Monitoring water, sanitation and hygiene (WASH) and related infection prevention and control (IPC) in delivery rooms

FINAL DRAFT (September 2019)

Scope of document

This document identifies a draft set of indicators and questions for monitoring water, sanitation and hygiene (WASH) and related infection prevention and control (IPC) measures (herein referred to as WASH-IPC) in the delivery room (i.e. the room where delivery is intended to take place). These indicators build upon existing Joint Monitoring Programme (JMP) indicators for monitoring WASH in health care facilities (general service areas)¹ and WHO's Essential Environmental Health Standards in Health Care (2008)². They are aligned with the WHO Guidelines on core components of IPC programmes at the national and acute health care facility level (2016)³, the Infection Prevention and Control Assessment Framework at the Facility Level (IPCAF)⁴ and the Standards for Improving Quality of Maternal and Newborn Care in Health Facilities⁵ and other Maternal, Newborn and Child Care monitoring efforts, e.g. the Every Newborn Action Plan (ENAP)⁶ and Ending Preventable Maternal Mortality (EPMM)⁷. They are also informed by the work of other colleagues at WHO, including Infection Prevention and Control (IPC) and Maternal, Newborn, Adolescent and Child Health (MCA), including midwifery care. The indicators were initially discussed during a two-day expert meeting (27-28 July 2017) at WHO, Geneva, and refined following an open-online consultation during which experts from 15 organisations provided comments.

While global monitoring will focus on the basic service level and associated core questions which collect data from the general service area, the questions for monitoring WASH-IPC in delivery settings serves as a resource for national and sub-national monitoring. Results from this module for delivery settings may be used for bespoke analysis and illustrative examples in global reporting, similar to analysis of results from expanded questions which monitor WASH in health care facilities beyond the basic service level.

¹ World Health Organization and United National Children's Fund, Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. WHO/UNICEF, Geneva, 2018. https://washdata.org/report/imp-2018-core-questions-and-indicators-monitoring-winhcf-1 ² World Health Organization, Essential environmental health standards in health care. WHO, Geneva, 2018.

<http://www.who.int/water sanitation health/publications/ehs hc/en/>

³ World Health Organization, Guidelines on core components of infection prevention and control programmes at the national and acute health care facility level. WHO, Geneva, 2016. <<u>http://www.who.int/gpsc/ipc-components/en/></u>

⁴ World Health Organization, Infection prevention and control assessment framework. WHO, Geneva, 2018.<<u>http://www.who.int/infection-prevention/tools/core-components/IPCAF-facility.PDF</u>>

⁵ World Health Organization, Standards for improving quality of maternal and newborn care in health facilities. WHO, Geneva, 2016.

http://www.who.int/maternal_child_adolescent/documents/improving-maternal-newborm-care-quality/en/

⁶ World Health Organization and United National Children's Fund, Every Newborn Action Plan. WHO/UNICEF, Geneva, 2014. <<u>http://www.who.int/maternal_child_adolescent/newborns/every-newborn/en/</u>>

⁷ World Health Organization, Strategies toward ending preventable maternal mortality (EPMM). WHO, Geneva, 2015.

http://who.int/reproductivehealth/topics/maternal perinatal/epmm/en/>

Expanded monitoring of WASH services in health care facilities and associated questions

