



Centers for Disease Control and Prevention



COVID-19 and RSV Impact and Integrated Surveillance

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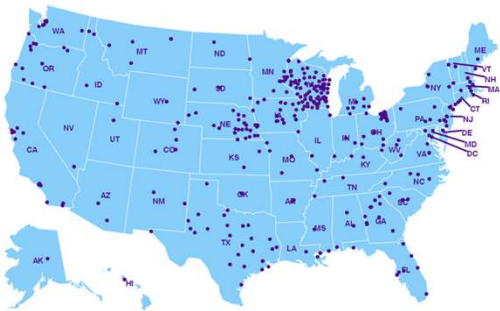


National Respiratory and Enteric Virus Surveillance System (NREVSS)

Laboratory Surveillance (Respiratory Virus Activity)

National Respiratory and Enteric Virus Surveillance System

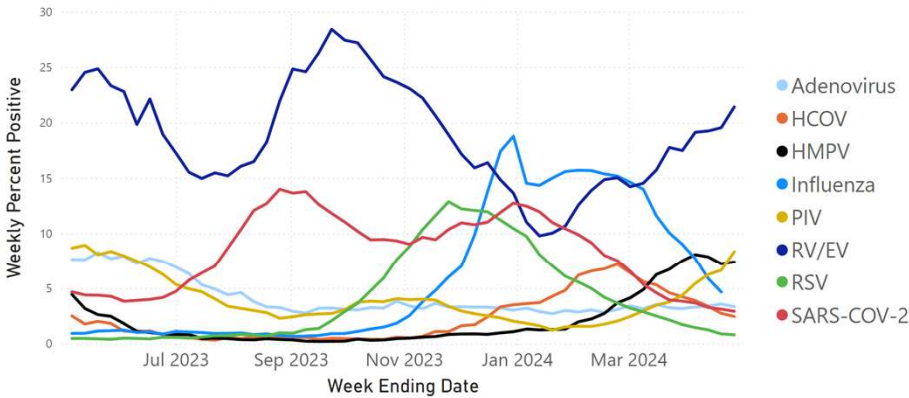
- Passive, laboratory-based surveillance system developed in the early 1980s
- ~600 participating laboratories report tests
- Monitors real-time circulation and trends in seasonality of respiratory and enteric viruses
- Data sources:
 - State and local public health laboratories
 - Commercial labs, hospitals, universities
- Diagnostic Method Categories:
 - Antigen
 - Virus isolation
 - PCR
- Weekly reporting of total tested and # positive



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

National Respiratory and Enteric Virus Surveillance System | CDC

National weekly respiratory viruses percent positive, including influenza virus, NREVSS, April 29, 2023, through April 27, 2024



Reported was last updated on May 1, 2024.

All results presented from nucleic acid amplification tests which represent >90% of the diagnostic tests reported to NREVSS. The last three weeks of data may be less complete. NREVSS is an abbreviation for the National Respiratory and Enteric Virus Surveillance System.

For more information on NREVSS, please visit www.cdc.gov/surveillance/nrevss.

SARS-COV-2: Severe acute respiratory syndrome coronavirus type 2

Flu: Influenza viruses types are combined but reported by type and subtype depending on the testing capabilities of each contributing laboratory. Reports updated to week ending April 20, 2024

RSV: Respiratory Syncytial Virus. Types A and B are reported but not shown separately in this report.

