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WATER, SANITATION AND HYGIENE CONDITIONS IN A TERTIARY-CARE MATERNITY HOSPITAL IN SRINAGAR, KASHMIR, INDIA: A DESCRIPTIVE FACILITY-BASED ASSESSMENT

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ABSTRACT

Background: Water, sanitation and hygiene (WASH) services are essential to safe, respectful maternity care, yet their quality depends not only on infrastructure but also on functionality, reliable supplies, environmental cleaning, waste management and protection of sanitation workers. This study describes WASH conditions at a tertiary-care maternity hospital in Srinagar, India. **Methods:** This descriptive, single-facility assessment used interviews and facility observations (May–June 2022) with 100 purposively selected participants: 9 doctors, 6 paramedical staff, 40 patients, 40 attendants and 5 sanitary workers. A self-developed 44-item interview schedule was used. Frequencies and percentages were calculated from reported counts, and Wilson 95% confidence intervals (CIs) were computed as descriptive measures of precision; they do not correct for purposive sampling. **Results:** The facility profile recorded 100 beds and approximately 200 outpatient visits daily, with no designated safe drinking-water point. All 100 respondents reported a lack of drinking-water provision (100.0%; Wilson 95% CI 96.3–100.0%). Of the 95 respondents with satisfaction data (doctors, paramedical staff, patients and attendants), 48 were satisfied (50.5%; 95% CI 40.6–60.4%); proportions ranged from 50.0% to 55.6% across groups, with wide, overlapping intervals. Respondents and observations also indicated inconsistent availability of soap and other washroom supplies, malfunctioning flushes and exhaust fans, a shared outdoor washroom reportedly lacking doors, waste spillage and inconsistent segregation by visitors, and inadequate personal protective equipment (PPE) for sanitary workers. **Conclusions:** The principal gaps were operational and service-related rather than an absence of all sanitation infrastructure. Priorities include dependable drinking-water provision, functional and private toilets, point-of-use hand-hygiene supplies, monitored environmental cleaning, visitor education and appropriate PPE for sanitation workers. Because the sample was purposive and many observations were not quantified, the findings are a facility-specific descriptive assessment, not a prevalence estimate or a regulatory compliance audit.

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1. Introduction

Water, sanitation and hygiene are foundational components of healthcare quality. In maternity facilities, these services support hand hygiene, environmental cleanliness, safe management of excreta and healthcare waste, and the dignity and privacy of women during pregnancy, childbirth and the postnatal period. WASH deficiencies can also make infection-prevention practices difficult to perform consistently. The presence of toilets or a water source alone is insufficient: services must be accessible, functional, maintained and supported by essential consumables and trained personnel.

Infections acquired in or around childbirth remain an important and largely preventable source of harm. Sepsis has been estimated to account for roughly one in ten maternal deaths worldwide (Say et al., 2014), and the burden of endemic health-care-associated infection is considerably higher in low- and middle-income countries than in high-income settings (Allegranzi et al., 2011). Systematic evidence has linked the water and sanitation environment to maternal health outcomes, although the quality of the available studies has been limited (Benova et al., 2014), and inadequate WASH more broadly contributes a substantial share of the global burden of disease (Prüss-Ustün et al., 2014). Hand hygiene occupies a central place in this chain of causation, because transmission of pathogens on the hands of health workers is a principal route of cross-infection and can be reduced through sustained, multimodal improvement programmes (Pittet et al., 2000, 2006; World Health Organization [WHO], 2009). Each of these safeguards depends, in turn, on a reliable supply of water, soap and functioning facilities at the point of care.

The WHO/UNICEF Water and Sanitation for Health Facility Improvement Tool (WASH FIT) frames facility improvement as a continuous, risk-based process covering water, sanitation, hand hygiene, environmental cleaning and healthcare waste management, alongside relevant facility-management and equity considerations (WHO & UNICEF, 2022). This approach is useful for interpreting the present findings, which describe both basic infrastructure and recurring operational problems.

