

Agenda item 10

## Wastewater surveillance

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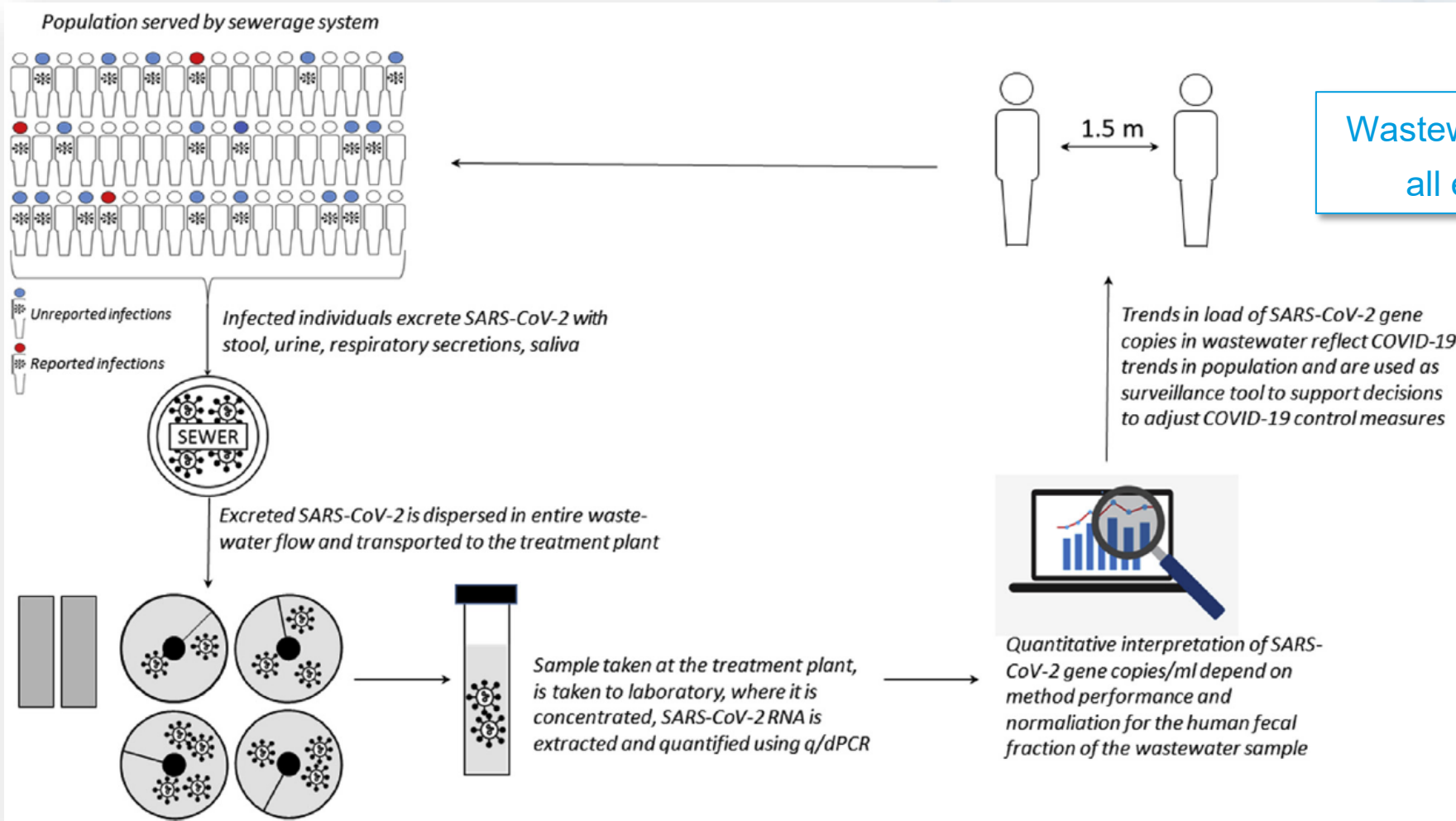
6th Session of the

**Meeting of the Parties to the Protocol on Water and Health**

16-18 November | Geneva | Switzerland

# Sewage surveillance of SARS-CoV-2 RNA

“Everyone has to go to the toilet, but not everyone goes to the test.”



