

NREVSS

CDC's National Respiratory and Enteric Virus Surveillance System

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Agenda

09:10 Introduction
What is NREVSS

09:20 Importing Lab Data
Who reports and how to report

Reports & Exports

View trends of virus circulation according to the data reported

NREVSS Dashboard

Explore the NREVSS Dashboard for monitoring national and regional virus activity

Registration / Questions
Learn how to register for NREVSS

Disclaimer

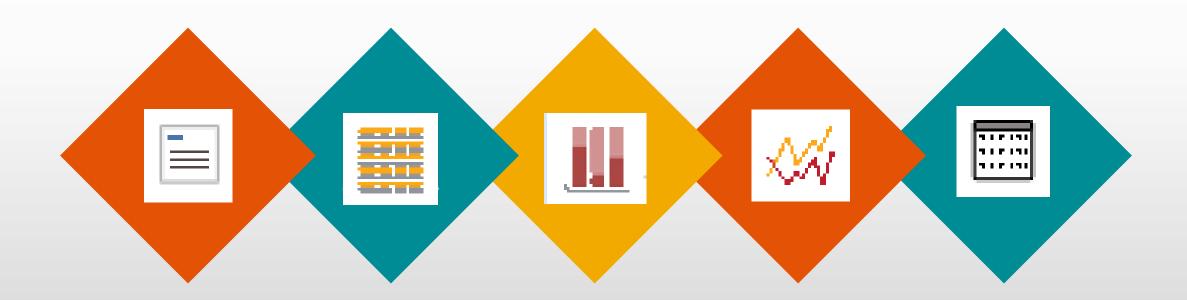
This presentation has not been formally disseminated by the Centers for Disease Control and Prevention and should not be construed to represent any agency determination or policy. The focus of this presentation is how participating in and utilizing NREVSS assists with infectious disease surveillance activities.



Introduction What is NREVSS

NREVSS

National Respiratory and Enteric Virus Surveillance System



All About NREVSS

- A CDC data system for laboratory-based surveillance that was established in the early 1980s
- Voluntary and passive surveillance
- Monitors real-time circulation and seasonality of respiratory and enteric viruses
- Data is sourced from about 600 reporting laboratories in the United States:
 - State and local public health labs
 - Commercial, hospital, and clinical labs

All About NREVSS

- Participating laboratories report aggregate data weekly to CDC:
 - The total number of test performed to detect the pathogens tracked by NREVSS
 - The total number of those tests with positive results detected
 - The test type used for detection
- No Protected Health Information (PHI) is shared

Diagnostic Method Categories

- Antigen
 - Indirect Fluorescent Antibody (IFA)
 - Direct Fluorescent Antibody (DFA)
- Virus isolation (culture)
- Nucleic acid amplification tests (NAATs)
 - Polymerase Chain Reaction (PCR) tests



Respiratory Pathogens & Diagnostic Methods Accepted

- Respiratory Syncytial Virus Type A, B, Unknown (Antigen, PCR)
- Parainfluenza 1-4, Unknown (Antigen, Viral Isolation, PCR)
- Respiratory Adenovirus (Antigen, Viral Isolation, PCR)
- Influenza:
 - 2009 H1N1 (Viral Isolation, PCR)
 - AH3N2 (Viral Isolation, PCR)
 - AH5N1 (Viral Isolation, PCR)
 - A Unknown Subtype (Antigen, Viral Isolation, PCR)
 - B (Antigen, Viral Isolation, PCR)

- Human Metapneumovirus (Antigen, Viral Isolation, PCR)
- Rhinovirus/Enterovirus (Viral Isolation, PCR
- **Coronavirus**(PCR):
 - HKU1
 - NL63
 - OC43
 - 229E
 - Type Unknown
- SARS-CoV-2 | COVID-19 (Antigen, PCR)
- Bocavirus (Antigen, PCR)

Enteric Pathogens & Diagnostic Methods Accepted

- Rotavirus (Antigen, PCR)
- Enteric Enterovirus (Viral Isolation, PCR)
- Adenovirus 40 & 41 (Antigen, Viral Isolation)
- Norovirus
 - GI (PCR)
 - GII (PCR)
 - Type Unknown (Antigen, PCR)



Reporting Who Reports & HOW TO

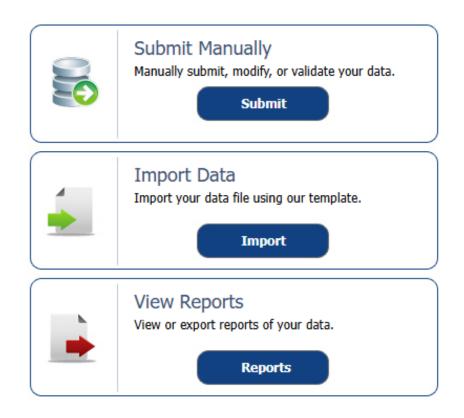
Examples of Participating U.S. Laboratories

