



Water and Sanitation challenges and impact on health in informal settlements

Access to water is one of the major challenges faced by residents of Freetown, Sierra Leone, and informal settlements are no exception to this problem. Communities' sources and access to water vary by location. The rapid urbanisation and over population is part of the reasons for the water crisis in the city as the estimated beneficiaries far outweigh the capacity of the national Guma valley water company that is responsible for water supply in the city. The topography of the lands occupied by informal settlements makes their situations even worse to get access to safe drinking water.

Access to toilets in Freetown's informal settlements remain a huge challenge. This is as a result of difficulty in either digging the toilets (topography) or lack of space within the communities for toilets. There is often an unhealthy disposal of human excreta due to lack of toilets

in most informal settlements in Freetown. Therefore, because of this shortage, people mostly share the available toilets in these settlements which make it difficult for proper sanitation to be maintained.

This issue brief provides an insight into the current state of water and sanitation challenges in informal settlements. The Sierra Leone Urban Research Centre (SLURC) in partnership with Future Health Systems (FHS) recently completed a study in four informal settlements in Freetown to understand how living conditions relate to key health concerns of communities. The study also looked at whether socio-economic conditions of people living in informal settlements affect their access to health service provision. Two of the communities, Moyiba and Dwarzark are located on the hill side, while the two others, Cockle Bay and Portee-Rokupa are coastal communities.

Priority actions

In a bid to take care of some of these problems, there is a need for the following actions:

- 1 Wider provision of public toilets with guiding rules and regulations that can be effected by key trusted community representatives that can be selected by residents
- 2 Enforcement of community bylaws on the compulsory provision of toilet for the houses built. This can be monitored by the sanitary inspection directorate at the Ministry of Health
- 3 Maintenance and construction of protection walls or dams around streams, springs and other water catchments with regular treatment to reduce contamination and overdependence on taps whose supply is limited
- 4 Provision of additional water tanks for communities that cannot dig or easily access pipe water because of either their location or terrain. Also, water tanks provided by the government should be refilled more frequently to ease the burden of distance and cost on community residents
- 5 Ministry of health and sanitation should place more emphasis on the sensitization and awareness of mosquito abatement, treatment of diarrhoea and the importance of hand washing in preventing sickness and infections by the ministry of health and sanitation through the community health facilities



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Photos of a pit toilet (left) and a hanging toilet (right)

Key findings

Water

- 1 Most common water sources were found to be water wells, running streams, underground sources and taps which are sometimes found to be contaminated
- 2 Portee-Rokupa, Dwarzark and Moyiba's access to water was observed to be difficult mainly due the terrain and location of their communities. For instance Portee-Rokupa does not have pipe borne water within the settlement which means the community either access water wells which are salty, or go out of the community to buy water over long distances. While Dwarzark and Moyiba's access is limited by the terrain.
- 3 Water fetched by residents from the streams, boreholes, springs and wells are mostly used for bathing, laundry and sometimes cooking since communities consider them to be contaminated; piped waters is considered safe for drinking
- 4 Residents of the three settlements of Dwarzark, Portee-Rokupa and Moyiba often travel long distances, pay, and wait for a long time to access and collect piped water from neighbouring communities
- 5 Cockle Bay is established as the only community with easy access to safe drinking water mainly from taps and underground wells

Toilets

The toilet conditions in the communities were found to be generally poor:

- 1 Pit toilets were found to be the most common toilet type in all of the four studied communities. However, Cockle Bay, Portee-Rokupa and some parts of Dwarzark also use hanging toilets which are mostly shared by residents built with sticks and sacks over the sea
- 2 Hanging toilets especially those built along coastal communities (Cockle Bay and Portee-Rokupa) and along streams in hill top communities (Dwarzark) empty human waste into the stream or the sea; these toilets are poorly built, managed and uncared for by users
- 3 Public toilets in the four informal communities are rare, and those available are mostly makeshift, dilapidated and paid for by residents to be used
- 4 Homes using flush toilets have their pipes directly connected to the sea or streams available in the communities.
- 5 Shared toilets are also very common across settlements and are shared by various apartments and neighbouring households and usually closed to those outside the sharing cycle. This is particularly the case for houses which do not have spaces for toilets
- 6 People who do not have access to shared toilets or cannot afford to own one, tends to use the streams, sea or engage in open defecation against community bylaws which are found to be unenforced by the community stakeholders

Implications for health

The impact of the water and sanitation issues if not addressed, may continue to put residents at risk of poor health which will increase their level of vulnerability to disease outbreak and epidemics. Already, communities associate the high occurrence of malaria, recurrent diarrhoea and periodic cholera to the poor water and sanitation issues they are faced with. If communities continue to go without clean drinking and usable water, it will increase and worsen the disease conditions already prevalent in the communities.

Also, the emergence of diseases from those communities given the level of overcrowding in those communities poses risk of epidemics to the entire city which may have devastating effects.

CREDITS

This Issue Brief was produced by Joseph M Macarthy (PhD), Abu Conteh, Sudie Austina Sellsu and Thomas Doughty from Sierra Leone Urban Research Centre (SLURC).

This document has been funded by the UK Government. However, the views expressed herein are those of the author(s) and do not necessarily reflect those of the UK Government or the partners in the Future Health Systems research consortium.

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