



WaSH Policy Research Digest

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Detailed Review: WHO-UNICEF report shows that WaSH in health care facilities is seriously lacking

[Water, sanitation and hygiene in health care facilities: status in low and middle income countries and way forward. World Health Organization \(WHO\) & UNICEF \(2015\)](#)

A recent publication provides, for the first time, a global assessment of the status of WaSH in health care facilities. The findings are shocking. Importantly, the report also identifies key practical strategies and actions to bring about improvements.

The report draws from three existing global health sector assessments¹ over the period of 1998 to 2014 and covers 66,101 health facilities from 54 low and mid-income countries. Across this data set, an estimated 38% of health care facilities do not have an improved water source, 19% do not have improved sanitation (toilet or latrine facilities) and 35% do not have water and soap for handwashing. The consequences for the delivery of good quality health services are clearly huge.

Weaknesses in the available data mean that the situation is even more concerning than these statistics suggest. The three global assessments used as the primary data sources for this report use WaSH access indicators closely aligned to the Joint Monitoring Programme (JMP) managed by WHO and UNICEF, which were developed to assess household access to drinking water and sanitation. The authors of the report note that the water indicator is inadequate for health care facilities, as it includes water sources up to 500 metres from the facility and does not include testing or assessments for water safety, quantity or the continuity of the services or practices, all critical for a health facility.

The definition of a water source is thus below WHO standards², which specify onsite facilities in health care facilities. The authors also note that the indicator for sanitation ignores functionality and accessibility. In this reviewer's opinion, the indicator should extend even further to cover cleanliness and sufficiency (seats per number of users). The assessment of hygiene focuses on availability of handwashing facilities with soap or alcohol-based hand rubs. However, the authors of the report do not comment sufficiently on the need to monitor behaviour and frequency of use of cleaning agents.

38% without improved water supplies
19% without improved toilets
35% without water & soap for handwashing

Box 1: Key statistics for health care facilities

The authors also do not highlight the critical link with training of core staff (cleaners, nursing aids and orderlies) on infection control, including not only hygiene behaviours but also safe sanitation and on-going risk-based inspection and control.

The authors note that if issues of reliability and safety of the existing WaSH services were included in the assessments, the number of health care facilities lacking access would increase by more than half.

¹ These assessments are: Service Delivery Indicator (SDI) survey managed by the World Bank, Service Availability and Readiness Assessment (SARA) managed by WHO and Service Provision Assessment (SPA) managed by ICF International.

² Essential Environmental Health Standards in Healthcare, WHO 2008. http://www.who.int/water_sanitation_health/hygiene/settings/

Clearly, improved country level assessments of WaSH in health care facilities are needed to inform policy and decision-making and to drive action and appropriate investment. However, the report documents that more than 40 low and mid-income countries have not undertaken any national assessment of WASH in health care facilities and therefore lack even the most basic information necessary to raise awareness or set targets to achieve improvements.

The report also reveals large disparities in WaSH service access between countries, within countries and between hospitals and primary health care facilities. The disparity between access levels at hospitals and primary health care facilities (which have much lower access) is critical, indicating significant weaknesses within primary health systems. This is of concern when considering the role of these services in responding to disease outbreaks such as diarrhoea, cholera and Ebola virus disease, as well as for basic health care such as pre- and postnatal care.

The report includes an analysis of data from a UN Water initiative that shows that only 25% of the 86 countries that responded to a survey³ reported having fully implemented plans or policies for WaSH in health facilities (Figure 1). A majority of countries report they are in the process of developing and implementing policies or plans. An interesting comparison between these indicators and coverage of WaSH in health care facilities shows that where policies and plans exist, coverage figures are higher; the authors conclude that a national policy and plan are important to mobilize financial and human resources and achieve improvements.

The authors note the need for indicator harmonisation and more data collection at national and global levels, but more emphasis could have been placed on the need for alignment of monitoring between the health and WASH sectors, including strengthening the Health Management Information Systems (HMIS). Of 68 national HMIS considered, none included WaSH data.

A welcome feature of this report is that it suggests practical ways forward. Four key strategy and action areas are identified and discussed with useful illustrative practical examples: policy and standards, setting coverage targets, improving WaSH services, and monitoring.

The report suggests using practical, facility-appropriate risk assessments to identify critical control points for all aspects of infection prevention and control. Such an approach not only helps identify areas for improvement

but, with regular systematic monitoring and regulation, will also ensure compliance and continuity. The authors suggest a “laddered” approach that allows health care facilities to make incremental progress to achieve and then exceed a basic level of service. Practical experience suggests that this could mean prioritising maternal, newborn and child health care where WaSH improvements will have immediate results on performance outcomes, which, in turn, will catalyse improved WaSH across all components of the health care delivery continuum.

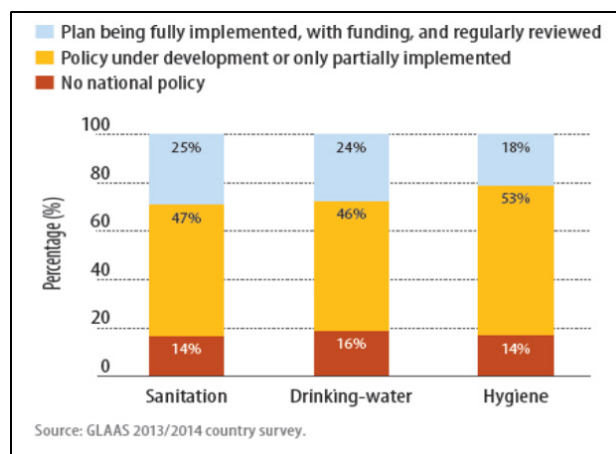


Figure 1: Status of national policies and plans for WASH in health care facilities

Finally, the report also highlights key opportunities for global alignment and support, and lists a number of relevant global initiatives. However, there is not enough emphasis on the urgency for such alignment and coordination; this is critical if health service authorities in low and middle-income countries are to effectively assimilate WaSH in health care facilities into their health strategies and plans, and reflect both the opportunities for improvements and the resources available.

