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Maternal and Child Survival Program

Rapid Knowledge, Practices and Coverage (KPC) Survey

Water, Sanitation and Hygiene (WASH) Module

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The Maternal and Child Survival Program (MCSP) is a global, United States Agency for International Development (USAID) Cooperative Agreement to introduce and support high-impact health interventions with a focus on 24 high-priority countries with the ultimate goal of ending preventable child and maternal deaths within a generation. The Program is focused on ensuring that all women, newborns and children most in need have equitable access to quality health care services to save lives. MCSP supports programming in maternal, newborn and child health, immunization, family planning and reproductive health, nutrition, health systems strengthening, water/sanitation/hygiene, malaria, prevention of mother-to-child transmission of HIV, and pediatric HIV care and treatment.

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1. Overview

This module yields information on Water, Sanitation & Hygiene (WASH). The module includes indicator definitions, a summary of updates made to the module, notes for program managers, interviewer instructions, the tabulation plan, suggestions for other data sources, and the survey questionnaire (included as a separate Excel file).

2. Indicators

The following indicators can be calculated using the WASH KPC questionnaire included with this module. For this module, there are thirty-three questions, seven of which are spot observations used to calculate key indicators. There are a number of questions in WASH module that are not used to calculate specific indicators, yet which provide useful WASH insights. The eleven indicators are as follows:

- Indicator 1.1: Coverage of an Improved Source for Drinking Water
- Indicator 1.2: Coverage by an Improved Source of Water for Handwashing and Cooking
- Indicator 1.3: Access to an Improved Source of Drinking Water
- Indicator 1.4: Household Members Who Fetch Water
- Indicator 1.5: Dedicated Handwashing Station
- Indicator 1.6: Access to Essential Handwashing Supplies
- Indicator 1.7: Household Water Treatment
- Indicator 1.8: Household Safe Water Storage
- Indicator 1.9: Coverage by an Improved Toilet Facility
- Indicator 1.10: Cleanliness of the Toilet Facility
- Indicator 1.11: Safe Disposal of Child Feces

The indicator table (Table 1) contains indicator names and definitions as well as a column that indicates whether an indicator is a "key" (KEY) or "LiST" (LiST) indicator. Numerators and denominators are not included in the tables in this section, but they can be found in the tabulation plan (Section 6). LiST indicators are those that can be input into the Lives Saved Tool (LiST). If the indicator modeled in LiST is similar but somehow different from the KPC indicator, the LiST indicator's definition is noted as a footnote.

Table 1. KPC WASH Indicators

Indicator	Definition	KEY or LiST
1.1 Coverage by an improved source for drinking water	Percentage of households using an improved source of drinking water	KEY, LiST[1]
1.2 Coverage by an improved source of water for handwashing and cooking	Percentage of households using an improved source of water for handwashing and cooking	
1.3 Access to an improved source for drinking water	Percentage of households using an improved source for drinking water within acceptable reach[2] and available daily	KEY, LiST[3]

[1] LiST indicators: improved water source; water connection in the home.
[2] Acceptable reach defined as an improved water source that is either on the premises or within 30 minutes of household and that has not been unavailable for 24 hours within the previous two weeks.
[3] LiST indicator: water connection in the home.

Indicator	Definition	KEY or LiST
1.4 Household members who fetch water	Percent distribution of households by person who fetches water	
1.5 Dedicated handwashing station	Percentage of households with a dedicated handwashing device located in the home or near the toilet facilities	KEY
1.6 Access to essential handwashing supplies	Percentage of households with all essential handwashing supplies readily available	KEY, LiST[4]
1.7 Household water treatment	Percentage of households using recommended household water treatment technologies	KEY
1.8 Household safe water storage	Percentage of households that store drinking safely	KEY
1.9 Coverage by an improved toilet facility	Percentage of households using an improved toilet facility	KEY, LiST[5]
1.10 Cleanliness of the toilet facility	Percent of household with toilet facilities that meet cleanliness criteria	
1.11 Safe disposal of feces	Percentage of households that disposed of the youngest child's feces safely the last time s/he passed stool	KEY, LiST[6]

3. Updates to the Module

This module was revised in 2015 to reflect recent developments in WASH, particularly those associated with recent evidence on the association between WASH and undernutrition in children, climate change considerations, and changing contexts (urbanization). The module then advises on how that information can be captured in the processes of data collection, analysis, and interpretation. This updated module also includes a brief section on how to interpret the findings from the analyzed data in order to better understand the WASH situation in the project area and help inform follow-up actions.

