

WATER, SANITATION AND HYGIENE (WASH) METRICS IN INFORMAL SETTLEMENTS IN KENYA

Authors: Ivy Chumo, Blessing Mberu, Caroline Kabaria, Hayley Stewart, Kate Hawkins.

BACKGROUND

- Access to safe water and sanitation services is a human right.
- Safe drinking water, sanitation, and hygiene (WASH) services are fundamental to improving living standards.
- Improved standards made possible by WASH services include, among others, better physical health, environmental, and educational outcomes, and assurance of dignified lives for both men and women.
- One in four people globally lack safely managed drinking water in their homes, while nearly half the world's population lacks safely managed sanitation (JMP, 2022).
- At the earliest stage of the COVID-19 pandemic in 2020, three in ten people worldwide could not wash their hands with soap and water within their homes.
- Kenya has made commitments under the United Nations' 2030 Agenda for Sustainable Development and the African Union's Agenda 2063, among others on ensuring availability and sustainable management of water and sanitation for all. This is also reflected in Kenya's constitution on rights to reasonable standard of living section 43 (economic and social rights) which guarantees all citizens the right to access clean and safe water and affordable sanitation.
- Kenya's progress towards achieving Sustainable Development Goal 6 has been slow, with only 60% water and 29 % sanitation coverage (JMP 2022).
- Sewerage service is currently available to about 17% for the Kenyan population in 26 counties, with two-thirds of this in Nairobi City County (WASREB, 2020).
- Studies on access to safe WASH facilities during pandemics, epidemics or emergencies have overlooked the urban informal settlement context.

APPROACH

Between 2021 and 2022, the ARISE project team conducted data collection using diaries with 32 marginalised and vulnerable groups and a cross-sectional household survey with 1761 study participants in Korogocho and Viwandani informal settlements in Nairobi, Kenya.



ABOUT ARISE

The ARISE Hub – Accountability and Responsiveness in Informal Settlements for Equity – is a research consortium, instituted to enhance accountability and improve the health and wellbeing of marginalised populations living in informal urban settlements in low-and middle-income countries.

The ARISE vision is to catalyse change in approaches to enhancing accountability and improving the health and wellbeing of poor, marginalised people living in informal urban settlements.

ARISE is guided by a process of data collection, building capacity, and supporting people to exercise their right to health. ARISE works closely with the communities themselves; with a particular focus on vulnerable people living in the informal settlements; often overlooked in many projects and initiatives.

ARISE was launched in 2019 and is a 5-year project. It is implemented in four countries: Bangladesh, Kenya, India and Sierra Leone.

ABOUT APHRC

The African Population and Health Research Center (APHRC) is a premier research-to-policy institution, generating evidence, strengthening research and related capacity in the African research and development ecosystem, and engaging policy to inform action on health and development. The Center is Africa-based and African-led.

APHRC seeks to drive change by developing strong African research leadership and promoting evidence-informed decision-making (EIDM) across sub-Saharan Africa. As a progressive African-based and African-led global research center invested in creating legacy impact, our work centers on three integrated programmatic areas: Research, Research, and Related Capacity Strengthening (RRCS) and Policy Engagement and Communications (PEC).

KEY FINDINGS

a) Water, sanitation and hygiene metrics

There were multiplicity in access to water, sanitation and hygiene. For example, access to basic water and sanitation was relatively low compared to access to basic hygiene services. This could be explained by hygiene related interventions during the Covid-19 outbreak. Access to safely managed water and sanitation services varied significantly between informal settlements, with Viwandani exhibiting higher levels than Korogocho, highlighting the heterogeneity of these communities.

