

COVID-19 is the respiratory illness caused by a newly discovered coronavirus, also called the novel coronavirus (SARS-CoV-2) (*World Health Organization & UNICEF, 2020*).

Coronaviruses can cause disease outbreaks, including severe acute respiratory syndrome (SARS), Middle East respiratory syndrome (MERS), and coronavirus disease 2019 (COVID-19).

Common symptoms of COVID-19 include fever, tiredness, and dry cough. Less common symptoms include shortness of breath, aches and pains, sore throat and runny nose, and infrequently might include, diarrhea, and nausea (*Coronavirus, n.d.*).

There is no specific vaccine or specific treatments available (yet!) for COVID-19 (*Canada, 2020*).

HOW IS COVID-19 SPREAD?

The main transmission route for the new coronavirus is direct person to person contact via respiratory droplets (*World Health Organization, 2020*). When an infected person coughs or sneezes, droplets containing the virus are spread. They can be inhaled or enter the nose, eyes, or mouth of nearby people (*World Health Organization, 2020*).

These droplets can also land and survive on surfaces or objects in the environment. This poses a risk of indirectly infecting people who come into contact with these surfaces or objects (*World Health Organization, 2020*).

WHAT DO WE KNOW SO FAR ABOUT COVID-19 AND SANITATION?

Much of what we know about COVID-19 comes from experience with and studies of previous human coronaviruses. As the situation progresses and we continue to learn more about the virus, guidance may also evolve.

Can the virus that causes COVID-19 survive in feces, or wastewater?

- Current evidence says that the new coronavirus may be shed in feces, even by people who are not experiencing diarrhea.
- Studies have found pieces of the virus in the feces of infected people, but so far there is no evidence that these pieces are infectious.
- We do not yet know how long the virus can survive in feces, sludge, or wastewater. Previous human coronaviruses have survived in feces between 2 and 14 days depending on conditions including temperature and pH (*World Health Organization & UNICEF, 2020*).

Is exposure to wastewater or feces a known source of transmission?

- To date, there have been no reports of fecal oral transmission of COVID-19 (*World Health Organization & UNICEF, 2020*).
- The ability of other coronaviruses to survive for lengthy periods in sewage and in the environment, which can facilitate fecal-oral transmission, suggest that this is also an unlikely, but potential, route of transmission for the new coronavirus that causes COVID-19 (*Yeo et al., 2020*).



- Aerosolization of fecal waste has not yet been reported for the virus that causes COVID-19. However, it is a possible concern for spreading the disease. Aerosolization of the virus is when the virus is converted to be small and light enough to spread through the air. This can occur when toilets are flushed, during emptying and discharge activities, and during wastewater or sludge treatment processes. During the SARS outbreak, aerosolization of fecal waste contributed to an outbreak in a high rise apartment in Hong Kong. (*World Health Organization & UNICEF, 2020*).

KEEPING YOURSELF AND YOUR CLIENTS SAFE

Safely managed sanitation services and the maintenance of hygienic conditions in a community are essential to protecting human health. This is particularly important during all infectious disease outbreaks, including the current COVID-19 outbreak.

As a sanitation professional, you are offering an essential service that can help prevent the spread of COVID-19, and can promote the health and well-being of your community.

The risk of transmission of the COVID-19 virus from feces appears to be low. However, there are other more robust pathogens and viruses that can survive in feces, sludge, and wastewater. You are still at risk of exposure to these other pathogens, and potentially at risk of exposure to COVID-19. These risks need to be considered and reduced, particularly in densely populated areas, confined spaces, or areas with poor sanitation (*Yeo et al., 2020*).

To keep yourself, your family, and your clients healthy and safe:

For operators:

- 1 PRACTICE FREQUENT AND PROPER HANDWASHING and HYGIENE**
 - a Wash your hands with soap and water for at least 20 seconds at critical moments, including:



Before putting on and after taking off any personal protective equipment



After any emptying activity



Before and after any contact with clients



Before eating



After using the toilet

- b When you do not have access to handwashing stations and soap use an alcohol-based hand sanitizer.
- c Avoid touching your eyes, nose, and mouth with unwashed hands.
- d Frequently clean and disinfect high touch areas including steering wheel and door handles of truck, or handle of cart.
- e Workers should not eat, drink, chew gum, tobacco, or any other substance, or smoke while handling human waste.



2 BE VIGILANT WITH PERSONAL PROTECTIVE EQUIPMENT (PPE)

- a WEAR THE CORRECT EQUIPMENT
Essential equipment includes:



- b SAFE REMOVAL, TRANSPORT, AND CLEANING OF PPE
Once safely removed (see additional resources for guidance), place dirty PPE in a sealed bag, and take it for safe disposal or laundering clothes and disinfect PPE daily with 0.05% chlorine solution prior to reuse.

3 MINIMIZE SPRAY AND SPLASHING WHEN EMPTYING AND DISCHARGING

Splashes, spray, and droplets of sludge may contain COVID-19, or other pathogens, and risk spreading it to people and surfaces near the emptying site. Try to minimize spray and splashes as much as possible. Ask clients, and anyone not wearing PPE, to move away while emptying is taking place. Clean splashes and spills with a disinfectant, such as bleach.

4 ENCOURAGE FREQUENT CLEANING OF WASHROOMS AND LATRINES WITH A DISINFECTANT

Coronaviruses are susceptible to antiseptics containing ethanol, and disinfectants containing chlorine or bleach (Yeo *et al.*, 2020). Toilets, particularly shared toilets, and toilets in health centres, should be cleaned frequently with disinfectant. When maintaining this distance isn't possible, wear a mask.

5 PRACTICE PHYSICAL DISTANCING WITH CLIENTS

REDUCE PHYSICAL CONTACT as much as possible, stay at least 2 metres away from clients. If possible, offer contactless payments (such as mobile money apps) and greet people without physical contact.

6 IF YOU ARE FEELING UNWELL, STAY HOME AND SELF-ISOLATE

If you have any of the following symptoms: cough, fever, shortness of breath, runny nose, or sore throat, then stay home for 10 days to prevent others from getting sick (Government of Alberta, 2020).

For business owners:

7 REVIEW YOUR HEALTH AND SAFETY PLANS

Identify times where you, or your staff, might be at increased risk (for example, in crowded settlements or providing emptying services to institutions like hospitals). Rethink what safety practices can be strengthened and anticipate challenges you might face. Train staff on each of the steps mentioned above to keep themselves safe.

Equip anyone involved in an emptying service, who is potentially exposed to wastewater or sludge, with essential PPE. Teach them how to remove the PPE, transport it, and clean it safely.



ADDITIONAL RESOURCES

To learn more, explore these accurate and trusted resources:

COVID-19

- [SARS-CoV-2- Water and Sanitation](#), Water Research Australia
- [WHO Frequently Asked Questions](#)
- [WHO Mythbusters](#)
- The [COVID-19 Hygiene Hub](#) is a free service to help actors in low- and middle-income countries rapidly share, design, and adapt evidence-based hygiene interventions to combat the coronavirus. It was launched as a way to connect with experts who can answer questions and provide advice in real time. You can search resources which summarize evidence and make recommendations appropriate for low-resource settings.

Handwashing Resources

- Guidelines for handwashing with soap: [WEDC Poster](#)
- Handwashing promotion posters: [CAWST Handwashing Posters](#)

PPE Resources

- [Guidance for sanitation workers from Tamil Nadu Urban Sanitation Support Program](#)

Other

- [Guidelines on proper dosing of chlorine](#)

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