Other changes include the following:

- The "Interviewer Instruction" section has been replaced with an "Interviewer Notes" section, which is meant to be more concise and only address issues that may arise rather than serve as a question-by-question guide through the questionnaire.
- The "Suggested Qualitative Research Questions" section has been replaced with the "Other Data Sources" section, which includes information about qualitative research topics.
- A "Notes for Program Managers" section has been added; it includes items for consideration as the baseline KPC survey is being designed.
- The survey questionnaire has been redesigned in Microsoft Excel, which is intended to make the questionnaire more easily adaptable and consistent with the Demographic and Health Survey standard template.

[4] LiST indicator: hand washing with soap.
[5] LiST indicator: improved sanitation-utilization of latrines or toilets.
[6] LiST indicator: hygienic disposal of children's stools.

4. Notes for Program Managers

This section outlines items that program managers and survey leaders need to prepare in advance before they implement the KPC and before they train a data collection team.

Context Considerations

While WASH has long been a core component of individual, household, community, and facility-based health, it is a constantly evolving area. There are important differences across countries with regard to WASH challenges and potential solutions, making it difficult to provide general guidance on the collection, analysis, and interpretation of WASH KPC survey data. When thinking through a WASH KPC survey, it is important to consider the context, trends, and environmental and sustainability challenges. To appropriately adapt the WASH KPC module for a program, the program management team should determine and consider the following the following:

- **The Target Population and Level of Intervention**: WASH issues and associated health problems can differ by a range of factors, including sex and age. For instance, if your program focuses on nutritional outcomes such as stunting, WASH activities would most likely focus on children under the age of 2, paying particular attention to household-level interventions. If, however, your program interested in water access and gender disparities, your intervention may focus on community approaches, and your target population may focus be school-age girls and women.
- **Adequate Interview Training:** Many of the WASH KPC questions are direct observations by the interviewer and are not asked of the respondent. Where possible, observations are preferred. Interviewers should be adequately trained on how to recognize the equipment, tools, and supplies that they will be directly observing as part of the survey. Interviewers should also be trained on the characteristics of different levels of water and sanitation facilities (unimproved, shared, and improved).[7] They should also be familiar with common facility and WASH product designs in the data collection location (e.g., different latrine or water filter models). Interviewers should be aware of the local terminology used in the WASH field.
- **Sources of Water Commonly Utilized:** Indicators 1.1–1.4 relate to the source of water, where the water is located, and who commonly collects the water. Although this survey presents standard response options, program managers should ensure that the response options are clear and appropriate for their context. In regards to the individuals responsible for fetching water, often the burden falls on women and children; this has many implications, including safety. Thus, programs may be interested in grouping responses in various ways, for example by looking at responses separated for each of the response categories in addition to grouping responses for women and children fetching water together. Additionally, interviewers should be able to define and identify the common water sources. Photos or pictures of the various sources might be beneficial for interviewers to reference.
- **Water Treatment and Safe Storage:** Inconsistent and incorrect use is a major challenge in realizing the full potential of household water treatment and safe storage. Thus, there is a need to monitor and evaluate uptake in order to develop effective mechanism to encourage and sustain correct use of treatment and storage:[8]
    - In addition to the questions and observations included to calculate water treatment and safe storage indicators presented in this module, program managers can collect information on the following

[7] UNICEF and WHO, Joint Monitoring Programme website, http://www.wssinfo.org/definitions-methods/.
[8] WHO (2012), A Toolkit for monitoring and evaluating household water treatment and safe storage programs, http://www.who.int/household_water/WHO_UNICEF_HWTS_MonitoringToolkit_2012.pdf.

themes: reported and observed use; correct, consistent use and storage; knowledge and behavior; other environmental health interventions; and water quality.[9]

- Although water may be collected from an improved source, contamination of water from these improved sources is common. Appropriate storage and treatment of water is critical to reduce contamination. Indicators 1.7 and 1.8 address these topics. Classifications of safe water storage vary by context, and programs may be promoting particular water storage vessels or mechanisms. Program managers should ensure that they tailor response options to account for these differences.