Policies and strategies for WaSH in health care facilities should be integrated into existing national planning and funding mechanisms to avoid establishment of stand-alone interventions which are potentially not sustainable.

This report is an extremely important addition to the literature on WaSH in health care facilities. It is a useful and practical report for health policy makers and planners, or for support agencies across the health and WaSH sectors. It clearly highlights the needs and weaknesses, but more importantly provides clarity on practical actions to drive progress.

³ Global Analysis and Assessment of Sanitation and Drinking Water (GLAAS), a UN-Water initiative coordinated by WHO

Literature Review: Water, sanitation, and hygiene in health care facilities

This section provides a review of recent literature on the impact of poor water, sanitation and hygiene (WaSH) in health care facilities, comments on the state of the evidence base, and introduces some of the resources available to assist governments and external support agencies to address the serious shortcomings outlined in the WHO/UNICEF report reviewed in the first part of this Digest.

In low-income countries, an estimated 15% of patients develop one or more infections during a hospital stay (Allegranzi et al. 2011). Inadequate environmental conditions in health care facilities including poor WaSH, lack of ventilation, and inadequate management of health care waste cause infections through contaminated water, food, hands, fomites, medical equipment, and unsafe blood transfusions (WHO 2008). Associated adverse health outcomes include a multitude of infections: gastrointestinal, respiratory, surgical site, burn wound, and sharps-related. Adequate hand hygiene (such as handwashing with soap) is critical for preventing infection – but several hundred million patients are affected annually by infections arising from poor handwashing practices (WHO 2009).

Erasmus et al. (2010) report that health care providers are frequent causes of infection; and that compliance with hand washing standards among health care providers is often low. Because of these deficiencies, health care facilities serve as foci for infection and patients seeking treatment fall ill, or potentially die, for the lack of the most basic elements of a safe and clean environment (Bartram et al. 2015).

Unsafe WaSH and poor environmental conditions in health care facilities are of particular significance to maternal and neonatal health. They contribute to maternal and neonatal mortality by increasing the risk of infection during and shortly after delivery (Benova et al. 2014a, Cheng et al. 2013). Benova et al (2014b) report that less than a quarter of health facilities in Tanzania provide a “WATSAN-safe” delivery room environment.

Infections account for 1.2 million neonatal deaths each year and for 15% of maternal deaths (Black et al. 2010, Lawn et al. 2010). Inadequate WaSH conditions may also deter patients, including expectant mothers, from using facilities (Zaidi et al. 2005). Simple solutions can be used to improve WaSH conditions at health care

facilities. Bennett et al. (2015) found in Kenya that 15 months after installation of low-cost, portable handwashing stations and simple drinking water stations with drinking water treatment, coupled with health care provider training, there was successful adoption and sustained use of the stations, despite the lack of running water in the facilities. The intervention also influenced the general population, for instance there were higher rates of safe water storage at home of people living nearby. In their study in Malawi, Loharikar et al. (2013) showed that when provision of water and hygiene kits was integrated with antenatal care at healthcare facilities, pregnant women were more likely to go on to purchase water treatment products and demonstrate correct handwashing technique.

Guidelines relevant to WaSH and environmental conditions in health care facilities include the World Health Organization’s “Essential Environmental Health Standards in Health Care” (WHO 2008) and Safe Management of Wastes from Health-care Activities (Chartier et al. 2014). Manuals developed by national governments provide examples of the use of these guidelines, for instance the “Design and Construction Manual for Water Supply and Sanitary Facilities in Health Institutions” (Ministry of Health Ethiopia et al. 2013), which includes detailed designs.

Simple “low technology” solutions may help to reduce infection rates, but higher levels of service are necessary for protection of patients and health care workers. For example, many health care facilities rely on water sources that are not on-site or not available year-round. Governments and external support agencies should focus on upgrading services to ensure health care facilities have sufficient, continuous, safe piped water into the premises. Adequate sanitation facilities, appropriately gender separated, on or near the premises are imperative (WHO and UNICEF 2015).

A significant gap in the evidence base relates to sanitation in health care facilities. Operational research is needed to identify ways to provide sanitation in health care facilities which will both provide patients, staff and visitors with clean, private and convenient facilities, and safely manage solid and liquid wastes.

Bartram et al. (2015) note that hardware interventions are necessary but not sufficient. In addition, governments need to establish national policies and standards, invest in building of human resource capacity (modifying health care provider behaviours) and improve coordination of related health initiatives, such as universal health coverage, infection prevention,

and maternal and child health programming. Investments to improve national monitoring systems, such as health management information systems, will improve quality of data on WaSH in health care facilities, which in turn will enable decision-makers to understand trends and target resources for improvement (Cronk et al. 2015). The World Health Organization is leading the development of a global action plan to address WaSH in health care facilities over the coming years, aimed at supporting best practice. The plan is outlined in the report reviewed in the first part of this Digest.

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Written by Ryan Cronk, doctoral student in the Department of Environmental Sciences and Engineering at the University of North Carolina at Chapel Hill