Environmental hygiene and waste management complete this picture. Contaminated surfaces in health-care settings can act as reservoirs for pathogens, and thorough, well-supervised cleaning is an accepted component of infection control (Dancer, 2009; Otter et al., 2011). Healthcare waste that is poorly segregated or inadequately treated exposes patients, visitors and workers to infectious and sharp hazards, which is why WHO guidance emphasizes segregation at the point of generation and safe onward treatment and disposal (WHO, 2014). Sanitation and cleaning staff are among those most exposed to these hazards, and their health, safety and dignity are increasingly recognized as integral to safe service delivery (World Bank et al., 2019).

Global monitoring indicates that gaps remain widespread: in 2025, an estimated 40% of health-care facilities worldwide met the basic sanitation standard and 59% met the basic environmental-cleaning standard (WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, 2026). In a survey of 1,547 rural facilities with maternity wards in 14 low- and middle-income countries, 73% of those offering maternal and neonatal services did not meet the WHO ‘six cleans’ guidelines (Cronk et al., 2021). Integrating WASH improvements into maternal and newborn health services is widely recognized as essential for reducing healthcare-associated infections and improving care quality (Velleman et al., 2014). Assessments of maternity units in India and South Asia further demonstrate that even where basic physical infrastructure exists, operational deficits in toilet hygiene, handwashing consumables, and microbiological cleanliness frequently persist (Cross et al., 2016; Trivedi et al., 2020).

Respectful and dignified care is a further reason to attend to WASH in maternity settings. WHO has called for the prevention and elimination of disrespect and abuse during facility-based childbirth (WHO, 2015), and the global evidence on mistreatment of women during childbirth includes health-system conditions and constraints, such as inadequate facility conditions and a lack of privacy, among the problems women report (Bohren et al., 2015). Evidence from low- and middle-income countries also suggests that WASH conditions in health facilities are associated with care-seeking behaviour and patient satisfaction, although the evidence base remains limited (Bouzid et al., 2018).

Global and national policy frameworks increasingly recognize these linkages. Monitoring of WASH in health care facilities has been incorporated into the framework of the Sustainable Development Goals (United Nations, 2015; WHO & UNICEF, 2018), and the first global baseline for these services was published in 2019 (WHO & UNICEF, 2019). WHO standards for improving the quality of maternal and newborn care likewise treat the physical environment, including essential infrastructure and supplies, as part of quality of care (WHO, 2016), while coverage of basic environmental conditions in facilities in low- and middle-income countries remains uneven (Cronk & Bartram, 2018). In India, the Bio-Medical Waste Management Rules, 2016 govern the segregation, handling and disposal of healthcare waste (Ministry of Environment, Forest and Climate Change [MoEFCC], 2016), and the LaQshya initiative seeks to improve the quality of care in labour rooms and maternity operation theatres (Ministry of Health and Family Welfare [MoHFW], 2017).

National frameworks are ultimately implemented through the day-to-day operations of individual facilities. Facility-specific descriptions of WASH conditions are therefore valuable for identifying where gaps persist and what should be prioritized. Tertiary-care maternity hospitals, which typically receive referrals and manage high patient volumes, are particularly important settings in which to examine these issues. Documenting the perspectives of different stakeholders alongside direct observation is useful because the same services are experienced differently by those who deliver, use and maintain them.

This study was conducted at a tertiary-care maternity hospital in Srinagar (hereafter, the study hospital). It assessed the experiences of healthcare personnel, patients, attendants and sanitary workers, supplemented by observations in hospital service areas.

2. Aim and objectives

The aim was to describe water, sanitation, hygiene and waste-management conditions at the study hospital from the perspectives of different facility stakeholders.

Specific objectives were to: (i) describe the reported WASH infrastructure and facility profile; (ii) document reported access to drinking water, toilets and hand-hygiene materials; (iii) summarize stakeholder satisfaction where numerical counts were available; (iv) describe reported healthcare-waste practices and sanitary workers' PPE; and (v) identify practical priorities for facility-level improvement.