- **Toilet Facilities:** Although coverage by an improved toilet facility as a key indicator, the cleanliness of that facility should also be taken into consideration. Toilet facilities that are unclean are less likely to be used and are more likely to foster diseases and illness. The cleanliness of the facility should be observed, and observers should look for obvious signs of cleanliness (or lack of cleanliness). The module provides some guidance on what these questions should be, but program managers are encouraged to tailor these to ensure that they are contextually appropriate.
- **WASH Campaigns:** WASH promotion campaigns have the potential to drastically alter a program area. Program managers should be aware of following:
  - Dates when the campaigns or interventions were conducted in the areas surveyed.
  - The focus of the campaign or intervention (some might focus on infrastructural implementations and improvements while others might focuses on behavioral and knowledge improvements)
  - If there are any WASH products or supplies being promoted or provided by campaigns
  - Results from other campaigns or interventions that may influence the survey results, specifically if programs intend to compare survey results with data from another point in time
- **Outcomes of Interest**: The questions in the KPC tool will provide your program with a general snapshot of the WASH situation in your target location. Depending on the health, economic, education, and policy outcomes of interest, there may be a need to expand the line of questions on a certain topics within the WASH KPC questionnaire.

5. Training Interviewers

Choosing Indicators

It is important the program managers recognize that they do not need to collect data to calculate every indicator that is included in the module and that they may need or want to include additional WASH-related information not reflected in this module. The scope and focus of the program and the local context should inform which questions are included or excluded from the survey.

The indicators presented in this module are outcome indicators to assess the availability of WASH facilities and products, while also determining basic WASH practices. Key indicators are recommended for inclusion in all surveys if the project has a WASH component.

When selecting indicators, it is important to consider how the project will measure both the long-term and the short-term objectives. Benchmark or process indicators, which measure progress made toward achieving greater outcomes, are critical to ensuring that programs and initiatives are on track to reaching long-term goals. These indicators allow the program or initiative to track or monitor intermediary results. It is also

[9] WHO (2012), A Toolkit for monitoring and evaluating household water treatment and safe storage programs, http://www.who.int/household_water/WHO_UNICEF_HWTS_MonitoringToolkit_2012.pdf.

possible for program managers to examine aspects or components of the indicator; this examination might provide useful insights to specific components which either need improvement or are well on track.

For example, if the award activities aim to have households have all the WASH products readily available in their homes, then the corresponding indicator Access to Essential Handwashing Supplies (which measures access to three supplies: a handwashing device, a cleaning agent, and water) can serve as a benchmark indicator. The program manager can examine which of these supplies most household have and which are challenges; programs can then adjust their focus to address the most challenging areas, which would result in an improvement in the overall indicator score. Alternatively, projects might set an intermediary target of having two of the three essential handwashing supplies, as a first step or benchmark/intermediary goal, prior to meeting the indicator requirements of having ALL of the handwashing supplies available.

Additional questions may need if the survey manager decides to collect additional information related to these process indicators.

Questionnaire Overview

The WASH questionnaire covers standard questions related to WASH-related access, education, and behaviors. Program managers can expand upon any of the WASH subjects in the questionnaire depending on the focus of the intervention. This module has a section titled "Other Data Sources" that provides some additional question and themes that programs can explore.

Common Survey Question Considerations for Adaptation

Many of the indicators and corresponding questions in this module are based on international standards or current best practices, but some may need to be modified because of national policy, local context, or language. For example, if data is being collected on the cleanliness of a latrine, one of the characteristics of cleanliness may be a clean toilet seat. In much of the world, toilet seats are not used, so this question and its aggregated components would need to be adapted to the context in the country or area of interest. If questions are adapted to fit the context or the program focus, ensure that the tabulation plan reflects the revised questions and terminology.

