

Water issues and health impacts in low-income Cape Town communities

A report from the CoReCT Project

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The CoReCT project (Community Resilience in Cape Town) is a transdisciplinary research project focused on water issues in low-income areas of the city. The project was run as a collaboration between UCT researchers and the Western Cape Water Caucus (WCWC), a community-based organisation with members from several informal settlements and townships around Cape Town. Twelve WCWC members worked with the researchers to design and undertake the study, with the aim to understand people's lived experiences of water issues and services. WCWC collected 311 stories over three months in 2019, from communities including Du Noon, Makhaza, Joe Slovo, Green Park, Kraaifontein and Mitchells Plain.

How do water issues impact health?

This report analyses 77 of the 311 stories, focusing on those that describe a water issue that also poses a threat to health and wellbeing. This includes both direct and indirect health hazards (Figure 1).

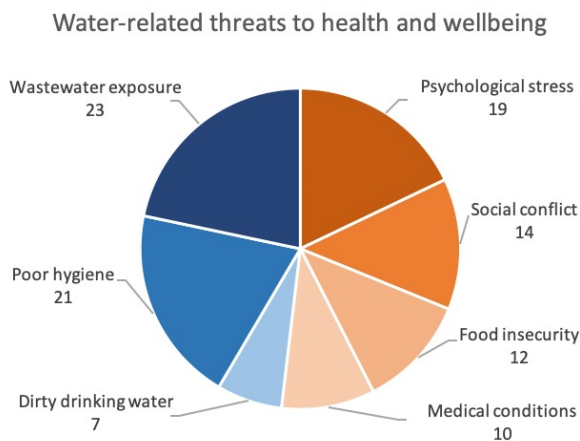


Figure 1. Water issues cause both direct and indirect threats to health and wellbeing (blue and orange segments, respectively). Some stories describe multiple health risks.

Below we present seven types of threats that inadequate water services can pose to health and wellbeing, based on what was described in the 77 stories. The first three are **direct threats** that impact people more immediately (being exposed to contaminated wastewater, lacking clean water for hygiene and washing, having dirty drinking water), the following four are **indirect threats** that are less visible but still harmful (psychological stress from unresolved problems, social conflict and crime due to water services, food insecurity caused by lack of

water, and complications from existing medical conditions). The quotes shared here come directly from the stories collected by WCWC.

Wastewater exposure

The most common health risk is exposure to contaminated water and leaked sewage in- or outside homes. As one respondent explains, children are especially exposed to disease and stomach problems:

Here in Joe Slovo we suffer from dirty and grey water, children play in this water and we see them becoming sick. This water sometimes stinks badly and we can't open our houses. This water sometimes causes pimples or rashes to our children and we are forced to send them to the clinic and we don't have enough money and are forced to borrow.

Respondents typically attribute such problems to blocked drains and sewers:

I have a problem with drain blockage since this year. ... We have reported to the City of Cape Town [and] our Ward Councillor but ... no changes at all. This is a serious situation because our children are drinking this dirty water and they are very sick and some of them have been admitted in hospital.

Poor hygiene

Second-most common are stories about a lack of water for keeping bodies and homes clean. Water restrictions have exacerbated this problem:

It was said that we should use water wisely, but how do you prevent getting sick if there is no more water left to clean?

Some stories show that in informal settlements, one person's hygiene needs can expose others to contaminated wastewater:

My problem is about those people who do their washing at our communal taps. It's not healthy and it's not clean and it's causing lots of diseases and insects. I tried to talk with them but the answer was not good. I think the government must penalise people [for such actions].

Dirty drinking water

Most respondents seem to have safe drinking water, but seven stories show that some still lack this basic necessity. One respondents remarks:

When I grew up here in Green Park, I never used to see brown [tap] water in this area or community. But now we are drinking brown water. I knew that this happens in Eastern Cape, and I knew why and understand it there. Not here. Children get sick from this water, and sometimes we don't get water at all, for the whole weekend.

Psychological stress

A less visible but common health impact is the stress, frustration and depression caused by unresolved water issues. The sense of abandonment and anxiety over what to do is paralyzing, especially when the problems seem to have no resolution in sight:

No way to explain how I feel. No one can help. Our water bills come out very high and the City threatens to disconnect our water [if we don't pay].

For others, the City's actions to curb water use by installing water management devices (WMDs) create resentment and indignation:

I'm very, very angry. I have a WMD which was installed without my consent. Now I'm facing a huge water bill and leaks. I have no one to talk to.

Social conflict

Inadequate water services harms not only personal health, but also the social fabric in some communities. This reduces wellbeing for everyone and can also further damage trust in authorities:

Sometimes there are conflicts between us, because people are angry and frustrated [with the water restrictions, leaking pipes and unsafe water]. They point fingers at each other and fight, which is what the municipality wants.

Another expression of unhealthy social dynamics is the fear for one's personal safety due to crime and violence associated with communal water services:

I depend on a communal tap which is at a distance to reach. I don't have a toilet, I depend on a communal one. This is dangerous at night as one can be raped. ... I am not sure whether the problem is with us or the government, it's difficult though.

Food insecurity

Water restrictions undermine food security where people rely on irrigated vegetable gardens to complement purchased food. Unreliable supply also directly impacts basic cooking:

I have a WMD where I only receive 350 litres of water per day, which cuts off at times when you must cook. It's a big problem.

Medical conditions

Lastly, an indirect effect of water issues is that they sometimes complicate care and treatment of existing medical conditions:

I have a sick husband who needs to take his medication, but sometimes during the day there's no water until the next morning. Sometimes we sit without water for days.

Conversely, impaired health can also reduce people's ability to cope with inadequate water services:

I am an old woman [with] arthritis, diabetes and other diseases. I do not have the energy to carry heavy items. I struggle because the water point is a bit far from me ... When I complained to one of the municipal officials, he said [according to] the law there is nothing wrong with the water point.

Conclusion

Inadequate water and sanitation threaten quality of life both directly and indirectly. Even in this study, that did not explicitly ask about health and wellbeing, almost 25% of 311 stories touch on the topic. Awareness of the numerous links between water and health in a community helps add clarity about the challenges that communities need help with. This is particularly important in times of health pandemics such as Covid-19, that require careful personal hygiene especially in densely populated informal settlements such as Cape Town's. Other problems like diarrheal and skin infections in communities struggling with water scarcity, blocked sewers, and flooding are also contributing to public health risks.

A significant finding is that indirect health risks are just as common as direct ones, and it shows the complexity of how water issues impact communities. The City of Cape Town's Resilience Strategy acknowledges the need both to address water issues as well as health and wellbeing challenges, but may need to pay particular attention to broader, indirect impacts. The Strategy's calls for a multi-faceted, broad approach requires input from individuals, communities and institutions simultaneously. The CoReCT project demonstrates a methodology that can be used to do this in practice.

Both health and access to water are considered basic human rights in South Africa. Understanding the links between them can help social movements such as the WCWC advocate for communities' rights. The Covid-19 pandemic and lockdown provide grim examples of health impacts in informal settlements. Paired with climate change-induced risks including drought and intensive rainfall in the Western Cape, building the evidence base on water-related health issues stands out as a key priority for Cape Town.