Reference to expanded questions from core document

Monitoring WASH-IPC in delivery settings

Monitoring WASH in other health care settings

Basic WASH services in health care facilities and associated core questions

	WATER	SANITATION		WASTE MANAGEMENT	ENVIRONMENTAL CLEANING	G-W1. What is the main water supply for the facility? G-W2. Where is the main water supply for the facility located?
	Water is available from an improved source ¹ on the premises.	Improved sanitation facilities ² are usable, with at least one toilet dedicated for staff, at least one sex-separated toilet with menstrual hygiene facilities, and at least one toilet accessible for people with limited mobility.	Functional hand hygiene facilities (with water and soap and/ or alcohol-based hand rub) are available at points of care, and within five metres of toilets.	Waste is safely segregated into at least three bins, and sharps and infectious waste are treated and disposed of safely.	Basic protocols for cleaning are available, and staff with cleaning responsibilities have all received training.	G-W3. Is water available from the main water supply at the time of the survey? G-S1. What type of toilets/latrines are at the facility for patients? G-S2. Is at least one toilet usable (available, functional, private)? G-S3. Are there toilets that are dedicate for staff? G-S4. Are there toilets that are in sex-separated or gender-neutral rooms? G-S5. Are there toilets that have menstrual hygiene facilities? G-S6. Are there toilets that are accessible for people with limited mobility?
	An improved water source is within 500 metres of the premises, but not all requirements for basic service are met.	At least one improved sanitation facility is available, but not all requirements for basic service are met.	Functional hand hygiene facilities are available either at points of care or toilets but not both.	There is limited separation and/ or treatment and disposal of sharps and infectious waste, but not all requirements for basic service are met.	There are cleaning protocols and/or at least some staff have received training on cleaning.	G-H1. Is there a functional hand hygiene facility at points of care on the day of the survey? G-H2. Is there a functional handwashing facility at one or more toilets on the day of the survey? G-WM1. Is waste correctly segregated into at least three labelled bins in the
NOSENACE	Water is taken from unprotected dug wells or springs, or surface water sources; or an improved source that is more than 500 metres from the premises; or there is no water source.	Toilet facilities are unimproved (e.g. pit latrines without a slab or platform, hanging latrines, bucket latrines) or there are no toilets.	No functional hand hygiene facilities are available either at points of care or toilets.	There are no separate bins for sharps or infectious waste, and sharps and/or infectious waste are not treated/disposed of.	No cleaning protocols are available and no staff have received training on cleaning.	G-WM2. How does this facility usually treat/dispose of infectious waste? G-WM2. How does this facility usually treat/dispose of sharps waste? G-WM3. How does this facility usually treat/dispose of sharps waste? G-C1. Are cleaning protocols available? G-C2. Have all staff responsible for cleaning received training?

Background

The WHO (2016) *Standards for improving quality of maternal and newborn care in health facilities* identify the period around childbirth and immediate postnatal care as the most critical for saving the maximum number of maternal and newborn lives, and preventing stillbirths.

The standards provide a framework of eight domains that should be assessed, monitored and improved within the health system to improve "quality of care" and maternal and newborn outcomes (Figure 1).

The Quality of Care (QoC) approach provides the structure for quality improvement within the health system under two dimensions of care: *provision* and *experience*.

- *Provision of care* includes use of evidence-based practices for routine and emergency care with functional information and referral systems.
- *Experience of care* consists of effective communication between staff and women and their families about the care provided, their expectations and their rights; care experienced as respectful and dignified; and social and emotional support, including through a birth companion of their choice.

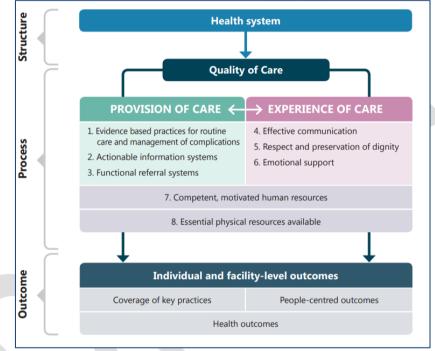


Figure 1 WHO framework for the quality of maternal and newborn health care

Each standard includes a set of inputs which must be in place for the desired care to be provided (e.g. physical resources, human resources, policies, guidelines). Standards 7 (human resources) and 8 (essential physical resources) are cross-cutting, and are intended to enable the achievement of Standards 1-6 (see Figure 1). Standard 8 covers "essential physical resources", including water, sanitation, hygiene, electricity, waste disposal, a stock of essential medicines, supplies and equipment to meet the health care needs of women and newborn children in the facility (see Box 1).

Standard 8

The health facility has an appropriate physical environment, with a dequate water, sanitation, energy supplies, medicines, supplies and equipment for routine maternal and newborn care and management of complications.