**Source:** Medema *et al.* (2020). Implementation of environmental surveillance for SARS-CoV-2 virus to support public health decisions: Opportunities and challenges. *Current Opinion in Environmental Science & Health* 17: 49–71. <https://doi.org/10.1016/j.coesh.2020.09.006>



# Purposes and use cases

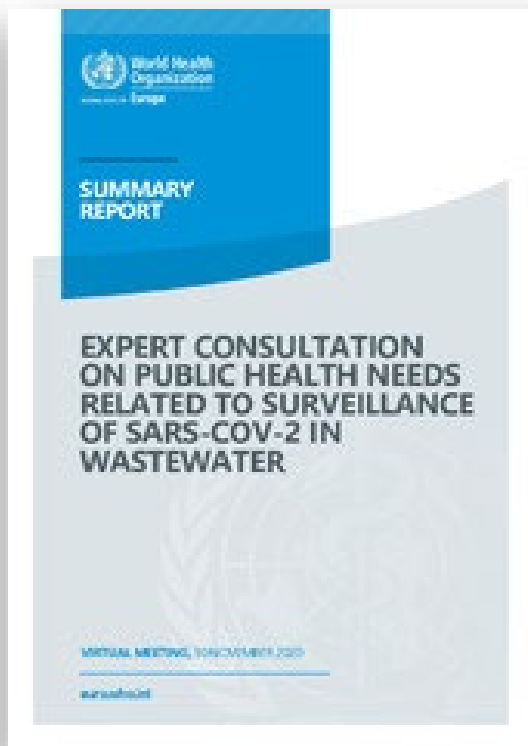
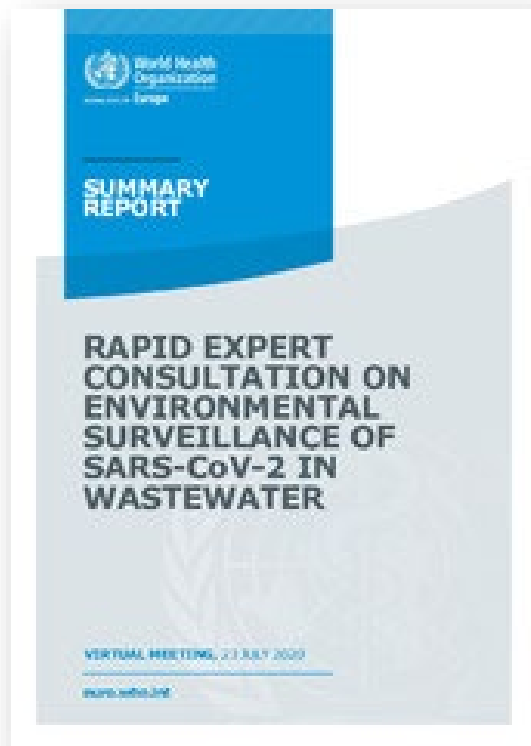
- Sampling of wastewater in communities:
  - Early warning - watching trends in circulation, including resurges
  - Confirmation of virus circulation, or the absence thereof
  - Hot spot tracking in sub-catchments
- Yes/No in virus circulation in patients, staff and visitors (hospitals, nursing homes)
- Investigation of variant circulation
- Tracking history of virus introduction



# Considerations

- Surveillance of SARS-CoV-2 RNA in wastewater can provide important **complementary information** in public health decision-making, alongside with information from clinical testing
- It is not a replacement for clinical testing: a **relative tool to observe trends** and not an absolute tool to make conclusions about prevalence
- It has its particular strength as a “secondary tool” to detect virus in absence of clinical evidence: ***“We look for surprises.”***
- The **health sector** needs to be in the lead – it is the end user of the information
- To gain the best possible return, **strong coordination models** are essential
- **Wastewater-based epidemiology** bears benefits beyond COVID-19, including poliovirus, enteric viruses, AMR, emerging chemical agents, substance abuse

# Expert consultations and resources



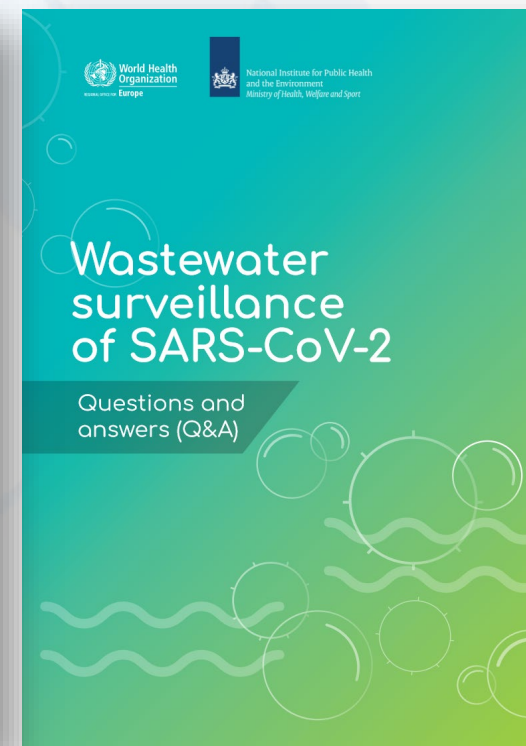
Environmental surveillance for SARS-CoV-2 to complement public health surveillance

Interim Guidance  
14 April 2022

World Health Organization

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# Thank you for your attention!