- Commercial entities & reference laboratories
- Medical & health care Centers
- University and community hospitals & clinics
 - Children's Hospitals
 - Veterans Hospitals
- State & county public health departments
- Public health laboratories
- Air Force Bases

Reporting

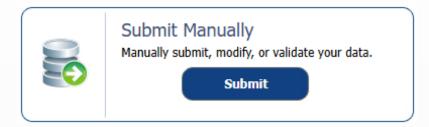
- NREVSS collects reports by noon on Tuesday each week so that the public website (https://www.cdc.gov/surveillance/) can be updated on Tuesday afternoons with the latest data
- You can always report data from previous weeks
- Multiple specimens from the same patient may be reported
- The NREVSS reporting season runs from the first week of July to the last week of June the following year

Welcome to the NREVSS Online Data Submission System (ODSS). We appreciate your contributions. Your participation is vital to the success of this surveillance program and the CDC mission. Please remember to update your contact information in your account profile. In the future, we will use your email address to relay any urgent updates. You can access your laboratory's information from the navigation menu at the top of the website by selecting "Account Profile".



Online Data Submission System (ODSS)

Online Data Submission System (ODSS)



National Respiratory and Enteric Virus Surveillance System (NREVSS)

Online Data Submission System (ODSS)

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online data submission system ((0033)													
Antigen Detection	Virus Isolation	Polymer	ase Chain R	eaction										
Show Current (07/05/2025 - 08/09/2025	reporting season. F	For Lab ID 🔻												
Enter data into the boxes below. Only whole When complete, verify entries and submit. For validate the data below for weeks that we *Note: Currently, the seasonal AHIN1 subtype does not appear to be circulyou.	Please enter your initia ere submitted, please <u>clic</u>	als below for each submission k here. If you would like to learn	, using up to 3 l more about data	etters from A-Z. validation, <u>click here</u> . hefore submitting. Thank	lab is currently running the			Diagnostic method last modified on: N/A						
				Respirator	y Viruses						E	Interic Viruses		Respiratory Specimen
	RSV	Parainfluenza Virus (PIV)	Respiratory Adenovirus	Influenza Virus	Human Metapneumovirus	Rhinovirus/Enterovirus		Coronavirus		Bocavirus Rotavi	irus Enteroviru	s Norovirus	Adenovirus 40/41	SARS-CoV-2
Week Reporting Data Code Week Data Validated by	Test RSV A RSV B Unk pos pos T	Test PIV 1 PIV 2 PIV 3 PIV 4 Unk	Test Pos Test	Pandemic AH1N1 pos AH3N2 pos A (H5N1) pos A Unk. pos	B Test Pos	Test Pos	Test CoV HKU1	CoV NL63 CoV OC43 Co	oV 229E CoV Unk pos pos	Test Pos Test	Pos Test Pos	Test GI GII Un	k Test Pos	Test Pos

Online Data Submission System (ODSS)

Import Data

Import your data file using our template.

Import

Download This Season's Single Lab Templates

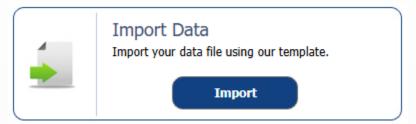
The import feature supports the Excel 2003-2010 (*.xlsx). To prevent importing errors, the template structures should NEVER be changed and ALL cells pertaining to future weeks must be blank and contain no zeros or symbols. The headers MUST contain the correct season years (e.g., 2025-2026). If the season years are not correct or present, this will cause importing errors. Any written comments will be lost. Written comments should be sent to the coordinators at nrevss@cdc.gov.

Current Sea	son Import Templates	.xls
Antigen Dete	ection	XLSX N.E.
Virus Isolatio	on	XLSX NI
Polymerase (Chain Reaction	XI.SX

Click here to access the templates needed to import data from the last season.

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									Respiratory						ratory							Hui	man	Rhinovirus/							
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Online Data Submission System (ODSS)



Import Multiple Lab Data

To import a batch of data for multiple laboratories with all test types combined, select the "Choose File" or "Browse" button shown below and select the appropriate file on your computer. After selecting the file you wish to import, select the "Import Data" button. A message will appear indicating the import was successful or that an error was encountered.

The import feature supports files in ".xlsx" format. Please contact the NREVSS coordinators to obtain a template with all three test types combined.

All new data and any revisions made to entries for prior weeks will overwrite the previously submitted data. To review and validate data, select the "Submit Manually" tab and select a LabID from the drop-down menu. The table shown in the "Submit Manually" tab reflects all data submitted manually and via import. Please note that the chronology of entries displayed on the manual entry page can be reversed by selecting the arrow adjoining the "Reporting Week" header.

Choose File | No file chosen

Import Data

Single Test Type Data

To import data for multiple laboratories by test type, select the "Choose File" or "Browse" buttons shown below and select the appropriate file(s) saved on your computer. You may import files individually or simultaneously. After selecting the file(s) you wish to import, select the "Import Data" button. A message will appear indicating the import was successful or that an error was encountered.

