

Pennsylvania Wastewater Surveillance System (PaWSS)

SARS-CoV-2 Monitoring Dashboard

Frequently Asked Questions (FAQs)

Dashboard Background Information

What is the purpose of the PaWSS SARS-CoV-2 monitoring dashboard?

The purpose is to share data on the concentrations SARS-CoV-2 genetic material measured in wastewater samples collected across the Commonwealth. These data may provide information on SARS-CoV-2 (commonly known as COVID-19) trends in the community.

Where does the data for the PaWSS dashboard come from?

The PaWSS team works with facilities across the Commonwealth to collect samples of untreated wastewater for SARS-CoV-2 monitoring. Most of the samples are untreated wastewater influent collected from community wastewater treatment facilities. Once collected, samples are sent to a partner laboratory for analysis. Laboratories analyze samples for concentrations of SARS-CoV-2 genetic material using qPCR or ddPCR and share data back to the PaWSS team.

How frequently is the PaWSS COVID-19 dashboard updated?

The PaWSS COVID-19 dashboard is updated twice per week at 8am on Tuesday and Thursday mornings.

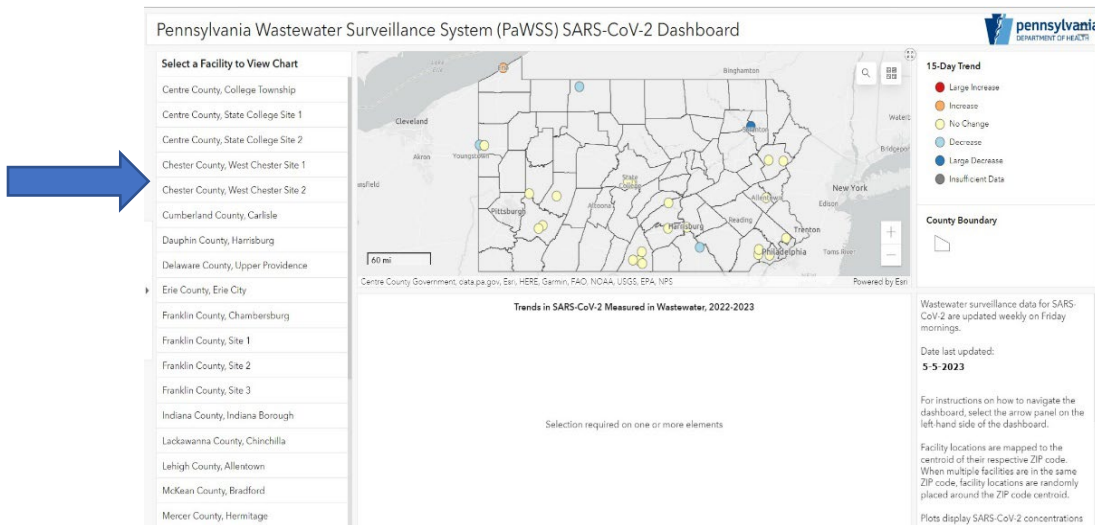
Which entities are included on the PaWSS COVID-19 dashboard?

Community wastewater treatment facilities and other sampling projects listed on the dashboard.

