

Core questions on water, sanitation and hygiene for household surveys

2018 UPDATE

WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene



WHO
UNICEF



JMP



**Core questions on drinking water, sanitation and hygiene for household surveys:
2018 update**

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Background

The WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP) has produced regular estimates of national, regional and global progress on drinking water, sanitation and hygiene (WASH) since 1990. It has established an extensive global database and has been instrumental in developing global norms to benchmark progress. The JMP was responsible for monitoring the 2015 Millennium Development Goal (MDG) target 7c and is now responsible for tracking progress towards the 2030 Sustainable Development Goal (SDG) targets related to WASH.

During the MDG period the JMP used a simple system for classifying drinking water and sanitation facilities into 'improved' and 'unimproved' types and partnered with major international survey programmes¹ to develop and standardize core questions and indicators for use in national household surveys and censuses. Since publication of the JMP core questions in 2006, international survey programmes have aligned their questionnaires and the core questions have been used extensively in national surveys and censuses around the world, leading to increased harmonization of national WASH data. The JMP has also supported the development of resources for training enumerators on the classification of WASH facilities².

The indicators selected for monitoring the SDG WASH targets build on the established improved/unimproved facility type classification and introduce additional criteria, derived from the human rights to safe drinking water and sanitation, relating to the level of service provided. Since 2012, the JMP has been collaborating with the UNICEF Multiple Indicator Cluster Survey programme and other international survey programmes to develop and test new questions that address the SDG criteria for service levels, including an innovative new module for water quality testing in household surveys.

The JMP has also worked with education and health experts to develop core questions for monitoring WASH in schools and healthcare facilities through administrative reporting and facility-based surveys and censuses. Initial discussions have also been held on monitoring WASH in other settings, such as workplaces and refugee camps, and developing harmonized questions for monitoring household WASH expenditures through income and expenditure surveys³.

The following document focuses on survey questions for assessing drinking water, sanitation and hygiene at the household level.

1. Primarily the UNICEF supported Multiple Indicator Cluster Survey (MICS), the USAID supported Demographic and Health Survey (DHS) and the World Bank supported Living Standards Measurement Study (LSMS).

2. Including Shaw, RJ (2015) Drawing water: a resource book of illustrations on water, sanitation, health, hygiene, rescue and care in low-income countries. 2nd Edition. WEDC, Loughborough University, UK. <<https://dspace.lboro.ac.uk/2134/24422>>.

3. For updates on core questions for monitoring WASH in other settings see the JMP website <<https://washdata.org/monitoring/methods/core-questions>>

The 2030 vision for household drinking water, sanitation and hygiene

The 2030 Agenda⁴ comprises 17 Sustainable Development Goals (SDGs) and 169 targets addressing social, economic and environmental aspects of development and seeks to end poverty, protect the planet and ensure prosperity for all. Goal 6 aims to “Ensure availability and sustainable management of water and sanitation for all” and includes aspirational global targets for drinking water, sanitation and hygiene. Goal 1 also includes a target for universal access to basic services. UN Member States are expected to set their own targets “guided by the global level of ambition but taking into account national circumstances” and have selected the following indicators for global monitoring⁵.

SDG global targets	SDG global indicators ⁶
6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all	6.1.1 Proportion of population using safely managed drinking water services
6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation , paying special attention to the needs of women and girls and those in vulnerable situations	6.2.1 Proportion of population using (a) safely managed sanitation services and (b) a handwashing facility with soap and water Additional indicator for SDG 6.2: Proportion of population practising open defecation
1.4 By 2030, ensure all men and women, in particular the poor and vulnerable, have equal rights to economic resources as well as access to basic services ...	1.4.1 Proportion of population living in households with access to basic services (including access to basic drinking water, basic sanitation and basic handwashing facilities)

The WHO/UNICEF JMP uses ‘service ladders’ to benchmark and compare progress across countries and to monitor national, regional and global progress towards the Sustainable Development Goal targets on drinking water, sanitation and hygiene (WASH). The new ladders build on the established improved/unimproved facility type classification, thereby providing continuity with MDG monitoring. They introduce additional criteria relating to the level of service provided to households which correspond to the increased ambition of the SDG targets. The JMP will continue to monitor all rungs on each ladder, with a particular focus on those that relate to progress towards the following SDG targets:

1. Ending open defecation (SDG 6.2)
2. Achieving universal access to basic services (SDG 1.4)
3. Achieving universal access to safely managed services (SDG targets 6.1 and 6.2)

4. Transforming our world: the 2030 Agenda for Sustainable Development, United Nations General Assembly Resolution, A/RES/70/1, 21 October 2015.

5. Official list of SDG global indicators developed by the UN Inter-Agency and Expert Group on SDG Indicators <https://unstats.un.org/sdgs/indicators/indicators-list/>

6. SDG indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics.

Core household WASH indicators

The JMP recommends including the following ‘core’ questions in national household surveys to facilitate monitoring of the SDG targets for household WASH. Table 1 shows how the core questions in this document correspond to each of the ‘rungs’ on the new JMP service ladders. It also includes core questions on menstrual hygiene (MH) addressing the explicit focus of SDG targets on the needs of women and girls.