The import feature only accepts files in the template formats provided below. The latest templates may be downloaded from the page and populated with data for importing.

All new data and revisions made to previous entries on the import worksheet will overwrite existing data. To review and validate data, select the "Submit Manually" tab and select a LabID from the drop-down menu. The table shown in the "Submit Manually" tab reflects all data submitted manually or via import. Please note that the chronology of entries displayed on the manual entry page can be reversed by selecting the arrow adjoining the "Reporting Week" header.

Antigen Detection File

Choose File No file chosen

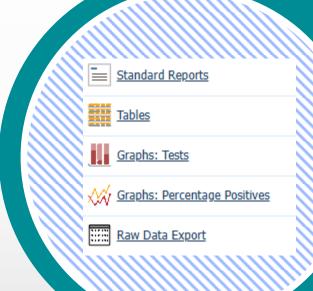
Virus Isolation File

Choose File No file chosen

PCR File

Choose File No file chosen

Import Data



Reports & Exports Viewing the Data

Reports



Report Types	Description
Standard Reports	Provides a comprehensive look at patterns in influenza, respiratory syncytial virus (RSV), rotavirus, and SARS-CoV-2 reporting over the past year.
Tables	Displays customizable, numerical tables of tests performed and positive results for given viruses, by week or by month.
Graphs: Tests	Displays customizable bar graphs of positive and negative tests performed for given viruses, by week or by month.
Graphs: Percentage Positives	Displays customizable line graphs of the percentage of positive tests for given viruses, by week or by month.
Raw Data Export	Exports raw data from the current and previous reporting season for more detailed data analysis.

$$Circulation = \frac{\#\ positive\ tests}{\#\ tests\ performed}$$



Standard Reports

Please select a virus below to view a comprehensive report on circulation over the past 12 months as reported by your lab to NREVSS.

Back to report types

- Influenza
- · Respiratory Syncytial Virus (RSV)
- Rotavirus
- Severe Acute Respiratory Syndrome-CoV2

(2009 H1N1) and influenza A (H3N2) and influenza A, unknown subtype, and influenza B, August 01, 2024 - August 12, 2025 Influenza A 2009 H1N1 - Percent Influenza A, unknown subtype Total Tests - Percent Positive Influenza A H5N1 - Percent Influenza A H3N2 - Percent --- Influenza B - Percent Positive Positive 200 of tests Number PLINITER. Week Ending Date

Figure 6. Polymerase chain reaction tests for influenza A (H5N1) and influenza A



Tables Report

Please select parameters below to generate numerical tables of data reported to NREVSS. If a time increment of "Month" is chosen, select the first day of the desired month as the Start Date and the last day of the desired month as the End Date. Up to 6 tables can be generated at a time.

Back to report types





Table 1. Polymerase chain reaction tests for norovirus unknown by 1m, March 01, 2024 - August 01, 2025

Month	Tests Performed	Positive Tests	Percentage Positive
Mar 2024	95	10	10.53
Apr 2024	196	32	16.33
May 2024	146	13	8.90
Jun 2024	254	18	7.09
Jul 2024	134	5	3.73
Aug 2024	214	12	5.61
Sep 2024	163	5	3.07
Oct 2024	167	17	10.18
Nov 2024	102	6	5.88
Dec 2024	54	3	5.56
Jan 2025	180	29	16.11
Feb 2025	242	50	20.66
Mar 2025	222	39	17.57
Apr 2025	43	4	9.30
May 2025	227	14	6.17
Jun 2025	214	11	5.14
Jul 2025	156	4	2.56
Aug 2025	0	0	0.00
Grand Total	2809	272	9.68



Tests Report

Please select parameters below to generate stacked bar graphs of positive and negative tests for specific viruses reported to NREVSS. Up to 6 graphs can be generated at a time.

Back to report types

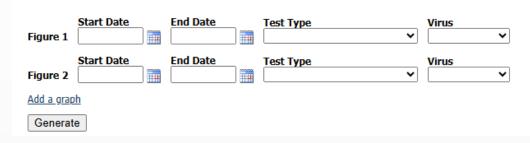
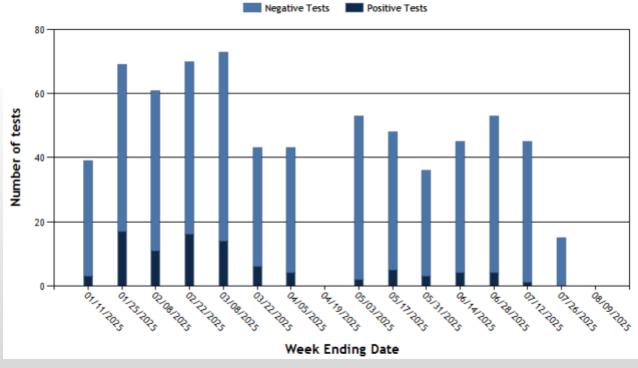