6. Interviewer Notes

For this module, questions target any adult member of the household. Certain programs may require further targeting of specific household members. For example, a WASH program that contributes to nutrition improvements in Under 2 (U2) children may require that the mothers or other child caregivers respond to questions. The survey may also need to focus on households that have U2 children at the time of the data collection.

Asking Questions and Recording Answers

It is important that you ask each question exactly as written on the questionnaire. In addition to the questions, there are statements that appear in all capital letters, indicating that they are interviewer instructions; interviewers should not read these statements aloud to the respondent.

Most questions in this module have pre-coded responses that should not be read aloud to the respondent. When you ask a question, you should listen to the response and then circle the numeric code next to the category that best matches their answer or write the response above the assigned line, if appropriate. Sometimes it will be appropriate to circle multiple answers; in this case the response codes will be letters. Read the instructions on the questionnaire carefully for each question.

Important Notes about Asking WASH Questions

WASH terms, practices, and products vary depending on the context. It is important to adapt the survey questions to the local context to make them acceptable and understandable. Furthermore, probing during the interview and asking clarifying questions will often times be necessary to ensure that the respondent's answers are accurately reflected. Detailed notes about each question and instructions on answering the questions and suggestions for probing are provided below. If modifications are made to the module, it is important to account for the changes and provide guidance for the interviewers.

The purpose of **Qs.WASH101–107** is to assess whether the household has access to an improved source of drinking water, the degree of that access, and, if water is fetched, the individual who usually fetches the water.

Q.WASH101–102: If drinking water is obtained from several sources, probe to determine the source from which the household obtains the majority of its drinking water. When the terminology used for the drinking water sources does not translate well into the local languages, pictures of the various sources might be helpful. Record the main source of drinking water in question **Q.WASH101**. **Q.WASH102** is different from 101 in that it is asking the source of water for other purposes such as cooking and handwashing. The table below provides definitions of the water source response categories in **Q.WASH101**, **Q.WASH102**, and **Q.WASH107**.

Table 2. Definitions of Water Source Codes for Qs.WASH 101, 102, and 107

Response/Code	Definition
Piped into home	Pipe connected with in-house plumbing to one or more taps (e.g., in the kitchen and bathroom). Sometimes called a house connection.
Piped to yard/plot	Pipe connected to a tap outside the house in the yard or plot. Sometimes called a yard connection.
Public tap or standpipe	Public water point from which community members may collect water. A standpipe may also be known as a public fountain or public tap. Public standpipes can have one or more taps and are typically made of brickwork, masonry, or concrete.
Tubewell or borehole	A deep hole that has been driven, bored, or drilled with the purpose of reaching ground water supplies. Water is delivered from a tubewell or borehole through a pump that may be powered by human, animal, wind, electric, diesel or sun.
Protected well	A dug well that is (1) protected from run-off water through a well lining or casing that is raised above ground level and a platform that diverts spilled water away from the well and (2) covered so that bird droppings and animals cannot fall down the hole. Both conditions must be observed for a dug well to be considered as protected.
Unprotected well	A dug well in that is (1) unprotected from run-off water or (2) unprotected from bird droppings and animals.
Protected spring	A spring protected from run-off, bird droppings, and animals by a "spring box," which is typically constructed of brick, masonry, or concrete and is built around the spring so that water flows directly out of the box into a pipe without being exposed to outside pollution.
Unprotected spring	A spring that is subject to run-off, or bird droppings, or animals. Unprotected springs typically do not have a spring box.
Rainwater	Rain that is collected or harvested from surfaces by roof or ground catchment and stored in a container, tank, or cistern.
Tanker truck	Water that is obtained from a provider who uses a truck to transport water into the community. Typically the provider sells the water to households.

Response/Code	Definition
Cart with small tank	Water that 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 nonmotorized (e.g., a donkey).
Surface water	Water located above ground, including rivers, dams, lakes, ponds, streams, canals, and irrigation channels.
Bottled water	Water that is bottled and sold to the household in bottles.
Other	Water source that does not match any of the descriptions provided above.