Aim

Every health facility should have basic infrastructure and amenities, including water, sanitation, hygiene, electricity, waste disposal, a stock of essential medicines, supplies and equipment to meet the health care needs of the women and newborns in the facility. Areas for labour, childbirth and postnatal care should be hygienic, comfortable and logically designed and organized to maintain continuity of care.

Quality statements

8.1: Water, energy, sanitation, hand hygiene and waste disposal facilities are functioning, reliable, safe and sufficient to meet the needs of staff, women and their families.

8.2: Areas for labour, childbirth and postnatal care are designed, organized and maintained so that every woman and newborn can be cared for according to their needs in private, to facilitate the continuity of care.
8.3: Adequate stocks of medicines, supplies and equipment are available for routine care and management of complications.

Box 1: Standard 8 of the WHO Standards for improving quality of maternal and newborn care in health facilities

This document focuses on WASH and related IPC and does not cover electricity and adequacy of medicines for routine care. To meet the needs of the woman and her newborn child and enable a clean and safe birth, the health care facility needs to be adequately equipped with WASH services, which must be available at every stage during labour, delivery and postnatal care for the woman and baby. WASH services should be hygienic, comfortable and logically designed and organized to maintain privacy and continuity of care.

A specific set of indicators is needed for monitoring the "essential physical resources" required for staff to be able to provide quality care during childbirth to women and newborns. This document identifies a set of questions and indicators that focus on the room intended for delivery (herein referred to as the delivery room, as defined below).

WASH services are an essential foundation for effective IPC which in turn plays a significant role in reducing maternal and newborn deaths. Infections account for 11% of maternal deaths and are also a risk factor for neonatal sepsis that occurs around childbirth and in the immediate postnatal period. The burden of maternal sepsis is twice as great in low- and middle-income countries as it is in high income countries, and health care facilities in low-income countries are at least three times as likely to have no water service as facilities in higher resource settings⁸. However, it is noted that underlying quality of care issues, including ineffective or insufficient IPC as practiced by staff, need to be addressed to maximise the impact of WASH services on maternal and newborn health. It is for this reason that specific IPC measures including hand hygiene and environmental cleaning are addressed within this document.

Definition of birthing settings

The birthing environment

The birthing environment consists of a spectrum of locations inside and outside of health care facilities. Within health care facilities, different areas, wards or units can deliver services along different stages of the birth process. The set of indicators defined in this document in relation to delivery rooms complement the existing core set of WASH in health care facility indicators which apply to general service areas in all healthcare facilities.¹ Detailed facility assessments that are designed to give a comprehensive picture of the maternal and newborn services in a given health care facility might collect data from other areas where maternal and newborn services are provided. A list of these areas is provided in Annex A.

Delivery rooms

⁸ Say, L, et al. Global causes of maternal death: a WHO systematic analysis. Lancet Global Health [Internet]. 2014 [cited 28 February 2019];2(6):323–33. Available from: https://www.thelancet.com/journals/langlo/article/PIIS2214-109X(14)70227-X/fulltext

For the purposes of this module, the delivery room is defined as **"the room where delivery is intended to take place and the umbilical cord is cut"**⁹. This does not include operating theatres for Caesarean sections, or places where delivery may unintentionally take place (e.g. antenatal clinic, bathroom), nor does it include services necessary for home deliveries. Some services may be intended for use by women in labour and delivery but are generally not connected to, or within, the delivery room (for example toilets and showers). Questions which measure these services refer to **"the section of the facility where maternal and newborn services are provided"**¹⁰.

Application of indicators and selection of delivery room

These indicators build on and complement the core set of general WASH in health care facility questions and the questions in the WHO Infection Prevention and Control Assessment Framework (IPCAF) and should therefore be measured in tandem with the assessment of WASH and IPC in general service areas¹¹. If the general service area assessment is not separately implemented, all questions from that module should be added to the delivery room assessment.

Indicators for WASH and related IPC (WASH-IPC) in the delivery room

Five indicators define "basic" water, sanitation, hygiene, waste management and environmental cleaning in the delivery room (see definition of delivery room above). Questions for the delivery room start with a **D**- (e.g. D-S1: Delivery room-Sanitation-Q1), and general facility questions with a **G**- (e.g. G-W1: General facility-Water-Q1).