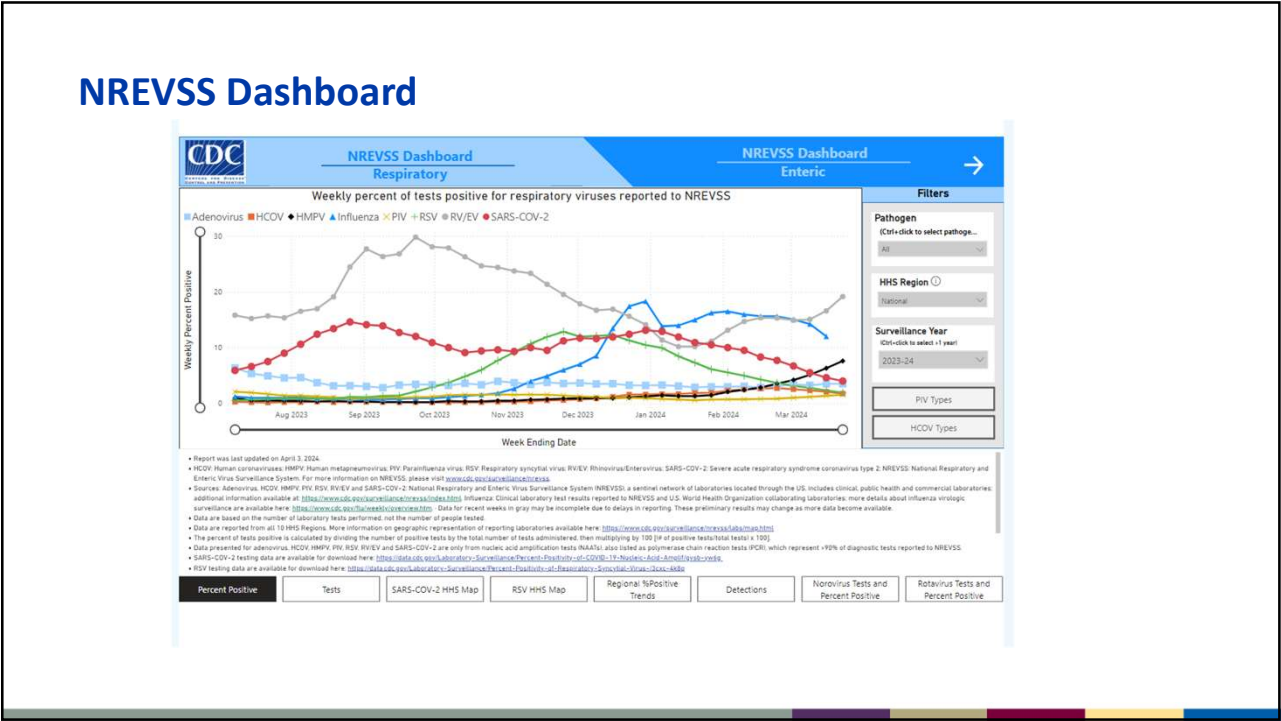
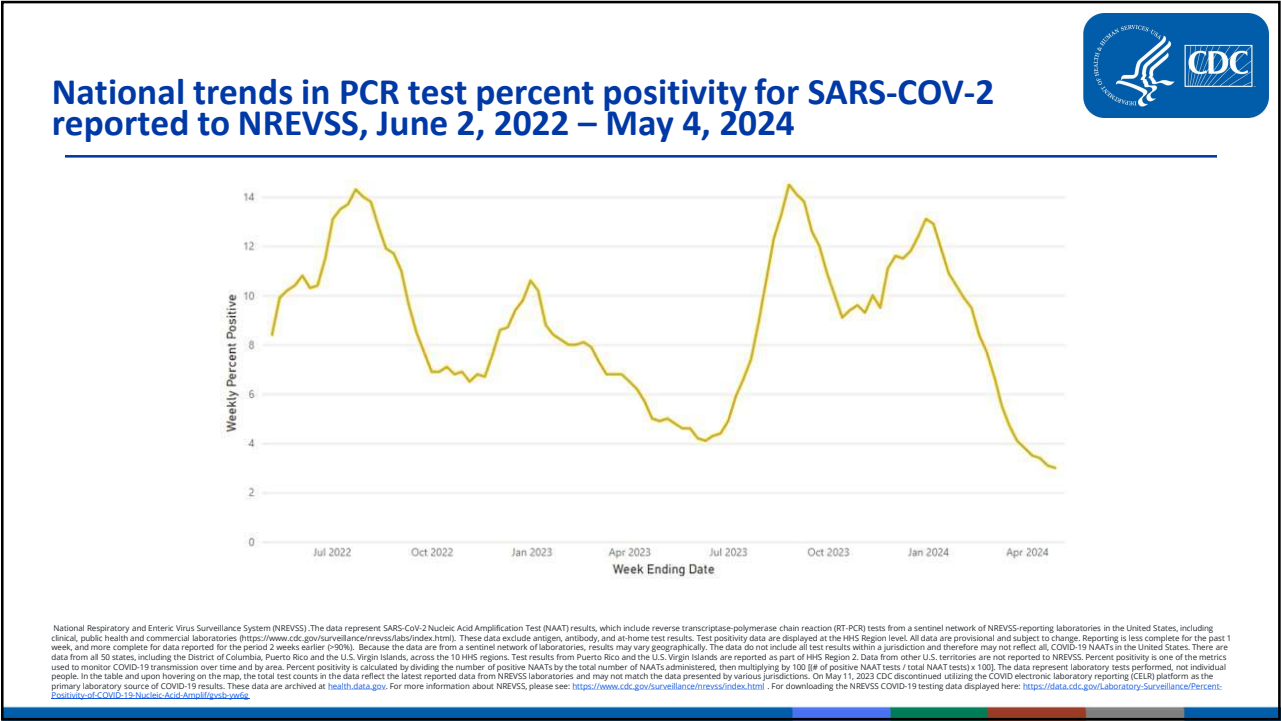
RV/EV: Rhinovirus or Enterovirus. These results are generally clinically indistinguishable and reported in a combined category via NREVSS.

