at boarding school or someone who works away from the village for extended periods of time do not count as usually living here.</td>
</tr>
<tr>
<td>Slept here last night: to determine whether the household member has been around recently</td>
</tr>
</tbody>
</table>
Record whether the individual attends a school, and the type of school they attend.

You should ask this question to each individual, not only children.

Do not assume the school attendance based on age.

If you select ECD or Primary you will then be asked to select the names of the schools.

You will then be asked to select the class.

For secondary schools you will not select the school name but you will have to select the Form.

If the member is an adult who is “not in education” or attending “adult education,” the survey will ask the highest level of schooling completed by the member.

Once you have entered the information for the first person, the phone will cycle back to enter the information for the next household member, starting with their name.

This cycle will repeat based on the number of members you indicated live in this household at the start.
Enter the household head’s phone number.

The first phone number is required, but the alternative is not. This is collected so that the household can be contacted again for any reason, such as treatment.

If the household head does not have a phone but another household member does, you should enter this, as it will assist in contacting the household head. If no member of the family has a phone, ask if a trusted neighbor has a phone and could be contacted instead.

You must enter all 10 digits of the phone number.

If there is no phone at all in the house then enter 9999999999.

---

### Entering the household census

After entering all of the household members and their relevant information, the household questionnaire will begin. This is to be answered by the household head or the primary caregiver.

<table>
<thead>
<tr>
<th>40</th>
<th>Enter the household head’s phone number.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The first phone number is required, but the alternative is not. This is collected so that the household can be contacted again for any reason, such as treatment.</td>
</tr>
<tr>
<td></td>
<td>If the household head does not have a phone but another household member does, you should enter this, as it will assist in contacting the household head. If no member of the family has a phone, ask if a trusted neighbor has a phone and could be contacted instead.</td>
</tr>
<tr>
<td></td>
<td>You must enter all 10 digits of the phone number.</td>
</tr>
<tr>
<td></td>
<td>If there is no phone at all in the house then enter 9999999999.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>41</th>
<th>Record whether the dwelling is owned (the property of) by a member of the household or is rented from another person (e.g. landlord).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ask &quot;Do you own or rent this dwelling?&quot;</td>
</tr>
<tr>
<td></td>
<td>- Own</td>
</tr>
<tr>
<td></td>
<td>- Rent</td>
</tr>
<tr>
<td></td>
<td>- Other</td>
</tr>
<tr>
<td></td>
<td>- Don't know/Refused</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>42</th>
<th>Type in the number.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not only refers to bedrooms but any rooms regularly used for sleeping</td>
</tr>
<tr>
<td></td>
<td>Do not include outside</td>
</tr>
<tr>
<td></td>
<td>We use this number to estimate the number of people per sleeping room – an indicator of household crowding</td>
</tr>
</tbody>
</table>
This helps us to measure which households are richer (own more things) and which are poorer (own fewer things).

Ask if the household has the following items.

To answer [Yes], these items must be available in or at the household, but do not need to be owned by (the property of) a household member.

All of the items must have either a [Yes] or [No] selected.

For electrical items, only record yes if they are functional, ie. a functional or working television, radio, etc.

Enter the number of animals the household owns.

These are the total number of animals owned by all household members. This is entered by free typing.

This is a further measure of socio-economic status.
Household water questionnaire

The next set of questions aim to determine the cleanliness and availability of the household’s drinking water based on the source type, source location, time to collect, household water treatment, and drinking water storage. You will ask the respondents to identify their water source, but it is important that you can differentiate between types of sources in order to help them identify the correct source. The following information will help you identify different water sources and treatment.

<table>
<thead>
<tr>
<th>Definitions of Water Source Choices</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Piped Water</strong></td>
</tr>
<tr>
<td>Piped into dwelling</td>
</tr>
<tr>
<td>Piped to yard/plot</td>
</tr>
<tr>
<td>Piped elsewhere within compound</td>
</tr>
<tr>
<td>Piped to neighbor</td>
</tr>
<tr>
<td>Public tap or standpipe</td>
</tr>
<tr>
<td><strong>Borehole/Tube well</strong></td>
</tr>
<tr>
<td>A deep hole that has been bored or drilled with the purpose of reaching ground water supplies. <strong>Water is delivered from a tubewell or borehole through a large pump</strong> which may be human, animal, wind, electric, diesel or solar-powered.</td>
</tr>
<tr>
<td><strong>Dug Well</strong></td>
</tr>
<tr>
<td>Protected dug well</td>
</tr>
<tr>
<td>Unprotected dug well</td>
</tr>
<tr>
<td><strong>Water from Spring</strong></td>
</tr>
<tr>
<td>Protected spring</td>
</tr>
<tr>
<td>Unprotected spring</td>
</tr>
<tr>
<td><strong>Rainwater</strong></td>
</tr>
<tr>
<td>Rain that is collected or harvested from surfaces by roof or ground catchment and stored in a container, tank or cistern.</td>
</tr>
<tr>
<td><strong>Tanker truck</strong></td>
</tr>
<tr>
<td>Water is obtained from a provider who uses a truck to transport water into the community. Typically the provider sells the water to households.</td>
</tr>
<tr>
<td><strong>Mkokoteni/Cart with small tank</strong></td>
</tr>
<tr>
<td>Water is obtained from a provider who transports water into a community using a cart and then sells the water. The means for pulling the cart may be motorized or non-motorized (e.g., a donkey or handcart).</td>
</tr>
<tr>
<td><strong>Surface water</strong></td>
</tr>
<tr>
<td><strong>Water located above ground,</strong> including: water pans, rivers, dams, lakes, ponds, streams, canals, and irrigation channels.</td>
</tr>
<tr>
<td><strong>Water kiosk</strong></td>
</tr>
<tr>
<td>A fixed store or stall that charges people to bring containers (for example, jerry cans) to fill with water.</td>
</tr>
<tr>
<td><strong>Bottled water/Sachet water</strong></td>
</tr>
<tr>
<td>Water that is bottled and purchased by the household in sealed bottles or sachets. Not water stored in re-used bottles!</td>
</tr>
</tbody>
</table>

35
Borehole (L), Unprotected Dug Well (C), Protected Dug Well (R)

Unprotected Spring (L)   Protected Spring (C)   Rainwater (R)

Tanker truck (L)   Mkokoteni (C)   Water kiosk (R)

Surface water eg water pan, river, lake, pond   Bottled water sold to the household
This question to the respondent is to determine the cleanliness of the household’s drinking water. It is important that you must differentiate between types of sources in order to help them identify the correct source. Use the descriptions above to best identify the household’s source or drinking water. You may need to ask probing questions to clarify exactly what type of source it is.

The selected answer should reflect the current primary source of water for drinking.

If several sources, probe for which source provides majority of its drinking water.