Similar to JMP monitoring of household WASH, WASH in schools and general services areas of health care facilities, service ladders are proposed for monitoring WASH in delivery rooms (Figure 2). The multi-level service ladders allow for the progressive realization of targets, enabling tracking and comparison of progress. Separate ladders are proposed for water, sanitation, hygiene, health care waste management and environmental cleaning. Each ladder has three levels of service: no service, limited service, and basic service.

For countries which have already achieved a "basic" level of service in all health care facilities, additional criteria relating to "advanced" levels of service may be added. Countries are encouraged to define and quantify specific elements, as appropriate.¹²

⁹ Note: an operational definition of "where the umbilical cord is cut" was chosen by the Expert Group meeting participants to m inimise confusion of having different terminology for the delivery room in different languages.

¹⁰ This terminology was chosen over "obstetric" which refers to a narrower subset of medical interventions.

¹¹ World Health Organization and United National Children's Fund, Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. WHO/UNICEF, Geneva, 2018. https://washdata.org/report/jmp-2018-core-questions-and-indicators-monitoring-winhcf-1

¹² The Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals (see Footnote 1) include an expanded set of questions for enhanced monitoring of "advanced" services levels that can be adapted for use in the delivery room.

Water	Sanitation	Hygiene	Health care waste	Environmental cleaning
Advanced service To be defined at national level	Advanced service To be defined at national level	Advanced service To be defined at national level	Advanced service To be defined at national level	Advanced service To be defined at national level
Basic service Running water is available in the delivery room ¹³ .	Basic service Usable (available, functional, private) and single-sex toilets are accessible to women.	Basic service Hand washing facilities (with water and soap) and equipment for clean births are available in the deliveryroom, and women have access to a bathing area.	Basic service Waste is segregated into bins for Sharps, infectious and other waste are segregated into labelled bins in the delivery room and placentas are disposed of safely.	Basic service Basic protocols exist for cleaning the delivery room, and staff with cleaning responsibilities have all received training.
Limited service Water is available in the delivery room in a storage container but without a tap.	Limited service There are toilets but not all requirements for basic service are met.	Limited service Hand washing facilities (with water and soap) or equipment for clean births or showers are not available in the deliveryroom	Limited service Either waste is not segregated or placentas are not disposed of safely.	Limited service Cleaning protocols are absent, or not all staff have received training.
No service No water available in the deliveryroom.	No service There are no toilets available for women in the delivery setting.	No service Hand washing facilities (with soap and water) are absent.	No service Bins are not used for waste segregation and placentas are not disposed of safely.	No service No protocols exist and no staff have received training.

Figure 2: JMP service ladders for monitoring WASH and related IPC (WASH-IPC) in the delivery room

¹³ Information on the quality of water supplied for drinking and other health care purposes is not included in the basic service ladder but is recommended for inclusion in additional indicators.

Questions for WASH and related IPC (WASH-IPC) in the delivery room

A set of questions are recommended as the minimum needed to monitor WASH and related-IPC in delivery rooms. The core questions focus on a basic level of service, which is universally applicable. For each question, the shaded indicates which responses are needed to meet the basic service level. Questions are designed to be included either in facility-based surveys conducted by trained enumerators, or in administrative reporting forms completed by health care facility staff. Alternative question formats (e.g. expressing one question as a series of short questions rather than a matrix) may be developed for use in different types of data collection instruments. Examples of alternative formats for a facility-based survey and routine administrative reporting are provided in Annex B.

The questions are designed to measure the proportion of health care facilities, not the proportion of delivery rooms, having a particular level of service. If a facility has more than one delivery room, the questions should be assessed in the delivery room in which most deliveries occur. If there are no rooms designated for delivery, the enumerator should go to the "maternity and labour ward" and ask to see the area in which most deliveries occur. The service ladders indicate the combination of answers required to meet limited and basic service.