Figure 1. Polymerase chain reaction tests for norovirus unknown by every 2 weeks, January 01, 2025 - August 12, 2025



wiraphs: Percentage Positive

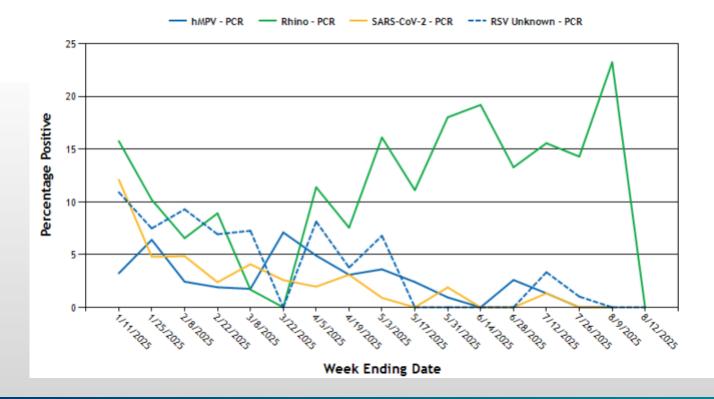
Percentage-Positive Report

Please select parameters below to generate a line graph of the percentage of tests that are positive for viruses reported to NREVSS. You may choose up to 6 virus—test-type combinations that will each be represented as separate lines overlaid upon one another in the same graph. The same time increment and date range must be chosen for all virus—test-type combinations that appear on the same graph.

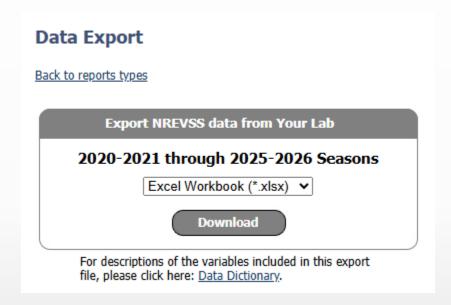
Back to report types



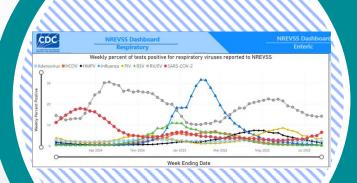
Figure 1. Polymerase chain reaction tests for human metapneumovirus (HMPV), rhinovirus/enterovirus, SARS-CoV-2, respiratory syncytial virus, unknown subtype by every 2 weeks, January 01, 2025 - August 12, 2025







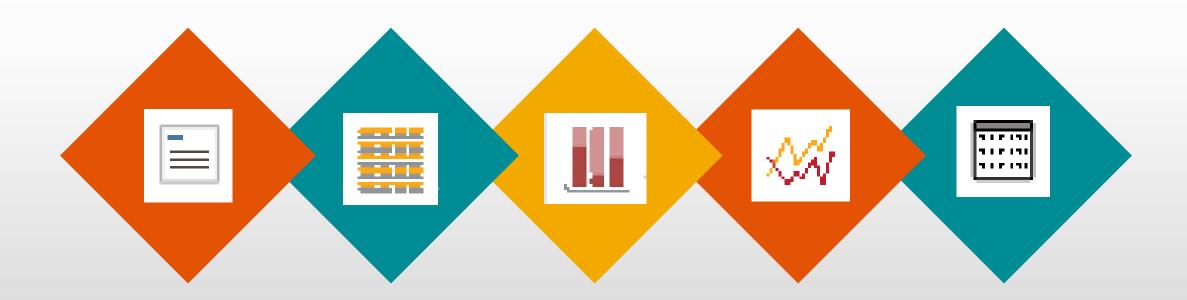
В		D	E			н			к		М	N	о .	P		R		т	υ	v
TestType	WeekCode	WeekEnding	Season	Validated	RSVTest	RSVAPos	RSVBPos	RSVUnkPos	PIVTest	PIV1Pos	PIV2Pos	PIV3Pos	PIV4Pos	PIVUnkPos	RAdenoTest	RAdenoPos	FluTest	FluAH5N1Po	s FluPanAH1N	1FluAH3N2Pos Flu
PCR	2531	08/02/2025	2526	Yes	99	9 0) () ()	99	0	0	0	0	99) 4	1 9	9 () (0
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Exploring the data NREVSS Dashboard