If sources vary by season, record main source at time of interview.

There are lots of location options for the different sources so you need to be careful about what is really meant.

[In own plot] – refers to the area immediately around the single household, i.e. the private space of the household being interviewed.

[Elsewhere within compound] – refers to an area containing multiple (usually related) households.

[Elsewhere outside plot/compound] – refers to anywhere outside the plot/compound (if compound relevant).

In dwelling = water or toilet facility is located inside the household’s dwelling

For example:
- Inside an apartment
- Inside a house
- Inside a bedsitter
<table>
<thead>
<tr>
<th>Page</th>
<th>Description</th>
</tr>
</thead>
</table>
| 48   | **In plot/yard** = Water or toilet facility is located **immediately outside** the household’s dwelling.  
       Key point is the **proximity** (how close) to the facility  
       For example:  
       - **Immediately outside** single house  
       - **Inside a plot 10** (roofed hall with multiple dwellings)  

| 49   | Elsewhere within compound = Facility located within an area containing multiple households  
       **NOTE – Location will depend on the household selected**  
Elsewhere outside plot or compound = an area **beyond an immediate or close proximity** to a household  
Examples:  
- If the household is in a “compound,” this option refers to water sources or toilet facilities **outside the compound** like at another neighbour’s house or a nearby mosque  
- If it is a single household, then this option refers to water sources or toilet facilities outside their plot/yard, again this could mean a neighbour’s house or a nearby school  
- **Outside a plot 10** building |
| 50 | Ask "What is the MAIN source of water used by your household for other purposes such as cooking and handwashing?"

- Piped into dwelling
- Piped to plot
- Piped elsewhere within compound
- Piped to neighbor
- Public tap/Standpipe
- Borehole or Tubewell
- Protected Dug Well
- Unprotected Dug Well
- Protected Spring
- Unprotected Spring

This question is only asked if main source of water for **drinking** was reported to be **bottle water**

**Remember:**
- Asking about **current** primary water source
- **Not** considering seasonality of source

| 51 | Ask "Where is that water source located?"

- In own plot
- Elsewhere within compound
- Elsewhere outside plot/compound
- Don't know

Same as the earlier definitions for location

To determine how close to the home

Not asked for piped water, tanker truck or cart, bottled

| 52 | Ask "How long does it take to go there, get water, and come back?" ENTER MINUTES OR 999 IF DON'T KNOW. INCLUDE TIME WAITING/IN QUEUE.

Enter number of minutes; Don't know = 999.

Asked if the question before was where is the water source located.

Record the time it takes to go, collect, and return with water by whatever means of transportation the person generally uses, whether the person walks or rides a bicycle or motor vehicle

Enter time in minutes – **including queueing / waiting time**

If don't know = 999
Household sanitation questionnaire

The following questions are asked to obtain a measure of the sanitation level of the household, since toilet facilities are important for disease control and health improvement.

53 Toilet facility refers to any type of sanitation. The toilet facility can be located anywhere because you will ask about the location next.
You are specifically asking about ACCESS to ANY toilet facility that household members use while at home. For example:
From home, they may go to use a neighbour’s latrine or a school or market toilet
If household members cannot access any toilet facility while at home -> “No, there is not a toilet facility”
Swahili option:—“Je, kuna choo ambacho watu wa nyumba hii hutumia?”

54 If they answer [Yes] to the household currently using a toilet facility, we want to know where the toilet facility is located.
These are the same location distinctions as with the water source:
[In own dwelling] – refers to the dwelling itself, e.g. inside the house or apartment – particularly in urban settings.
[In own plot] – refers to the area immediately around the single household, i.e. the private space of the household being interviewed.
[Elsewhere within compound] – refers to an area containing multiple households.
[Elsewhere outside plot/compound] – refers to anywhere outside the plot/compound (if compound relevant).
Depending on the location selected, you will ask the respondent how long it takes them to go to the toilet facility.
Unlike the water source question, this question is not asking about the entire time, only the time to go reach the toilet facility. Not time spent at the facility!
If they don’t know, enter 999. The maximum amount of time you can enter is 60 min.
If they answer [Yes] to the household currently using a toilet facility, we want to find out how many households, including the respondent’s household, use the same facility.

Ask if the household shares the toilet facility with other households.

If they answer [Yes] to the household currently using a toilet facility, ask this question to determine the number of households that use the toilet facility.

Enter the number, but be sure to include the current household. For example, if they say 1 other household uses the facility, then enter “2”. The smallest number you will enter is “2”.

If they say 10 or more households use it, then enter “10”. If they don’t know, enter “99”.

Ask the respondent, “how long ago this toilet facility was built?” and select the nearest option.

If they answer [No] to the household currently using a toilet facility, ask the following set of questions:
If they answer [No] to the household currently using a toilet facility,
Why does the household not currently have access to sanitation?

- The household may never have had a toilet facility
- They may have had a previous latrine and it has been damaged or they have begun building one but not been completed yet
- Choose the most suitable response

To gather information on the **planned construction** of household sanitation

If they answer [No] to the household currently using a toilet facility,

Question is gathering information on the **sustainability of previous toilet facilities**

They may not remember exactly, so round their response **to the nearest year**

To gather information on the **planned replacement** of household sanitation
63. Ask “Where do members of your family usually go for a long call?”
- Use bush or field
- Along the beach
- Dig hole and bury
- Other
- Don’t know/Refused

If they answer [No] to the household currently using a toilet facility,
To gather information on usual household practices around defecation, or a “long call”

64. Ask “How long does it usually take to go to a suitable place for a long call (to defecate)?”
Enter number of minutes. If more than an hour, record 60. Don’t know = ’999’

If they answer [No] to the household currently using a toilet facility,
To gather information on usual household practices around defecation, or a “long call”

Record time taken to reach a spot for defecation
Not time spent there!
If they don’t know, enter 999.
The maximum amount of time you can enter is 60 min

65. If there is a child younger than 3 years old listed in the household, the child’s name will be displayed.

Ask the head of household or primary caregiver where the named child defecated the last time and where the named child’s stools were disposed of

66. Asked of all households both with and without access to sanitation

67. Question about household participation in community sanitation events
If they answer “yes,” then follow-up asking what kind of event:
- Community meeting
- Walk through community (e.g. community-led total sanitation, CLTS)
Direct observation

The following questions will be **based on your own observations** made in or nearby the household not asking the respondent. If necessary, you will ask the respondent’s permission to make the observation and for them to take you to the location to conduct the observation.

| 68 | Observe the type of walls the house has  
   Enter the predominant material observed  
   - Stone, bricks or cement  
   - Clay or mud  
   - Wood  
   - Iron sheets  
   - Other |
|---|---|

Enter the **predominant** material observed, meaning the material that **most** of the walls are made of.

| 69 | Observe the type of flooring the house has  
   Enter the predominant material observed  
   - Cement, tiles or lino  
   - Wooden planks  
   - Earth or sand  
   - Iron sheets  
   - Other |
|---|---|

Enter the **predominant** material observed, meaning the material that **most** of the floor is made of.

| 70 | Observe the type of roof the house has  
   Enter the predominant material observed  
   - Tiles  
   - Iron sheets  
   - Grass or thatch  
   - Makuti  
   - Other |
|---|---|

Enter the **predominant** material observed, meaning the material that **most** of the roof is made of.

| 71 | Ask “Can you please show me where members of your household most often wash their hands?”  
   - Observation possible/permitted  
   - Observation not possible/permitted |
|---|---|

This observation is meant to be completed while you are still near to the dwelling. Ask the respondent to show you where members of their household most often wash hands.