Qs.WASH103–105: One aspect of access is how long it takes to fetch water. If the source of water is located outside of the dwelling (**Q.WASH103**), it is important to know how long it takes to fetch water. The time to fetch water (in minutes) must include the entire process of fetching, which is going to the source, filling up the containers, and returning to the household; it is more than just the distance to the supply point. The time for collecting water may impact the quality of life of the household members that usually do it. **Q.WASH105** asks the person that most often or usually goes to fetch the water. For **Q.WASH105**, a child is an individual under 15 years of age. Probe to see if someone else usually accompanies this person to fetch water and record that response in **Q.WASH105A**.

Qs.WASH106–107: Q.WASH106 addresses if water from the specified source in the previous questions was not available for an entire day during the past 2 weeks. **Q.WASH107** addresses what the alternative source of water is for the household. The question about the alternative source (**Q.WASH107**) refers to any scenario when the main source for drinking water is interrupted, not just in the 2 weeks preceding the survey, such as disruptions of longer durations during dry months.

Qs.WASH108–111: These questions ask about the treatment of drinking water. Treating water through physical or chemical means can further reduce the risk of contamination. Depending on the method, households may use one or a combination of several types of treatment.[10] In **Q.WASH109**, record all treatment methods reported. If permission is granted to see the supplies utilized for making water safer for drinking (**Q.WASH110**), observe all the listed supplies and record 'Yes', 'No', or 'Don't Know' for each item observed. The table below defines the various water treatment options.

Table 3. Definitions of Water Treatment Codes for Qs.WASH 109 and 111

Response/Code	Definition
Boiling	Heating of water with fuel until water comes to a boil. The same container that is used to boil the water should be used to store the boiled water. **OBSERVATION:** Is there a place to boil water and a container (kettle)?
Add bleach/chlorine	Using free chlorine to treat drinking water. Free chlorine may be in the form of liquid sodium hypochlorite, solid calcium hypochlorite, or bleaching powder. This includes brand names like Waterguard, Jik, and Aquatabs. **OBSERVATION:** Is bleach or a similar treatment present?
Strain through a cloth	Pouring water through a cloth, which acts as a filter for collecting particulates from the water.

[10] Several water treatment techniques are time sensitive and only effective if administered correctly. If proper water treatment is a critical component or aspect of the program, additional questions on the frequency of water treatment could also be included. The tabulation plan will have to be adjusted to reflect these changes.

Response/Code	Definition
Use water filter	Pouring water through some medium to remove particles and at least some microbes from water. Media used in filtering systems usually include ceramic, sand, and composite. **OBSERVATION:** Is a filter presently used?
Solar disinfection	Exposing water, which is stored in buckets, containers, or vessels, to sunlight. **OBSERVATION:** Is there a bottle and a place for solar disinfection?
Let it stand and settle	Holding or storing water, undisturbed and without mixing, long enough for larger particles or sediment to settle out by gravity.
Other	Using a method of water treatment that does not match any of the descriptions provided above.

Qs.WASH112–115: Besides using an improved source for drinking water, many households store drinking water, particularly when it is not piped directly into the household or in cases where the water supply is not consistent. Proper storage of water is critical to prevent contamination. **Q.WASH112** asks how the households store their drinking water, and **Q.WASH113** asks permission to see the containers. If permission is granted to observe the containers, observe to see if the following characteristics are to prevent hands from reaching into the container are apparent: an opening with a diameter of 3 cm or less and a cover. A narrow-mouth container has an opening of 3 cm or less; use the template provided to measure the opening.[11]

Qs.WASH116–120: It is not necessary that households have a special room for handwashing , but some households will have a location where handwashing usually takes place. If the respondent answers that the household had a specified handwashing station (**Q.WASH116**), ask to see where household members usually wash their hands (**Q.WASH117**). Inspect the area to note where it is located (**Q.WASH117**), if it is movable or not (**Q.WASH118**), and whether the specified items are present (**Q.WASH119**). If the specified items in **Q.WASH119** are in place or brought out within one minute, circle the code next to the item. Do not circle the respective code if the item is not present or brought to the interviewer more than one minute later. Only if supplies are readily available is it likely that handwashing with the specified items will take place at the critical times. Please note that you can circle more than one response option for **Q.WASH120**.