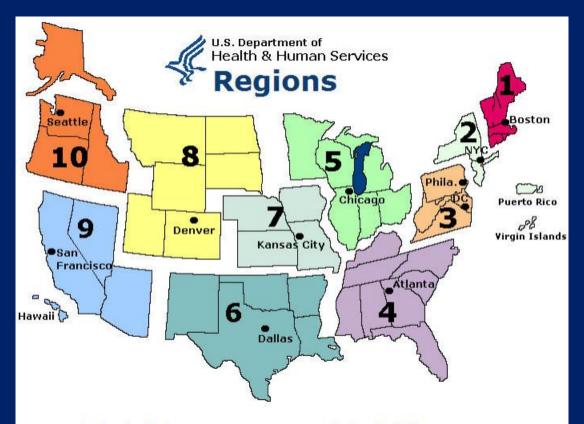
Interactive Dashboard

https://www.cdc.gov/nrevss/php/dashboard/index.html



NREVSS Respiratory Dashboard

- All data graphs are updated weekly
- Data are reported by the Centers for Medicare & Medicaid Services HHS Regions
- Respiratory test results on the dashboard only include PCR results
- Data are based on the number of laboratory tests performed, not the number of people tested.



Region 1 - Boston

Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont

Region 2 - New York

New Jersey, New York, Puerto Rico, and the Virgin Islands

Region 3 - Philadelphia

Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia

Region 4 - Atlanta

Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee

Region 5 - Chicago

Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin

Region 6 - Dallas

Arkansas, Louisiana, New Mexico, Oklahoma, and Texas

Region 7 - Kansas City

Iowa, Kansas, Missouri, and Nebraska

Region 8 - Denver

Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming

Region 9 - San Francisco

Arizona, California, Hawaii, Nevada, American Samoa, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Marshall Islands, and Republic of Palau

Region 10 - Seattle

Alaska, Idaho, Oregon, and Washington

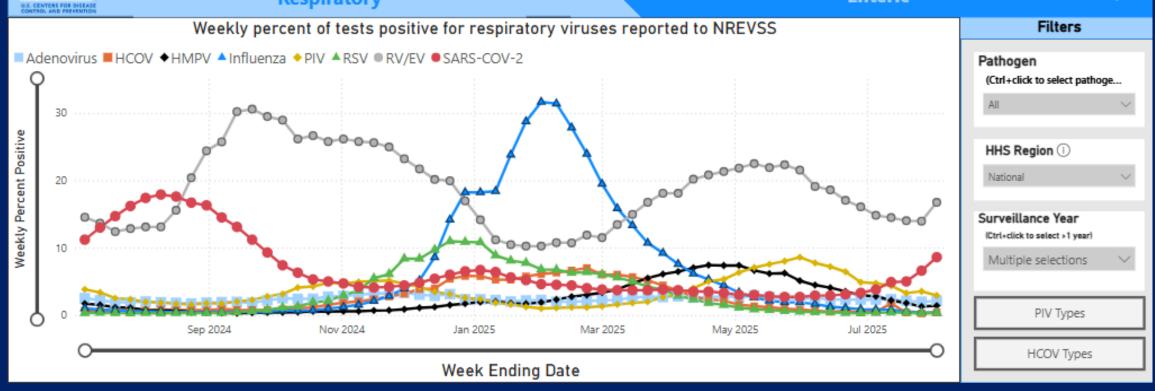
https://www.cms.gov/outreach-and-education/medicare-learning-network-mln/mlnproducts/downloads/hhs_regions_map.pdf