Dashboard Navigation

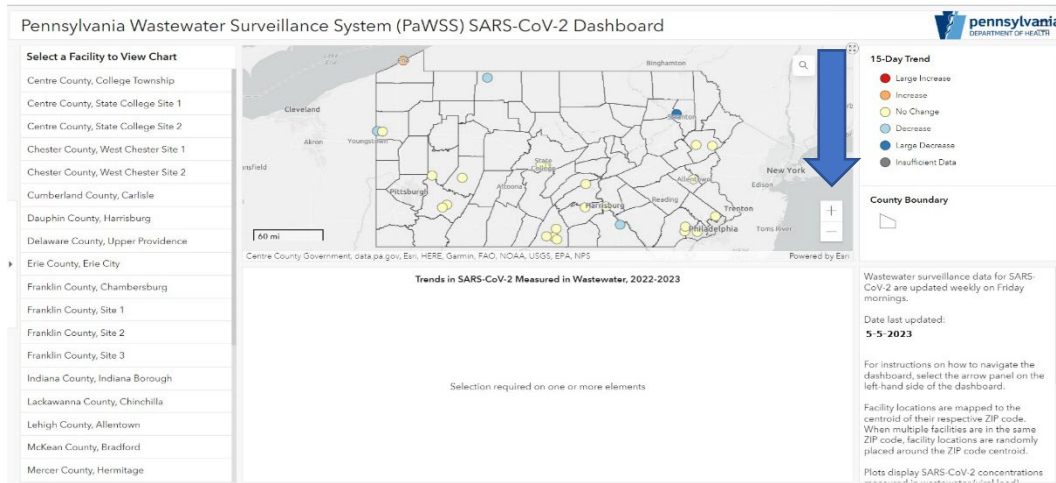
How can I view data measured for a particular facility?

Select a facility from the list on the left-hand side of the dashboard to view the plot which displays all data measured at that site.



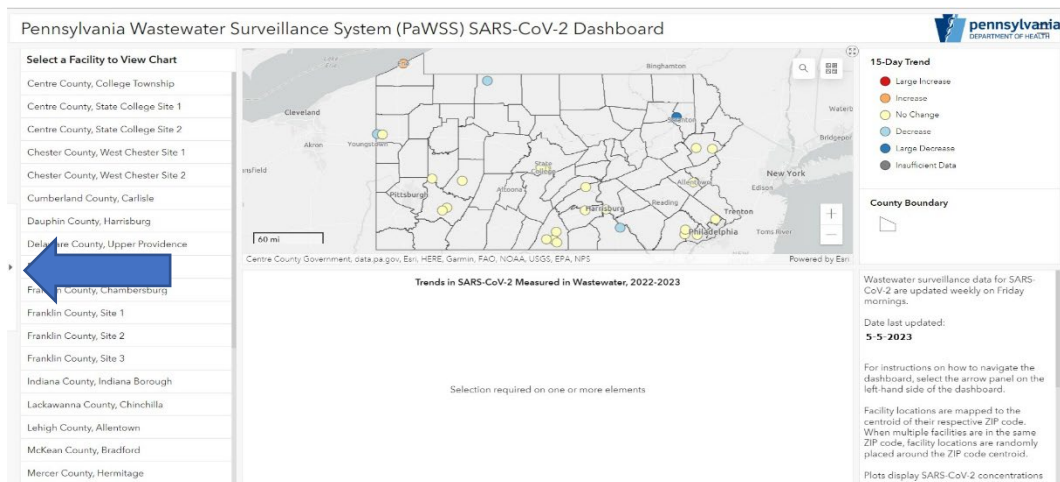
I selected a site and now I can't see the full map, how do I return to the full map?

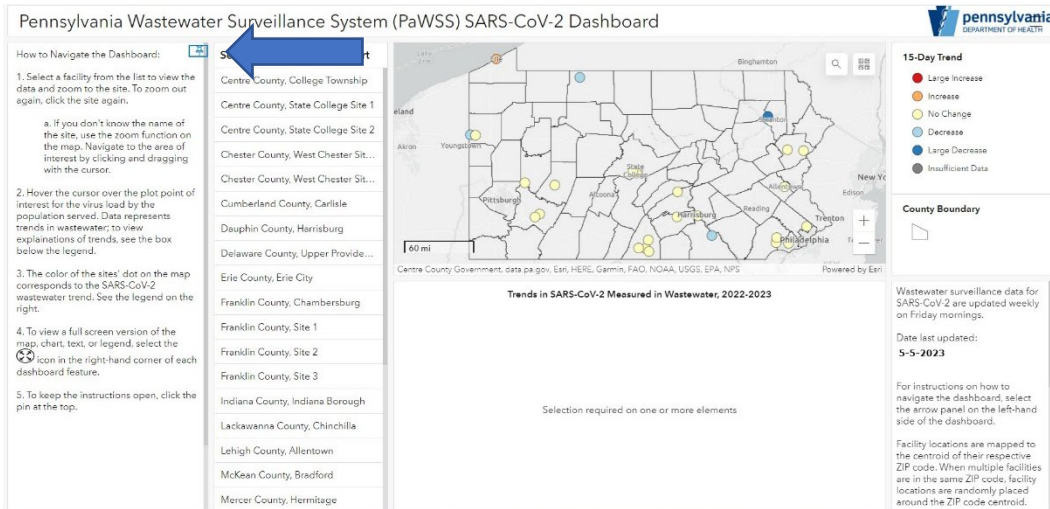
To return to the full map, select the site name on the left-hand side again or use the zoom function within the map.



