Global Learning Event 2017
Water, sanitation and hygiene in health care facilities: action-oriented solutions and learning

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Case Study Summaries

1. **WASH in health care facilities in Indonesia – Evidence & Action** *(Ministry of Health – Indonesia)*

Despite significant reduction of under-five mortality over the past 20 years in Indonesia, neonatal mortality rates remain the 8th largest in the world with sepsis being a leading cause. Adequate access to WASH in health facilities remains a big challenge, where 51 million people still practice open defecation. UNICEF Indonesia have partnered with the Ministry of Health (MoH) and the National Institute of Health Research and Development (NIHRD) of MoH to jointly investigate WASH conditions in health centres in Indonesia to inform national level advocacy. In addition, UNICEF is also looking at the WASH situation in local health centres across several Provinces. The findings will be used as an evidence-base for corrective actions among key stakeholders in MoH.

2. **Understanding WASH in Health Care Facilities - WASH in Health Care Facilities Report, 2016** *(Ministry of Health – Bhutan)*

There is an absence and urgent need for comprehensive data on WASH in HCF in Bhutan. A cross-sectional study of all hospitals in Bhutan was conducted to assess the status of WASH in district hospitals and to strengthen understanding of WASH in HCF. Baseline data found that 42.9% of hospitals have face water shortages, 18 out of 28 hospitals sourced water from streams and rivers and the average number of sanitation facilities per hospital was 28 (range 2-197). The findings will be used to plan interventions and ways forward for improving WASH in HCF.

3. **Deliver Life project: Improving access to, and use of, sustainable WASH services in communities and health facilities for increased maternal and neonatal health in Malawi** *(WaterAid – Malawi)*

Malawi is one of the few low-and-middle income countries in the world to have attained Millennium Development Goal (MDG) number 4 on reducing child mortality however, Maternal and Neonatal Health (MNH) indicators remain poor. This project connects WASH in HCF with community WASH. After an assessment of the enabling environment and conditions at facilities, WaterAid in collaboration with MoH are improving WASH infrastructure and behaviours at facilities. This project takes a rights-based approach where communities are involved in holding duty bearers to account for their WASH rights during childbirth. WaterAid is also piloting the ADBCE methodology for hygiene behaviour change which aims to change behaviour norms using community aspirations as a positive reinforcement.

4. **Genderised WASH - WASH in the context of maternal health and menstrual hygiene - How Indian and Ugandan health centres manage the sanitation needs of special user groups** (EAWAG)

WASH in HCF in developing countries often fail to provide user friendly and gender sensitive services, putting the most vulnerable groups (e.g. pregnant women, young children and disabled persons) at risk. This interdisciplinary research project, combining social anthropology and gender studies with sanitary engineering, investigated WASH infrastructure and users' needs in selected public health care facilities in India and Uganda. Data obtained through three different assessment tools gives evidence of needs-based, gender sensitive, technically appropriate and socially acceptable solutions to the problems identified in HCF. Policy briefs and publications are in production to inform action at local, regional and national levels.

5. **Sustainable improvement of access to water, sanitation and hygiene conditions in health centres in Macina and Markala Districts of Ségou Region, Mali** *(Terre des hommes & University of North Carolina (UNC))*

While Mali's overarching vision to improve the performance of the public health system has seen the development of WASH standards in HCF and minimum packages, access to WASH remains a significant issue. The aim of this project is to facilitate improved WASH services in 35 HCF through the provision of WASH infrastructure, training of HCF staff, reducing risk of infection through participative monitoring of environmental sanitation and carrying out monitoring and hygiene awareness promotion for patients and caregivers. The project also includes WASH support to selected communities and is integrated within a community health and nutrition program focusing on management of severe acute malnutrition. A risk monitoring tool employed through mobile phones has been designed to be a participative and continuous method of self-evaluation. Environmental hygiene conditions were found to improve markedly over the course of 18 months. The project also began to enhance the understanding of WASH in HCF and related responsibilities on the part of the community health associations (ASACO) in a small portion of facilities.