This means general **handwashing at any time** within or near to the household, i.e. before a meal, before cooking or feeding a child, and after using the toilet facility.

They may show you a **fixed place** like a sink or tap or they may indicate that there is **no fixed place** for handwashing, but rather the household uses a basin and jug of water or another type of mobile handwashing station.

Observations are possible and should be made at these places.
| 72 | If the respondent cannot show you because there really is no handwashing place, not even a container, then select observation not possible.  
Record the reason why. |
|---|---|
| 73 | Observe the handwashing facility and select the best description.  
- Fixed place (sink, tap, tippy tap, fixed bucket with tap)  
- Not fixed place (basin or other container and jug)  
If you are able to observe the handwashing facility, they may show you a **fixed place** like a sink or tap or they may indicate that there is **no fixed place** for handwashing, but rather the household uses a bowl and jug of water or another type of mobile handwashing station. |
| 74 | Observe presence of water at the place for handwashing.  
*Test that the tap provides water or look for water in designated basin/container.*  
Record observation.  
- Water is available  
- Water is not available  
The availability of water and soap at a designated handwashing location is a good indicator of hygiene practices.  
If you are able to observe the handwashing facility, **observe** for the presence of water:  
- If it is a fixed place with a tap or a bucket with a tap, **run the tap** to see if there is water available.  
- Otherwise look for water in the designated container.  
Record [Yes] or [No].  
Then **observe** for the presence of soap, detergent, or other cleansing agent **within an arm’s reach** of the place for handwashing.  
Select all that apply. Don’t ask them to fetch soap, as this does not reflect the soap’s accessibility. |
| 75 | Ask "Can you please show me the toilet facility most often used by members of your household?"  
- Observation possible/ permitted  
- Observation not possible/ permitted  
Ask for the respondent to show you the toilet facility most often used by members of their household.  
Select [Observation possible] if they are willing or able to take you to their toilet facility. If they cannot or don’t want to, then select [Observation not possible]. |
If an observation of the toilet facility is not possible, answer why not.

If they previously reported not having a toilet facility, you may select [No toilet facility available] here.

If you are unable to complete the observation for another reason, then select the relevant response.

**Observe type of toilet facility**

- **Pit latrine with open pit/only branches**
- **Pit latrine with slab (cement or concrete)**
- **Pit latrine with traditional platform (branches plastered with mud, local materials)**
- **Ventilated, improved pit latrine (VIP) with slab**
- **Ventilated, improved pit latrine (VIP) with traditional platform**
- **Water-borne: Flush or pour-flush toilet (seat or squatting pan)**
- **Other**

**Water-borne: Flush or pour-flush toilet** – A flush toilet uses a tank (cistern) for flushing water and has a water seal, which is a U-shaped pipe, below the seat or squatting pan that prevents the passage of flies and odors. A pour flush toilet uses a water seal, but unlike a flush toilet, a pour flush toilet uses water poured by hand for flushing (no cistern used).

**Pit latrine with open pit/only branches** – A latrine without a squatting slab, platform or seat. An open pit is a rudimentary hole in the ground where excreta is collected. It may have bare branches over it to stand on.

**Pit latrine with slab (cement or concrete)** – A pit latrine where the pit is fully covered by a concrete or cement slab fitted with either a squatting hole or seat.

**Pit latrine with traditional platform** – A pit latrine where the pit is fully covered by a solid platform built of local materials such as logs plastered with mud.

**Ventilated improved pit latrine (VIP)** – A dry pit latrine ventilated by a pipe extending above the latrine roof. Floor can be a slab or a traditional platform. The open end of the vent pipe is covered with gauze mesh or fly-proof netting.

If the vent pipe is not covered by a gauze mesh or fly-proof netting, the facility should be classified as a pit latrine with slab or traditional platform not a VIP latrine.

The inside of the VIP latrine is kept dark. If the door of the VIP superstructure is missing so that it is no longer dark inside the latrine, the facility should be classified as a pit latrine with slab or traditional platform, not a VIP latrine.
If you select [Water-borne toilet], you will need to ask or observe to where the toilet flushes:

**Piped sewer system** - A system of sewer pipes (also called sewerage) that is designed to collect human excreta (feces and urine) and wastewater and remove them from the household environment.

**Septic tank** - An excreta collection device consisting of a water-tight settling tank normally located underground, away from the house or toilet.

**Flush to pit latrine** - A system that flushes excreta to a hole in the ground.

**Flush to somewhere else** - A system in which the excreta is deposited in or nearby the household environment in a location other than a sewer, septic tank, or pit, (for example, excreta may be flushed to the street, yard/plot, drainage ditch or other location.)

**Flush, don't know**

You will be able to quickly observe from the doorway of the toilet facility whether the pit opening or toilet/squatting pan have visible faeces or staining around the edge.

This is an indicator of the toilet facility’s cleanliness.

Use the torch app on your cellphone (**wrap the strap around your wrist or loop it in your belt to avoid dropping it!**) to look down inside the latrine’s pit.

Observe whether there are any feces visible in the bottom of the pit and record [Yes] or [No].

This is an indicator of whether the toilet facility is in use.

Observe for the presence of any materials for cleaning oneself after defecation (anal cleansing).

Materials can be unused or used and discarded in the toilet facility or pit.
Enter the toilet facility and close the door behind you.

Note whether the toilet facility has a door that closes and if it locks from the inside.

This is an indicator of privacy, which can influence toilet facility usage.

<table>
<thead>
<tr>
<th>Observe whether toilet facility has a door that closes and locks from inside</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ No door</td>
</tr>
<tr>
<td>☐ Only a cloth/plastic curtain</td>
</tr>
<tr>
<td>☑ Door does not close</td>
</tr>
<tr>
<td>☐ Door closes but does not lock from inside</td>
</tr>
<tr>
<td>☐ Door closes and locks from inside</td>
</tr>
</tbody>
</table>

Enter the predominant material observed.