PIV: Parainfluenza viruses types 1 through 4 are combined for this visual. However, laboratories report these data individually.

HCOV: Human coronaviruses types HKU1, OC43, 229E and NL63 are combined for this visual. However, laboratories report these data individually.

Adenovirus: All adenovirus detections reported to NREVSS from respiratory specimen results (for example, nasal pharyngeal swabs). There are over 100 adenovirus types. Most commercial laboratory test do not distinguish type without further identification

HMPV: Human metapneumovirus types A and B are not reported separately from NREVSS





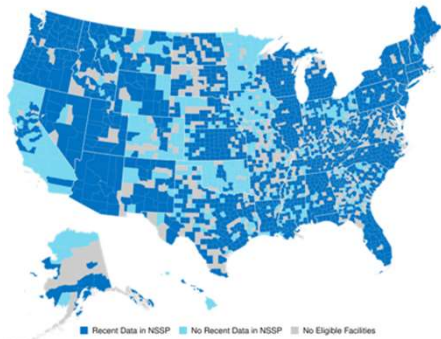
National Syndromic Surveillance Program (NSSP)

Emergency Department Visits

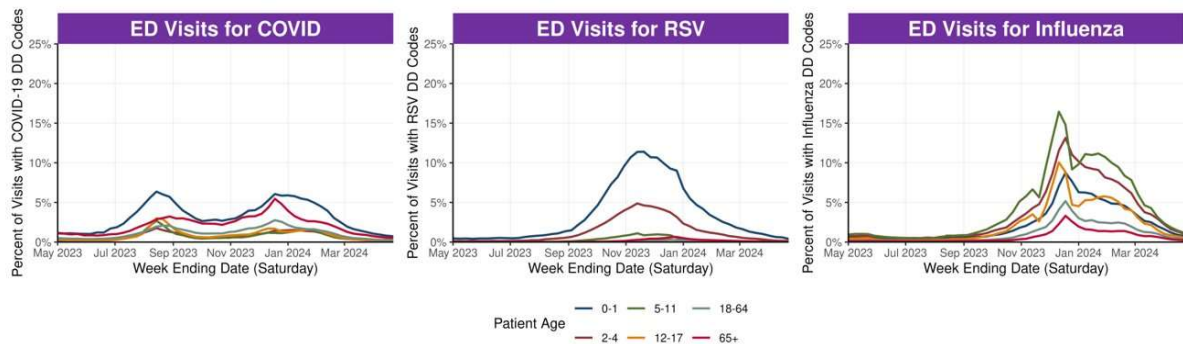
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National Syndromic Surveillance Program (NSSP)