Table 1: Core questions and indicators used for global monitoring of WASH service levels

Service type	Core questions	New JMP service ladders	
Drinking water 1. Improved or unimproved; surface water 2. Basic and limited services 3. Safely managed services 3a – accessibility 3b – availability 3c – quality	W1 W2, W4	SAFELY MANAGED	Drinking water from an improved water source that is located on premises, available when needed and free from faecal and priority chemical contamination
		BASIC	Drinking water from an improved source, provided collection time is not more than 30 minutes for a round trip, including queuing
	W3 W5 W6	LIMITED	Drinking water from an improved source for which collection time exceeds 30 minutes for a round trip, including queuing
		UNIMPROVED	Drinking water from an unprotected dug well or unprotected spring
		SURFACE WATER	Drinking water directly from a river, dam, lake, pond, stream, canal or irrigation canal
Sanitation 1. Improved or unimproved; open defecation 2. Basic and limited services 3. Safely managed services 3a – emptying of on-site facilities 3b – treatment and disposal of excreta from on-site facilities [3c – treatment of wastewater]	S1 S2, S3	SAFELY MANAGED	Use of improved facilities that are not shared with other households and where excreta are safely disposed of in situ or transported and treated offsite ⁷
		BASIC	Use of improved facilities that are not shared with other households
	S4 S5	LIMITED	Use of improved facilities shared between two or more households
		UNIMPROVED	Use of pit latrines without a slab or platform, hanging latrines or bucket latrines
		OPEN DEFECACTION	Disposal of human faeces in fields, forests, bushes, open bodies of water, beaches or other open spaces, or with solid waste
Hygiene 1. Facility or no facility 2. Basic and limited handwashing facility	H1 H2, H3	BASIC	Availability of a handwashing facility on premises with soap and water
		LIMITED	Availability of handwashing facility on premises without soap and water
		NO FACILITY	No handwashing facility on premises
Menstrual Hygiene 1. Special attention to the needs of women and girls 1a - Private place to wash and change 1b - Use of menstrual hygiene materials 1c - Exclusion due to menstruation	M1 M2 M3		

7. To estimate the total population using safely managed sanitation services additional information is required about the share of excreta that is removed from households and treated off-site, either through sewers or tank emptying services. Data on off-site treatment of excreta and wastewater cannot be collected through household surveys but are often available from administrative data sources.

Core questions for drinking water⁸

Safe drinking water is essential for human health, welfare and productivity and is also widely recognised as a human right. Drinking water may be contaminated with human or animal faeces containing pathogens, or with chemical and physical contaminants with harmful effects on health. While improving water quality is critical to prevent the transmission of diarrhoea and other diseases, improving the accessibility and availability of drinking water is also important, particularly for women and girls who usually bear the primary responsibility for collecting water from distant sources. The following questions are recommended for collecting information on the types of drinking water sources that households use and the accessibility, availability and quality of drinking water services. The response categories are designed to be universally applicable but additional country-specific categories may also be added.

The JMP has developed definitions which are aligned with international norms and standards relating to drinking water services and can be practically applied for the purposes of national and global monitoring. Table 2 provides updated monitoring definitions for improved and unimproved drinking water sources and notes to enable consistent classification by household survey enumerators.

W1. Main drinking water source		
What is the main source of drinking water for members of your household?	Piped water	
	Piped into dwelling	11 >>W5
	Piped into compound, yard or plot	12 >>W5
	Piped to neighbour	13 >>W4
	Public tap / standpipe	14 >>W4
	Borehole or tubewell	21 >>W3
	Dug well	
	Protected well	31 >>W3
	Unprotected well	32 >>W3
	Water from spring	
	Protected spring	41 >>W3
	Unprotected spring	42 >>W3
	Rainwater collection	51 >>W3
	Delivered water	
	Tanker-truck	61 >>W4
	Cart with small tank / drum	62 >>W4
	Water kiosk	72 >>W4
	Packaged water	
	Bottled water	81 >>W2
	Sachet water	82 >>W2
Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	91 >>W4	
Other (specify)	96 >>W3	

Note: W1 refers to the main source only. See expanded questions on use of multiple sources.

8. Drinking water refers to the accessibility, availability and quality of the main source used by households for all usual domestic purposes, including drinking, food preparation and personal hygiene

