

ACPM 2024 Abstract Submission

Title

WePrOTECT: Wastewater-Based Epidemiology for the Prevention of Overdoses Through Timely Evidence-Based Community Action and Treatment

Presentation Schedule

Date/Time: Saturday, April 20, 2024 11:20 a.m. - 11:40 a.m. Location: Congressional A & B

Presenter List

Moderator: Chelsea Isom

Presenter: Priyanka Thatipamala, MD, MPH

Description

Drug overdose is the leading cause of death in Marin County, California, prompting the need for innovative prevention strategies. In this session, learn how Marin County has undertaken a pilot study focused on Wastewater-based Surveillance (WWS) for overdose prevention that is built into existing wastewater surveillance for COVID-19. One wastewater plant that serves nearly half of the county's population collects samples twice weekly. These samples are sent to Biobot for analysis to estimate consumption (milligrams per 1,000 people) of substances and their metabolites (e.g., fentanyl, norfentanyl). To evaluate the efficacy of WWS in preventing overdoses, weeks are categorized as either "high" (≥ 0.5 standard deviations from a six-month average) or "low" (≤ 0.5 standard deviations) in substance levels. Subsequently, the average count of overdose-related 911 calls one week following these categorized weeks is calculated, allowing for a direct comparison between periods of high and low substance levels. From February 6 to August 2, 2023, norfentanyl levels were high 9 weeks and low 8 weeks. One week after high levels, the average number of overdose-related 911 calls mentioning fentanyl were 300% (0.4 vs. 0.1) and 20% (1.8 vs. 1.5) greater compared to low weeks. Presenters also highlight that to evaluate the feasibility of WWS, the study engages Marin County community members with lived experience with drugs through interviews and focus groups. This qualitative component seeks to gain insights into perceptions and recommendations concerning the utilization of WWS for overdose prevention. While a majority of participants express support for WWS, concerns regarding data usage, especially by law enforcement, are raised by a portion of the respondents. The session addresses how WWS may serve as a useful tool for overdose prevention, empowering communities with more information during periods of increased overdose risk.

Type Concurrent Session

Track Community and Population Health