3. Materials and methods

3.1 Study design and setting

This was a descriptive, facility-based assessment using interviews and observations. The research was originally framed as qualitative and participatory-action oriented; however, no formal thematic-coding procedure or qualitative analytic framework was applied, and the findings are therefore reported descriptively. The setting was a tertiary-care maternity hospital in Srinagar, Jammu and Kashmir, India, which recorded 100 beds and approximately 200 outpatient visits per day.

A descriptive design was chosen because the objective was to characterize existing conditions and stakeholder experiences rather than to test hypotheses or estimate effects. A single-facility design is well suited to generating a detailed, context-specific picture that can inform local quality-improvement action.

3.2 Participants and sampling

Participants were selected by purposive sampling and comprised 100 individuals: 9 doctors, 6 paramedical staff, 40 patients, 40 attendants and 5 sanitary workers (Table 1).

Purposive sampling is commonly used when the aim is to obtain information-rich perspectives from defined groups rather than statistically representative estimates (Palinkas et al., 2015; Etikan et al., 2016). It was used here to include stakeholder groups with direct, everyday experience of the hospital's water, sanitation and waste services. The participants therefore represent selected stakeholder perspectives and not a random sample of all hospital users or staff.

Table 1. Participant composition (N = 100)

Participant category	n	% of total sample
Doctors	9	9.0
Paramedical staff	6	6.0
Patients	40	40.0
Attendants	40	40.0
Sanitary workers	5	5.0
Total	100	100.0

3.3 Instrument and data collection

A self-developed interview schedule of 44 items was used: 22 hospital-profile items, 13 items for doctors, patients and attendants, and 9 items for sanitary workers. Topics included facility characteristics, toilets and washrooms, drinking-water points, washroom equipment and functionality, cleaning, access, satisfaction, waste management and sanitary workers' working conditions. Observations were made in outpatient areas, the labour room, and antenatal and postnatal wards. Data were collected in May–June 2022; interviews lasted approximately 10–20 minutes.

The topics covered by the schedule can be mapped to the principal domains of the WASH FIT approach and the WHO/UNICEF core indicators for health-care facilities, namely water, sanitation, hand hygiene, environmental cleaning and healthcare waste management, together with facility management and the working conditions of sanitation staff (WHO & UNICEF, 2018, 2022). Combining interviews with observation allowed reported conditions to be compared with what could be seen in service areas, although observations were not recorded using a structured audit tool.

3.4 Ethical considerations

Permission to conduct the study was obtained from the Head of the Department of Sociology, University of Kashmir. Administrative permissions were granted by the Director of the parent institute, the Dean of its Medical Faculty and the Head of the Department of the maternity hospital. All participants gave informed consent, and confidentiality was assured.

3.5 Statistical analysis

Data entry and descriptive analysis were performed in Microsoft Excel. Percentages were calculated as (numerator/denominator) × 100 from the reported counts. For satisfaction, the denominator was restricted to the four respondent groups for which satisfaction counts were available (n = 95); sanitary workers (n = 5) were excluded from this calculation because no satisfaction numerator was reported. Two-sided 95% Wilson score CIs were calculated to show the uncertainty associated with small denominators. Because the sample was purposive rather than probability-based, these intervals are descriptive and do not support population-level inference.

No inferential comparison between respondent groups was treated as confirmatory: group sizes were small, especially for doctors and paramedical staff, and no validated satisfaction scale was used. No regression, causal analysis or composite WASH score was

attempted. Missing values were not imputed. Percentages were not generated for qualitative observations that lacked a count or denominator.

The Wilson score interval was selected because it maintains better coverage than the simple Wald interval for small samples and for proportions close to 0% or 100% (Wilson, 1927; Brown et al., 2001), both of which apply to several estimates reported here.