- >6,000 healthcare facilities covering 49 states and DC
 - >90% of ED in US participating
- Objective:
 - Near-real time influenza-like illness, COVID-19-like illness and inpatient status
- Data Source:
 - 6 million EHR messages, including chief complaint, diagnosis codes, patient demographics



National Weekly Percentage of U.S. Emergency Department (ED) Visits with Respiratory Illness Discharge Diagnosis Codes by Age Group, May 7, 2023 – May 4, 2024



Data Source: Discharge diagnosis (DD) codes from ED visits, National Syndromic Surveillance Program (NSSP). Fewer than 50% of facilities in CA, HI, IA, MN, OK, and OH report to NSSP. Limited to facilities that have consistently reported high-quality visit data over the entire period as emergency departments that consistently reported ≤ 40 in visit counts and discharge diagnoses averaging $\geq 75\%$ completed per week over the past year. Additional details on inclusion criterion and specific diagnostic codes included for the definitions are listed in the Companion Guide for NSSP here: <https://www.cdc.gov/ncird/surveillance/respiratory-illnesses/index.html#companion-guide>

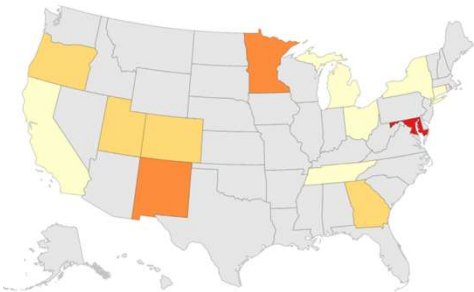


Respiratory Virus Hospitalization Surveillance Network (RESP-NET)

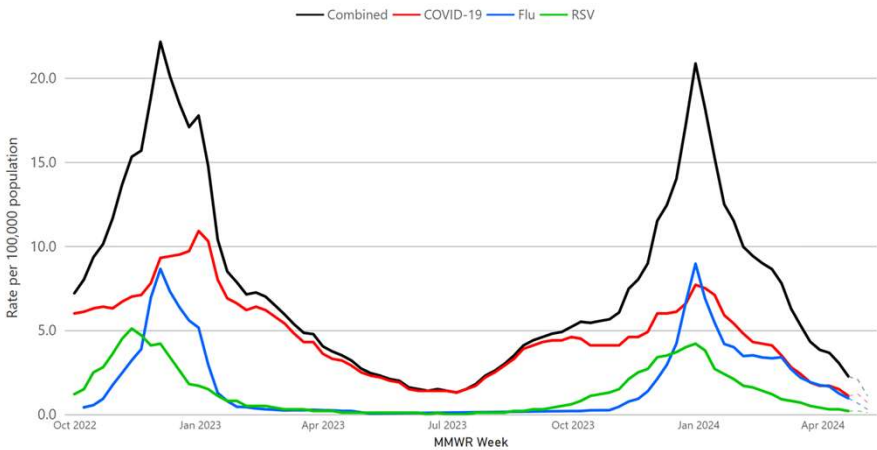
Hospitalization Rates

Respiratory Virus Hospitalization Surveillance Network (RESP-NET)

