

Wastewater office hours for wastewater-based epidemiology partners in California



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CATEGORY: Epidemiology and Laboratory Capacity (ELC)

The California Department of Public Health established regular “Wastewater Office Hours” and an online discussion forum to increase partner collaboration and share knowledge among partners working on wastewater-based epidemiology throughout the state. Engaged participating partners have increased the exchange of ideas and best practices supporting wastewater epidemiology activities.

The “What”

During the COVID-19 pandemic, wastewater-based epidemiology (WBE) emerged as a promising tool for monitoring SARS-CoV-2 virus in communities. However, implementing this approach requires cross-cutting collaboration among multiple partners, including laboratory professionals, epidemiologists, utility providers, and local health departments (LHDs).

To address the need to increase partner collaboration and share knowledge, the California Department of Public Health (CDPH) Surveillance of Wastewaters (Cal-SuWers) team, established through funding

by the Centers for Disease Control and Prevention (CDC) Epidemiology and Laboratory Capacity for the Prevention and Control of Emerging Infectious Diseases (ELC) cooperative agreement, developed a space for information sharing and cross-pollination between various partners. These partners included those already involved in WBE and those who are just beginning to develop plans for WBE in their respective jurisdictions.

CDPH began a monthly “Wastewater Office Hours”, a structured but informal partner call. Participants included LHDs, academics, laboratorians, utilities, with rotating topics to focus on specific topics identified as important to each participant group. This forum provides a platform for partners to come together to ask questions, share information, learn from each other, and develop coordinated efforts together for strengthening and establishing WBE across the state. Connected with the monthly Office Hours, the CDPH Cal-SuWers team also created a “WBE Forum” in Microsoft Teams where participants from the Office Hours are able to carry on conversation through chats and message boards and where a library of WBE-based resources could be maintained. Topics to date have included: an overview of WBE in the state of CA, best practices and methods used in laboratories, updates on COVID-19 variants and sequencing, updates from wastewater utilities and available resources, WBE reporting and data interpretation, and county public health perspectives on WBE and how it is used to inform surveillance and testing.



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SUBMITTED JUNE 2023

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The "So What"

The WBE Office Hours immediately bridged communication siloes and promoted cross-cutting collaboration among multiple partners with different experience and training. Laboratory professionals, epidemiologists, utility providers, and LHDs were able to share their perspectives, challenges, and experiences related to WBE. Participants could ask questions in real-time and receive answers from the state Cal-SuWers team and their peers. As a result, partners have reported anecdotally that they've been able to improve overall interpretation of wastewater data for public health use and action, improve WBE program design and implementation, and discuss important needs and issues.

This collaboration also led to the identification of opportunities for future collaboration and acted as a direct interface between CDPH and partners from all levels. Ultimately, the Office Hours and WBE Forum provides a foundation for a robust WBE community of collaborators which continues to grow and become more popular across the state. Currently, the Office Hours contact list reaches more than 700 people and the WBE Forum has 120 active members with new users added daily. Attendance for the monthly Office Hours typically reaches 90 or more participants and recordings are shared for those who are unable to attend in-person.

General reception from participants has been very positive with many participants active in discussion on calls and follow-up while also assisting in spreading the word to increase attendance and reach. Here are some of the testimonials we've heard from various partners:

- "I enjoy hearing how other LHDs are doing with their wastewater surveillance projects and having access to good contacts."
- "My lab will be bringing this testing on in the future. It is great to hear about other lab's strategies on conducting this testing."
- "I appreciate the overviews of the statewide picture and the technical information provided during the calls."

The "Now What"

The collaboration and platform established through the Wastewater Office Hours and WBE Forum have the potential to have a lasting impact on the state's approach to wastewater surveillance and for improving and disseminating best practices to others involved in WBE. By bringing together multiple partners in an informal, open setting, the consortium is able to establish a network of experts committed to advancing the use of WBE as a tool for detecting pathogens in wastewater and receiving real-time feedback and conversation. This collaboration has already helped strengthen the development of toolkits, which will act as a resource for

partners as they build existing WBE programs or those who are just beginning to establish WBE monitoring.

Additionally, this collaboration has facilitated the exchange of ideas and best practices, which will enable the state to stay at the forefront of wastewater surveillance and public health response efforts. Overall, the success of the Wastewater Office Hours and the WBE Forum has set the foundation for a sustainable and effective WBE communication platform at CDPH that will continue to strengthen public health decision-making related to WBE at both the state and local level, while increasing collaboration between lab experts, local public health partners, wastewater utility professionals and cross-cutting departments within CDPH.

Key contributors to this project include Stephanie Bertsch-Merbach and Andrew Abram, California Department of Public Health