4. Results

4.1 Facility profile

The facility profile is summarized in Table 2.

Table 2. Facility profile

Facility indicator	Value reported
Hospital beds	100
Doctors employed/recorded in facility profile	24
Paramedical staff	32
Sweepers/sanitary workers	25
Approximate outpatient attendance	200 per day
Washrooms per ward	1
Latrines per ward	4
Designated safe drinking-water points	Nil

The staffing figures describe the hospital profile and should not be confused with the number of participants interviewed. It was not specified whether the 25 sweepers represent sanctioned posts, filled posts or staff available during the survey.

4.2 Stakeholder satisfaction with sanitation

Satisfaction with sanitation is summarized in Table 3.

Table 3. Satisfaction with sanitation by respondent group

Respondent group	Satisfied / assessed	Satisfied (%)	Wilson 95% CI (%)
Doctors	5/9	55.6	26.7–81.1
Paramedical staff	3/6	50.0	18.8–81.2
Patients	20/40	50.0	35.2–64.8
Attendants	20/40	50.0	35.2–64.8
Combined groups with data	48/95	50.5	40.6–60.4

CI, confidence interval (Wilson score). Sanitary workers (n = 5) are excluded because no satisfaction count was reported.

Across the four groups with available counts, 48 of 95 respondents were satisfied (50.5%). Satisfaction was exactly 50.0% among both patients and attendants. The apparently higher proportion among doctors (55.6%) rests on only nine respondents and has a wide confidence interval. The intervals overlap substantially, so the data do not support a meaningful ranking of stakeholder groups.

4.3 Drinking-water access

The facility profile recorded no designated safe drinking-water points. All 100 respondents reported the absence of a drinking-water facility, and patients, attendants and staff reported having to purchase drinking water independently. The sample-level proportion was therefore 100/100 (100.0%; Wilson 95% CI 96.3–100.0%); because selection was purposive, this interval describes the observed proportion only and does not support population-level inference. No microbiological or chemical water-quality testing was reported, so this finding concerns reported availability and does not establish the safety or contamination status of any water source used outside the facility.

4.4 Toilets, hand hygiene and environmental cleanliness

Toilets and washrooms were reported in wards and common areas, with a closed drainage system. Frequent mopping of wards and corridors was described, and no strong unpleasant odour was noted during observation. These positive observations coexisted with shortages of soap, handwash, sanitizer and towels in some washrooms; malfunctioning flushes and exhaust fans; and the absence of geyser/hot-water facilities. A common washroom for men and women outside the building was reported to lack doors, raising concerns about privacy and gender-sensitive access.

Attendants reportedly observed rodents in wards, and some attendants were described as using washrooms to clean utensils, with food residues found on floors. These are qualitative reports: their frequency and location were not quantified, and no structured environmental monitoring was reported.

4.5 Healthcare waste management

Colour-coded waste containers and informational charts or banners were reportedly available in wards and outpatient areas. Staff were described as familiar with segregation categories, whereas patients and attendants reportedly segregated waste less consistently, and spillage around bins was noted. Collection and onward treatment/disposal arrangements were described, but documentary evidence was not available to verify the final treatment pathway or compliance with applicable biomedical-waste requirements. No waste audit, weighing exercise, segregation-error rate or compliance checklist was reported.

4.6 Sanitary workers' occupational conditions

Sanitary workers reportedly identified inadequate PPE, including shortages of masks, gowns and gloves. Counts for each item, task-specific PPE requirements, training coverage, sharps or splash incidents, vaccination status, occupational-health surveillance and the availability of handwashing facilities in staff areas were not reported. These gaps prevent quantitative assessment of occupational risk but identify a priority for a dedicated worker-safety audit.

