



SARS-CoV-2 Wastewater Surveillance Report

Virus Action Team Updates and Guidance

Based on World Health Organization guidance for wastewater-based surveillance of SARS-CoV-2, the following at-risk levels are denoted for public health action guidance and intervention strategies based on viral concentrations detected in wastewater. Interim guidance sheet can be found here: www.who.int/publications/i/item/WHO-HEP-ECH-WSH-2022.1

- **Level 0:** Viral RNA concentration is non-detect. No response is needed.
- **Level 1:** Viral RNA concentration is 10^1 - 10^3 gene copies/100 mL. Suggested action includes enhanced education and awareness. Suggestion of masking in crowded areas, utilization of sanitization stations, and general health education on symptoms and distancing.
- **Level 2:** Viral RNA concentration is 10^4 - 10^6 gene copies/100 mL. Suggested response action includes increase in campus community clinical testing promotion and awareness strategies for residents of affected areas.
- **Level 3:** Viral RNA concentration is greater than 10^6 gene copies/100 mL. Suggested response action includes isolation and switch to remote activities in addition to previously mentioned strategies for interventions in Level 1 and 2.

Current Wastewater Response Level:

**Level
2**

Site ID and Location Information

G1	North Campus 1- Near Holton Hooker Learning Living Center, picks up HHLC, Maple, Oak, Pine, Robinson, Copeland, and Kistler
G2	Laker Village
G3	Near Weed Living Center, picks up Weed, Hoobler, Johnson, Ott, Frey, North C Living Centers
G4	Near South E living center off 42 nd Ave, includes South C, South D, South E, GVA Apartments (6 buildings), Murray, and VanSteeland Living Centers
G5	Near Niemeyer, includes Niemeyer East, Niemeyer West, Niemeyer Honors College, and Calder Residence
G8	North Campus 2, between Pew and North C living centers, includes Seidman, Swanson, Stafford, Kirkpatrick, Hills, Pickard, Pew, and DeVos
A3	Manhole 4340 on 48 th (off campus housing)



Updates as of 03/28/2023:

For the week of 3/27/2023, spikes in viral RNA were seen at endemic sites. On main campus, 4 out of 7 sites came back with target detection. G2 continues to increase, now 100,000 gene copies/100 mL than last week's results. A3 and G4 also continue to increase. The rest of the campus sites were non-detect or barely above detection.

○ From Monday, 03/27/2023:

- A3: 4,857 gene copies/100 mL ↑
- **G2: 244,384 gene copies/100 mL** ↑
- G4: 9,899 gene copies/100 mL ↑

% Change from Previous Week

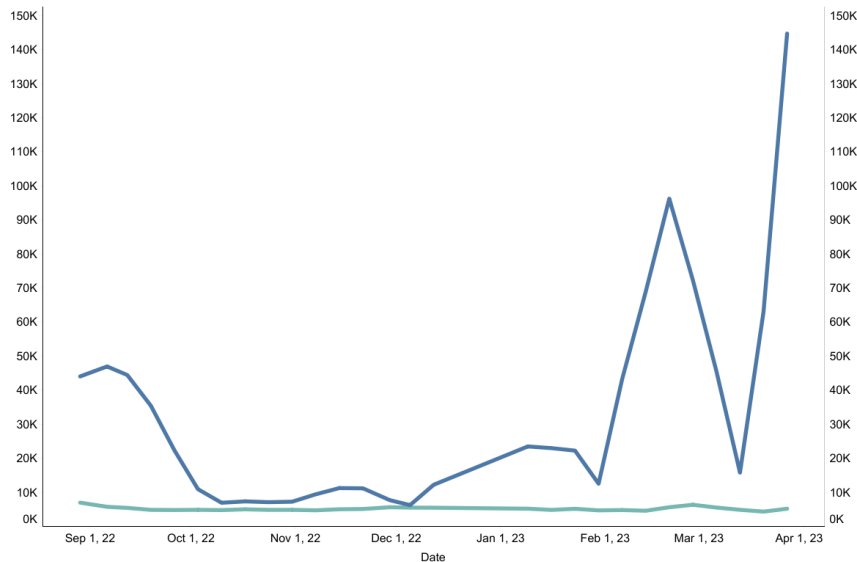
- ↑ 76 to 100%
- ↑ 51 to 75%
- ↑ 26 to 50%
- ↗ 1 to 25%
- 0% No Change
- ↓ -1 to -25%
- ↓ -26 to -50%
- ↓ -51 to -75%
- ↓ -76 to -100%

WWTP's Near Campus Population:

- Allendale Wastewater Treatment Plant →
- Muskegon Wastewater Treatment Plant ↗
- Grand Haven/Spring Lake Wastewater Treatment Plant ↓

Results of GVSU main campus sites from August 2022-March 2023 can be seen below. Overall, prevalence increased across campus following winter break and throughout most of January into February, with variant fluctuations attributed to notable spikes in the population. Following the campus Spring Break, we have noted intermittent endemic sites seeing high concentrations of viral RNA. Laker Village has seen some of the higher results as we enter the last week of March.

