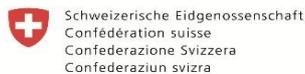


Webinar

'Monitoring of community wastewater for early signalling the spread of COVID-19'

Supported by Swiss Agency for
Development and Cooperation SDC



Swiss Agency for Development
and Cooperation SDC

Date/Time: December 3, 2020, 15.00-17.00 hrs IST

Background

The Novel Coronavirus (COVID 19) outbreak caused by infection of severe acute respiratory syndrome coronavirus 2 (SARS- CoV-2) turned out to be one of the worst pandemics of the century spreading across to 216 countries with more than 48.88 million cases recorded and 1.23 million deaths till date. The outbreak of this lesser known yet fast spreading virus soon declared as a Public Health Emergency of International Concern on 30 January 2020, has gripped governments in both developed and developing nations alike. While a high test rate has been recommended for reducing the impact of the pandemic, several research studies have highlighted the importance of Wastewater-based epidemiology (WBE) that has the potential to indicate the concentration of SARS-CoV-2 in human population through wastewater monitoring. WBE or testing waste/sewage water for the presence of pathogens including viruses has been used for several decades and successfully monitored during past outbreaks of Poliovirus, Hepatitis A and Norovirus.

Since March 2020 several scientists across the globe have applied WBE for studying the spread of the pandemic. Several scientific reports have emphasized the detection of, SARS-CoV-2 RNA in wastewater in countries like Switzerland, Australia, Italy, Spain, United States, China, France, Israel, Japan, Netherlands and India.

There are various advantages of wastewater surveillance. WBE can be used in developing an early warning system as the SARS-CoV-2 RNA can be detected in human faeces a few days to a week before symptoms appear and even that in case of infected but asymptomatic persons. Thus, WBE is a cost-effective approach for understanding the status of the disease outbreak in particular catchment as opposed to the costs involved in individually testing large number of patients. Moreover, one wastewater sample can provide data on the

average infection rate of thousands of people,
and the aggregated data can be useful for areas with low clinical

testing rates. The approach can be used as early warning tool for the disease outbreak in community for informed and effective public health interventions. Continuous wastewater monitoring can help in understanding trends of current outbreaks and identify new outbreaks so as to prevent the occurrence of the second and third waves of the pandemic.

The webinar will be conducted within the ongoing research study titled '**Monitoring of community wastewater for early signalling the spread of COVID-19 in Chennai City**' in partnership by a consortium of TERI, SRM Institute of Science & Technology (SRMIST) and Mu Gamma Consultants Pvt Ltd (MGC). The study aims to fill the gap in the estimation of total community disease spread in the absence of a larger coverage in testing of population by using non-invasive and economical alternatives. The main goal of the study is to develop early signalling of spread of COVID-19 in communities in Chennai, India during partial and lock down period. The findings of the study has the potential to be replicated in other parts of India and is useful for policy makers and public health practitioners by providing real time scientific assessment of the spread of COVID-19 and inform decision makers to undertake measures and responses accordingly.

Objective

The main objective of the webinar is to highlight the importance of monitoring of community wastewater-based epidemiology to detect and track SARS-CoV-2 infection and the related policy implications.

The other objectives include:

- To discuss the development of WBE for early signalling of spread of COVID -19 in communities
- To highlight techniques and approaches for using data effectively to inform decision making
- To discuss with Scientists and experts across the globe on their experience with using WBE for tracking SARS-CoV-2 RNA
- Suggest policy recommendations for the use of wastewater-based epidemiology in monitoring and mitigating the spread of the pandemic

Host

The Energy and Resources Institute

Registration:

The registration to the webinar may be done through the following Webex link:
<https://attendee.gotowebinar.com/register/5174536327459291918>