5. Discussion

This facility-based assessment describes a mixed WASH profile: the hospital reportedly had toilets, closed drainage and routine cleaning, but gaps were identified in drinking-water provision, washroom consumables, toilet functionality and privacy, visitor waste segregation and PPE for sanitary workers. The distinction between infrastructure and service functionality is central. A toilet that is present but lacks a functioning flush, privacy or cleaning supplies cannot be assumed to provide an adequate sanitation service; similarly, a handwashing location without reliable water and soap cannot consistently support hand hygiene.

The most striking numerical finding was that all 100 interviewed participants reported a lack of drinking-water provision. This is a sample-level observation, not proof that every hospital user experienced the same condition throughout the day or across all seasons. Nevertheless, the convergence of the facility profile ("nil" designated drinking-water points) and the respondent narrative makes drinking-water access a high-priority issue for verification and corrective action. A follow-up audit should record the number, location, functionality and operating hours of water points and undertake microbiological and chemical testing by an accredited laboratory.

Safe drinking water is a basic requirement for patients, attendants and staff alike. Where no designated point is provided, responsibility for obtaining and judging the safety of water shifts from the institution to individuals. Reliance on privately purchased water may also impose a cost on families, and may discourage adequate hydration among women who are recovering from childbirth or breastfeeding. These possibilities were not examined directly in this study, but they illustrate why drinking water is treated as a core element of basic services in health-care facility monitoring (WHO & UNICEF, 2018; Cronk & Bartram, 2018).

Approximately half of the 95 respondents with satisfaction data reported being satisfied. The combined estimate (50.5%) should be interpreted cautiously because it pools stakeholder groups with different roles and experiences and excludes sanitary workers. The confidence intervals are wide, particularly for doctors and paramedical staff, reflecting small denominators, and they do not overcome selection bias. Cleanliness, the physical environment and the availability of supplies are recognized structural determinants of women's satisfaction with maternity care in low- and middle-income countries (Srivastava et al., 2015), which supports attention to these domains. The findings suggest an opportunity to improve user experience but do not establish statistically significant differences between groups.

The reported absence of soap and other hand-hygiene materials in some washrooms is important because availability at the point of use is a prerequisite for routine practice; limited availability of environmental hygiene items has likewise been documented in rural maternity wards across 14 low- and middle-income countries (Cronk et al., 2021) as well as in facility assessments of Indian maternity units (Cross et al., 2016; Trivedi et al., 2020). Facility monitoring should distinguish between (a) a hand-hygiene station existing, (b) water and soap being present at the time of inspection, and (c) the station being functional and accessible. Similar distinctions should be made for toilet cleanliness, privacy, locks, lighting, flushes and accessibility. WASH FIT provides a practical framework for translating such observations into a prioritized improvement plan with assigned responsibilities and repeat monitoring (WHO & UNICEF, 2022).

The link between these operational details and infection prevention is well established in principle. Hand-hygiene performance depends on the availability of products and infrastructure at the point of care (Pittet et al., 2006; WHO, 2009), and cleaning is only effective when it is systematic and supervised (Dancer, 2009; Otter et al., 2011). Observations of the physical environment also have limits: a study of maternity units in Gujarat showed that surfaces that look clean are not necessarily microbiologically safe (Trivedi et al., 2020). The present observation that mopping was frequent and that no strong odour was noted should therefore be read as a positive but incomplete indicator of environmental hygiene. This study did not measure health-care-associated infections or microbiological contamination, and no inference about infection risk should be drawn from the data presented.

Privacy and gender-sensitive sanitation are especially relevant in maternity care. WHO guidance on sanitation and health emphasizes safe, accessible and acceptable facilities (WHO, 2018), and a shared washroom reportedly lacking doors is inconsistent with basic expectations of privacy and dignity. The facility should assess separate, secure and accessible toilets for women and men, menstrual hygiene needs, disability access and the location of toilets relative to labour, antenatal and postnatal areas. These are not merely amenity issues: they influence whether patients can use facilities safely and comfortably.