Table 2: Monitoring definitions for drinking water sources

Definitions of improved sources of drinking water	Notes on classification
<ul style="list-style-type: none"> • Piped into dwelling: also called a ‘household connection’, is a piped water supply connected with in-house plumbing to one or more taps (for example in the kitchen or bathroom). • Piped into compound, yard or plot: also called a ‘yard tap’, is a piped water supply connected to a tap in the compound, yard or plot outside the house. • Piped to neighbour: refers to a household obtaining drinking water from a neighbour’s piped water supply (household connection or yard tap). • Public tap or standpipe: also known as a public fountain, is a public water point from which people can collect water. • Borehole or tubewell: is a deep hole that has been driven, bored or drilled, in order to reach groundwater. Boreholes/tubewells are constructed with casing, or pipes, which prevent the small diameter hole from caving in and protect the water source from infiltration by run-off water. Water is delivered through a pump which may be powered by human, animal, wind, electric, diesel or solar means. • Protected well: is a dug well that is protected from runoff water by a well lining or casing that is raised above ground level to form a headwall and an apron that diverts spilled water away from the well. A protected well is also covered so that contaminated materials (including bird droppings and small animals) cannot enter the well. Water is delivered through a pump or manual lifting device. • Protected spring: is a natural spring protected by a “spring box”, made of brick, masonry, or concrete, that is built around the spring so that water flows directly out of the box into a pipe or cistern, without being exposed to runoff or other sources of contamination. • Rainwater collection: refers to a system whereby rain is collected or harvested from large surfaces (by roof or ground catchment) and stored in a container, tank or cistern until used. • Tanker-truck: refers to water sold or distributed by a provider who transports large quantities of water into a community using a motorized truck with a tank. • Cart with small tank/drum: refers to water sold or distributed by a provider who transports a tank or drum with small quantities of water into a community using donkey carts, small motorized vehicles and other means. • Water kiosk: refers to a water point from which water is sold in small quantities. Households typically bring their own containers to be filled. • Bottled water: is sold by commercial providers in small or large bottles or refillable containers. This does not include water from other sources stored in plastic bottles. • Sachet water: is similar to bottled water but is packaged in a plastic bag rather than a bottle. 	<ol style="list-style-type: none"> 1. The term drinking water source refers to the point from which water is collected (for example the tap or borehole/well/spring) and not the origin of the water supplied (for example surface water or groundwater). 2. Improved drinking water sources are those which by nature of their design and construction have the potential to deliver safe water. Improved sources include: piped water, boreholes or tubewells, protected dug wells, protected springs, rainwater and packaged or delivered water. 3. Packaged and delivered water can potentially deliver safe water but were previously treated as unimproved due to lack of data on accessibility, availability and quality. For SDG monitoring the JMP will treat them as ‘improved’ and classify them as limited, basic or safely managed based on the new SDG criteria. 4. Public taps or standpipes can have one or more taps. They are typically made of brickwork, masonry or concrete and located in public spaces. Households using privately owned taps in a neighbour’s yard should be classified as ‘piped to neighbour’. 5. Boreholes from which water is pumped into an overhead tank which supplies households in the same compound, should be classified as ‘borehole or tubewell’. However boreholes delivering water to an overhead tank which supplies multiple compounds through a reticulated piped system should be classified as one of the types of ‘piped water’, depending on where the household collects the water. 6. Protected wells may be fitted with a range of lifting devices (for example motorized pumps, hand pumps, ropes and windlasses with buckets) but if the well lacks a cover then it should be classified as ‘unprotected well’. 7. Rainwater collection comprises a range of different technologies designed to capture and store rainwater for drinking. Groundwater catchments require filtration and unfiltered surface water should be classified as ‘surface water’. 8. Water kiosks are similar to public standpipes, but with a more commercial approach to collecting fees. Water refill stations are similar to water kiosks, but operators typically provide households with dedicated containers that are then sanitized before being refilled. These should be classified as ‘bottled water’.
Definitions of unimproved sources of drinking water	Notes on classification
<ul style="list-style-type: none"> • Unprotected well: is a dug well that lacks any of the following: a lining or casing that is raised above ground level to form a headwall; an apron that diverts spilled water away from the well; a cover which prevents contaminated materials (including bird droppings and small animals) from entering the well; or a pump or manual lifting device. • Unprotected spring: is a natural spring that lacks a “spring box” to protect against run off and other sources of contamination (including bird droppings and animals). • Surface water: refers to open water sources located above ground including rivers, reservoirs, lakes, ponds, streams, canals, and irrigation channels. 	<ol style="list-style-type: none"> 9. Unimproved drinking water sources are those which by nature of their design and construction are unlikely to deliver safe water. Unimproved sources include: unprotected dug wells, unprotected springs, and surface water. 10. The term drinking water source refers to the point from which water is collected and not the origin of the water supplied. For example, piped water originating from a surface water reservoir would be classified as piped water, while water collected directly from a lake or river would be classified as surface water.

W2. Secondary water source for users of packaged water

What is the main source of water used by members of your household for other purposes, such as cooking and hand washing?	Piped water		
	Piped into dwelling	11	>>W5
	Piped into compound, yard or plot.....	12	>>W5
	Piped to neighbour	13	>>W3
	Public tap / standpipe	14	>>W3
	Borehole or tubewell	21	>>W3
	Dug well		
	Protected well	31	>>W3
	Unprotected well	32	>>W3
	Water from spring		
	Protected spring	41	>>W3
	Unprotected spring	42	>>W3
	Rainwater collection	51	>>W3
	Delivered water		
	Tanker-truck	61	>>W4
	Cart with small tank / drum	62	>>W4
Water kiosk	72	>>W4	
Packaged water			
Bottled water	81	>>W5	
Sachet water	82	>>W5	
Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	91	>>W4	
Other (specify)	96	>>W3	

Notes: W2 only applies to users of packaged water.

W3. Location of drinking water source

Where is that water collected from?	In own dwelling	1	>>W5
	In own yard / plot	2	>>W5
	Elsewhere	3	>>W4

Note: W3 and W4 can be skipped if the response to W1 or W2 is piped on premises (11, 12).

W4. Time to collect drinking water

How long does it take to go there, get water, and come back?	Members do not collect	000	>>W5
	Number of minutes	___	>>W5
	Don't know	998	>>W5

Note: Record the total time taken for a single round trip including queuing. See expanded list for questions on who usually collects water and the burden of water collection.

W5. Availability of drinking water

In the last month, has there been any time when your household did not have sufficient quantities of drinking water when needed?	Yes, at least once	1	>>W6
	No, always sufficient	2	>>W6
	Don't know	8	>>W6

Note: W5 assesses sufficiency of water available relative to need. See expanded list for questions on continuity, seasonality and reasons water is not available when needed.

W6. Drinking water quality at the source

Can you please show me where the members of your household collect drinking water so that I can test the water quality? <i>Conduct tests within 30 mins of collecting samples. Record 3 digit count of colonies If 101 or more colonies counted, record 101 If not possible to read/results lost, record 998</i>	Number of <i>E. coli</i> detected in 100 mL sample		
	Source water test	___	>>S1

Note: W6 forms part of a water quality testing module applied to a sub-sample of 4-5 households per cluster. Samples are collected from the main source (point of collection) and tested for faecal contamination within 30 minutes of collecting the sample⁹. See expanded list for water quality testing in the household (point of consumption).

