



WEBINAR SESSION 5 (JAN 2019) – SUMMARY

Practice-Relevant Research: Identifying WASH in HCF Gaps to Reduce Healthcare-Associated Infections

Presentation by Dr. Richard Mugambe, Lecturer at Makerere University School of Public Health, Uganda and Dr. Christine Moe, Eugene J. Gangarosa Professor of Safe Water and Sanitation and the Director of the Center for Global Safe Water at Emory University

Purpose of this Webinar

Water, sanitation and hygiene (WASH) are critical for quality healthcare service provision. However, there are research gaps related to WASH in healthcare facilities (HCF). Researchers at Makerere University's School of Public Health and the Center for Global Safe WASH at Emory University are conducting research projects to explore the factors associated with healthcare-associated infections (HAIs) and health-seeking behaviors in Uganda, as well as the links between environmental contamination and neonatal sepsis in Uganda and Ethiopia. The research aims to provide evidence for interventions to improve WASH in HCF and better understand the implications of poor WASH in the healthcare setting.

Summary of Presentation

Gaps in WASH in HCF Research

- Contributions of poor WASH to HAIs and attributable burden and linkages between WASH and HAIs
- Evidence of the most effective WASH interventions, particularly in relation to other HAI prevention interventions
- WASH needs across the different levels of HCF
- Coverage and quality of WASH provisions in HCF
- How to provide sustainable WASH services in HCF settings
- How HCF WASH improvements impact mother's health-seeking behavior

Overview of Uganda Study

- Dr. Mugambe's study aimed to understand the factors that determine the choice of delivery place among mothers in hard to reach areas of Rukungiri and Kanungu Districts of Western Uganda.
- This was a cross-sectional study of mothers of children ages 0 - 12 months in the Kisiizi and Bwindi Hospitals in southwestern Uganda. Qualitative (FGD, IDI, KIS) and

quantitative data (survey) were collected. Random numbers were assigned to all villages per catchment and simple random sampling of all qualifying households in each village was conducted.

Overview of Results

- Quantitative data demonstrated that mothers were less like to choose delivering in public facilities because they had poorer WASH provisions, compared to private facilities, and because public facilities had theatre/ caesarean services that were less adequate than those in private facilities.
- The results of the qualitative research were in line with the quantitative data. Many mothers who chose public facilities for their antenatal services chose private facilities for delivery because they had confidence in the private facilities. One of the reasons was good WASH provisions in private facilities and a lower risk of healthcare-associated infections infection.

Key Take-Aways and Lessons Learned

- HCF deliveries were more common than home deliveries
- Mothers were less likely to deliver in public facilities and more likely to choose private HCF because of good WASH services
- The determinants for choice of HCF to deliver in included:
 - WASH status/ services
 - Type of facility for antenatal care attendance
 - Availability for caesarean services
- Home deliveries were related to faster progression of labor, high costs of formal delivery and transport challenges.

Comments from Dr. Christine Moe: Health Impacts of Poor WASH in HCF

- An assessment of WASH infrastructure and practices was conducted by looking at environmental contamination in maternity wards, labor and delivery wards, and neonatal nurseries with environmental surfaces in two hospitals in Ethiopia and Uganda
- There was a strong relationship found between WASH infrastructure and practices and levels of environmental contamination and hand contamination during a pilot study in Cambodia
- Researchers are pushing it a step further to see what the risk of healthcare acquired infections is, specifically neonatal sepsis.

Important Comments from Discussion

- Linking and establishing the source of the etiological agent can be a challenge. Neonatal sepsis can originate from the mother, the community, the household or the HCF.

- Closing the gaps in research can be followed up with a large sample size of mothers and neonates can be costly.
- Lab capacity in low-income countries needs to be addressed. Laboratories are not equipped with the necessary equipment, reagents, and trained and experienced personnel to check environmental swabs from HCFs or blood samples from the neonates.
- Mothers chose an HCF with good WASH facilities for delivery due to comfort levels associated with cleanliness, good provisions for water, sanitation and hand washing.
- Increases in WASH in HCF is a critical need that will also attract patients to HCF
- Hope these two studies can provide the needed evidence to defend that it is critical for WASH indicators to be concluded and integrated into the Health Management Information System (HMIS).
- These studies have led to a change in the healthcare practices of doctors, who are now requesting blood cultures to treat neonatal sepsis.
- The preliminary results in Cambodia indicated multidrug resistant bacteria. These studies can add more evidence that healthcare-associated infections are more likely to be multidrug resistant.

Summary of Action Items

- Continue to close the WASH in HCF research gap
- Promote improvements in WASH conditions in HCF through a multisectoral approach
- Reduce home deliveries and mitigate associated factors
- Develop, test and evaluate low-cost, sustainable WASH solutions targeted towards different levels of HCFs.
- Address priorities in leadership and governance of facilities to improve health systems and health system processes.