WASH METRICS IN HOUSEHOLDS

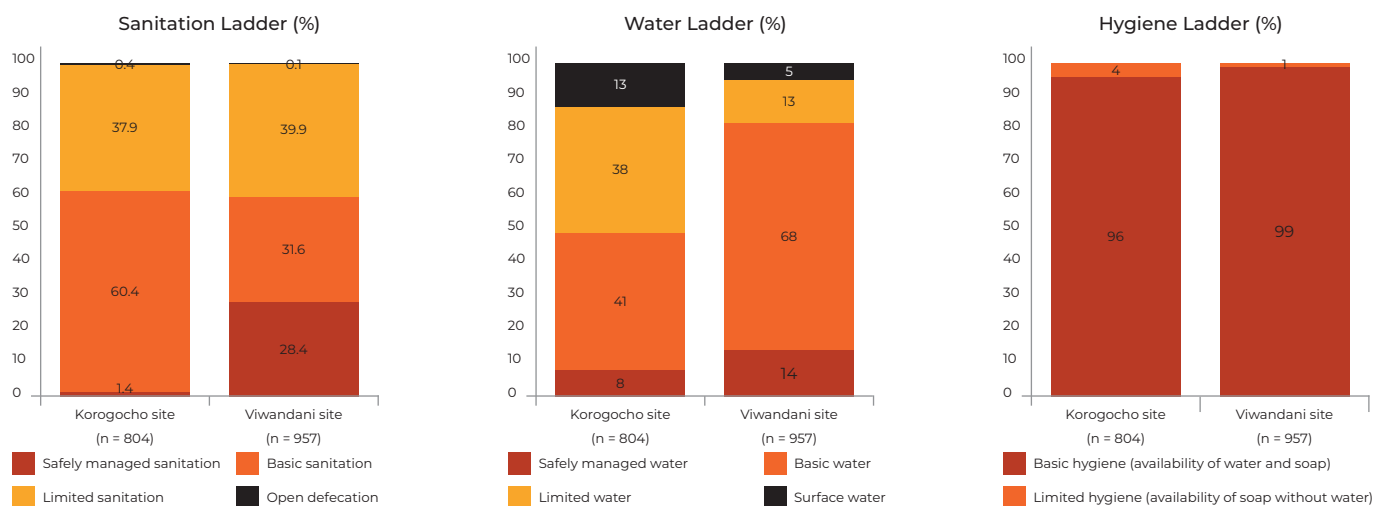


Figure 1: Water, sanitation and hygiene metrics

b) Cross cutting challenges in access to water and sanitation in informal settlements

Cross-cutting challenges identified from diaries data collection activity included location, access, use, inclusion and safety related challenges.

LOCATION RELATED CHALLENGES	<ul style="list-style-type: none"> • Long distance. • Poor terrain.
ACCESS AND USE RELATED CHALLENGES	<ul style="list-style-type: none"> • Source or facility closed. • Inadequate or lack of service providers. • Inadequate services, or services not available. • Services not affordable. • Long queue. • Lack of knowledge, misinformation or ignorance on the need and use of the facility. • Cultural, age and gender barriers on use of the facilities. • No privacy/lack of trust of service and providers. • Infrastructure challenges (electricity and poor paths).
INCLUSION RELATED CHALLENGES	<ul style="list-style-type: none"> • Discrimination hence denied access or overcharged. • Social barriers (isolated, segregated or ignored). • Not designed to accommodate all i.e. PWD, older person or children. • Communication barriers. • Lack of assistive/adaptive/rehabilitative devices.
SAFETY RELATED CHALLENGES	<ul style="list-style-type: none"> • Unsafe routes/no floodlights. • Unsafe destinations/facilities. • Unsafe practices in the community. • Fear of contracting diseases like COVID-19. • Emotional barriers like anxiety due to costly services.

Table 1: challenges in water, sanitation and hygiene in informal settlements

c) Challenges in water services

Challenges identified during the diaries phase were subjected into a survey. Residents from one informal settlement next to an industrial site and with youthful and mobile population (Viwandani) described to have more challenges compared to the other informal settlement with a stable population (Korogocho).