<table>
<thead>
<tr>
<th>Observe the material of the slab/platform/floor of the toilet facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Cement with tile</td>
</tr>
<tr>
<td>☐ Cement</td>
</tr>
<tr>
<td>☑ Iron sheets</td>
</tr>
<tr>
<td>☐ Wooden planks</td>
</tr>
<tr>
<td>☐ Logs plastered with mud</td>
</tr>
<tr>
<td>☐ Other</td>
</tr>
</tbody>
</table>

Enter the predominant material observed.

<table>
<thead>
<tr>
<th>Observe type of walls of toilet facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ No walls</td>
</tr>
<tr>
<td>☐ Stone, bricks or cement</td>
</tr>
<tr>
<td>☐ Iron sheets</td>
</tr>
<tr>
<td>☐ Timber</td>
</tr>
<tr>
<td>☐ Clay or mud</td>
</tr>
<tr>
<td>☐ Natural screen (reeds/bamboo/makuti)</td>
</tr>
<tr>
<td>☐ Other</td>
</tr>
</tbody>
</table>

Enter the predominant material observed.

<table>
<thead>
<tr>
<th>Observe type of roof on toilet facility</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ No roof</td>
</tr>
<tr>
<td>☐ Tiles/Cement</td>
</tr>
<tr>
<td>☐ Iron sheets</td>
</tr>
<tr>
<td>☐ Timber</td>
</tr>
<tr>
<td>☐ Makuti</td>
</tr>
<tr>
<td>☐ Grass or thatch</td>
</tr>
<tr>
<td>☐ Other</td>
</tr>
</tbody>
</table>
A clear (obstacle free) and well-worn path from the dwelling to the toilet facility is another indicator that the facility is currently and regularly in use.

Look for the presence of a **clear, unobstructed pathway**

If toilet facility located inside dwelling record not applicable

This is an indicator of whether the toilet facility is in use.

You previously made observations at the designated handwashing place within or near to the dwelling.

Now, while you are at the household’s toilet facility, observe if there are any handwashing facilities nearby.

**Only consider handwashing facilities within 10 meters (about 2 car lengths) of the toilet facility.**

If the previously observed handwashing facility is also near the toilet facility then mark “**same as previously observed**”.

As before, if you are able to observe a handwashing facility, observe for the presence of water:

If it is a fixed place with a tap or a bucket with a tap, open the tap to see if there is water available.

Otherwise look for water in the designated container.

Then look for the presence of soap, detergent, or other cleansing agent within an arm’s reach of the place for handwashing. Select all that apply.
Selection of the individual sampled for stool & individual-questionnaire

The selection of the individual to be sampled (to provide a stool sample and to answer the individual-level questionnaire) will not be conducted by the fieldworker, but by a random number sampler programmed in the questionnaire. This will occur directly after the last question in the household observation.

- If the individual selected is an adult (≥16 years for this purpose) you will be automatically given the adult questionnaire.
- If the individual selected is a school-aged child (5-15 years) you will be automatically given the school-aged child questionnaire.
- If the individual selected is a pre-school child (<5 years) you will be automatically given the pre-school child questionnaire.

Entering the individual questionnaire

| 89 | STOOL SAMPLING | SurveyCTO will randomly select one of the individuals that you entered at the beginning of the survey when you recorded the name, age, sex and position of each household member.
|    | There are 4 people eligible for sampling in this household. | The number eligible for sampling may be smaller than the total number of household members as we do not survey those under 2 years. |
| 90 | STOOL SAMPLING > sampled1 | Conduct the consenting process again, with this new individual. If they consent press [YES] and proceed. |
|    | 3230407601, Carlos, 72 | If they refuse to consent, you must press [No]. The programme will conduct the randomization a second time and select a different individual. If that second selected individual refuses consent, a third individual will be randomly selected. |
|    | This is the household member selected to provide the stool sample. | No more than three individuals will be selected to give a sample in households with at least three or more eligible members. If all three members do not wish to consent, the survey will end. |
|    | STOOL SAMPLING > sampled1 | Do not re-randomize just because the individual is at school or outside of the compound – you should find them! Do not re-randomize just because the individual may not be able to provide a stool sample on the spot – conduct the questionnaire leave the pot and call back for the sample. |
|    | Has Carlos consented to be asked the questions and provide a stool sample? | DO NOT JUST KEEP RE-RANDOMISING UNTIL YOU GET TO AN INDIVIDUAL WHO IS EASIEST TO SURVEY. We will check each FO’s data for this daily! |
|    | ☐ Yes | ☐ No |
If the first selected member (e.g. Carlos) does not consent, the survey will re-randomise another member.

If the selected person is not present in compound/dwelling at the time of the visit (based on your entry during the household roster), you will ask where that person is.

If they are reported to be somewhere nearby, such the shamba, school, or the water source, you will ask the respondent if they can take you to the selected person.

If the person is available and they can take you to them now, select [Yes, person available (can go to them now)] and then record whether they consent to participate after you have located them and conducted the consent process. As before, if they consent, you will proceed with the individual questionnaire.

If you say [No, not available] the survey will proceed with the next selected person or finalise if there are no other eligible members.

If you select either [Yes, can go to them later] or [Yes, they will return later] then the survey will be paused. Save and exit the form and you can continue other households, you can come back and restart the survey later.
If you wish to save a form in order to return to it during a callback visit, use the “back” button in the bottom, right corner.

You will be asked if you wish to save changes or ignore changes.

Saving changes will save the form, so you can re-open it to edit later.

Ignoring changes will discard the information that you have entered.

Cancel will return to the previous screen.

If you save a form, it can be found in the main menu by opening “Edit Saved Form”.

Saved forms on your phone will be listed by household ID with the head of household name. Click on the form to re-open it.
Re-opening the form you can press “resume” and go automatically to the page with the link to the stool sampling Page from before:

If you are not able to call back for this individual
1. From the page with link, swipe left to return to the survey status form
2. Now update the status to [No, not available]
3. If there is another eligible individual in the household the survey will re-randomise.
4. Otherwise the survey will end and you can now mark the form as finalised.

If you are able to now visit the selected individual
1. From the page with link, swipe left to return to the survey status form
3. Now update the status to [Yes person available (can go to them now]
4. You will be asked to confirm that individual has consented to answer the questions and provide a stool sample.
5. You will proceed with the individual questionnaire
Depending on the age of the individual, an appropriate survey will begin: under-five (U5), school-age (SAC), or adult (A).

In this example, the individual selected was an adult and so the adult questionnaire will be conducted. In some places, the questions will differ slightly when interviewing children under 5 years of age or school children.

Ask about deworming in all questionnaires. Please try and really tease out whether the deworming they mention is the TUMIKIA deworming or not.

