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## **Definitions**

- **Wastewater Surveillance:** Monitoring sewage for the presence of viruses like SARS-CoV-2 to track infection rates in a community.
- **SARS-CoV-2:** The virus that causes COVID-19.
- **Online Dashboards:** Websites that display data visually, often using charts and graphs.
- **Best Practices:** Standard methods or techniques that are accepted as the most effective.
- **Variant Monitoring:** Tracking different versions of a virus to understand how it spreads and evolves.
- **Data Transparency:** Making data easily accessible and understandable to everyone.

## **Key Findings**

- There is high variability in how SARS-CoV-2 wastewater data is presented across different online dashboards.
- Standardizing the presentation of this data can improve communication and public understanding.
- Only 30% of the dashboards reviewed provided downloadable source data.
- Most dashboards are from high-income countries, with significant differences in data presentation methods.

## **Introduction**

The study reviews how different online dashboards present SARS-CoV-2 wastewater data. It highlights the need for standard practices to improve the way this information is communicated to the public and health officials. Wastewater surveillance helps track COVID-19 spread, but inconsistent data presentation can lead to confusion and miscommunication.

## **Main Content**

### **Background**

Since the COVID-19 pandemic began, wastewater surveillance has been used to complement clinical testing. It can detect the presence of the virus in communities, including among asymptomatic individuals. However, the rapid development of online dashboards to present this data has led to a lack of consistency and standards. This can hinder the effective communication of public health risks.

## Objectives

The study aimed to review existing online dashboards for SARS-CoV-2 wastewater data and propose a path toward standardizing data presentation and communication. The goal is to make the information clearer and more useful for public health decisions.

## Methods

- **Data Collection:** Researchers compiled a list of 127 online dashboards from 27 countries as of March 31, 2022.
- **Analysis:** They evaluated the dashboards based on how they presented data, including graphics, scales, and units of measure. Google Translate was used to analyze non-English dashboards.

## Results

- **Dashboard Variability:** There was a high degree of variation in how data was presented, including different types of graphs, scales (linear vs. logarithmic), and labels for wastewater concentration.
- **Geographic Distribution:** Most dashboards were from high-income countries, with the majority from North America, followed by Europe and Central Asia.
- **Data Presentation:** Only 30% of the dashboards offered downloadable source data, and 25% included information on SARS-CoV-2 variants.

## Conclusion

The study underscores the need for standardized practices in presenting SARS-CoV-2 wastewater data on online dashboards. Consistent data presentation can enhance public understanding and improve public health communication. The study suggests that standardizing units of measure, ensuring data transparency, and providing downloadable data are critical steps. By adopting these best practices, the effectiveness of wastewater surveillance as a public health tool can be greatly improved. Future efforts should focus on global collaboration to establish and implement these standards.

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