How can I view instructions in the dashboard?

Click on the side facing arrow at the far-left side of the dashboard to open a series of navigation instructions. To see the full instructions and full dashboard at the same time, select the pin symbol at the top right-hand corner of the instructions pane.





Dashboard Interpretation

What does the location of the site on the map represent?

The location of each site's dot on the map does not indicate the exact location of the facility. Instead, sites are mapped to the centroid of the zip code of their mailing address.

What do the site colors represent on the map?

The color of dot on the map for each site indicates the 15-day trend for data collected at that site (see legend in the top right-hand corner of the dashboard). A large increase in SARS-CoV-2 genomic copies measured is indicated by a red dot, an increase is indicated by an orange dot, no change is indicated by a yellow dot, a decrease is indicated by a light blue dot, and a large decrease is indicated by a dark blue dot. If there is not enough data for a trend to be calculated for that site, it is labeled as insufficient data as indicated by a gray dot.

How are increasing and decreasing trends determined?

A site's 15-day trend is calculated using the past 15 days of SARS-CoV-2 wastewater monitoring data collected at that site. An "increase" or "decrease" in the 15-day trend (as indicated by the legend at the top right-hand side of the dashboard) occurs when the linear trend line created using the past 15-days of data has either a positive (increasing) or negative (decreasing) slope that is statistically different from 0 at $p < 0.1$. A "large" increase or decrease in the percent change category corresponds to percent change $> 15\%$ (large increase) or $< -15\%$ (large decrease) that is statistically different from 0 at $p < 0.1$.

What does "viral load" mean?

Viral load is another way of stating the total concentration of SARS-CoV-2 genetic material measured in each sample collected at that site. In the plot that appears at the bottom of the dashboard, data are presented as the viral load per population served by that site.

What is a “genomic copy”?

Genomic copy refers to the unit that the laboratory measures in their analyses. Genomic copies are genetic material that can represent pieces of the SARS-CoV-2 genome, not always full viruses.

Wastewater Surveillance Data Interpretation

How does wastewater data correlate with COVID-19 case counts?

Throughout the pandemic, concentrations of SARS-CoV-2 measured in wastewater has correlated with clinical case counts. Additionally, increases in SARS-CoV-2 concentrations in wastewater often precedes increases in clinical case counts or hospitalizations. More recently, these relationships have been impacted by the increase in at-home testing and fewer people seeking clinical testing. By continuing to monitor SARS-CoV-2 genomic copies measured in wastewater, the PaWSS team can learn more about correlations with clinical case data in Pennsylvania.

What does it mean if SARS-CoV-2 concentrations measured in wastewater are increasing in my area?

An increase in SARS-CoV-2 genomic copies measured at a particular facility may indicate that there is an increase in COVID-19 spreading in that area. However, wastewater data may also be impacted by other local factors such as large events, changing populations (e.g., near universities), and sometimes rainfall. For this reason, wastewater data should be used in combination with other COVID-19 data to assess the spread of COVID-19 in the community. Additionally, wastewater data cannot provide any individual-level information and therefore should not be used as a substitute for clinical testing when individuals feel sick.

Who can I reach out to if I have questions about wastewater surveillance in Pennsylvania?

Please direct additional questions to our PaWSS email address: ra-dhpawss@pa.gov