## California Department of Public Health **Wastewater Surveillance**

Using Wastewater Surveillance to Inform Public Health

Wastewater surveillance, or wastewater-based epidemiology, is a public health tool that can track the presence and amount of pathogens (e.g., viruses, bacteria, etc.) in wastewater samples. These data can provide important information about the spread of diseases within a community or potentially as an early warning, even when people are not tested for a disease. This can be an especially important tool for diseases that are not reportable to public health, that are not routinely tested for, or if people rely on at-home testing, which often does not get reported to public health.

Here is how wastewater surveillance helps to inform public health:

Shedding of a pathogen can occur in infected individuals whether or not symptoms are present. Shedding of a virus can occur in feces and sputum

Sewage or waste from an entire community is conveyed to a wastewater treatment plant through a network of underground pipes and connections, also known as a sewershed or service area

> Samples of raw wastewater are collected at the headworks of a treatment plant before the wastewater is treated

These samples are shipped to a laboratory where they are analyzed to quantify how much viral genomic material is present

The results and data are shared with epidemiologists at public health partments to interpret trends in the data to inform public health actions

For additional information visit the CDPH webpage on Wastewater Surveillance