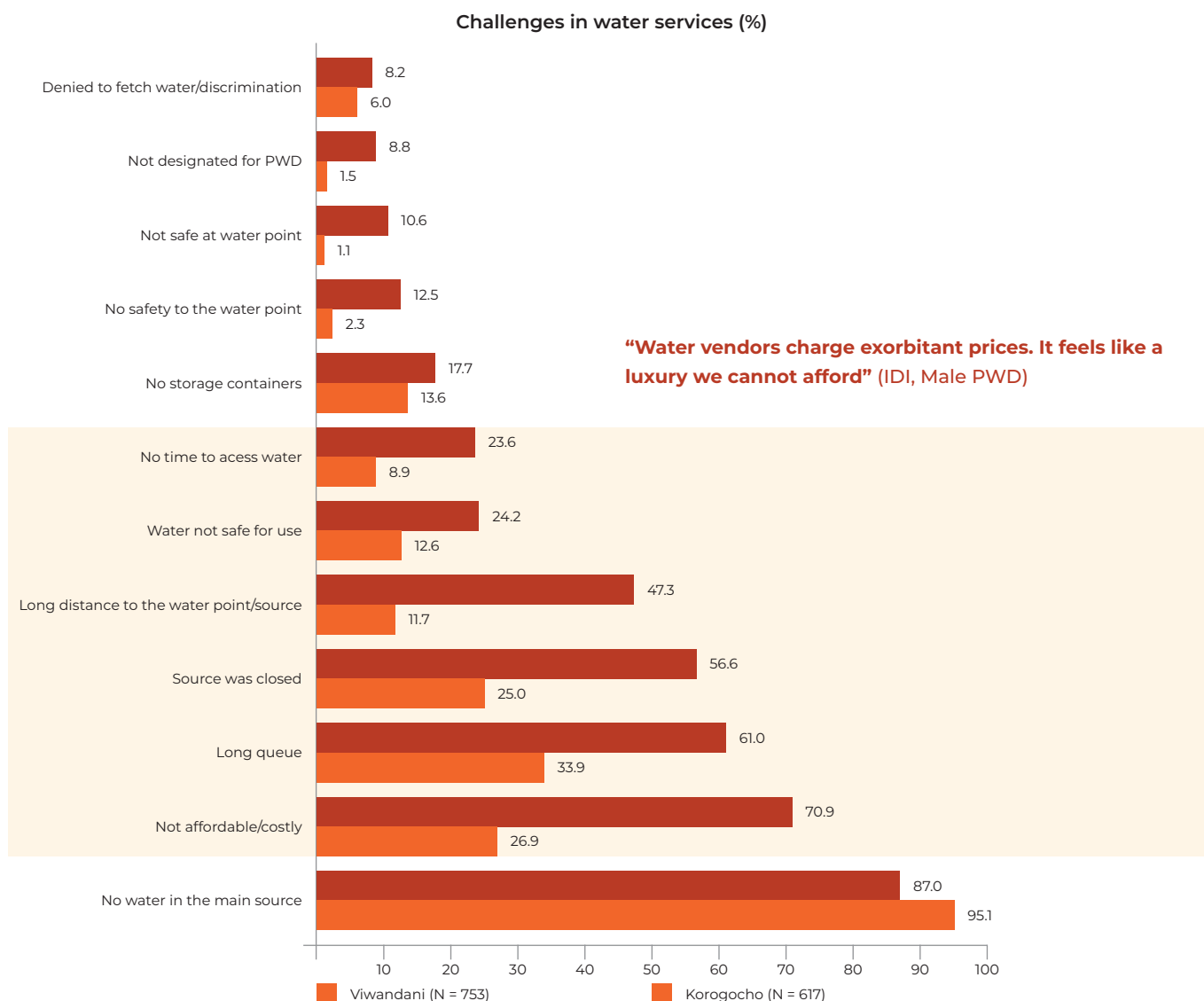


Figure 2: challenges in water service delivery in informal settlements

Study participants reported the following key challenges a) lack of water at the source (87% versus 95%), b) costly water services (71% versus 27%) and long queues (61% versus 34%) in Viwandani and Korogocho respectively as key challenges.



Figure 3: Status of water in informal settlements

d) Challenges in sanitation services

Similar to the water challenges, residents from the informal settlement next to an industrial site and with youthful and mobile population (Viwandani) described to have more challenges compared to the other informal settlement with a stable population (Korogocho).