Qs.WASH121–124:[12] These questions ask about the respondent's perception about various aspects of handwashing. In **Q.WASH121** and **Q.WASH122**, probe to make sure all products and commonly utilized handwashing stations are recorded. **Q.WASH123** and **Q.WASH124** ask for the respondent's opinion about why community members wash or do not wash their hands. Make sure to emphasize that there is no correct answer but that you would like to know what the respondent thinks. Responses should be spontaneous; do not read out possible responses to the respondent.

Qs.WASH125–131:[13] These questions assess the household's coverage by an improved toilet facility, which includes how likely it is that the facility will be used and the cleanliness of the facility. The assumption is that toilet facilities that are close to the living quarters can be accessed more easily and during both the day and night hours. A facility that is not shared with others is more likely to be kept clean and may encourage use.

- **Q.WASH125:** This question focuses on assessing what kind of toilet facility the household has. Depending on the response provided, you may need to probe to get further detail. For example, if the respondent answers with a general term such as "flush toilet" probe to see where the toilet flushes. If

[11] Interviewers will need to be provided with a round object measuring 3 cm in diameter to measure the observed water storage containers.

[12] These questions are not used to calculate any indicators but rather give an understanding of the perceptions about handwashing, preference of handwashing products, commonly observed handwashing stations, and reasons for washing or not washing hands.

they answer "latrine" probe to determine the type of latrine. The table below provides the definitions of the types of facilities given as response options for this question.

Table 4. Definitions of Toilet Facility Codes in Q.WASH125

Response Categories	Definition
Flush/pour flush toilet	A flush toilet uses a cistern or holding tank 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 is used).
—to 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. Sewerage systems consist of facilities for collection, pumping, treating, and disposing of human excreta and wastewater.
—to septic tank	An excreta collection device consisting of a water-tight settling tank normally located underground, away from the house or toilet.
—to pit latrine	A system that flushes excreta to a hole in the ground.
—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 (e.g., excreta may be flushed to the street, yard/plot, drainage ditch or other location).
Pit latrine	Excreta are deposited without flushing directly into a hole in the ground.
—ventilated improved pit latrine (VIP)	A dry pit latrine ventilated by a pipe extending above the latrine roof. The open end of the vent pipe is covered with gauze mesh or fly-proof netting. 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 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, not a VIP latrine.
—pit latrine with slab	A dry pit latrine in which the pit is fully covered by a slab or platform that is fitted either with a squatting hole or seat. The slab or platform should be solid and can be made of any type of material (e.g., concrete, logs with earth or mud, cement). The slab or platform should adequately cover the pit so that pit contents are not exposed other than through the squatting hole or seat.
—pit latrine without slab (also known as open pit)	A latrine without a squatting slab, platform, or seat. An open pit is a rudimentary hole in the ground where excreta is collected.
Composting toilet	A dry toilet into which excreta and carbon-rich material are combined (e.g., vegetable wastes, straw, grass, sawdust, ash) and special conditions maintained to produce inoffensive compost. A composting latrine may or may not have a urine separation device.
Bucket toilet	The use of a bucket or other container for the retention of feces (and sometimes urine and anal cleaning material), which is periodically removed for treatment, disposal, or use as fertilizer.
Hanging toilet/hanging Latrine	A toilet built over the sea, a river, or other body of water allowing excreta to drop directly into the water.

- **Qs.WASH126–129:** These questions provide background information on the toilet facility, if the household has ever had a facility, how many other households share the facility, and where the facility is locate.
- **Qs.WASH130–131:** These are all observation questions; they should not be asked of the respondent. Once you have been granted permission to see the facility (**Q.WASH130**), observe the sanitation facility

used by the household and answer each of the questions in **Q.WASH131** by recording 'Yes' or 'No' for the specified observations. The observers is looking for obvious signs of cleanliness (or lack of cleanliness). For example, does it look as though the facility has recently been cleaned? Is there excreta on the floor or toilet seat? Are cleaning supplies present? Is there an odor? Are flies present? Facilities should be counted as 'partially clean' if no feces is visible on the seat or ground. The facility should be marked 'clean' if, in addition to meeting 'partially clean' requirements, the facility meets two of the three following requirements: no powerful odor, no flies present, cleaning materials are visible.