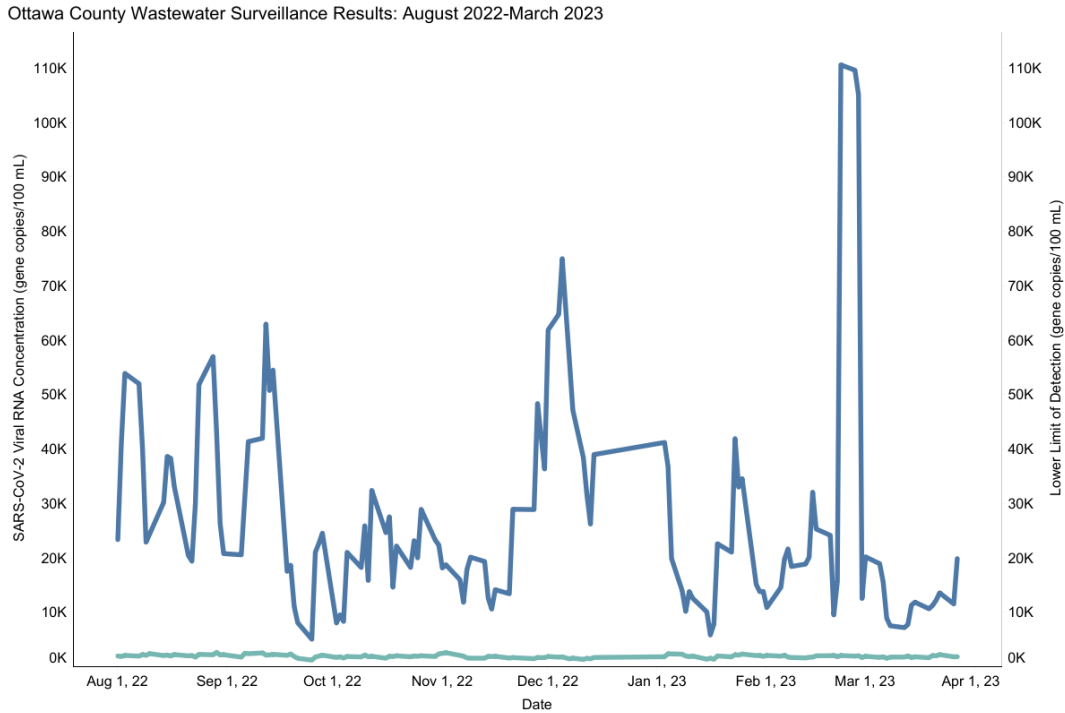
Grand Valley State University Allendale Campus Wastewater Surveillance Results: August 2022-March 2023



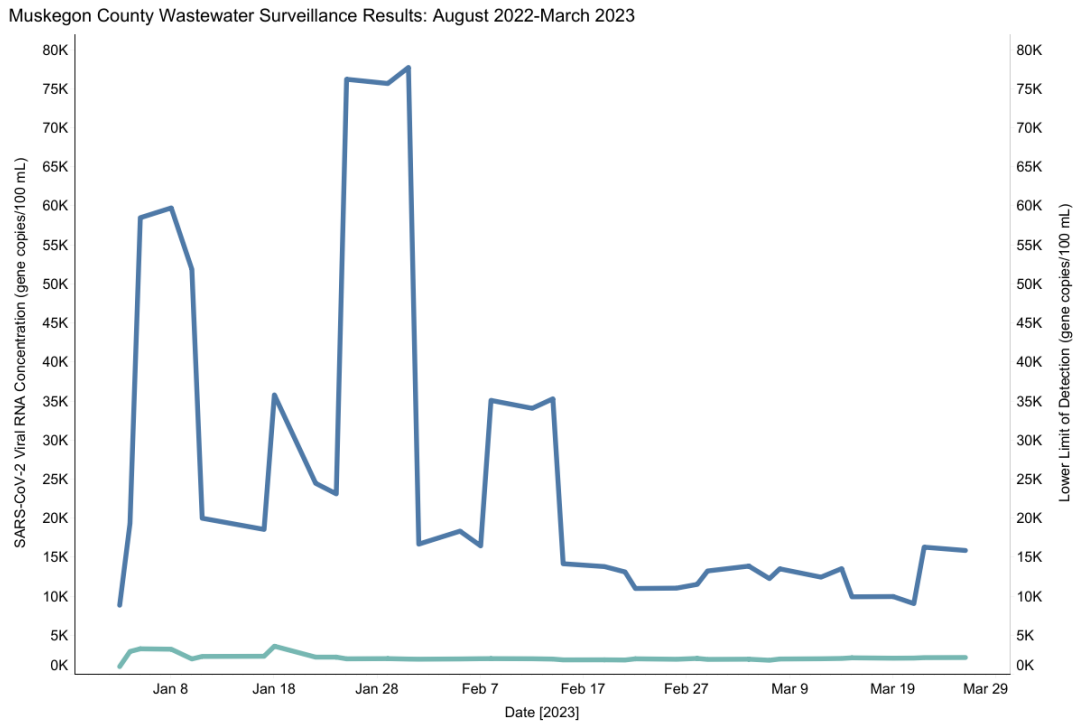
Ottawa County and Muskegon County are displaying a slight increase in overall viral trends. These areas continue to show minimal increases overall in viral RNA detections. Showing that there is significant endemicity tied specifically to the GVSU main campus.

Note. Graphs below are moving averages plotted over time.

Ottawa County



Muskegon County



A. Porter Updated: 03-28-2023



For more detailed information on site specific concentrations and other surveillance locations please visit the EGLE and MDHHS Wastewater Surveillance Dashboard at:

<https://gisportal.state.mi.us/portal/apps/insights/index.html#/view/52bbb104ed574887918f990af9f3debe>

For more information on state and nationwide surveillance please visit the CDC NWSS Dashboard at:

<https://covid.cdc.gov/covid-data-tracker/#wastewater-surveillance>

