Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Shared sanitation and the spread of COVID-19: risks and next steps

Directives to self-quarantine and social distance are essential to slow the spread of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), but how can people follow these directives if they do not have a household toilet?

Over a billion people need to leave their homes to meet sanitation needs. An estimated 9% (673 million) of the global population defecate in the open and another 8% (627 million) use a facility shared with at least one other household as their primary sanitation location.[1] Sharing of such facilities can be small scale, with a few households, but can also include public, pay-per-use facilities in large informal settlements. The proportion of the global population sharing is only reported for those with improved facilities and is likely underestimated.[1]

When used by infected individuals, shared facilities could become sources of both airborne and contact exposures to SARS-CoV-2 exposure, especially in the absence of adequate water and soap for hygiene purposes. Live SARS-CoV-2 has been detected in faeces,[2] and the virus remains viable for days on surfaces like stainless steel and plastic—materials used for doors and other high-contact surfaces in toilets and latrines—making fomite transmission in shared facilities highly plausible.[3]

Who might be at risk? An estimated 32% of sanitation in urban sub-Saharan African is shared, the highest proportion globally.[1] Women might be at increased risk due to more frequent use, both for meeting their own needs, including menstruation, and assisting dependent family members.[4] Shared facilities are also used as primary sanitation locations by those detained in migrant centres, incarcerated in jail or prison, residing in refugee or internally displaced person camps, and people who are homeless—ie, already marginalised populations that should not be overlooked.

The WHO technical brief on water, sanitation, hygiene and waste management for coronavirus disease 2019 (COVID-19)[5] makes no specific mention of shared sanitation, despite wide use, and should be updated with specific guidance. Resources should be mobilised to promote and enable handwashing after use of shared facilities. Physical distancing in queues must be widely encouraged. Cleaning of facilities is important, but this task should not be disproportionately given to women.

Research is needed to understand if sanitation contributes to the risk of infection with SARS-CoV-2 and if shared sanitation users start to practice open defecation to avoid potential risks at facilities. Sex-disaggregated data on sanitation use and behaviours among infected individuals is critical. Monitoring efforts should report the proportion of sanitation that is shared, regardless of type, to clarify estimates. Finally, sanitation designs and solutions should be improved on the basis of current lessons from this pandemic to enable sanitation to remain a public health solution, and not a potential threat.

We declare no competing interests.

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