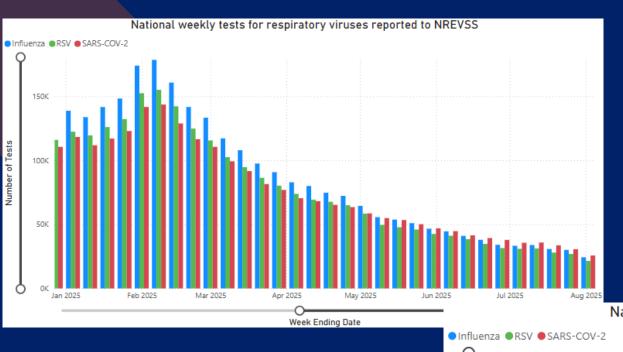


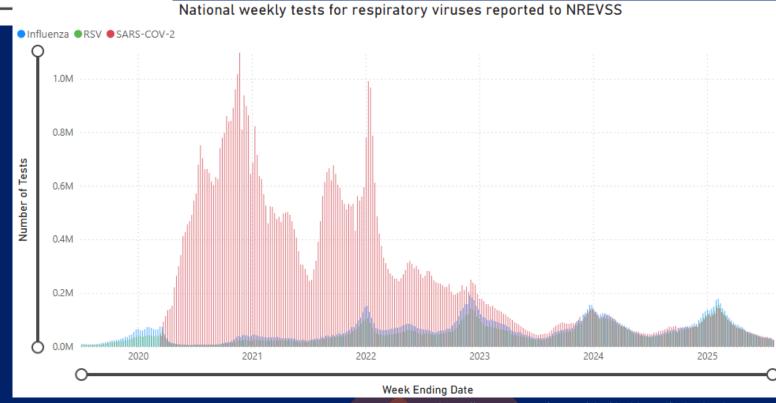
NREVSS Dashboard Respiratory

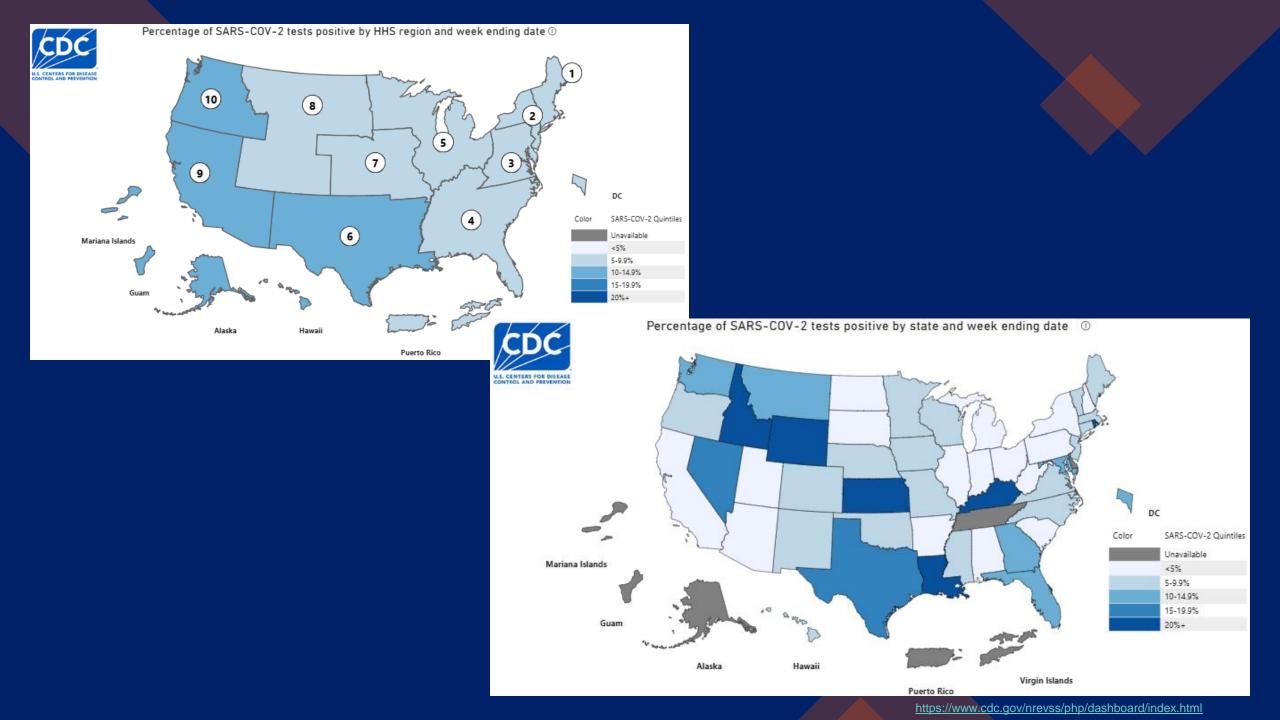
NREVSS Dashboard Enteric

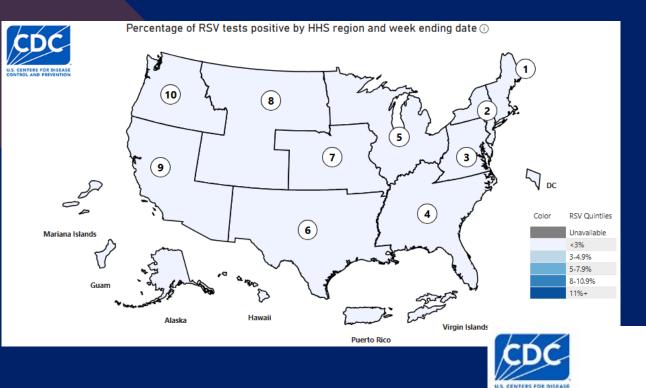


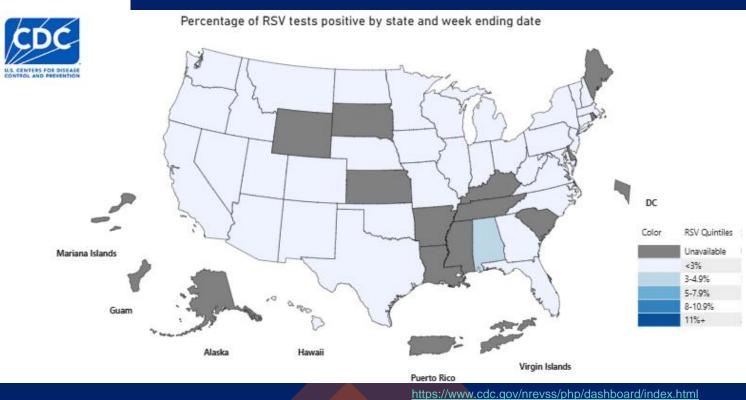


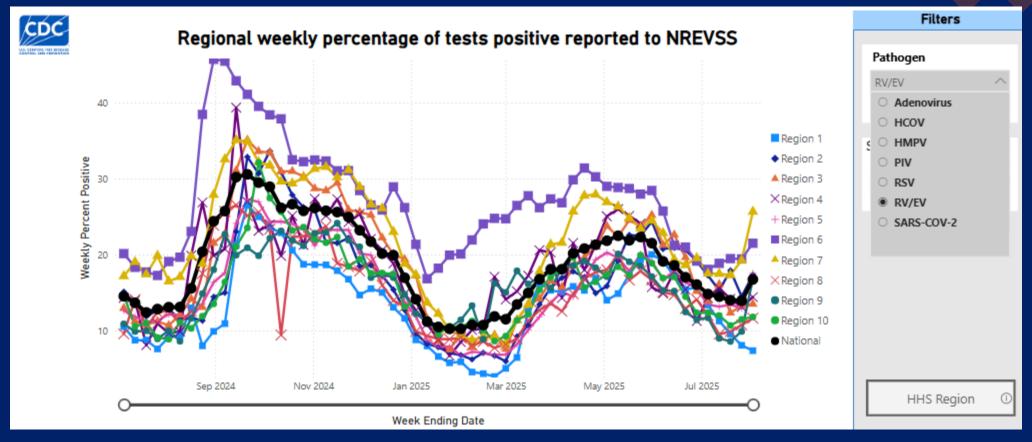




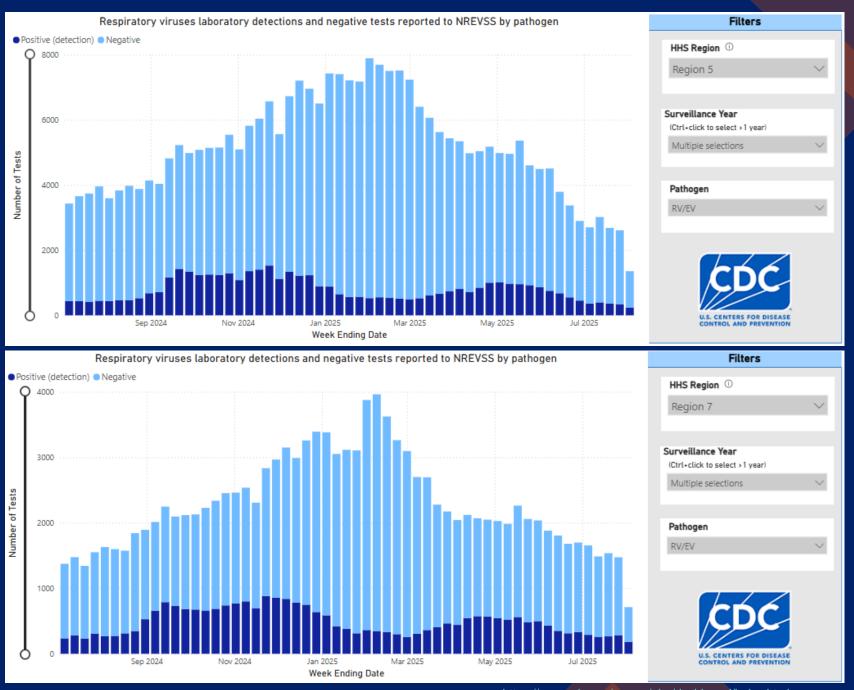








https://www.cdc.gov/nrevss/php/dashboard/index.html



NREVSS Enteric Dashboard

- All data graphs are updated weekly
- Data are presented by Census Regions
- Uses a centered 3-week moving average
 - Each percentage on the graph displays the average percent of tests that were positive from three adjacent weeks: the specified week and weeks preceding and following it.
- Data are based on the number of laboratory tests performed, not the number of people tested.

