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## **Sociopolitical structures and ecological factors hindering the contribution of WASH in building resilient health systems**

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**EQUITABLE AND SUSTAINABLE WASH SERVICES:  
FUTURE CHALLENGES IN A RAPIDLY CHANGING WORLD**

**Sociopolitical structures and ecological factors  
hindering the contribution of WASH in  
building resilient health systems**

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**Introduction**

Access to safe water, adequate sanitation and hygiene, waste management and environmental cleaning (WASH) in healthcare facilities (HCFs) is critical for infection prevention and control. The WHO/UNICEF 2019 global baseline report on WASH in HCFs indicates 51% and 23% of HCFs in sub-Saharan Africa have basic access to water and sanitation, respectively (WHO and UNICEF, 2019). Furthermore, the quality of WASH services provided remains a challenge; Guo & Bartram (2019) found *E. coli* in sampled water from HCFs in 14 low-and middle-income countries. The current COVID-19 pandemic shines a global spotlight on these inequities. Non-pharmaceutical interventions (NPIs) such as regular hand washing and social distancing are promoted in response to COVID-19. However, NPIs are not feasible in many communities in sub-Saharan Africa (SSA) due to inadequate basic amenities (Howard, *et al.*, 2020). Socially and institutionally driven challenges are major hindrances to improved service provision such as healthcare in SSA (Elliott, 2017; Rosenberg, 2014). In this paper, we explore the social, ecological and institutional challenges hindering access to and the contributions of safe WASH to resilient HCFs and communities, using Kisumu, Kenya as a case study.

**Theoretical framing and methodology**

We are guided in this investigation by political ecology of health (PEH) and the Sendai Framework for disaster risk reduction (2015). The PEH provides an effective merger between political ecology and population health (King 2010). Power and politics influence decisions made at the macro scale (national governments, global agencies) as well as the mesoscale (county-level managers) subsequently affecting the quality of health services delivered at the community level. PEH can be used to explore structural factors that influence access to WASH and the agency of facility workers and managers in managing WASH. Similarly, this theory informs our understanding of the complexities of disease spread, mode of transmission and risk factors. The Sendai Framework 2015 targets substantial reduction of disaster damage to critical infrastructure and disruption of basic services, among them health facilities, through developing their resilience by 2030.

**Research context**

This research was conducted in Kenya, an east African country with a population of approximately 48 million people (KNBS, 2019), identified as a hot spot for both drought and epidemics (International Monetary Fund, 2016). With a decentralized system of governance, health functions have been devolved to the county level (Kenya, 2013). The development of health policies, norms, standards and guidelines are tasks of the national government. The county government is responsible for the promotion of primary health care and in recent times, the county governments have undertaken new initiatives to address the health needs of their populations, including the construction of additional HCFs. The first case of COVID-19 virus was recorded on March 13th,

2020 in Kenya. As of March 2021, Kenya recorded over 100,000 cases and almost 2,000 deaths (Worldometers, 2021). The impacts of the pandemic have disproportionately amplified the vulnerability of groups already facing the greatest social and health inequities and whose livelihoods are greatly impacted by COVID-19 related restrictions.

## Field data collection

This research was conducted in partnership with COHESU, a Kenyan Non-Governmental Organisation supporting sustainable health activities in communities in the Lake Victoria region. Data was collected in two phases. The first phase involved interviews May to September 2019 among health care providers regarding access to WASH and the role of WASH in responding to emergencies like disease outbreaks, building resilient HCFs and emergency preparedness. We undertook in-depth interviews in one informal settlement and three rural dispensaries with key informants (n=13), healthcare workers (n=16), as well as community members (n=39). Follow-up interviews with key informants (n=15) were conducted between August and September 2020 regarding the impact of COVID-19 and the role of WASH services in emergency preparedness in health systems and communities.

## Findings and conclusion

WASH in HCFs in Kenya remains fragile. Power and politics influence institutional challenges such as corruption, inadequate financing, prioritisation as well as weak stakeholder collaborations that shape the integration of WASH in HCFs. Research participants expressed concerns about newly constructed maternity facilities that did not include appropriate WASH infrastructure, built solely for political posturing. Ecological factors (floods, disease outbreaks) compromised WASH infrastructure and the resilience of HCFs. WASH services were not adequately included in the county emergency response plan. 44 percent of participants were of the perspective that HCFs were not building resilience for emergencies and would not be able to recover should a serious disease outbreak occur due to lack of WASH services. These institutional challenges were amplified during the COVID-19 pandemic leading to the decline of other health indicators. The government was not prepared for the pandemic and were overly reliant on donors for support. Procurement corruption scandals and health worker strikes continued to influence citizens' perceptions of COVID-19 as a hoax. Moving forward, we recommend the need for authentic partnerships among multiple stakeholders to develop context-driven sustainable solutions to WASH and emergency preparedness. We emphasize the need to legislate these solutions to ensure continuity. Community members should continue to engage their development leaders to demand basic human rights such as water. To achieve sustainable development goal 6, safe water and sanitation for all, prioritisation of WASH is required at all levels.

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