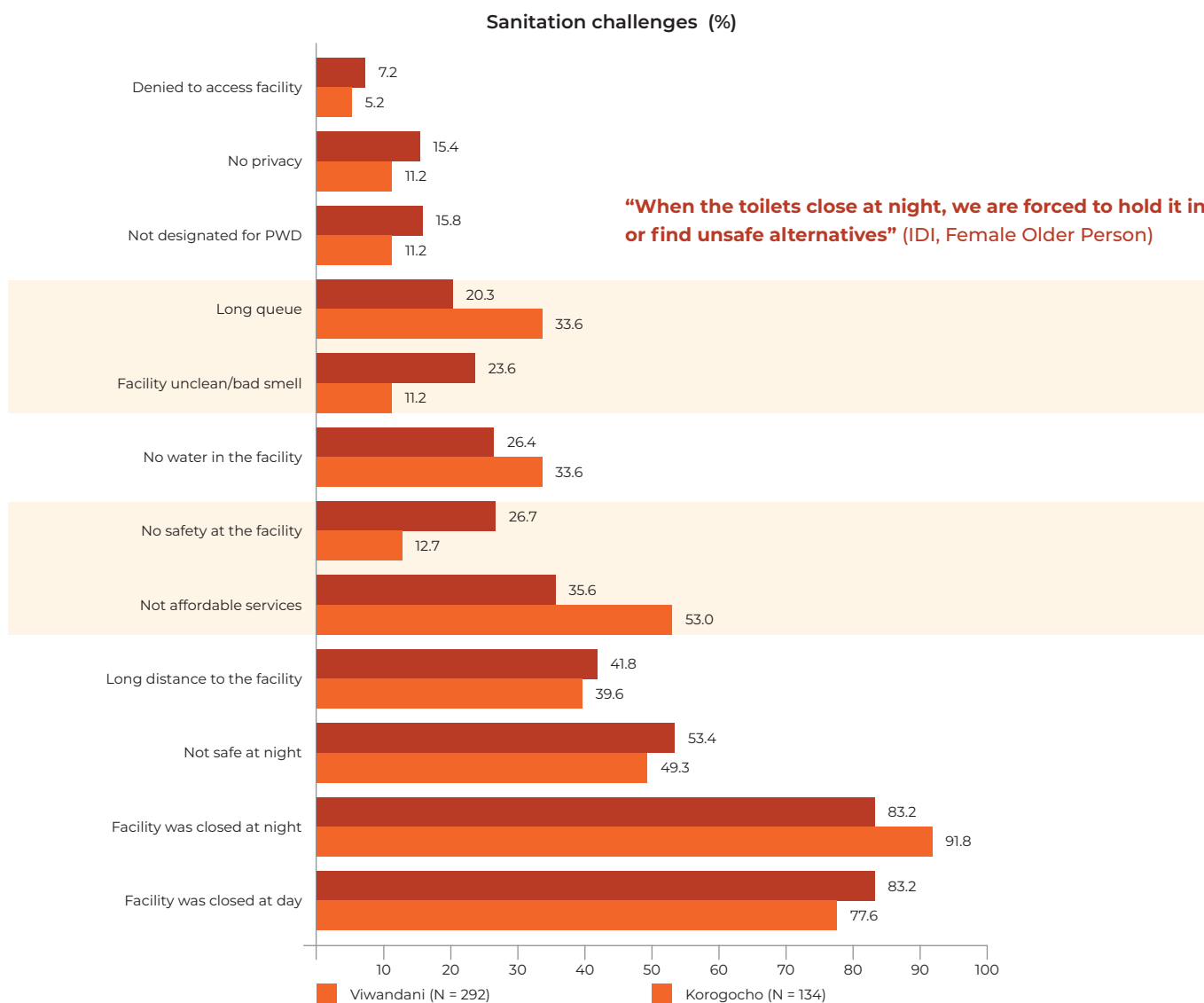


Figure 4: challenges in sanitation sector in informal settlements

Study participants reported facility closed during the day (83% versus 78%) and at night (83% versus 92%), and insecurity at night (53% versus 50) as key challenges in Viwandani and Korogocho study sites respectively.



