

OPINION

The case for shared sanitation access in informal settlements: A dialogue on science, policy, and practice integration

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Citation: Lebu S, Sprouse L, Akudago JA, Twinomucunguzi FRB, Rosenberg R, Lugali YS, et al. (2024) The case for shared sanitation access in informal settlements: A dialogue on science, policy, and practice integration. *PLOS Water* 3(5): e0000243. <https://doi.org/10.1371/journal.pwat.0000243>

Editor: Guillaume Wright, PLOS: Public Library of Science, UNITED KINGDOM

Published: May 10, 2024

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Funding: This research received funding from Habitat for Humanity International. The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Competing interests: The authors have declared that no competing interests exist.

Introduction

Achieving universal access to adequate and equitable sanitation is a major challenge in many parts of the world. In 2022, approximately 1.5 billion people lacked basic sanitation services, with 419 million practicing open defecation [1]. The problem is acute among the 881 million residents of urban informal settlements around the world [2]. People in these settings commonly live in crowded neighborhoods without sufficient space for individual household toilets. The majority are renters or squatters, leaving them powerless to make any development decisions [3]. A household sanitation facility, which is considered a tenet for safely managed sanitation [1] can be unfeasible under such conditions. The most immediate viable sanitation option in these settings is shared toilets [4].

The Joint Monitoring Programme (JMP) categorizes people using improved facilities that are shared with other households as a limited sanitation service. The JMP estimates that 570 million people used shared sanitation (SS) in 2022, falling short of the minimum standard for basic sanitation [1]. There is no doubt that SS provides a significant improvement over open defecation [5]. The JMP's treatment of SS as a limited service fails to differentiate between quality levels of SS. When all SS facilities are considered unacceptable regardless of quality, it signals that they are unimportant and not worth investing in [4].

Moreover, the implementation of SS remains challenging due to concerns over facility design, cleanliness, and restricted sharing. It is unlikely that universal sanitation coverage will be achieved without tackling these challenges. For practitioners, researchers, and policy-makers, the relevant question is therefore: are there any implementation barriers to providing SS in informal settlements, and what best practices have been successful? Then, to build on the insights gleaned from the first question: how can we enable monitoring protocols to distinguish between high- and low-quality SS with reasonable accuracy?

In October of 2023, a panel of sanitation experts convened at the Water and Health Conference to deliberate on the need for SS services in informal settlements. The objective was to

examine the current state of policy, practice, and research in this area. This article summarizes expert perspectives and best practices from this session for implementing high-quality SS.

Considerations for implementing high-quality shared sanitation

1. Shared sanitation services should be designed differently from individual household toilets to meet the needs of multiple users

In contrast to household sanitation, shared facilities need to meet the needs of several people at the same time. A SS facility is considered appropriate if it is used by fewer people, located near people's premises (e.g. in a locked compound), easily accessible to everyone 24/7, kept clean, and has provisions for privacy and safety (e.g. a functional and lockable door, well-lit at night) [6, 7]. In Bangladesh, Habitat for Humanity International constructed 90 sanitation facilities to serve 900 households, which included a reliable water supply, gender-separated rooms, accessible to people with disabilities, and disposal facilities for solid waste and menstrual health products (Fig 1). In another example, Sanergy designed toilets that were accessible for pregnant women, people with disabilities, and elderly people who have trouble squatting—through feedback from stakeholders and iterating between design phases [8]. The organization also tested a kid-friendly toilet with a smaller squat hole and franchised it to schools. It is critical that SS facilities are designed with human-centered approaches to differentiate them from household sanitation facilities.

2. Cleaner facilities and restricted sharing can increase the acceptance of shared sanitation and sustain its use

There is an ongoing debate on whether the extent of sharing has an impact on the acceptability and cleanliness of the sanitation facility. There is evidence that limiting toilet sharing to five households improves hygiene [5, 9]. Cleanling remains a challenge, hence the need for a good system such as a cleaning schedule or a designated caretaker [6]. People who are related or know each other well can benefit from increased group understanding, resulting in a cleaner facility [10, 11]. A clean sanitation facility depends not just on the number of users but on design elements such as tiled floors and availability of running water, which make cleaning easier. In Nairobi, Sanergy implemented a successful cleanliness campaign that trained caretakers on effective cleaning, organized a savings program among tenants to buy cleaning supplies, and implemented cleaning rosters that were approved by tenants.



Fig 1. Shared sanitation facilities implemented across informal settlements in Bangladesh, Kampala, and Nairobi.

<https://doi.org/10.1371/journal.pwat.0000243.g001>

3. A robust and standardized set of indicators should be added to existing monitoring protocols to accurately measure shared sanitation quality

SS quality can be streamlined by combining user-identified aspects and scientific evidence of what works. However, in most countries, SS quality is not routinely monitored based on a set of comprehensive indicators. This is because there are no clear standard criteria to measure various elements of SS and distinguish between acceptable and unacceptable quality [12]. Notably, an emerging framework that is garnering support for evaluating the quality of SS is the Sanitation Quality Indicator (SQI), a composite index that assesses dimensions of cleanliness, safety, and privacy [12, 13]. The framework incorporates gender aspects in its design. Key indicators here include the type of sanitation technology, availability of water, the number of users sharing a facility, the provision of adequate safety, security, and privacy for all genders, facility location, 24-hour accessibility, and the provision of functional handwashing stations. The framework has been piloted and validated in Ghana, Kenya, and Bangladesh [12]. Existing monitoring information systems can benefit from adopting this criteria to monitor the quality of SS facilities.

Conclusion

As the SDGs draw to a close in 2030, universal access to safe sanitation remains a long way off. Providing SS to people living in informal settlements can help bridge this gap. For SS to become a sustainable step on the sanitation ladder, it should be designed with multiple users in mind, serve a limited number of users and be well-maintained. Furthermore, monitoring systems should collect data on the elements of SS outlined above for better monitoring and increased investment.

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