Qs.WASH132–133: These questions are asked to collect information on the place of defecation (**Q.WASH132**), tool disposal (**Q.WASH133**), and the last time that the youngest child in the household passed stools.

7. Tabulation Plan

Indicator	How to Calculate the Indicator
1.1 Coverage by an improved source for drinking water Percentage of households using an improved source for drinking water	Number of households with improved source of water for drinking **[WASH101 = 11, 12, 13, 14, 21, 31, 41, or 51]** Total number of surveyed households X 100
1.2 Coverage by an improved source of water for handwashing and cooking Percentage of households using an improved source for handwashing and cooking	Number of households covered by an improved source of water for handwashing and cooking **[WASH102 = 11, 12, 13, 14, 21, 31, 41, or 51]** Total number of surveyed households X 100
1.3 Access to an improved source for drinking water Percentage of households using an improved source for drinking water within acceptable reach and available daily	Number of households with improved source for drinking water that is either on the premises or within 30 minutes of household and that has not been unavailable for 24 hours within the previous 2 weeks **[WASH101 = 11, 12, 13, 14, 21, 31, 41, or 51] AND [WASH103 = 1, 2 OR WASH104 = <30] AND [WASH106 = 2]** Total number of surveyed households X 100
1.4 Household members who fetch water Percent distribution of the person who usually fetches water for the household.	Number of households by person who usually fetches the water for the household [adult woman, adult male, female child, male child, water delivered by someone not from this household] Total number of surveyed households X 100
1.5 Dedicated handwashing station within the parameters of the home Percentage of households with a dedicated handwashing device located within of near the home or toilet facility	Number of households where a handwashing device or station is observed **[WASH116 = 1 AND WASH117 = 1, 2, 3, or 4]** Total number of surveyed households X 100

Indicator	How to Calculate the Indicator
1.6 Access to essential handwashing supplies Percentage of households with all essential hand-washing supplies readily available	Number of households with observed presence of soap or other appropriate cleansing agents, a handwashing device and water **[WASH119 = A, B, C, D, E, or F] AND [WASH120 = A, B, C, or D] AND [WASH120 = E]** Total number of surveyed households X 100
1.7 Household water treatment Percentage of households using recommended household water treatment technologies	Number of households reporting treating water effectively **[WASH109 = C, D, E, or F]** Total number of surveyed households X 100 Number of households observed treating water effectively **[WASH111A, B, C, or D = 1]** Total number of surveyed households X 100 Number of households reporting AND observed treating water effectively **[WASH109 = C, D, E, or F] AND [WASH111 A, B, C, or D = 1]** Total number of surveyed households X 100
1.8 Household safe[14] water storage Percentage of households that safely store drinking water	Number of households that store drinking water safely **[WASH112 = 1] AND [WASH114 = A] AND [WASH115 = 1] OR [WASH112 = 2]** Total number of households with **[WASH112 = 1]** OR **[WASH112 = 2]** X 100
1.9 Coverage by an improved toilet facility Percentage of households using an improved toilet facility	Number of households using improved toilet facility **[WASH125 = 11, 12, 13, 21, 22, or 31]** Total number of surveyed households X 100
1.10 Cleanliness of toilet facility Percent of household with toilet facilities that meet cleanliness criteria	Number of households with partially clean facility **[WASH131A = 2] AND [WASH131B = 2]** Total number of surveyed households Number of household with clean facility **[WASH131A = 2] AND [WASH131B = 2] AND [WASH131C = 2] AND [WASH131D = 2] AND [WASH131E = 1]** Total number of surveyed households

[14] See WHO (2012), *Toolkit for monitoring and evaluating household water treatment and save storage programmes,* for examples and alternative definitions of safe storage practices.