9. For example see MICS water quality testing questionnaire <http://mics.unicef.org/tools>

Core questions for sanitation¹⁰

Safe management of human excreta is vital for public health and is widely recognised as a human right. Inadequate sanitation is closely associated with diarrhoeal diseases, which exacerbate malnutrition and remain a leading global cause of child deaths, as well as parasitic infections such as soil transmitted helminths (worms) and a range of other neglected tropical diseases. While access to a hygienic toilet facility is essential for reducing the transmission of pathogens, it is equally important to ensure safe disposal of the excreta produced. Sharing of sanitation facilities is also an important consideration given the negative impacts on dignity, privacy and personal safety, especially for women and girls. The following questions are recommended for collecting information on the types of sanitation facilities that households use and whether they are private or shared with other households.

S1. Sanitation facility		
What kind of toilet facility do members of your household usually use? <i>If 'Flush' or 'Pour flush', probe: Where does it flush to?</i> <i>If not possible to determine, ask permission to observe the facility.</i>	Flush / pour flush	
	Flush to piped sewer system	11 >>S2
	Flush to septic tank	12 >>S2
	Flush to pit latrine	13 >>S2
	Flush to open drain	14 >>S2
	Flush to don't know where	18 >>S2
	Dry pit latrines	
	Pit latrine with slab	22 >>S2
	Pit latrine without slab / Open pit	23 >>S2
	Composting toilets	
	Twin pit with slab	31 >>S2
	Twin pit without slab	32 >>S2
	Other composting toilet	33 >>S2
	Bucket	41 >>S2
	Container based sanitation	42 >>S2
	Hanging toilet / hanging latrine	51 >>S2
	No facility / Bush / Field	95 >>H1
Other (specify)	96 >>S2	

Note: New categories added for flush to open drain (unimproved), composting and twin pit toilets.

10. A safe sanitation system is a system designed and used to separate human excreta from human contact at all steps of the service chain from toilet capture and containment through emptying, transport, treatment (in-situ or offsite) and final disposal or end use.

Table 3: Monitoring definitions for sanitation facilities

Definitions of improved sanitation facilities	Notes on classification
<ul style="list-style-type: none"> • Flush/pour-flush toilet: a flush toilet has a cistern or holding tank to store water for flushing and has a water seal (which is a U-shaped pipe below the seat or squatting pan) to prevent the passage of flies and odours. A pour-flush toilet also has a water seal but has no cistern and water is poured by hand for flushing. • Flush to piped sewer system: is a toilet that flushes excreta to a system of sewer pipes, also called sewerage, which is designed to collect human excreta (faeces and urine) and wastewater and remove them from the household environment. • Flush to septic tank: is a toilet that flushes excreta to a water-tight container, normally buried underground away from the dwelling, designed to separate liquids from solids which are then allowed to settle and decompose. • Flush to pit latrine: is a toilet that flushes excreta to a covered pit which retains solids. The base and sides of latrine pits may be permeable to allow liquids to percolate into the soil. • Pit latrine with slab: is a dry sanitation system that collects excreta in a pit in the ground. The pit is covered by a squatting 'slab' or platform that is constructed from materials that are durable and easy to clean. The 'slab' has a small drop hole, or is fitted with a seat, allowing excreta to be deposited directly into the pit. • Composting toilet: is a dry toilet into which carbon-rich material (vegetable wastes, straw, grass, sawdust, ash) is added to the excreta and special conditions maintained to produce inoffensive compost. A composting latrine may or may not have a urine separation device. • Twin pit latrine with slab: refers to a system where households use a second pit when the first one fills up and is designed to ensure that excreta are treated in situ for a sufficient amount of time before the wastes are evacuated safely. Twin pit latrines can be dry (double VIP, fossa alterna) or wet (offset pits connected to pour flush toilets). • Container based sanitation: refers to a system where toilets collect excreta directly in sealable, removable containers (also called cartridges) which are regularly collected by commercial service providers and delivered to treatment. <p>Flush/pour flush to don't know where: indicates that the household uses an improved sanitation facility, but does not know whether it flushes to a sewer, septic tank or pit latrine.</p>	<ol style="list-style-type: none"> 1. Improved sanitation facilities are those designed to hygienically separate human excreta from human contact. These include wet sanitation technologies such as flush and pour flush toilets connected to sewers, septic tanks or pit latrines, and dry sanitation technologies such as dry pit latrines with slabs and composting toilets. 2. Sewer systems consist of facilities for collection, pumping, treating and disposing of human excreta and wastewater. Losses that occur during transport and treatment cannot be monitored through household surveys. 3. Septic tanks are designed to contain and treat excreta in situ and should have at least two chambers separated by a baffle and a T-shaped outlet pipe to reduce the scum and solids that are discharged. The effluent should infiltrate into the subsurface through a soak pit or leach field, or discharge to a sewer system. However most household survey respondents are not able to provide technical information on the design of and construction of storage tanks. 4. The principal difference between improved and unimproved pit latrines is the presence of a 'slab'. Pit latrines with slabs that completely cover the pit, with a small drop hole, and are constructed from materials that are durable and easy to clean (e.g. concrete, bricks, stone, fiberglass, ceramic, metal, wooden planks or durable plastic) should be counted as improved. Slabs made of durable materials that are covered with a smooth layer of mortar, clay or mud should also be counted as improved. 5. Ventilated improved pit (VIP) latrines (dry pits with ventilation pipes) are used in some parts of the world but neither ventilation nor superstructure design are part of the definition of an improved sanitation facility. Some latrines have tight-fitting lids to cover the drop hole when not in use, but such lids are not part of the definition of improved sanitation facilities. 6. The term 'harmless sanitation' is sometimes used to refer to sanitation technologies which are designed to safely treat faecal wastes in situ rendering them safe to remove and reuse.
Definitions of unimproved sanitation facilities	Notes on classification
<ul style="list-style-type: none"> • Flush/pour flush to open drain: refers to households using toilets that discharge into uncovered drains which do not effectively contain excreta thereby exposing the community to faecal pathogens. • Pit latrine without slab/open pit: is a dry sanitation system that uses a pit in the ground for excreta collection and does not have a squatting slab, platform or seat. An open pit is a rudimentary hole in the ground where excreta is collected. • Bucket: refers to the use of a bucket or other container for the retention of faeces (and sometimes urine and anal cleaning material), which are periodically removed for treatment, disposal, or use as fertilizer. • Hanging toilet/hanging latrine: is a toilet built over the sea, a river, or other body of water, into which excreta drops directly. • No facility/bush/field: includes defecation in the bush or field or ditch; excreta deposited on the ground and covered with a layer of earth (cat method); excreta wrapped and thrown into garbage; and defecation into surface water (drainage channel, beach, river, stream or sea). 	<ol style="list-style-type: none"> 7. 'Flush/pour flush to elsewhere' suggests that excreta is not being discharged into a sewer, septic tank or pit latrine) but into the local environment and should therefore be classed as unimproved. 8. Pit latrines with slabs that only partially cover the pit, or with slabs constructed from materials that are not durable and easy to clean (e.g. sticks, logs or bamboo) should be classified as 'pit latrine without slab' and counted as 'unimproved', even if they are covered with a smooth layer of mortar, clay or mud. 9. The use of open 'buckets', 'pans', 'trays' or other unsealed containers which are collected and emptied each day by informal service providers (including 'manual scavengers') presents significant health risks and is classed as an 'unimproved sanitation facility'.