6. **From Assessment to Action: WASH in HCF Conditions in Zambia, Uganda and Malawi** *(Emory University)*

The Centre for Global Safe Water, Sanitation, and Hygiene at Emory University developed an assessment tool known as WASHCon, to evaluate WASH conditions within HCF in low- and middle-income countries. In 2016, WASHCon was used to assess WASH conditions in 118 health care facilities across Uganda, Malawi and Zambia. The results provided data to make country specific plans for improving WASH in HCF with Baby WASH, WASH FIT and tailored WASH improvement plans to be undertaken in the three countries respectively.

7. **Pilot of The Soapbox Collaborative Environmental Hygiene and Infection Prevention & Control Training Package for Health Facility Cleaners/Domestic Services Staff, The Gambia** *(Soapbox Collaborative)*

The Soapbox collaborative, in collaboration with UK and overseas partners, has successfully completed needs assessments of WASH and IPC in maternity units in each of its partner countries. One of the major themes to emerge, and common across countries, was the absence of formal, systematic training of domestic services staff in environmental hygiene and IPC. This pilot project ("Clean Boxes") employed a training package for cleaners designed for low-literate, low income settings and piloted in The Gambia with a

focus on maternity units, IPC and environmental hygiene across these settings. Evaluation of this pilot showed overwhelming positive results with changes in knowledge and practice across all facilities.

8. **Clean Clinic Approach in Haiti** *(Save the Children)*

The Clean Clinic Approach is a process-based, health system strengthening and quality improvement approach aimed at empowering HCF in Haiti to improve their WASH status on their own. The Clean Clinic approach uses a step by step model and a checklist for scoring and comparing progress among participating facilities. The project began as a regional pilot in 10 facilities, expanding to 68 facilities with the USAID flagship Maternal and Child Survival Program (MCSP) training health care facilities and local governments (district health teams) in implementation of the Clean Clinic Approach. Sustainability through community participation will be a key focus of future efforts.

9. **Healthy Start Campaign – to ensure safe and adequate water, sanitation and hygiene services in healthcare facilities in India** *(WaterAid India)*

India is known to have one of the highest rates of maternal mortality and neonatal mortality in the world, much of which is preventable. Sepsis resulting from inadequate WASH has been identified as one of the leading causes of death among newly delivered woman and their babies. WaterAid India assessed WASH facilities in 426 HCF (including primary health centres, community health centres, and district hospitals) in 13 districts across six states. The assessments found that across HCF at various levels, the availability, accessibility, functionality and quality of WASH services were insufficient. This project describes a large-scale campaign to drive political commitment and community action on WASH in HCF through increasing understanding and awareness amongst policy makers and health care professionals, strengthening health service delivery and increasing demand for improved WASH in HCF.

10. **Clean and Safe health care facilities (CASH) initiative, Ethiopia** *(Ministry of Health – Ethiopia)*

Clean and safe health facilities are an important determinant of quality of care and patient satisfaction. The MoH Ethiopia has been implementing a five-year strategic plan focusing on the provision of quality health services. Clean and Safe Health Facilities (CASH) is an initiative aimed at ensuring clean, comfortable and safe environments for patients, attendants, visitors, staff and members of the general public in all health facilities throughout Ethiopia. A national audit tool for CASH has been developed to monitor and ensure operational standards in HCF at national, regional and facility levels. Significant improvements have been made in infection prevention and control, health care waste management and facility management services.

11. **WASH in Cambodian Healthcare Facilities** *(WaterAid & Ministry of Health – Cambodia)*

Maternal and neonatal mortality rates remain a significant issue in Cambodia. With more than 80% of births occurring in public health care facilities, ensuring safe environments for women to deliver their babies is a core component for improving health outcomes for women and newborns. WHO, WaterAid and Emory University are collaborating with the MoH to advocate for the improvement of WASH in HCF in Cambodia. At the National level, a baseline assessment of WASH in HCF was undertaken and WASH in HCF has been built into national monitoring systems. 127 Government HCF across 5 provinces were assessed using the WASH conditions tool. Standards and policies that relate to IPC are being revised along with the development of

new National guidelines for WASH infrastructure in HCF. At the facility level, a training needs assessment was undertaken, followed by the implementation of WASH training based on the existing IPC curriculum in 10 hospitals in collaboration with the MoH.