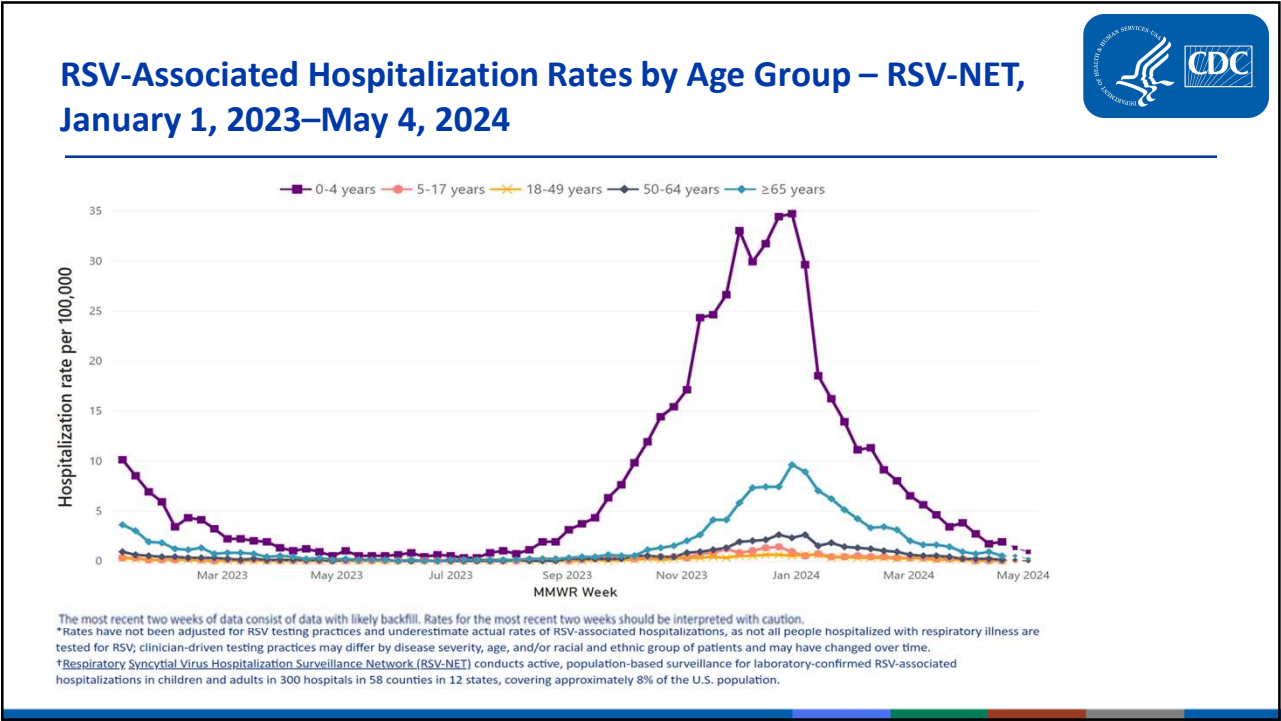
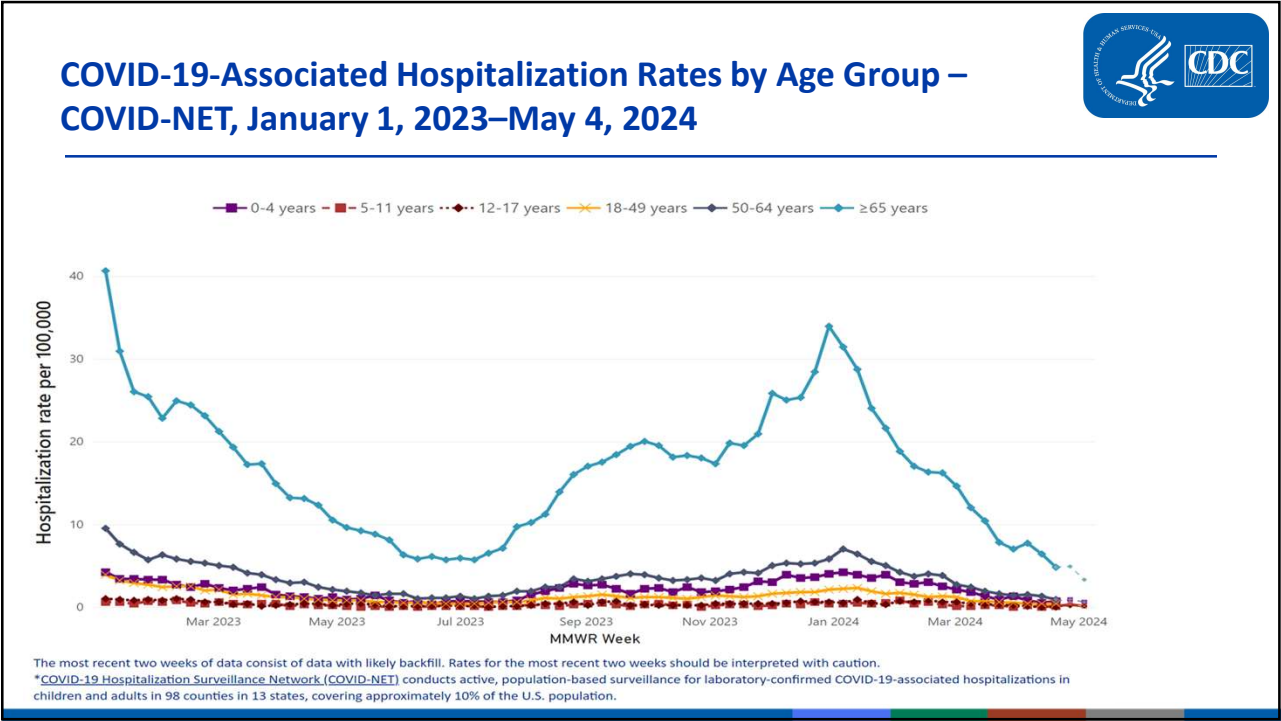
- Active, population-based surveillance network of acute care hospitals in select counties or county equivalents in 12 states for RSV surveillance, 13 states for COVID-19 surveillance, and 14 states for influenza surveillance (8-10% of the U.S. population.)
- Surveillance for laboratory-confirmed hospitalizations (within 14 days before or during hospitalization) among residents of the catchment area.