S2. Shared sanitation

Do you share this facility with others who are not members of your household?	Yes	1	>>S3
	No	2	>>S3

Note: Follows S1. Sharing implies a limited sanitation service. See expanded list for further questions on the type of sharing.

S3. Location of sanitation facility

Where is this toilet facility located?	In own dwelling	1	>>S4
	In own yard / plot	2	>>S4
	Elsewhere	3	>>S4

Note: Follows S1. Using a facility located on premises may be more important for health and well-being than whether the facility is shared with other households.

Emptying and disposal of excreta from sanitation facilities with on-site storage¹¹

S4. Emptying of on-site sanitation facilities

Has your (pit latrine or septic tank) ever been emptied?	Yes emptied	1	>>S5
	Never emptied	2	>>H1
	Don't know	8	>>H1

Note: Follows S1. Only applies to households using sanitation facilities with on-site storage (latrines, septic tanks, composting toilets and twin pits). Used to calculate the proportion of households emptying on-site facilities. See expanded list for questions on frequency of emptying.

S5. Disposal of excreta from onsite sanitation facilities

The last time it was emptied, where were the contents emptied to?	Removed by service provider		
	to a treatment plant	1	>>H1
<i>Was it removed by a service provider?</i>	buried in a covered pit	2	>>H1
	to don't know where	3	>>H1
	Emptied by household		
	buried in a covered pit	4	>>H1
	to uncovered pit, open ground, water body or elsewhere	5	>>H1
	Other (specify)	6	>>H1
	Don't know	8	>>H1

Note: Follows S4. Used to calculate proportion of households safely disposing of excreta in situ and the proportion removing excreta off-site for treatment. See expanded list for questions on method of emptying.

11. S4 and S5 only apply to households using sanitation facilities with on-site storage (S1 response codes 12, 13, 22, 23, 31, 32, 33)

Core questions for hygiene

Handwashing with water and soap is among the most cost-effective interventions for reducing the transmission of diseases and has been identified as the top priority for hygiene monitoring. Direct observation of behaviour is difficult but household surveys increasingly include a module in which the surveyor visits the handwashing facility and observes if water and soap are present.

H1. Handwashing facility observation		
Can you please show me where members of your household most often wash their hands?	Fixed facility observed (sink/tap)	
	In dwelling	1 >>H2
	In yard/plot	2 >>H2
	Mobile object observed (bucket/jug/kettle)	3 >>H2
	No handwashing place in dwelling/yard/plot	4 >>M1
	No permission to see	5 >>M1
Other reason (specify)	6 >>M1	

H2. Water observation		
Observe availability of water at the place for handwashing.	Water is available	1 >>H3
<i>Verify by checking the tap/pump, or basin, bucket, water container or similar objects for presence of water.</i>	Water is not available	2 >>H3

H3. Soap observation		
Observe availability of soap or detergent at the place for handwashing	Soap or detergent available	1 >>M1
	Soap or detergent not available	2 >>M1

Note: Direct observation of handwashing behaviours is challenging. The recommended proxy is to observe presence of handwashing facilities and availability of soap and water.

Definitions of hygiene facilities	Notes on classification
<ul style="list-style-type: none"> • Handwashing facility: refers to a fixed or mobile device designed to contain, transport or regulate the flow of water to facilitate handwashing. • Soap: includes bar soap, liquid soap, powder detergent and soapy water. 	<ol style="list-style-type: none"> 1. Handwashing facilities include sinks with tap water, buckets with taps, tippy-taps, and jugs or basins designated for handwashing. 2. Ash, soil, sand or other traditional handwashing agents are less effective and do not count as 'soap'.