12. **WASH in Health Care Facility Assessment – Systems Review** *(Ministry of Health – Myanmar)*

Neonatal mortality rates in Myanmar remain one of the highest among ASEAN countries with sepsis accounting for the vast majority. Approximately one third of births occur in a health facility which is compounded by the large majority of people living in rural areas with limited access. An assessment of WASH in HCF is being conducted to identify practical scalable solutions for sustainably improving WASH in health care facilities with a view to safer health care delivery and to understand what the bottlenecks are in the health system to improving WASH in health care facilities. A systems assessment has been carried out to understand the gaps and needs for policies, guidelines, standards, protocols, and clarification of roles and responsibilities for WASH and IPC to aid the Government of Myanmar to prioritize action to strengthen the enabling environment for sustainable improvements on WASH in HCF.

13. **Prevention of nosocomial infections in Burkina Faso through local production of sodium hypochlorite** *(Antenna Foundation and Ministry of Health - Burkina Faso)*

Nosocomial infections are a major public health concern across the globe. This project aimed to reduce nosocomial infections through the autonomous production of high quality, cost-effective disinfectant in Burkina Faso Health Centres by ensuring a sustainable and affordable production of sodium hypochlorite in all community facilities. An initial pilot programme (2010-2016) was employed to investigate whether enabling autonomous production of disinfectants along with staff training on proper use of disinfectants would result in increased adherence to good hygiene practices and thus reduce nosocomial infections. Twenty six health care facilities were identified and assessed for disinfectant needs. Disinfection producing technology (WATA device) was installed in the 26 facilities for disinfection of wounds, medical equipment, floors, surfaces, linen, beds and hand hygiene. At 12-months follow-up, 25 of the 26 facilities were able to autonomously supply the disinfectant necessary to observe hygiene protocols properly and health centre staff demonstrated an increase in observance rates of proper hygiene protocols. The program will be scaled-up nationally in 2017.

14. **Plumbing: Design Solutions through Community Plumbing Challenges** *(The International Association of Plumbing and Mechanical Officials (IAPMO))*

The Community Plumbing Challenge (CPC) was developed to contribute to improvements in public health in regions where communities are threatened by a lack of basic sanitation and safe drinking water systems. These objectives are implemented through community-based projects that address water and sanitation issues identified by community leaders and involve repairs and maintenance to existing infrastructure; installation of new water and sanitation facilities; and the design of innovative systems aimed at achieving long-term environmental and economic sustainability. Beginning with projects in Singapore (2014), India (2015), and South Africa (2016), the 2017 CPC will focus on Indonesia and will return to India in 2018. The CPC is organized by IAPMO (International Association of Plumbing and Mechanical Officials) through its philanthropic foundation, The International Water Sanitation and Hygiene Foundation, in association with the World Plumbing Council, WorldSkills, HealtHabitat, and other global partners.

15. **Developing and implementing a revised Tool Box for the assessment of water, sanitation and hygiene (WASH) in urban healthcare facilities, beyond the labour room** *(WaterAid & IIPHG – India)*

Improving and managing WASH services require strong and consistent monitoring mechanisms to measure progress and direct efforts where needs are greatest. Several tools are available to assess WASH in health care facilities but none of them are robust. Building on the previously used WASH Tool Box, a broader Tool Kit was developed to look beyond the labor room and explore its applicability in urban facilities. Ten urban health care facilities in Gujarat were assessed on WASH and biomedical waste management by needs assessment and walkthrough activities, along with microbiological assessment. The study was designed to identify issues related to cleaning, IPC and contamination. Findings indicate inappropriate cleaning practices and inadequate WASH found in all areas including labor rooms along with an urgent need for specific training in IPC for healthcare providers and cleaners. The documentation of WASH status at the health facility as well as at macro level also needs to be focused for the formulation of WASH policy.

