Agenda item 10
Wastewater surveillance

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Sewage surveillance of SARS-CoV-2 RNA

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

Wastewater carries and integrates all excretions of shed virus

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
Thank you for your attention!