The core questions for WASH-IPC in delivery rooms assume that a general service area assessment has also been made. If this is not the case, the assessment of delivery rooms should also include questions from the *Core questions and indicators for monitoring WASH in health care facilities (general service areas)*¹⁴. A list of relevant questions is included in Boxes 2-6. For more information see the <u>Core questions and indicators</u> and accompanying definitions and guidance notes.

General guidance for enumerators

Confirm if normal delivery services are provided by the facility. Ask to be shown the location in the facility where normal delivery services are provided¹⁵. If there is more than one delivery room in a facility, select the one in which most deliveries occur. If there are no specific delivery rooms, go to the "maternity and labour ward" and ask to see the area in which most deliveries occur.

Water

D-W1. Is there a water supply in the delivery room? (Tick one, if more than one type is used select the main one)	
Running water: piped with tap	
Running water: storage container with tap	
Storage container without a tap	
No water supply in the delivery room	
Other:	

¹⁴ World Health Organization and United Nations Children's Fund (2018) Core questions and indicators for monitoring WASH in health care facilities in the Sustainable Development Goals. WHO/UNICEF, Geneva, 2018. https://washdata.org/report/imp-2018-core-questions-and-indicators for monitoring-winhcf-1

¹⁵ This guidance is taken from the Service Provision Assessment for selecting "normal delivery care services" and EmONC for the "maternity and labour ward".

D-W2. Is water available in the delivery room at the time of the survey?			
Yes			
No			

G-W1. What is the main water supply for the facility?

G-W2. Where is the main water supply for the facility located?

G-W3. Is water available from the main water supply at the time of the survey?

Box 2: General facility questions on water

Sanitation

D-S1. Are there toilets in the area where maternal and newborn services are provided?		
Yes		

No

Note

If No, skip to D-H1.

Toilets in general service areas or other areas outside where maternal and newborn services are provided (e.g. child vaccination, HIV counselling) should not be counted.

D-S2 Is there at least one toilet in the area where maternal and newborn services are provided that is	Yes	No
a. Usable at the time of the survey (available, functional and private)?		
b. Accessible to women in labour (no steps, handrails and space for assistance)?		
c. Single-sex?		

Note

a. To be considered usable, a toilet should be available, functional and private at the time of the survey or questionnaire.

Toilets are **available** when on premises, doors are unlocked or with a key available at all times. To be **functional**, the hole or pit is not blocked, water is available for flush/pour flush toilets, and there are no cracks or leaks in the toilet structure. To be considered **private**, the toilet stall has doors or screens that can be closed if needed and there are no large gaps or holes in the structure. If *any* of these criteria are not met, the toilet/latrine is not counted as usable.

b. Women may have limited mobility during labour and after delivery therefore for a

toilet to be considered **accessible**, a toilet should meet all the following additional conditions. It:

- can be accessed without stairs or steps,
- has handrails for support which are attached either to the floor or sidewalls, and has space for assistance to be provided to the woman in labour and during recovery immediately after labour if needed
- should be within the area where maternal and newborn services are provided.

c. Toilets can be in a room with multiple stalls or in a private room with a single toilet. Toilets in rooms with multiple stalls should all be dedicated for use by women or men. A gender-neutral room with a single toilet is also considered as single-sex, as it allows women and men to use toilets separately.

G-S1. What type of toilets/latrines are at the facility for patients?

- G-S2. Is at least one toilet usable (available, functional, private)?
- G-S3. Are there toilets that are dedicated for staff?

G-S4. Are there toilets that are in single-sex or gender-neutral rooms?

G-S5. Are there toilets that have menstrual hygiene facilities?

G-S6. Are there toilets that are accessible for people with limited mobility?

Box 3: General facility questions on sanitation

Hygiene

D-H1. Is there a hand washing facility (water and soap) in the delivery room?			
Yes			
No, there are hand washing facilities but either water or soap are unavailable			
No hand washing facilities with water and soap, but alcohol-based hand rub is available			
No handwashing facilities or alcohol-based hand rub			
Note			
A functional band waching facility must include water and soan (in bar or li	auid		

A functional hand washing facility must include water and soap (in bar or liquid form). Alcohol based hand rub may also be available, but it is still a minimum requirement to have the ability to wash hands with soap and water in the delivery room/area.