TUMIKIA was given en masse the last week of May 2016 and then again in last week of October 2016 (Given by CHVs – with black shoulder bags with the orange TUMIKIA logo)

If they answer yes they will be asked about the number of tablets they received.

Ask if the individual received treatment for matende in the last 6 months.

This was given in some areas in last week of October 2016

If you enter [Yes] regarding treatment from TUMIKIA, ask how many tables they received and enter the number of tablets the individual reports having received.

Ask about any other treatment for worms apart from TUMIKIA.

This can be through any organization, programme or at a health centre/hospital on an individual basis.
If they answer [Yes] to other treatment ask where they received this treatment.

If they report having received multiple treatments, record the **most recent**.

Ask you select community programme it will ask you to specify the name of the programme.

If you select other it will ask you to specify.

Finally it will ask you how many tablets were received for all answers.

The following section will ask questions relating to the individuals behaviors regarding water, sanitation and hygiene.

**Unlike previous questions, these do not require any direct observation.**

For the adult and schoolchildren questionnaires, ask where the individual usually takes a long call when at home or when out and about.

If the description does not fully match, choose the **most appropriate** description.

If you are interviewing a school-aged child, a question about their behavior at school will also be asked.

If the description does not fully match, choose the **most appropriate** description.
### Adults & schoolchildren

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "Last time you took a long call at home, did you use the toilet facility (latrine)?"
- Yes
- No
- Don't know/Refused

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "Last time you took a long call at school, did you use the school's toilet facility (latrine)?"
- Yes
- No
- Don't know/Refused

---

### Schoolchildren only

Record if the individual reports using a toilet facility the last time they passed a stool while at home and at school (for schoolchildren).

---

### Under-fives only

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "What is the main reason you did not use the toilet facility that time?"
- No toilet facility available
- Too young/small
- Don't like toilet facility
- Disabled/Bedridden
- Prohibited from using
- Too far/inconvenient
- Afraid/Scared to use
- Prefer to go outside
- Other
- Don’t know/Refused

---

If they answer [No] ask the main reason for why they did not use the toilet facility.

Record the response closest to what they report.

---

### Under-fives only

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "The last time Lennie passed stools, where did this happen?"
- Child used toilet facility
- Child used potty
- Child used nappy
- On paper
- On ground in compound
- Near dwelling
- On ground outside compound
- Don’t know/Refused

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "The last time Lennie passed stools, what was done to dispose of the stools?"
- Put/rinsed into toilet/latrine
- Put/rinsed into cistern or ditch
- Thrown in garbage
- Buried
- Left in the open/Nothing
- Don’t know/Refused

---

For any individual under 5yrs the survey will ask where the child last passed stools and, if this was not in a toilet, what was done to dispose of the stools.

---

### Adults & schoolchildren

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "Is there a place (e.g. container, basin, sink) at home for you to wash your hands after you take a long call?"
- Yes
- No
- Don't know/Refused

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "Does the school provide a place (e.g. container, basin, sink) for you to wash your hands after taking a long call?"
- Yes
- No
- Don't know/Refused

**STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE**

Ask "Is there a place (e.g. container, basin, sink) at home for you to wash your hands after disposing of Lennie’s stool?"
- Yes
- No
- Don't know/Refused

---

Record if the individual reports a place at home for washing hands after defecation.

If you are interviewing a school-aged child, an additional question about their behavior and facilities at school will also be asked.

If you are interviewing a caregiver about the child an additional question about handwashing after stool disposal will be asked.
If you answer [Yes] to the questions above, record whether the individual reports water and then soap being available at that place for washing hands.

<table>
<thead>
<tr>
<th>Adults &amp; schoolchildren</th>
<th>Schoolchildren only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask &quot;Did you wash your hands the last time you took a long call at home?&quot;</td>
<td></td>
</tr>
<tr>
<td>- No</td>
<td></td>
</tr>
<tr>
<td>- Yes, water only</td>
<td></td>
</tr>
<tr>
<td>- Yes, soap and water</td>
<td></td>
</tr>
<tr>
<td>- Don't know/Refused</td>
<td></td>
</tr>
</tbody>
</table>

Under-fives only

<table>
<thead>
<tr>
<th>Adults &amp; schoolchildren</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask &quot;Did you wash your hands the last time you disposed of Lennie's stool when at home?&quot;</td>
</tr>
<tr>
<td>- No</td>
</tr>
<tr>
<td>- Yes, water only</td>
</tr>
<tr>
<td>- Yes, soap and water</td>
</tr>
<tr>
<td>- Don't know/Refused</td>
</tr>
</tbody>
</table>

112

Ask and record whether the individual reports usually washing their hands with soap and water before eating a meal.

113

Ask and record whether the individual washed their hands before they sat down to eat their last meal.
If you are interviewing for a child under 5 years of age, the following question may be asked instead.

If you answer [Yes], record whether the child is ever observed to wash their hands **before they begin to eat**.

If you answer [No] record instead whether the individual who **usually** feeds them is every observed to wash their hands **before beginning feeding**.

---

<table>
<thead>
<tr>
<th>Under-fives</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STOOL SAMPLING &gt; INDIVIDUAL QUESTIONNAIRE</strong></td>
<td></td>
</tr>
<tr>
<td>Ask &quot;Does your child feed themselves?&quot;</td>
<td></td>
</tr>
<tr>
<td>- Yes</td>
<td></td>
</tr>
<tr>
<td>- No</td>
<td></td>
</tr>
<tr>
<td>- Don’t know/Refused</td>
<td></td>
</tr>
</tbody>
</table>

If yes

| STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE |  |
| Ask "Do they wash their hands before they feed?" |  |
| - Always |  |
| - Sometimes |  |
| - Never |  |

If no

| STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE |  |
| Ask "Does the person feeding them wash their hands?" |  |
| - Always |  |
| - Sometimes |  |
| - Never |  |

---

| 115 |  |
| **STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE** |  |
| **Observe: What sort of shoes is participant wearing?** |  |
| - Closed shoes |  |
| - Sandals |  |
| - No shoes |  |

Asked in all three questionnaires

Record the type of footwear **currently** being worn by the individual.

Do **not** record whether the individual reports **usually** wears shoes.

---

| 116 |  |
| **STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE** |  |
| Do you do any daily work that exposes you to soil? |  |
| - No |  |
| - Work in a shamba |  |
| - Work in a plantation |  |
| - Mining work |  |
| - Construction work |  |
| - Other |  |
| - Don’t know/Refused |  |

Asked for adults and school-aged children (>5 years)

Read through the options and select ALL applicable responses.

We are not asking about “play” here because we assume that all children play in the soil but some, and adults, may have more soil exposure through their daily work.