Core questions for menstrual hygiene

A growing number of surveys also include questions on Menstrual Hygiene (MH) which has been identified as a specific priority for improving the health, welfare and dignity of women and girls. The following section includes questions relating to the availability of facilities and materials for menstrual hygiene management.

Questions on menstruation are typically asked in the women's questionnaire (15-49) in the context of unmet health needs. They should only be asked of women who have had a period in the preceding year and should be asked in private, by female enumerators.

M1. Private place to wash and change

During your last menstrual period were you able to wash and change in privacy while at home?	Yes	1	>>M2
	No	2	>>M2

Note: M1 only applies to women who have had a period in the preceding year.

M2. Use of menstrual hygiene materials

During your last menstrual period, what hygiene materials did you use? <i>If more than one, record the main type used.</i>	Cloth/reusable sanitary pads	1	>>M3
	Disposable sanitary pads	2	>>M3
	Tampons	3	>>M3
	Menstrual cup	4	>>M3
	Toilet paper	5	>>M3
	Underwear alone	6	>>M3
	Other (specify)	7	>>M3

Note: M2 only applies to women who have had a period in the preceding year. See expanded list for questions on reuse.

M3. Exclusion from activities during menstruation

During your last menstrual period, did you miss any of the following activities due to your period?				
<i>Ask one by one</i>				
[A] Attending school?	[A]	Yes	No	N/A
[B] Paid work?	[B]	Yes	No	N/A
[C] Participating in social activities?	[C]	Yes	No	N/A
[D] Cooking food?	[D]	Yes	No	N/A
[E] Eating with others?	[E]	Yes	No	N/A
[F] Bathing in regular place?	[F]	Yes	No	N/A

Note: Select all that apply. Select N/A (not applicable) if the woman would not normally do this activity, for example she does not normally attend school, work, or cook food. Specific activities could be adapted according to local culture (such as religious activities or sowing seeds).

Monitoring definitions

- **Private place to wash and change:** access to a private space for changing and disposing of materials and for washing hands, body and clothes with soap and water.
- **Menstrual hygiene materials:** refers to hygienic materials used to absorb, collect and dispose of menstrual blood.
- **Exclusion from activities:** refers to activities that women and girls do not participate in due to their menstrual period.

Notes on classification

1. A **private place to wash and change** can be a bathroom or another place used by women and girls.
2. **Menstrual hygiene materials** may be disposable or reusable. Hygienic materials include sanitary cloths or pads, tampons, and menstrual cups.
3. **Exclusion from activities** may be as a result of societal restrictions placed on women and girls, inadequate facilities for menstrual hygiene management or in response to pain.



Expanded questions

The following section provides an expanded list of questions which, where resources allow, can be used in conjunction with the core questions to collect additional information on specific aspects of drinking water, sanitation and hygiene services. This list is not intended to be comprehensive but rather to provide some illustrative examples of the types of WASH questions that have been used in household surveys to date. The JMP team welcomes technical feedback from household survey teams who have used these and other questions in different country contexts (info@washdata.org).

Expanded questions for drinking water

Accessibility

XW1. Use of multiple water sources	
Do members of your household regularly use any other drinking water sources?	
<i>Select all that apply</i>	
	Piped water
	Piped into dwelling 11
	Piped into compound, yard or plot 12
	Piped to neighbour 13
	Public tap / standpipe 14
	Borehole or tubewell 21
	Dug well
	Protected well 31
	Unprotected well 32
	Water from spring
	Protected spring 41
	Unprotected spring 42
	Rainwater collection 51
	Tanker-truck 61
	Cart with small tank / drum 62
	Water kiosk 72
	Packaged water
	Bottled water 81
	Sachet water 82
	Surface water (river, stream, dam, lake, pond, canal, irrigation channel) 91
	Other (specify)..... 96

Note: Follows W1. Used to determine the population using more than one drinking water source and whether alternative sources are improved or unimproved.

XW2. Responsibility for water collection	
Who usually goes to this source to fetch water for your household?	
<i>Select the individual primarily responsible for water collection</i>	
	Adult woman (>15 years) 1
	Adult man (>15 years) 2
	Girl (<15 years) 3
	Boy (<15 years) 4

Note: Follows W4. Alternatively record name and line number from list of household members to automatically link to age/gender/education of individual household member.

XW3. Burden of water collection	
How many trips did that person make in the last week?	
	Number of times —
	Don't know 98

Note: Follows W4 and XW2. Enables quantification of the burden of water collection and where relevant can also be asked for each individual household member.

XW4. Type of piped network

What type of piped supply does your household use?	Large piped network managed by a utility	1
	Small piped network managed by the community	2
	Small piped network managed by the households	3

Note: Follows W1, or W2 for households that use packaged water but have a piped connection, and applies only to piped water users. Used to determine the population using each type of network.

Availability

XW5. Availability of water supply

Is water always available from your main water source [W1]?	Yes, water is always available	1
	No, water is available most of the time	2
	No, water is available some of the time	3
	No, water is rarely available	4
	Don't know	8

Note: Follows W1, or W2 if packaged water is the main source of drinking water. Responses categories may also be binary (yes/no/don't know)

XW6. Reason water unavailable

What was the (main) reason you were unable to access sufficient quantities of water when needed? <i>Select one</i>	Water is not available from source	1
	Water is too expensive	2
	Source is not accessible	3
	Other (specify)	6

Note: Follow up to W5. Sources may be recorded as not accessible because they are locked, or the path to reach off-site sources has been blocked. XW6 can be used to identify households for whom cost is the main barrier to access but is not sufficient to assess affordability. Further work is required to collect reliable information on WASH expenditures in household income and expenditure surveys.

