

# COVID-19 Variant Surveillance Data Guide

## District of Columbia

### I. **Overview**

This dashboard displays the distribution of circulating variants and weekly cases reported in the District of Columbia (DC) since May 30<sup>th</sup>, 2021. Data sources include The Global Initiative on Sharing Avian Influenza Data (GISAID) and DC Health.

### II. **Rationale**

Genomic sequencing allows us to monitor the evolution of SARS-CoV-2, the virus that causes COVID-19. As SARS-CoV-2 mutates, it develops different characteristics that may affect transmissibility, severity of disease, resistance to neutralization by antibodies generated from previous infection or vaccination, effectiveness of therapeutics, and diagnostic detection. Hundreds of variants have emerged since the initial discovery of COVID-19 in December 2019. Occasionally, a variant may emerge which has a significant public health impact. Omicron is currently the predominant variant circulating in the United States and has been identified as a Variant of Concern by the CDC and WHO. Conducting variant surveillance enables us to identify circulating variants and develop evidence-based guidance to strengthen public health actions and protect our community.

### III. **Data sources**

#### A) *GISAID - Percentage of Circulating Variant*

GISAID is the world's largest database for SARS-CoV-2 sequencing data. GISAID facilitates real-time surveillance to monitor circulating COVID-19 variants across the world. Data here are displayed for samples obtained in the District of Columbia by week of test collection. There is an inherent delay between when the sample is collected to when sequencing results are available. Thus, more recent data (1-2 weeks prior to the date data were last updated) should be interpreted with caution based on a small number of samples. Please see <https://www.gisaid.org/> for more information.

#### B) *DC Health - Weekly Cases Reported*

DC Health reports the frequency of cases on a daily basis; data here is aggregated by week of test collection. The number of daily cases is subject to the timeliness of test results reported from laboratories and may not always reflect the number of new positive tests collected on a given day. Data reflect ongoing data quality improvements.

#### IV. Variant classifications and definitions\*

- Variant of Concern (VOC): A variant for which there is evidence of an increase in transmissibility, more severe disease (for example, increased hospitalizations or deaths), significant reduction in neutralization by antibodies generated during previous infection or vaccination, reduced effectiveness of treatments or vaccines, or diagnostic detection failures.
  - Omicron (B.1.1.529 and BA lineages)
    - BA.2.12.1
    - BA.2 and sub-lineages (excluding BA.2.12.1)
    - BA.1.1 and sub-lineages
    - BA.1, BA.3, BA.4, BA.5 and their sublineages are aggregated under B.1.1.529
  - Delta (B.1.617.2 and AY sub-lineages)
- Variant Being Monitored (VBM): a variant that has been associated with more severe disease or increased transmission, but is no longer detected, or is circulating at very low levels in the United States, and as such, does not pose a significant risk to public health.
  - Alpha (B.1.1.7 and Q lineages)
  - Beta (B.1.351 and descendent lineages)
  - Gamma (P.1 and descendent lineages)
  - Epsilon (B.1.427 and B.1.429)
  - Eta (B.1.525)
  - Iota (B.1.526)
  - Kappa (B.1.617.1)
  - B.1.617.3
  - Mu (B.1.621, B.1.621.1)
  - Zeta (P.2)
- Other: any variant that is not considered a VOC or VBM

\*VOC and VBM classifications come from the Centers for Disease Control and Prevention- for more information, visit the [CDC webpage](#).

#### V. Description of dashboard & example interpretation

- The percentage of each circulating variant by week is displayed by the vertical colored bars, which correspond to the y-axis on the left side of the graph and are labeled in the legend “Percentage of Circulating Variant.”
- The number of weekly cases reported is displayed by the dark grey line, which corresponds to the y-axis on the right side of the graph and is also depicted in the legend “Weekly Cases Reported.”

- Data is presented by week of test collection date (the date the sample was collected).
- You may select a date range by moving the “Start Date” and “End Date” sliders below the graph; the legends will adjust according to the date ranges selected.
- You may hover your cursor over each vertical colored bar to see information on the variant, week of test collection, percentage of that circulating variant, and number of samples sequenced for that variant that week.
- You may also hover your cursor over each circled dot on the dark grey line to see the number of cases reported that week.
- You may select the PDF icon at the top right corner to download a copy of the data reported here.

Example interpretation:

For the week of December 12<sup>th</sup>, 79.1% of samples sequenced were Omicron and 20.9% were Delta. There were 6,788 cases reported for the week of December 12<sup>th</sup> (determined by hovering the cursor over the grey dot on the line corresponding to the week of Dec 12).