---

| 117 |  |
| **STOOL SAMPLING > INDIVIDUAL QUESTIONNAIRE** |  |
| Ask “Do you ever eat soil or clay?” |  |
| - Yes |  |
| - No |  |
| - Don’t know/Refused |  |

Asked in all three questionnaires

Record whether the individual reports ever having eaten clay or soil.
Collecting the stool sample

You will now proceed with the collection of the stool sample or arrangement of a call-back visit if necessary.

118

STOOL SAMPLING

Ask Lennie, "Are you able to provide a stool sample at this time?"

- Yes
- No

Ask the selected individual whether they are willing and able to provide a stool sample now. Either “Yes” or “No” is fine.

Often community members take a long call early in the morning or after dark. So they may not be able to provide it there and then.

You can leave the pot and come back later in the day or the following morning.

119

STOOL SAMPLING > sampled1

3230407601,
Carlos,
72
This is the household member selected to provide the stool sample.

Each FO in the team will get a string of 30 stickers for that cluster. Eg 1-29, 30-59, 60-89 etc. For each household you visit you can use the next sticker. The stickers are not assigned to individual villages. They are only cluster specific.

Make sure that the cluster code (the first three digits) match the cluster ID on the list of household heads.

The last three digits do not need to match digits 4-6 on the household or individual ID. The phone will link this 6-digit ID with the 10-digit individual ID.

If you are able to collect a stool sample from the individual at that time:

120

STOOL SAMPLING

The household member selected is able to provide a stool sample right now.

Check that the cluster on the sticker is correct and use it to label the pot. Provide the person with the labeled pot and instructions for how to prepare the sample.

If you select [Yes], meaning that you can collect a sample at that time:

1) Confirm the cluster code (the first three digits on the sticker) matches the cluster code number at the top of the list of household heads.

2) Label the white lid of the polypot using one of the printed barcode stickers you have been given.

LABEL THE POT BEFORE GIVING IT TO THE INDIVIDUAL. DO NOT APPLY THE STICKER TO THE SIDE OR BOTTOM OF THE POT.
| 121 | Once the sticker is on the top of the pot: SCAN IT  
This step is critical, as it links the sample number to the household questionnaire.  
Click on the grey button. |
| 122 | After clicking the grey button, the phone’s display will appear as shown on the left.  
The grey box will display the image captured by the phone’s camera on the front side.  
Make sure you are not covering the camera and hold the phone flat about 6 to 8 cm above the sticker, so the sticker is centered in the image on the screen, in the area within the red circle.  
You will see yellow dots appear on the screen as it tries to read the sticker. The phone will beep (if the sound is on) and the dots will turn green when it has successfully read the sticker.  
If the sticker is well lit (stand outside, not in the shade), the barcode may scan faster. |
| 123 | If the barcode has been read successfully, you will automatically return to the previous screen where the captured barcode is also displayed. |
| 124 | As a backup and only if you cannot scan the barcode, you can enter the sticker ID manually:  
First enter the first three numbers that indicate the current cluster, for example 101.  
Then enter the last three numbers that indicate the number of the sample, for example 001. |
The Barcode you entered will be displayed. **CONFIRM** that it is the one you entered by selecting “YES”.

If the CODE is not what you entered, select “NO”. You will **not** be able to proceed until you correct the code. **Swipe backwards, and re-enter the number to make the correction.**

After you have entered and confirmed the barcode, you will proceed to this screen, indicating that you have **completed the household questionnaire and collected the stool sample.**

Next, update the survey status to “Completed – sample provided”.

After confirming this selection you may save and finalise the form.
If you have to arrange to call-back to collect a stool sample from the individual:

<table>
<thead>
<tr>
<th>127</th>
<th>STOOL SAMPLING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The household member selected is not able to provide a stool sample right now.</td>
</tr>
<tr>
<td></td>
<td>Check that the cluster on the sticker is correct and stick it on the white lid of the pot.</td>
</tr>
<tr>
<td></td>
<td>ON THE NEXT SCREEN, SCAN THE STICKER ON THE POT BEFORE LEAVING THE POT WITH THE SELECTED HOUSEHOLD MEMBER.</td>
</tr>
</tbody>
</table>

If you select [No], meaning that the *individual cannot provide a stool sample at this time* and a call-back visit to collect the sample is necessary, you will see this page with instructions:

1) Confirm the *cluster code* (the first three digits on the sticker) matches the cluster code number at the top of the list of household heads.

2) Label the white lid of the polypot using one of the printed barcode stickers you have been given.

Because you will collect the sample at a call-back visit, *later the same day or the next day*, you must also scan the barcode sticker before giving the pot to the individual.

**LABEL THE POT AND SCAN THE STICKER BEFORE GIVING IT TO THE INDIVIDUAL.**

<table>
<thead>
<tr>
<th>128</th>
<th>STOOL SAMPLING &gt; Leave pot for call-back sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Scan the sticker on the sample pot before leaving it to collect at a call-back visit.</strong></td>
</tr>
<tr>
<td></td>
<td><img src="Get%20Barcode" alt="Get Barcode" /></td>
</tr>
</tbody>
</table>

Before giving the pot to the individual to collect the sample at a later call-back visit, you must scan the sticker.

**Click on the grey button.** The phone will then take you through the same steps to scan the barcode as described above.

<table>
<thead>
<tr>
<th>129</th>
<th>STOOL SAMPLING &gt; Leave pot for call-back sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Scan the sticker on the sample pot before leaving it to collect at a call-back visit.</strong></td>
</tr>
<tr>
<td></td>
<td><img src="Replace%20Barcode" alt="Replace Barcode" /></td>
</tr>
</tbody>
</table>

As before, if the barcode has been read successfully, you will automatically return to the previous screen where the captured barcode is also displayed.

Also as before, if you are unable to scan the barcode you can swipe left, to enter the barcode manually. If it cannot be scanned manually enter the barcode as above.
After scanning or entering the barcode on the stool pot being left, the phone will display a message prompting to **update the survey status**.

Next, update the survey status to “**Callback for sample needed**”.

This question will allow you to stop and save the survey and then re-open the form to enter the rest of the information once you have returned for the call-back visit.

Remember to leave them strict instructions to deposit the stool **THE NEXT MORNING** if you are calling back for it the next day.

After selecting “**Callback for sample needed**” you will be shown a note.

After making this selection, the phone will display a message prompting you to save and exit the form – **WITHOUT FINALIZING**.

If you do not return to the household for a sample, return to the survey status question and select: “**Call back for sample not made**”.

---

**STOOL SAMPLING**

On the next screen, update the status of the form. Select “Callback for sample needed” then save the form without finalising.
If you wish to save a form in order to return to it during a callback visit, use the “back” button in the bottom, right corner.

You will be asked if you wish to save change or ignore changes.