XW7. Continuity of water supply

How many hours per day is water supplied on average [W1]?	24 hours per day	1
	18-24 hours per day	2
	12-17 hours per day	3
	6-11 hours per day	4
	<6 hours per day	5
	Don't know	8

Note: Typically only applies to piped supplies. Assesses continuity of service. Responses categories may vary depending on national standards.

XW8. Discontinuity of water supply

In the past month, for how many days was water from this source [W1] unavailable when needed?	Number of days	__ __
	Don't know	98

Note: Follows W1, or W2 if packaged water is the main source of drinking water. Used to determine the population experiencing interruptions in service.

XW9. Large water storage tanks

Does your household have a large storage tank?	Yes	1
	No	2
How many litres does the storage tank hold?	Number of litres	__ __ __
	Don't know	9998
How many times has the storage tank been filled in the last week/month?	Number of times	__ __
	Don't know	98
Has there been any time in the last week/month when you have not been able to store sufficient water to meet your needs?	Yes, at least once	1
	No	2
	Don't know	8

Note: Follow up to questions on availability. Used in contexts with intermittent supplies.

XW10. Small water storage containers

Does your household store drinking water in small containers? Can you show me? <i>Observe whether containers are covered or uncovered</i>	Water not stored in small containers	1
	Water stored in covered containers	2
	Water stored in uncovered containers	3
	Unable to observe	4

Note: Question may be included in a water quality testing module.

XW11. Wet and dry season sources

		Wet	Dry
What is your main source of drinking water in the wet season and the dry season?	Piped water		
	Piped into dwelling	11	
	Piped into compound, yard or plot	12	
	Piped to neighbour	13	
	Public tap / standpipe	14	
	Borehole or tubewell	21	
	Dug well		
	Protected well	31	
	Unprotected well	32	
	Water from spring		
	Protected spring	41	
	Unprotected spring	42	
	Rainwater collection	51	
	Tanker-truck	61	
	Cart with small tank / drum	62	
	Water kiosk	72	
	Packaged water		
Bottled water	81		
Sachet water	82		
Surface water (river, stream, dam, lake, pond, canal, irrigation channel)	91		
Other (specify)	96		

Note: Same response categories as W1. Separate responses for wet season and dry season.

Water quality/safety

XW12. Drinking water quality in the household

Can you please provide me with a glass of water that members of your household usually drink? <i>Conduct tests within 30 mins of collecting samples</i> <i>Record 3 digit count of colonies</i> <i>If 101 or more colonies counted, record 101</i> <i>If not possible to read/results lost, record 998</i>	Number of <i>E. coli</i> detected in 100 mL sample	
	Household water test	_____

Note: Complements W6. XW12 forms part of a water quality testing module applied to a sub-sample of 4-5 households per cluster. Samples are collected in the household (point of consumption) and at the source (point of collection) and tested for faecal contamination¹².

XW13. Household water treatment

Have you or any other household members done anything to this water to make it safer to drink?	Yes	1
	No	2
	Don't know	8

Note: Follow up to XW12. Responses are binary (yes/no/don't know). Question may be included in a water quality testing module.

12. For example see MICS water quality testing questionnaire <http://mics.unicef.org/tools>

XW14. Household water treatment	
What do you usually do to the water to make it safer to drink?	Boil 1
	Add bleach / chlorine 2
	Strain it through a cloth 3
Anything else?	Use water filter (ceramic, sand, composite, reverse osmosis, etc.) 4
	Solar disinfection 5
<i>Record all methods used</i>	Let it stand and settle 6
	Other (specify) 96
	Don't know 98

Note: Follow up to XW13. Interviewers are instructed not to list the options. Question may be included in a water quality testing module.

Acceptability

XW15. Acceptability of drinking water	
Is the water supplied from your main source [W1] usually acceptable?	Yes, acceptable 1
	No, unacceptable taste 2
	No, unacceptable colour 3
	No, unacceptable smell 4
	No, contains materials 5
	No, other (specify) 6
<i>If unacceptable, select the main reason.</i>	Don't know 8

Note: Follow up to W1. Acceptability of supplies to households is subjective and context specific.

Expanded questions for sanitation

Accessibility

XS1. Number of households sharing facilities	
How many households in total use this toilet facility, including your own household?	Number of households __ __
	Don't know 98

Note: Follows S2. Limited sharing is preferable to unlimited sharing but national standards vary. For types of sharing see XS6.

XS2. Use of facility by individual household members		Yes	No
Do all household members usually use the sanitation facility?	Name _____		
	Line Number _____		
<i>Record name and copy line number from list of household members</i>	Name _____		
	Line Number _____		
<i>Record response for each in order to link with age, sex, disability and other characteristics</i>	Name _____		
	Line Number _____		
	Name _____		
	Line Number _____		

Note: Follows S1. Response categories focus on regular practices and should ideally list all household members. Responses may be non-binary (yes always/yes sometimes/no rarely or never).

XS3. Facility accessible to individual household members		Yes	No
Is everyone in the household able to access and use the toilet at all times of the day and night?	Name _____		
	Line Number _____		
<i>Record name and copy line number from list of household members</i>	Name _____		
	Line Number _____		
<i>Record response for each in order to link with age, sex, disability and other characteristics</i>	Name _____		
	Line Number _____		
	Name _____		
	Line Number _____		

Note: Follows S1. Focuses on accessibility and should ideally list all household members.

XS4. Reasons facility not accessible to household members

What was the (main) reason that household members were unable to use the toilet at all times of the day or night?	Limited mobility prevents members from using the toilet	1
	Distance/barriers prevent members from reaching the toilet	2
	Toilet is not always available to all household members	3
	Toilet is not always safe for all household members to use	4
	Other (specify)	6

Note: Follow up to XS3.