Privacy and dignity are closely related to women's experience of respectful maternity care (WHO, 2015; Bohren et al., 2015), and WASH conditions have been associated with care-seeking and satisfaction in low- and middle-income settings (Bouzid et al., 2018). The finding that satisfaction was reported by about half of respondents, together with the specific concerns about doors, flushes and supplies, is consistent with the view that physical and hygienic conditions shape how services are perceived. Because satisfaction was not measured with a validated instrument, however, the association between specific deficiencies and overall satisfaction could not be tested.

Waste segregation depends on both system design and user behaviour. Colour-coded containers and signage are useful, but they must be supported by correct placement, clear labels, staff training, supervision, timely collection and safe downstream treatment. The reported spillage and inconsistent segregation by visitors indicate a need for brief, visible instructions and orientation at admission or ward entry. However, the available data do not permit a formal judgement of compliance with biomedical-waste rules.

In India, healthcare waste management is governed by national rules that require segregation at the source in colour-coded containers, safe collection and storage, and treatment and disposal through authorized facilities (MoEFCC, 2016). The presence of

colour-coded containers and informational materials in the hospital is therefore an encouraging finding. Verification of the complete pathway from generation to final treatment, supported by records and periodic audit, would be required to establish compliance and is an appropriate focus for future work. Because patients and visitors also take part in segregation at the bedside, orientation that is simple, repeated and visible at the point of disposal is likely to complement staff training.

The reported PPE shortages among sanitary workers deserve specific attention. These workers perform essential environmental-cleaning functions and should receive task-appropriate gloves, masks, protective clothing, footwear and other equipment based on a documented risk assessment, together with training, safe handling procedures and access to occupational-health services. Prior regional assessments similarly emphasize that sustainable WASH improvements require supportive institutional standards and work environments alongside physical supplies (Mannava et al., 2019). The current study interviewed only five sanitary workers and did not quantify PPE availability; a larger, confidential worker-focused assessment is warranted.

The occupational health of sanitation workers is also a matter of equity. Sanitation workers frequently perform physically demanding, stigmatized and hazardous tasks, and international assessments have highlighted the need for protective equipment, training, health services and social protection to safeguard their health, safety and dignity (World Bank et al., 2019). Although the present data on this group are limited to the reports of five workers, they point in the same direction and indicate that worker welfare should be included explicitly in facility WASH improvement plans.

These findings are consistent with the global picture of persistent gaps in sanitation and environmental cleaning reported by WHO and UNICEF (WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene, 2026). However, global estimates provide context only; they are not directly comparable with this single-hospital, purposive sample collected in 2022.

The implications of these findings operate at several levels. For hospital management, the most actionable items are those that depend on routine operations rather than capital investment, such as ensuring uninterrupted supplies of soap and hand-drying materials, repairing flushes, locks and fans, and introducing written cleaning schedules with supervisor sign-off. Drinking-water provision, door installation for the outdoor washroom and any structural changes will require planning and resources but can be prioritized by risk. For policy-makers and quality-assurance programmes, facility-level assessments such as this one can complement national initiatives by identifying operational gaps that may not be visible in aggregate reporting. For researchers, the findings underline the value of repeating assessments with standardized tools, quantified observations and microbiological verification, and of linking WASH indicators to patient and neonatal outcomes where feasible.

6. Practical improvement framework

Table 4 translates the findings into priority actions aligned with the WASH FIT approach (WHO & UNICEF, 2022).