**Saving changes will save the form, so you can re-open it to edit later**

**Ignoring changes will discard the information that you have entered**

**Cancel will return to the previous screen**

If you save a form, it can be found in the main menu by opening “Edit Saved Form”
Saved forms on your phone will be listed by household ID with the head of household name. Click on the form to re-open it.

Re-opening the form you can press “Resume” and go automatically to the page with the link to the Callback visit.

Clicking on the link will take you to the section for entering callback visit information.

Exit and save this form now. When you return for the sample, use this link to get back to the callback section: Callback visit.

If you do not return to the household for a sample, return to the survey status question and select: “Call back for sample not made”
For your call-back visit, after selecting “Resume” and then following the link, you will be asked if you have received a sample at the call-back visit.

If a sample is received at call-back, select “yes.”

If a sample is not provided when you go back to the household, select “no.” You will then be asked to explain why you have not received a sample.

You will then be instructed to finalise the survey. Select “Completed – no sample provided”.

If a sample is received at call-back,

This question is to confirm at the call-back whether the person first randomly selected to provide a stool sample actually provided the sample. Probe the family members to be sure about who provided the sample.

Make them feel like you will not be angry/upset if it was a different person we just need to know so we can correct the data.

Whether the initially selected person gave the stool sample or not, you will ask when the stool was deposited.

Again make them feel like you will not be angry/upset if it was earlier than this morning but we just need to know so we can record it.
If selected person DID NOT provide the sample you were given, then you will ask "who provided this stool sample?" and the display will list the names of the household residents.

Select that person from the list. After this screen, you will be prompted to ask whether the person who DID provide the sample is present.

If you choose “Yes” then you will complete the relevant individual questionnaire with that person and then conclude the survey as follows.

If you choose “No” then you will conclude the survey as follows.

If you receive a sample at callback you will record the barcode as described previously.

Scan the barcode sticker on the returned sample pot.

This step is critical, as it links the sample number to the household questionnaire.

You have completed the household questionnaire and collected the stool sample. Please finalise the survey.

After scanning or entering the barcode of the received stool sample, you will see this message displayed.

You can then proceed to the final screen of the survey.
Next, update the survey status to “Completed – sample provided”

After confirming this selection you may save and finalise the form.

REMEMBER: If a sample is not provided when you go back to the household, select “no.” You will then be asked to explain why you have not received a sample. You will then be instructed to finalise the survey. Select “Completed – no sample provided”

If you are unable to make the callback visit for the sample, then re-open the form and resume as before:

1. From the page with link, swipe left to return to the survey status form
2. Now update the status to “Callback for sample not made”
3. You will be asked to confirm that a callback was not made. Select “Yes”.
4. You can now mark the form as finalised
<table>
<thead>
<tr>
<th>Page</th>
<th>Image</th>
<th>Text</th>
</tr>
</thead>
</table>
| 144  | ![Image](image1.png) | Final page of form  
Record any observations or problems you had |
| 145  | ![Image](image2.png) | When you get to the end of the survey, ensure that it is finalized (you have ticked the box).  
You will not be able to finalize unless all the questions have been answered.  
Press [Save Form and Exit]. |
| 146  | ![Image](image3.png) | This will then be stored until you get to the office and turn on the Wifi, when the surveys will be downloaded to the server. |
Introduction
The overall team target is 225 individual samples across three days, which is 25 samples per individual over the three days in a cluster. There is no specific daily target or per person target as this will depend on the villages each goes to, callbacks left and the division of labour in the team. This is a team effort and it is a collective goal.

Stool collection is a sensitive activity and must be handled delicately. This SOP describes the processes to be followed in collecting the stool samples.

Materials required for stool collection process

<table>
<thead>
<tr>
<th>1 box:</th>
<th>Gloves</th>
<th>✓</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 pc</td>
<td>Black carrier bag</td>
<td>✓</td>
</tr>
<tr>
<td>1 pc</td>
<td>Marker pen</td>
<td>✓</td>
</tr>
<tr>
<td>13 Small black bags:</td>
<td>Toilet paper (3-4 squares)</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Newspaper (1 pc 7cm x 7cm)</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Wooden spatula</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>1 stool ‘polypot’ with barcode</td>
<td>✓</td>
</tr>
</tbody>
</table>

Preparation of the stool collection materials
On returning from the field, prepare the materials for the next day. Prepare 13 packets to be handed to the study participants from which a stool sample is required. In the morning, these pre-prepared packs will be carried to the field in your backpack.

- Cut the newspaper into pieces of approx 7x7cm using a ruler or by folding and tearing
- Cut the toilet paper, counting 3-4 squares per section
- Break the wooden spatula into 2
- Put the packets together

Each of the small black bags should contain a section of toilet paper, 3 pieces of newspaper, a piece of wooden spatula and a stool polypot

Instructions to give the sampled individual on the stool collection
Following selection of the individual and consent in the field, request the participant to provide a stool sample.

Apply the next new barcode sticker to the white top of the polypot. Check the name and code of the cluster against the name and first three digits printed on the sticker.

If the pot is to be left to be collected with a sample at a call-back visit, you will need to scan the barcode BEFORE PROVIDING THE EMPTY POT TO THE INDIVIDUAL.
Explain the steps required in providing this sample. Start by explaining what is in the small bag

- Newspaper will be used to ‘receive’ or ‘collect’ the stool
- The wooden spatula will be used to transfer a portion of the stool to the polypot
- Toilet paper - for wiping themselves
- The polypot will be used to carry the stool sample back to the lab

Give the participant the following instructions:

- Ask the participant to go to the place where they usually take a long-call. This should preferably be a toilet facility if possible. If not, they should go wherever they would usually go.
- Ask them to place the newspaper on the floor of the toilet or ground, they should deposit the stool on the newspaper.
- Using the spatula they should collect enough stool to fill 1/2 to 2/3 of the pot. This should be placed in the polypot and then the lid put on. The pot should be no more than half filled and properly covered.
- The toilet paper is for wiping themselves.
- Once the collection is complete they should dispose of the newspaper, stick and tissue in the toilet facility if available.
- The collected stool in the pot should be placed back into the black bag and handed to you.

A glove can be used when receiving the stool from the participant, although there should be no direct contact with the stool as it will be in a pot within a bag. The polypot containing the stool should be put in a sealable plastic carrier bag. NB fresh stool is warm and the container is a bit moist.

