# Viral Respiratory Illness Dashboard User Guide

Created by the Anne Arundel County Department of Health, Office of Assessment and Planning www.aahealth.org | 410-222-7095

This user guide was developed to provide guidance for using the Department of Health's Viral Respiratory Illness Dashboard and answer frequently asked questions about the data. This dashboard presents data for viral respiratory illnesses, such as COVID-19, influenza (flu), and Respiratory Syncytial Virus (RSV), as well as pneumonia, which is a common complication of these viral illnesses. Data presented includes wastewater surveillance, syndromic surveillance (emergency department and urgent care visits), hospitalizations, cases and deaths, and vaccinations. Not every data type is available for every illness. All sources are listed on the "Data Sources" tab in the dashboard.

There are several pages on this dashboard, listed in the table of contents below. You may click on an item and learn more about that page, or scroll through the document to learn about each data page.

# **Table of Contents**

<u>1. Homepage</u>

2. Summary

3. Vaccinations

4. Wastewater

5. COVID-19

6. Influenza

<u>7. RSV</u>

8. Pneumonia

9. Data Sources

Frequently Asked Questions

#### 1. Homepage

The homepage contains navigation buttons for each of the data pages in this workbook. Users can return home from any page using the blue "Return to Homepage" button in the top left corner of each data page. Users can also switch between data pages using the tabs at the top of the dashboard.



# Click below to view a datapage, or use the tabs at the top of the dashboard to navigate.



#### 2. Summary

This page provides an overview of the most recent data for COVID-19, influenza and RSV. The recent wastewater levels can be filtered in the drop-down menu by the wastewater treatment plant where the sample originated. The date of the latest sample is presented in parenthesis next to each wastewater activity level. A graph of Emergency Department (ED) and urgent care visits for broad acute respiratory illness in the current season compared to the previous season is at the bottom of the page (this includes COVID-19, influenza, RSV, pneumonia, cough and other general respiratory illness). The season can be highlighted by clicking on the legend.



\*The ED and urgent care visit data are syndromic surveillance data. They represent Anne Arundel County residents who visited an ED or urgent care in Maryland for acute respiratory illness, including specific respiratory infections (e.g. influenza, RSV, and COVID-19), as well as general respiratory illness such as cough or pneumonia. Not all EDs and urgent care facilities participate in syndromic surveillance, so these data should be interpreted with caution. Weeks with <11 visits are suppressed.

#### **3. Vaccinations**

This dashboard presents vaccination data for the most recent winter respiratory season. These data include rates of vaccination for the most recent COVID-19 vaccine formulation, the most recent seasonal influenza vaccine, and the RSV vaccine (among adults aged 60 and older). The current CDC recommendations for these vaccines are listed below the overall rates. There is also a navigation button that links users to vaccines.gov, which can show users where they can get their COVID-19 and influenza vaccinations. COVID-19 vaccination rates are also presented by age group, race/ethnicity, and ZIP code; these data are filtered using the drop-down menu.



#### 4. Wastewater

The Department of Health, in partnership with the Anne Arundel County Department of Public Works, monitors all seven of the county-operated wastewater treatment plants in the county for SARS-CoV-2 (COVID-19), Influenza A and B, and RSV. People infected with these viruses can shed the virus in their feces. It can be detected in community wastewater or sewage. Wastewater surveillance measures the presence of these viruses in people with and without symptoms. This is another tool we can use to help monitor COVID-19, flu and RSV spread in Anne Arundel County. Wastewater surveillance does not depend on people having access to health care, people seeking health care when sick or the availability of testing. Monitoring wastewater can provide an early indicator of viral spread in communities.

Wastewater samples are collected twice a week from the treatment plants in the county, which are sent to the CDC for testing as part of their National Wastewater Surveillance System (NWSS). Wastewater activity levels are determined based on the <u>CDC's methodology</u>.

Wastewater data on the dashboard page can be filtered by the pathogen (e.g., Influenza A, RSV, COVID-19) and the wastewater treatment plant (WTP). The legend below the filters can be used to highlight data points in the specific level category. When the filters are applied, the map will show the area of the county that is served by the specific WTP, and the graph will show the wastewater activity levels of the selected pathogen at that WTP.



#### 5. COVID-19

This page presents data specific to COVID-19. The page can be filtered using the drop-down menu to present ED and urgent care visits, daily hospitalizations, cases and deaths. The legends can be used to highlight specific data.





The ED and urgent care visit data are syndromic surveillance data. They represent Anne Arundel County residents who visited an ED or urgent care in Maryland for COVID-19. Not all EDs and urgent care facilities participate in syndromic surveillance, so these data should be interpreted with caution. Weeks with <11 visits are suppressed.

# 6. Influenza

This page presents data specific to influenza and influenza-like illness. The page can be filtered using the drop-down menu to present ED and urgent care visits and weekly hospitalizations. The legends can be used to highlight specific data.



Seasonal Comparison of Weekly Emergency Department (ED) and Urgent Care Visits for ILI



The ED and urgent care visit data are syndromic surveillance data. They represent Anne Arundel County residents who visited an ED or urgent care in Maryland for influenza-like illness. Not all EDs and urgent care facilities participate in syndromic surveillance, so these data should be interpreted with caution. Weeks with <11 visits are suppressed.

#### **7. RSV**

This page presents data specific to RSV. The page can be filtered using the drop-down menu to present ED and urgent care visits and weekly hospitalizations. The legends can be used to highlight specific data.