Table 4. Priority actions and suggested monitoring indicators

Priority area	Immediate facility action	Suggested monitoring indicator
Drinking water	Install/restore accessible points; maintain supply; test water quality	Number of functional points; proportion of scheduled tests meeting standards; downtime
Toilets and privacy	Repair flushes, doors/locks, ventilation and lighting; provide separate, secure facilities	Percentage of toilets functional, clean and private at inspection
Hand hygiene	Ensure water, soap and hand-drying materials at designated stations	Percentage of stations with all required materials present and functional
Environmental cleaning	Use written schedules, area-specific checklists and supervisor sign-off	Cleaning checklist completion and audit score by area
Healthcare waste	Check bin placement, labels, segregation and collection pathway; orient visitors	Observed segregation errors per audit; bin overflow/spillage events
Sanitary worker safety	Provide task-appropriate PPE, training and occupational-health support	PPE availability by task; training coverage; reported occupational incidents
Governance	Adopt a WASH FIT-aligned multidisciplinary improvement plan	Monthly review of indicators and closure of corrective actions

The indicators above are proposed for future monitoring and were not measured in this study. Baseline values should be established before targets are set. A multidisciplinary team should include hospital administration, nursing, infection prevention and control, engineering/maintenance, housekeeping, waste-management personnel and patient representatives.

In practice, improvement is most likely to be sustained when responsibilities are explicitly assigned, progress is reviewed at regular intervals, and actions are sequenced according to risk and feasibility. Low-cost operational measures can be implemented promptly, while items requiring engineering work or procurement can be incorporated into a time-bound plan with named leads and review dates. Involving housekeeping and sanitation staff, patients and attendants in identifying problems and testing solutions is consistent with the participatory orientation of the WASH FIT approach (WHO & UNICEF, 2022).

7. Strengths and limitations

A strength of this study is its inclusion of multiple stakeholder groups patients, attendants, clinical personnel and sanitary workers alongside observations in several maternity-care areas, which provides a broader descriptive perspective than a facility-profile-only assessment. The study also reports explicit denominators and confidence intervals for satisfaction proportions.

Several limitations affect interpretation. First, the study was conducted at a single facility using non-probability (purposive) sampling, so the findings cannot be generalized. Second, the staff subgroups were small. Third, the interview schedule was self-developed, and no validation, reliability assessment or standardized WASH audit tool was used. Fourth, most operational findings are qualitative and lack counts, denominators or repeated observations. Fifth, no water-quality testing, environmental microbiology, waste audit or structured PPE inventory was reported. Sixth, healthcare-associated infections, maternal or neonatal outcomes and causal associations were not measured.

In addition, responses were self-reported and may have been influenced by recall or social-desirability bias, particularly among hospital staff, and observations were not made with a structured tool and may reflect observer subjectivity. Despite these limitations, the study provides a transparent, facility-specific description of conditions as reported and observed and it offers a baseline against which future, more standardized assessments can be compared.

8. Conclusion

The assessment indicates that the study hospital had basic sanitation infrastructure and reported routine cleaning, but important service gaps were identified in drinking-water access, washroom consumables, toilet functionality and privacy, visitor waste segregation and sanitary-worker PPE. The strongest quantitative signal was the report of absent drinking-water provision among all 100 interviewed participants. Satisfaction was reported by 48 of 95 respondents for whom counts were available (50.5%). These findings support a practical, monitored improvement programme focused on reliable services, dignity, environmental cleaning, waste management and worker protection. Further standardized assessment is needed to establish current conditions and verify improvements.

9. Recommendations

1. Undertake a fresh, standardized WASH facility audit using WHO/UNICEF WASH FIT or an equivalent validated checklist.
2. Provide safe, accessible drinking-water points and implement routine microbiological and chemical water-quality testing.
3. Ensure continuous availability of soap, water and hand-drying materials at handwashing stations and toilets.
4. Repair flushes, doors, locks, lighting, ventilation and other non-functional toilet components; ensure gender-sensitive, private and accessible facilities.
5. Introduce documented area-specific environmental-cleaning schedules, supervision and corrective-action logs.
6. Strengthen healthcare-waste segregation through point-of-use signage, staff training, visitor orientation and verification of the authorized treatment/disposal pathway.
7. Provide sanitary workers with task-appropriate PPE, training, safe work procedures and occupational-health support.
8. Repeat patient, attendant and staff feedback surveys using a clearly defined, validated satisfaction instrument and probability-based sampling where feasible.

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