D-H2. Are the following materials available in the delivery room?	Yes	No
Sterile blade to cut the umbilical cord		
Sterile cord tie		
Clean surface for woman to deliver on (or clean material to put underneath the woman)		
Disposable gloves		

Note

If Clean Birth Kits are routinely provided to all women using the facility respond 'yes' to all questions.

If a sterile blade and cord tie is disposable, it should be unused and in appropriate sterile packaging.

If a sterile blade and cord tie is reusable, it must have been appropriately decontaminated (e.g. cleaned followed by sterilization using an autoclave) and stored in sterile packaging. Note, sterilization by chemical disinfection is not recommended. Refer to WHO (2016) *Decontamination and reprocessing of medical devices for health-care facilities*.

Disposable gloves should be unused and in appropriate sterile packaging "Clean surface for woman to deliver on" refers to the surface on which the woman will give birth on. This surface must be visibly clean and free from dust, soil, blood, body fluids, and signs of damage.

D-H3. In the area where maternal and newborn services are provided, is there a place for women to shower or bathe?

Yes	
Νο	
Note	
If No. skip to D. W/M1	

If No, skip to D-WM1.

If Yes, ask to see the shower or bathing area.

D-H4. Observe the shower or bathing area to determine if:	Yes	No
Water is currently available or delivered when needed		
The area is free of obstacles		
The area is large enough to allow a companion to assist a woman in bathing		
The area provides for drainage of water		
There are doors or screens to provide privacy so the woman cannot be viewed		

Note

If there is piped water in the bathing area, check that taps are working. If there is no piped water check that containers are available (or delivered to the bathing area when needed).

G-H1. Is there a functional hand hygiene facility at points of care on the day of the survey?

G-H2. Is there a functional handwashing facility at one or more toilets on the day of the survey?

Box 4: General facility questions on hygiene

Health care waste management

D-WM1. Is waste correctly segregated into at least three labelled bins in the delivery room?

Yes, waste is segregated into three labelled bins

No, bins are present but do not meet all requirements or waste is not correctly segregated

No, bins are not present

Note

Observe whether sharps waste, infectious waste and non-infectious general waste are segregated into three different bins.

The bins should be colour-coded and/or clearly labelled, no more than three quarters (75%) full, and each bin should not contain waste other than that corresponding to its label. Bins should be appropriate to the type of waste they are to contain; sharps containers should be puncture-proof and others should be leak-proof. Bins for sharps waste and infectious waste should have lids.

D-WM2. How does this facility usually dispose of placentas?	
With other infectious waste	
With non-infectious general waste	
Buried in placenta pit	
Taken home by women and/or carers after disinfection	
Taken home by women and/or carers without disinfection	
Other (specify)	
Note	

If more than one applies, please select the method used most often.

G-WM1. Is waste correctly segregated into at least three labelled bins in the consultation area?

G-WM2. How does this facility usually treat/dispose of infectious waste? G-WM3. How does this facility usually treat/dispose of sharps waste?

Box 5: General facility questions on health care waste management

Environmental cleaning

D-C1. Are there cleaning protocols in place for the delivery room?	Yes	No
Protocol for cleaning a delivery bed		
Protocol for cleaning a floor		
Protocol for cleaning a sink		
Protocol for cleaning a spillage of blood or bodily fluids (urine, faeces, vomit)		
Cleaning roster or schedule		
Outline of roles and responsibilities		

Note

Where possible, enumerators should check the protocols are available.

Specific protocols should be in place for cleaning the delivery room.

The term for protocols may differ according to local practice; they may be referred to as Standard Operating Procedures (SOPs), guidelines, instructions, etc.

D-C2. Have all staff responsible for cleaning the delivery room received training?

Yes, all cleaning staff have been trained

Some but not all cleaning staff trained

No cleaning staff trained

No, there are no staff responsible for cleaning

Note

"Staff responsible for cleaning" refers to non-health care providers such as cleaners or auxiliary staff, as well as health care providers who, in addition to their clinical and patient care duties, perform cleaning tasks as part of their role.