Seasonal Comparison of Weekly Emergency Department (ED) and Urgent Care Visits for RSV



ED and urgent care visit data are syndromic surveillance data. They represent Anne Arundel County residents who visited an ED or urgent care in Maryland for illness due to RSV. Not all EDs and urgent care facilities participate in syndromic surveillance, so these data should be interpreted with caution. Weeks with <11 visits are suppressed.

#### 8. Pneumonia

This page presents data specific to pneumonia. The page can be filtered using the drop-down menu to present ED and urgent care visits by age group (all ages, 0-17 years and 65 years and older). The legends can be used to highlight specific data.



Seasonal Comparison of Weekly ED and Urgent Care Visits for Pneumonia



The ED and urgent care visit data are syndromic surveillance data. They represent Anne Arundel County residents who visited an ED or urgent care in Maryland for influenza-like illness. Not all EDs and urgent care facilities participate in syndromic surveillance, so these data should be interpreted with caution. Weeks with <11 visits are suppressed.

#### 9. Data Sources

This page lists all of the sources for the data presented in this dashboard, including the queries used to pull the syndromic surveillance data. This page also provides the source for the <u>CDC's wastewater</u> <u>analysis methodology</u>.



#### Data Sources

Return to Homepage

Wastewater Activity Levels are determined based on methodology from the CDC. To view this methodology, visit https://www.cdc.gov/nwss/about-data.html#data-method. Wastewater-based epidemiology is an evolving science and our methods may change as the field evolves. All wastewater data is courtesy of CDC NWSS and Verily.

All ED and Urgent Care visit data are from Maryland ESSENCE. Query definitions are listed below. Broad Acute Respiratory Illness query definition: This query is designed to identify visits with diagnostic codes associated with a broad range of acute respiratory illnesses. This includes codes associated with specific respiratory infections (e.g. influenza, RSV, or coronavirus), as well as codes associated with general respiratory illness such as cough or pneumonia.

COVID-19 query definition: discharge diagnosis of COVID-19, based on ICD-10 coding

Influenza query definition: Influenza-like illness chief complain sub-syndrome ILI: complaint of fever and a cough or sore throat, or influenza

RSV query definition: chief complaint or discharge diagnosis coded as RSV or bronchiolitis, based on text and ICD-10 coding

Other data sources are listed below.

COVID-19 Cases and Deaths: Maryland Department of Health (MDH) COVID-19 Hospitalizations: Chesapeake Regional Information System for our Patients (CRISP) Influenza Hospitalizations: Maryland Department of Health, Emerging Infections Program RSV Hospitalizations: Maryland Department of Health, Emerging Infections Program Vaccinations: MDH FluWatch, Maryland ImmuNet

# **Frequently Asked Questions**

### How should I use the information from this dashboard?

This dashboard presents data on the current trends in the prevalence of viral respiratory illness in Anne Arundel County. While every data source has limitations, the data can show useful trends (such as increasing or decreasing prevalence) that individuals can use to inform their behavior. By using the trends in the data to inform behavior, individuals can take action to protect themselves from respiratory illness. This includes wearing a mask, getting vaccinated, testing, and staying home when sick.

# What does "wastewater activity level" mean?

The CDC defines the wastewater activity level as:

"The Wastewater Viral Activity Level is a calculated measure that allows us to aggregate wastewater sample data to get state/territorial, regional, and national levels and see trends over time. **Most simply, the value associated with the Wastewater Viral Activity Level is the number of standard deviations above the baseline, transformed to the linear scale.** The current Wastewater Viral Activity Level...is categorized into minimal, low, moderate, high, or very high as follows: a Wastewater Viral Activity Level less than 1.5 is categorized as minimal, greater than 1.5 and up to 3 is low, greater than 3 and up to 4.5 is moderate, greater than 4.5 and up to 8 is high, and greater than 8 is very high."

More information: www.cdc.gov/nwss/about-data.html

#### What is syndromic surveillance? What do the ED and Urgent Care visits represent?

Syndromic surveillance uses near-real-time data from ED and urgent care visits to monitor trends in syndromes. CDC defines a syndrome as "a group of related symptoms that, combined, can indicate a specific health condition, disorder, injury, or threat." More information about the data collection process, including privacy protections, is available at <a href="http://www.cdc.gov/nssp/about/index.html">www.cdc.gov/nssp/about/index.html</a>.

Many EDs and urgent care facilities in Maryland participate in the syndromic surveillance program. We use syndromic surveillance to monitor trends in the number of county residents going to the ED or urgent care for a viral respiratory illness. The number of residents going to the ED/Urgent Care in any given week does **not** represent the total number of residents who were sick that week, or even the total number of residents who sought care. Rather, comparing weekly and seasonal trends can help indicate if viral respiratory illnesses are spreading in our community.

#### What does MMWR week mean?

Graphs that compare the current season to the previous use the Morbidity and Mortality Weekly Report (MMWR) week as the x-axis. The MMWR week refers to the week of the epidemiologic year, they last from Sunday through Saturday, and there are usually 52 MMWR weeks in a year. Week one of the epidemiologic year is the first week of the year with at least four days in the calendar year. The CDC provides more information at <u>ndc.services.cdc.gov/wp-content/uploads/MMWR\_Week\_overview.pdf</u>.

# I have a question about the data or noticed an error on the dashboard. How do I contact you?

Please use the contact form: www.aahealth.org/about-us/contact-us