XS5. Disposal of child stools

The last time [name of child] passed stools, what was done to dispose of the stools?	Child used toilet/latrine	1
	Put/rinsed into toilet or latrine	2
	Put/rinsed into drain or ditch	3
	Thrown into garbage (solid waste)	4
	Buried	5
	Left in the open	6
	Used as manure	7
	Other (specify)	96
	Don't know	98

Note: Typically included in a children's or women's questionnaire. Focuses on safe disposal of child stools. Follow up question on solid waste management may be required if disposal with garbage is common¹³.

Acceptability

XS6. Sharing facilities with the general public

Do you share this facility only with members of other households that you know or is the facility open to the use of the general public?	Shared with known households (not public)	1
	Shared with general public	2

Note: Follows S2. Sharing sanitation facilities with other households or the general public has negative impacts on privacy, dignity and safety, especially for women and girls.

XS7. Privacy while using the facility

Does the design of your toilet prevent other people seeing and hearing what you are doing when you use it?	Yes	1
	No	2

Note: Addresses privacy and dignity. Responses of individual household members may be recorded separately.

XS8. Safety while using the facility

Do you or other household members face any risks when using the toilet? <i>Select all that apply</i>	No risks faced	1
	Yes, risk to health	2
	Yes, risk of harassment	3
	Yes, other (specify)	6

Note: Addresses safety and security. Responses of individual household members may be recorded separately.

Containment

XS9. Containment of wastes

Does your sanitation facility [answer to S1] leak or overflow wastes at any time of year? <i>Probe for problems during the rainy season or floods</i>	No, never	1
	Yes, sometimes	2
	Yes, frequently	3
	Don't know	8

Note: Follows S1. Addresses leakages. Probe for problems during the rainy season or flood events.

13. Appropriate methods for disposal of child stools include the child using an improved toilet/latrine or the caretaker putting/rinsing stools into an improved toilet/latrine. Disposal with solid waste is only appropriate if solid waste is stored, collected and disposed of in a sanitary manner.

XS10. Discharge of wastes from septic tanks

Where does your septic tank discharge to?	To a leach field, soak pit	1
	To a sewer	2
	To an open drain	3
	To open ground or watercourse	4
	Other (specify)	6
	Don't know	8

Note: Follows S1. Applies only to population using septic tanks.

Emptying

XS11. Emptying of on-site facilities

How many years ago was your pit latrine/septic tank built?	Number of years	__
<i>Record responses in number of years</i>	Don't know	8

XS12. Emptying of on-site facilities

How many years ago was your pit latrine/septic tank last emptied?	Number of years	__
<i>Record responses in number of years</i>	Don't know	8

Note: Follow up to S4. Only applies to households emptying on-site sanitation facilities.

XS13. Emptying of on-site facilities

The last time your pit latrine/septic tank [answer to S1] was emptied, who emptied it?	Name of service provider	_____
<i>Record name of service provider and phone number if available</i>	Phone number of service provider	_____
	Don't know	8

Note: Follow up to S5. Only applies to households reporting emptying and removal by a service provider. Name of the service provider can be cross referenced with administrative records on the collection and treatment of faecal sludge.

Solid waste disposal

XS14. Solid waste disposal

How does your household usually dispose of garbage? <i>Record name of service provider and phone number if available</i>	Collected by formal service provider	1
	Collected by informal service provider	2
	Disposed of in designated waste disposal area	3
	Disposed of within household yard or plot	5
	Buried or burned	6
	Disposed of elsewhere	7
	Don't know	8

Note: Follow up to XS5.

Liquid waste disposal

XS15. Liquid waste disposal

How do you dispose of household water used for cooking, laundry and bathing?	Sink/drain connected to sewer	1
	Sink/drain connected to septic tank	2
	Sink/drain connected to pit	3
	Sink/drain connected to soak pit	4
	Sink/drain connected to open drain or open ground	5
	Disposed directly to open ground or water body	6
	N/A (cooking, laundry and bathing is done away from the household)	9
	Don't know	98

Note: Follow up to XS5.

Expanded questions for hygiene

Handwashing

XH1. Handwashing facility reported	
Where do you and other members of your household most often wash your hands?	Fixed facility reported (sink/tap)
	In dwelling 1
	In yard/plot 2
	Mobile object reported (bucket/jug/kettle) 3
	No handwashing place in dwelling/yard/plot 4
Other (specify) 6	

Note: Follow up to H1 where observation of handwashing facility is not possible. Note that self-reporting is less reliable than observation.

XH2. Soap or detergent reported	
Do you have soap or detergent in your household for washing hands?	Yes, shown 1
	No, not shown 2
Can you show it to me?	Other (specify) 6
<i>Record the type of soap observed. Record all that apply.</i>	Bar or Liquid soap 1
	Detergent (Powder / Liquid / Paste) 2
	Ash / Mud / Sand 3

Note: Follow up to H1 where observation of handwashing facility is not possible. Record whether soap or detergent available in the household.

Menstrual hygiene

XM1. Reuse of menstrual hygiene materials	
Were these materials reusable [answer to M2]?	Yes 1
	No 2
	Don't know 8

Note: Follow up to MH2. Applies only to women who report using materials.

XM2. Exclusion from normal activities during menstruation	
Due to your last menstruation, were there any social activities, school or work days that you did not attend?	Yes 1
	No 2
	N/A 8
	Don't know 8

Note: Alternative to M3. Only applies to women who have had a period in the preceding year. Focuses on exclusion from normal activities outside the home during menstruation.



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