Training refers to structured teaching and instruction led by a trainer or appropriately qualified supervisor and can refer to training given during core nursing training or in-service/post-qualification.

G-C1. Are cleaning protocols available?

G-C2. Have all staff responsible for cleaning received training?

Box 6: General facility questions on environmental cleaning

Annex A: Additional modules relevant for specific clinical areas

Detailed facility assessments that are designed to give a comprehensive picture of the maternal and newborn services in a given health care facility might collect data from other areas where maternal and newborn services are provided. These areas, which are listed below, may be covered by additional modules which build on existing delivery room or general service area indicators or by drafting new context-specific indicators.

- Antenatal care: the area where outpatient pregnancy care is provided; for monitoring purposes.
- Maternity ward: the area in the facility where maternal and newborn health care is provided such as antenatal care, labour room, postnatal care, family planning services etc.
- Labour room: the room/s where women receive care during labour, prior to the actual birth (may also be the delivery room).
- Obstetric operating theatre/room: the area in which obstetric surgical services, such as Caesarean section, are performed.
- Inpatient newborn care areas (e.g. special newborn care unit, neonatal intensive care unit).
- Postnatal care: in-patient area where mothers and newborn receive care after the delivery, before being discharged from the facility. In-patient antepartum care may also be provided here.

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Annex B: Examples of alternative formats

The format of questions can be changed to be adapted for use in a range of survey tools. Examples are given below for a routine administrative reporting (Figure 3) and a facility-based survey (Figure 4).

- 1. Water supply in the delivery room (select one): \Box Piped water with tap \Box Stored water with tap \Box Stored water without tap \Box No water available \Box Other:_____
- 2. Water in the delivery room currently available: \Box Yes \Box No
- 3. Toilet available to women during and after labour: \Box In single-sex/gender-neutral room \Box Not single-sex/gender-neutral \Box No toilet available
- 5. Is the toilet accessible for women in labour (no steps, handrails, space for assistance)?: \Box Yes \Box No
- 6. Functional hand washing facility in the delivery room: \Box Yes \Box Partially (lackingsoap or water) \Box No
- 7. Sterile materials available in the delivery room (tick all that apply): Sterile blade Sterile cord tie Clean surface to deliver on Disposable gloves
- 8. Functional shower or bathing area available where maternal and newborn services are provided: \Box Yes \Box Partially functional (lacking water, privacy or sufficient space for caretaker) \Box No
- 9. Sharps, infectious and general waste are safely separated into three bins in delivery room □ Yes □ Somewhat (bins are full, include other waste, or only 1 or 2 available) □ No
- 10. Treatment/disposal of placentas: □ With other infectious wastes □ With non-infectious general waste □ Buried in placenta pit □ Taken home by women and/or carers after disinfection □ Taken home by women and/or carers without disinfection □ Other: (specify)
- 11. Protocols for cleaning delivery room (delivery bed, floor, sink, blood/bodily fluids spillage) and cleaning schedule are available: \Box Yes \Box Partially (not all protocols or no schedule) \Box No
- 12. All staff responsible for cleaning the delivery room have received training: 🗆 Yes 🗆 Some trained 🗆 None trained 🗆 No staff responsible for cleaning

Figure 3: Example of core questions adapted for national for routine administrative reporting.

	Protocol for cleaning a delivery bed	Available		
		Yes, observed	Yes, reported (not observed)	No
	Protocol for cleaning a floor	Yes, observed	Yes, reported (not observed)	No
	Protocol for cleaning a sink	Yes, observed	Yes, reported (not observed)	No
	Protocol for cleaning a spillage of blood or bodily fluids	Yes, observed	Yes, reported (not observed)	No
	Cleaning roster or schedule	Yes, observed	Yes, reported (not observed)	No
	Outline of roles and responsibilities	Yes, observed	Yes, reported (not observed)	No

Figure 4. An example of questions presented in an alternative matrix style question, for use in facility-based surveys.