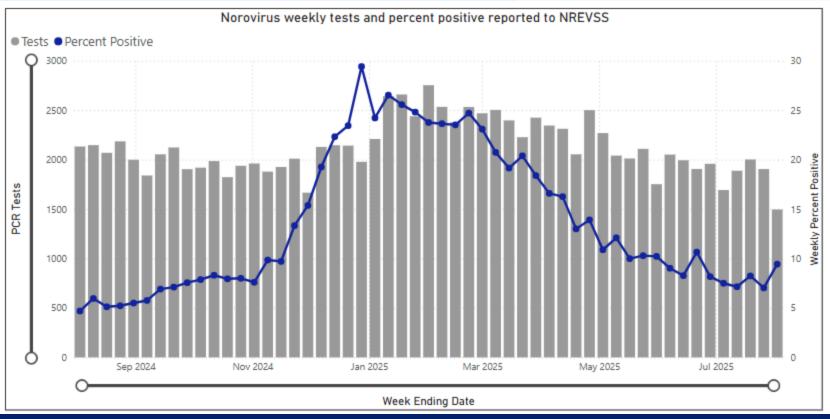


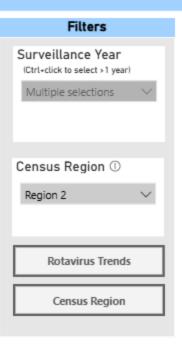


NREVSS Dashboard Enteric

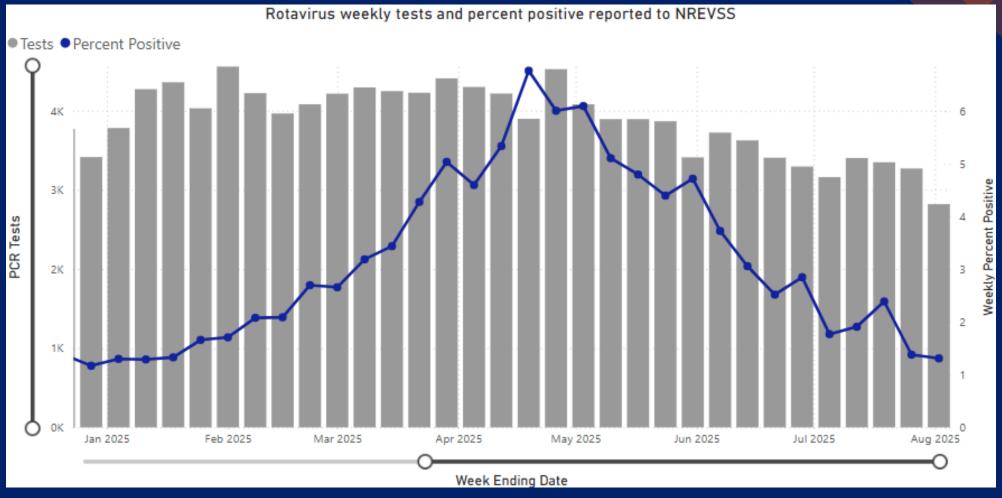
Return to NREVSS Dashboard Respiratory







https://www.cdc.gov/nrevss/php/dashboard/index.html



Key Surveillance Reports

- CDC also publishes periodic summaries and alerts based on NREVSS data in CDC's Morbidity and Mortality Weekly Report and other peer-reviewed journals
- See the key surveillance reports referenced on the NREVSS Interactive Dashboard:
 - CDC. Surveillance of Human Adenovirus Types and the Impact of the COVID-19 Pandemic on Reporting — United States, 2017–2023. MMWR 2024; 73:1136–1141.
 - Coronaviruses, Including MERS-CoV and SARS-CoV-1.
 Published online April 25, 2024:332-334.



Registration

- NREVSS registration forms are available online at https://www.cdc.gov/nrevss/php/participating-labs/index.html
 - Clinical laboratory registration
 - County department of health registration
 - State department of health registration
- Once registered, facilities will be assigned an account number and password to the NREVSS ODSS website

Pass Through Reporting in Missouri

- State health departments can report data on behalf of laboratories within their jurisdiction or network
- Helps laboratories that distribute their data to several different partners streamline their reports to external agencies
- The Missouri Department of Health & Senior Services will facilitate pass through reporting for Missouri labs that are interested—just contact me (<u>Jessica.Goswitz@health.mo.gov</u>)

Pass Through Reporting Enrollment (Missouri)

- Provide facility name, contact (name, email, phone number), and mailing address
- Provide an electronic copy of the facility's approval statement:

I, [Contact], [Contact Title], have reviewed the request, submitted [Today's Date] to grant [State Department of Health] permission to report diagnostic specimen results tested at [Facility name] on behalf of the laboratory staff of [Facility Name] to the CDC's National Respiratory and Enteric Virus Surveillance System, and approve [State Department of Health] to release laboratory level data to the CDC's National Respiratory and Enteric Virus Surveillance System.

NREVSS Sign Up in Illinois

 For those in Illinois that are interested in signing up for NREVSS, complete the Illinois Department of Health (IDPH) Respiratory Sentinel Surveillance Provider Sign-Up Form available at

https://redcap.dph.illinois.gov/surveys/?s=9PADXW7WLWFYLTCX

 Reach out to the IDPH Respiratory Team at <u>DPH.Respiratory@Illinois.gov</u> with any questions



NREVSS

- Plays an important role in describing the temporal and geographic circulation patterns of respiratory and enteric viruses—including monitoring changes in the typical annual circulation patterns and identifying viral outbreaks
- A relatively simple and practical surveillance system, gathering vital information that informs CDC's activities that treat, prevent, and control respiratory and enteric viral diseases





QUESTIONS?

- <u>nrevss@cdc.gov</u>
- https://www.cdc.gov/nrevss/php/dashboard/index.html



THANK YOU!