**Immediately scan the barcode on the pot, as indicated in the survey, when you receive a pot with stool in it either during a visit or call-back.**

**DO NOT PUT THE POT WITH STOOL IN YOUR BAG UNTIL THE BARCODE HAS BEEN SCANNED!**

**Call backs**

If the individual is unable to provide the sample at the time of the survey, the materials can be provided and the instructions given. The individual may then produce the sample to be collected LATER IN THE DAY OR ON THE FOLLOWING MORNING. If the sample is to be collected the next day, they must deposit it when they take their early morning call. It must not be deposited the previous evening because the hookworm eggs will have hatched before the stool reaches the lab and the eggs cannot be seen and counted. Stool must be delivered to the lab within 8 hours of being deposited in the pot by the individual. Call backs can be set up on day 1 to collect on day 2 and on day 2 to collect on day 3 (or on any of the days if it can be collected before you leave the community). They can also be collected later that same day. The effectiveness of callbacks will depend on the community.
Delivering the stool to the lab

When you arrive at the lab, one of the laboratory staff will meet you to collect each field officers samples and log each sample individually. This is to confirm that all samples you have collected that day are accounted for at the lab. You will each stand with your lab team and “log” your samples with them, so there is a record of how many samples each field officer has dropped at the lab.

Key Messages

| If they cannot give you the sample at the time of the interview arrange a call-back for later the same day or the following day. | It is possible to leave the pot and arrange a call-back to collect the stool sample for that individual later in the day or the next morning. However, hookworm eggs need to be detected by the lab technicians within eight hours of excretion, therefore the message must be clear. If you plan to call-back the next day for the sample, they should only deposit stool the next morning for our collection, and it will be collected on that morning.
If they deposit the stool on the evening of day 1 and it is collected the morning of day 2, it may be 24 hours old by the time it gets to the lab. By that time the hookworm may have hatched and the sample cannot be used. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>The stool should be fresh stool and not stool from another day (for those who do not have toilets and can identify a previously deposited stool)</td>
<td>We need to ensure the stool collected is from the individual who answered the questions and that the sample provided is only a few hours old.</td>
</tr>
<tr>
<td>The stool pot MUST be labeled in the household and not after leaving or in the lab at the end of the day</td>
<td>As soon as the individual to be sampled has consented and indicated that they can provide a sample at that time, label the pot with a barcode before giving it to the individual. If you are leaving the pot to collect at a later call-back, scan it into the survey.</td>
</tr>
</tbody>
</table>
With regard to dropping the stool in the lab, two drops could/should be made – one in the morning with the call-backs collected and then one in the afternoon with the new samples.

In order to ensure that the lab technicians do not have lots of work to do in the evening and that the stools collected early in the morning are not spoiled before reaching the lab, **two lab drops should be made.**

The **first drop should contain any call-backs from that morning** and the first new households visited, and the **second drop should contain the households visited later in the day.** The driver should take the first stool drop alone and all team members should be present in the car for the second drop. The logistics of this will depend on the cluster.

**Insist they give you their own stool, not somebody else’s**

We need to ensure the stool collected is from the individual who answered the questions in the individual questionnaire so we can link the information to the sample.

Ask the selected person that they provide the sample. If you have returned to collect a sample at a call-back visit, you will also ask them to confirm if they provided the stool sample. If not, then you will identify the household member who provided the sample and conduct a new survey.

Make sure you put the participant at ease; there should be no shame or embarrassment. Stool is the by-product of the digestive system, we all produce stool regularly. Please ensure to maintain the privacy and dignity of the participant.
**Section 7 - Checking in at the Office**

**Introduction**
When arriving back at the office at the end of the day, it is very important to submit items taken to the field and this section of the SOP documents the key personnel to check in with on arrival back. You should, when at all possible, return to the office with the team, but if it is late and the vehicle is passing your home, you can alight as long as:

- You have contacted the office to inform them
- You have handed your phone, and consent forms (and village elder and piki piki forms on Friday) to the team leader or the member responsible for the separate items

**Individual items**

**Consent forms:**
- In the car staple the consent forms by household, ensuring that for each household there is a consent form from the household head and the sampled individuals
- Ensure you have filled the 10-digit unique ID and the sample ID in the boxes at the top
- Ensure to also write your enumerator ID on top of the consent form
- Submit these to the team leader to compile the consent forms for the team

*Team leader/Member responsible to submit the consent forms for all team members to one of the office team members.*

**Village elder allowance forms:**
- This is submitted at the end of the week.
- Make sure the form has been fully filled in by the village elders and that you have signed and written your enumerator ID on the form
- Submit these to the team leader to compile

*Team leader/Member responsible to submit the village elder forms for all team members to the office team for filing every week. Failure to return this will result in deduction of the 2,000ksh.*

**Piki Piki allowance forms:**
- This is submitted at the end of the week.
- If you have been present all week this will have 100,100,100,100,400.
- If you have been absent for one day this will have 100,100,100,100.
- Ensure the form is fully filled with all your information
- Submit these to the team leader to compile for the team

*Team leader/Member responsible to submit the DMFs for all team members to one of the office team members for filing.*
**Household lists:**
- Each enumerator has a list with households.
- Make sure that there is a comment by each household visited if a survey was not conducted and that a survey has been conducted with each stage 1 household.
- Ensure this is kept up-to-date with households that have been visited, surveyed and collected a sample from clearly marked.
- Write your enumerator ID beside each household sampled.
- Transfer this information over to the master list held by the team leader at the end of the cluster and the team leader will compile the master list and summary for submission.

*Team leader – this list should be updated at the end of the cluster and submitted to one of the office team members at the end of the three days in the cluster.*

**Smartphones:**
- Start charging the smartphone with the battery pack in order to reduce time spent charging all phones in the office.
- Ensure all forms are finalized before handing your phone to the office team member responsible for phones in the morning.
- At the office, turn on the phone’s wifi so that the completed questionnaires can be downloaded immediately.

**Barcode stickers:**
- Any unused stickers must be returned to the team leader at the end of the cluster. These will be submitted to the office and stored for use in the mop up surveys.

**Summary**
On arrival at the office, check in with the office. Remember to submit, for all members of your team, every day:
1. The smartphones
2. The consent forms
3. Household lists (end of 3 days)
4. Village elder forms (end of week)
5. Piki piki forms (end of week)

Any unused forms should be returned to their respective boxes and the lab materials returned to the store.
This manual was created by the London Applied & Spatial Epidemiology Research Group (LASER) based at the London School of Hygiene & Tropical Medicine as part of the TUMIKIA research project. TUMIKIA seeks to determine whether combining school and community based deworming is more effective at controlling and eliminating soil transmitted helminths in Kenya than school based deworming alone, and what frequency of deworming is required to stop transmission. This research was a collaboration between LASER, Kenya Medical Research Institute and Kenya’s Ministry of Health and Ministry of Education, Science & Technology.

For TUMIKIA research findings visit www.lshtm.ac.uk/laser

LASER combines expertise in the fields of spatial statistics and GIS technology, quantitative epidemiology and operational research to build the evidence-base around diseases of poverty and the communities they affect.

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