Indicator	How to Calculate the Indicator
1.11 Safe disposal of feces Percentage of households that disposed of the youngest child's feces safely the last time she or he passed stool	Number of households that safely dispose of solid waste **[WASH132 = 11] OR [WASH133 = 11 or 33] OR [WASH133 = 21] AND [WASH125 NOT = 31]** Total number of surveyed households with children (age specified by program) X 100

8. Other Data Sources

Qualitative Data

Certain topics are better explored using qualitative research techniques rather than closed-ended questions. The qualitative research component will yield important information on community knowledge, beliefs, and normative practices related to WASH. For example, findings from focus group discussions could be used to modify the KPC questionnaire to reflect local terms, concepts, and customs. In addition, upon completion of the KPC survey, there may be additional areas that need to be explored. Thus, qualitative methods can be employed to provide explanations for the phenomena that were identified but not sufficiently explained by the KPC survey results. The following list contains a sample of topics relevant to KPC WASH assessments that could be explored through qualitative research:

- Motivators and barriers to praticing WASH behaviors
- Motivators and barriers to adopting household WASH products (e.g., soap, handwashing station, toilet facility, water treatment products)
- Typical individual or household WASH practices (e.g., sweeping the household compound in the morning or at night)
- Gendered roles and responsibilities around WASH practices and behaviors
- Physical safety of women and girls
- Cultural, social, or other barriers that prevent the utilization of WASH facilties (e.g., use of toilet facility by select individuals)
- Government and other stakeholder involvement in the sector
- Who in the household holds puchasing power; what the priorities for purchase are
- Local beliefs and customs (e.g., perceptions of child feces and cleanliness)
- Comprehension of environmental health and its importance
- Availability of clean play spaces for children

Household Compound and Courtyard Observation

Cross-sectional studies, along with one ongoing randomized controlled trial, point to a strong relationship between the presence of animal feces (particularly that of chickens) and child illness. Observations have concluded that young children often pick up and ingest animal feces and other contaminated items that exist within their environment.[15, 16] While conclusive results are not yet forthcoming, WASH programs are

[15] Jean Humphrey et al. (2013), SHINE Sanitation, Hygiene, Infant Nutrition Efficacy Project, Johns Hopkins University, https://clinicaltrials.gov/ct2/show/NCT0182940.

[16] Save the Children, Manoff Group, USAID (2014), Water, Hygiene and Sanitation (WASH) in Rural Households in Amhara, Oromia, SNNP and Tirgray, https://ethiopia.savethechildren.net/sites/ethiopia.savethechildren.net/files/WASH%20Lo%20Res.pdf.

proactively responding to preliminary data pointing to the importance of this issue. An addition to this module would be to observe the courtyard to assess if animal or child feces are visible and if there is evidence of sweeping.

Measuring Behaviors

Measuring WASH-related behavior is a complex planning and implementation process. While this KPC tool includes proxy indicators for measuring some WASH-related behaviors, various levels of approaches exist for measuring WASH-related behaviors. If your program is interested in measuring WASH-related behaviors in a more detailed fashion than exists in this tool, please refer to the World Bank Water and Sanitation Program's publication *Practical Guidance for Measuring Handwashing Behavior: 2013 Update*.[17] Although this document specifically relates to hygiene, the approaches can be applied to other WASH-related behaviors.

Health Facility Assessments

The KPC tool does not include indicators to assess health facility access to WASH infrastructure, its quality, or WASH-related practices within facilities. Most projects will need to assess the existence, quality, and capacity of WASH infrastructure within a health facility. Projects may also need to measure staff and provider performance (through methods such as record review, observation, and exit interviews) on critical issues related to infection control and prevention (e.g., handwashing, water treatment, disinfection of medical equipment, linens, rooms). National, regional, and facility-specific WASH policies for health facilities should also be reviewed as part of a baseline assessment for health facilities.

9. Survey Questionnaire

[See Excel file]

[17] Pavani Ram (2013), *Practical Guidance for Measuring Handwashing Behavior: 2013 Update,* World Bank Water and Sanitation Program Working Paper, https://www.wsp.org/sites/wsp.org/files/publications/WSP-Practical-Guidance-Measuring-Handwashing-Behavior-2013-Update.pdf.