Figure 5: Sanitation status in informal settlements

KEY LESSONS FROM THE PROJECT

- **Availability is not equivalent to access:** Despite the availability of water and sanitation facilities, some were non-functioning due to inadequate maintenance, theft, misuse and vandalism. Some functioning facilities were padlocked by individuals to prevent misuse, vandalism and theft.
- **Diversity in access to WASH services:** While basic hygiene services were relatively high, access to water and sanitation was lower, suggesting a need for more targeted interventions.
- **Cross-cutting challenges:** Location, access, use, inclusion, and safety were common barriers to access WASH services in informal settlements.
- **Disparities between settlements:** Informal settlements with more mobile populations (Viwandani) faced greater challenges in accessing water and sanitation services compared to those with stable populations (Korogocho).
- **Water service challenges:** Lack of water at the source, high costs, and long queues were significant issues in both settlements, but more pronounced in Viwandani.
- **Sanitation service challenges:** Facility closures, both day and night, and unsafe facilities were prevalent in both settlements, with slightly higher rates in Viwandani.
- The WASH needs of people living in informal settlements require specific attention due to poor infrastructure and other structural barriers. During our research period three deaths, and five robberies all related to night access to water and sanitation services were reported. These incidences sparked a wave of panic that deterred many users from using these facilities at night.

CONCLUSION AND RECOMMENDATIONS

As a result of this analysis, a series of actions are recommended in the WASH sector to ensure access to quality water, sanitation and hygiene services for all in the informal settlements:

- **Multi-sectoral approaches:** Multi-sectoral approaches between and within the different levels of government (county and national) as well as horizontally with other sectors (e.g. health, water, sanitation, education, finance, social protection) is needed to achieve access to safely managed WASH services. Consequently, actions undertaken by the different stakeholders need to be aligned to safeguard equity for all citizens in the country.
- **Integrating WASH interventions into broader initiatives:** Key actors in the sector should foster long-term sustainability by integrating WASH interventions into broader development initiatives, promoting behaviour change, and fostering local ownership and leadership of WASH initiatives.
- **Context specific and targeted strategies:** Addressing the WASH needs of vulnerable populations, including children, older adults, and people with disabilities, necessitates tailored strategies by key actors in the sector including:

- **Cost reduction:** Explore strategies to reduce the cost of water and sanitation services, including subsidies or alternative payment options, to make them more affordable for residents.
- **Safety and security:** Prioritize safety measures, such as lighting and surveillance, to address concerns about security and reduce the risk of violence or harassment.
- **Inclusivity:** Key stakeholders should ensure that targeted interventions are inclusive and address the needs of vulnerable groups, considering cultural sensitivities and gender dynamics in design and implementation.
- **Community engagement:** WASH actors should involve residents in decision making processes. Community participation fosters ownership and sustainability of WASH initiatives.
- **Priority setting:** Key actors in the sector should prioritise interventions based on the most pressing WASH needs, identified through community consultations and data driven assessments.
- **Functioning facilities:** Local authorities, should ensure that low-income households, institutions and public spaces have functioning WASH services as a matter of right and priority.
- **Partnerships and collaboration:** Government should partner with local authorities, NGOs, CBOs, and other stakeholders to leverage on WASH resources, expertise, interventions and innovations.
- **Water and sanitation service providers should be supported to maximize access to services in urban areas, particularly in informal settlements. They should be engaged alongside health officials and other relevant partners to:**
 - ✓ Maximize access to safe drinking water, sanitation and hygiene especially for vulnerable communities.
 - ✓ Maintaining, where possible: WASH service continuity, considering accessibility for all and ensuring that affordability is never a barrier.
 - ✓ Ensure that for unserved areas, temporary measures can be taken to facilitate access.
 - ✓ Promote and facilitate good WASH practices by leading in awareness campaigns.
 - ✓ Keep water and sanitation workers safe so they continue to play their important role in WASH sector

SUGGESTED CITATION:

Ivy Chumo, Blessing Mberu, Caroline Kabaria, Hayley Stewart and Kate Hawkins (2024) An ARISE survey policy brief: Water, sanitation and hygiene (WASH) metrics in informal settlements in Kenya; ARISE Consortium and African Population and Health Research Center.

The UKRI GCRF Accountability for Informal Urban Equity Hub is a multi-country hub with partners in the UK, Sierra Leone, India, Bangladesh and Kenya which we call ARISE. The Hub works with communities in slums and informal settlements to support processes of accountability related to health. It is funded through the UKRI Collective Fund.



African Population and Health Research Center



Economic and Social Research Council