16. **Quality of Reproductive, Maternal and Newborn Health (RMNH) Services in Njombe Region, Tanzania** *(National Institute of Medical Research – Tanzania)*

Tanzania has made significant progress in the reduction of under-five mortality however Maternal Mortality Ratio (MMR) continues to be high. An assessment of the quality of maternal and newborn care in selected facilities was conducted using the Every Mother Every Newborn (EMEN) approach. Data collection includes a range of quantitative, qualitative and observational techniques that will be used to inform on current level of care as well as identify barriers and challenges that need to be addressed to ensure quality of care and breastfeeding services are in line with EMEN, with a focus on WASH in HCF. The baseline assessment provided a reference for the evaluation of the EMEN in terms of maternal and newborn care and breastfeeding outcomes at the end of the three-year project.

17. **Quality of Care Assessment on water, sanitation and hand hygiene services in health care facilities in Bangladesh, Ghana and Tanzania** *(UNICEF)*

WASH services are intrinsically linked to quality improvement efforts in health care facilities. The scarcity of WASH services is still a significant contributor to maternal infections and deaths globally. This initiative was designed to conduct a baseline assessment of WASH in health care facilities in line with WHO Standard Eight on enabling environment to guide quality of care improvements by mobilizing action and resources to address gaps in WASH service provision, while also strengthening partnerships between multiple stakeholders. The assessments were conducted in selected districts in Bangladesh, Ghana and Tanzania, with a focus on intervention facilities. The project aims to do in-depth WASH bottleneck analysis in the intervention facilities and document change over a one year period.

18. **Creating enabling environment for basic water, sanitation and waste management facilities in a primary health care facility in Bangladesh** *(UNICEF)*

'Patient centred care' is identified as a major objective in the National Strategic Planning on Quality of care in Bangladesh for heath service delivery. This focuses on the basic services available for the attending patients while they wait to receive health care in a health facility. In Bangladesh, the quality of basic services is often compromised due to providers lacking motivation, understanding or an internal supportive supervision

system, rather than inadequate infrastructure or resources. The Fulbari Upazila Health Complex is one of 5 facilities in which the QIS-UNICEF-BMGF partnership initiative of Mother Baby Friendly Facility Initiative implements The Every Mother Every Newborn Quality of Care Standards to address minimal basic services (water, sanitation, privacy and waste disposal facilities) for the attending pregnant women coming for antenatal care.

19. **Health Centre Hygiene Program** *(Ministry of Health & UNICEF - Afghanistan)*

According to the Health Management Information System of Afghanistan, approximately one quarter of health centres in Afghanistan lack safe drinking water and half of them do not have improved sanitation facilities. The Health Centre Hygiene Program aims to address improved WASH in HCF through intersectoral and multi-level action. Policy and governance to oversee WASH in HCF has been strengthened through the establishment of a steering committee comprising of members from government (MoPH and MRRD), WHO and UNICEF. Mechanisms for monitoring have been implemented through the formation of partnerships with NGO contractors to integrate WASH in health centres into daily monitoring and supervision activities along with the designation of "hygiene police". At the facility improvement level, WASH infrastructure has been established or renovated in a number of health centres along with capacity building for health care providers and training for health centre staff to identify risks and promote good hygiene and sanitation behaviours.

20. **Scaling up an Evidence-Based Package for Water, Sanitation and Hygiene (WASH) in 55 Healthcare Facilities in Zambia to Mitigate healthcare-associated infections (HAI)** *(UNICEF)*

A recent study in low and middle-income countries showed that with better water and sanitation services, the volume of antibiotics used to treat WASH-related diarrhoea could be significantly reduced. At the Zambian University Teaching Hospital, more than 70% of the white coats were found contaminated with bacteria, including S. aureus and K. pnumoniae, both which exhibit high resistance to antibiotics, demonstrating the existence of high nosocomial HAI risk. The EU-funded Millennium Development Goal initiative (MDGi) seeks to improve maternal and child health in Copperbelt and Lusaka Provinces, under government leadership. The MDGi WASH component was piloted by UNICEF in 2015 in four selected public urban HCFs. The one-year pilot was coupled with a research study which informed the development of IPC-WASH standards, guidelines, standard operation procedures (SOPs) and training manuals. The study focused on assessing (i) water quality and (ii) hand hygiene (hygiene status of hand-touch sites), as well as comparing the situations before, during and after implementation. The study provided necessary evidence that is now supporting the scaling-up of the IPC-WASH package to a total of 55 HCFs.