**Presentation Abstracts**

1. **SARS-CoV-2 surveillance in non-sewered settings in South Africa – Dr Gina Pocock and Fiona Els**

Rivers, as well as other water bodies, receive the discharges of untreated wastewater not collected in sewers or from broken or overflowing sewers in developing countries. We set up various sampling points in rivers in the City of Johannesburg and the City of Ekurhuleni in the Gauteng Province, South Africa, downstream of informal and unsewered communities. The aim of this project was to characterise populations in unsewered areas. SARS-CoV-2 was detected in all rivers, and the Quality of Life index was lower in areas close to the river, compared to their associated cities. This highlights the need to strengthen traditional clinical surveillance to include environmental water testing, and emphasises the health service needs of marginalised communities.

1. **Ensuring Health Equity: Infectious Disease Surveillance in South East Asia through Non-sewered Wastewater – Dr Leshan Wannigama**

Participatory infectious disease surveillance through non-sewered wastewater in low-income countries is a low-cost, participatory approach to monitoring and containing infectious diseases to advance equity in low-resource communities with poor sewer infrastructure. It involves detecting pathogens in non-sewered wastewater to identify outbreaks before they spread. By engaging communities and providing them with information, they can take action to protect themselves and prevent disease transmission at actionable spatial and temporal scales. This approach is especially important in resource-limited settings in Southeast Asia and can reduce the burden of infectious diseases on vulnerable populations by ensuring health equity.

1. **Wastewater-based Multi-pathogen surveillance in low income settings: Lessons and experiences from Malawi – Petros Chigwechokha**

Resource-limited settings need strategies and systems to ensure robust and systematic wastewater and environmental surveillance of problem pathogens. In these settings, relying on individual clinical results to monitor community diseases is difficult and sometimes not possible. Establishing wastewater and non-sewered sanitation surveillance systems can offer opportunities to improve community health. This would ensure that generated surveillance data are acceptable and can inform public health interventions. This presentation aims to describe the challenges encountered when setting up a wastewater or environmental multi pathogen surveillance in Malawi, a resource-limited setting, as well as the lessons learnt.

1. **Wastewater surveillance from Vellore, India - utilities, insights and challenges – Dilip Abraham**

This presentation will summarize the work in wastewater surveillance in Vellore, South India over the past 3 years with a focus on typhoid. The thrust of our efforts were to standardize and validate this surveillance modality as a surrogate for carrying out clinical surveillance in resource-limited settings, by carrying out hybrid surveillance studies.