Overall Rates of Hospitalizations associated with COVID-19, Influenza, and RSV — RESP-NET, October 2022–May 4, 2024



The dashed lines indicate weeks of data with likely backfill. Rates for the most recent two weeks should be interpreted with caution.
*Respiratory Virus Hospitalization Surveillance Network (RESP-NET) comprises three networks that conduct population-based surveillance for laboratory-confirmed hospitalizations associated with COVID-19, respiratory syncytial virus (RSV), and influenza among children and adults.

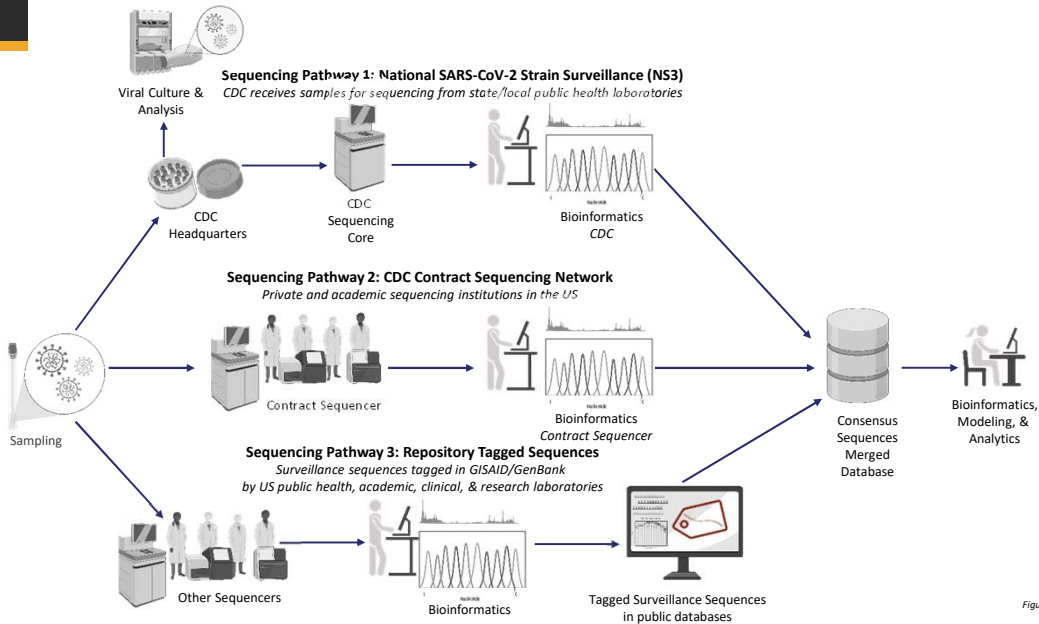


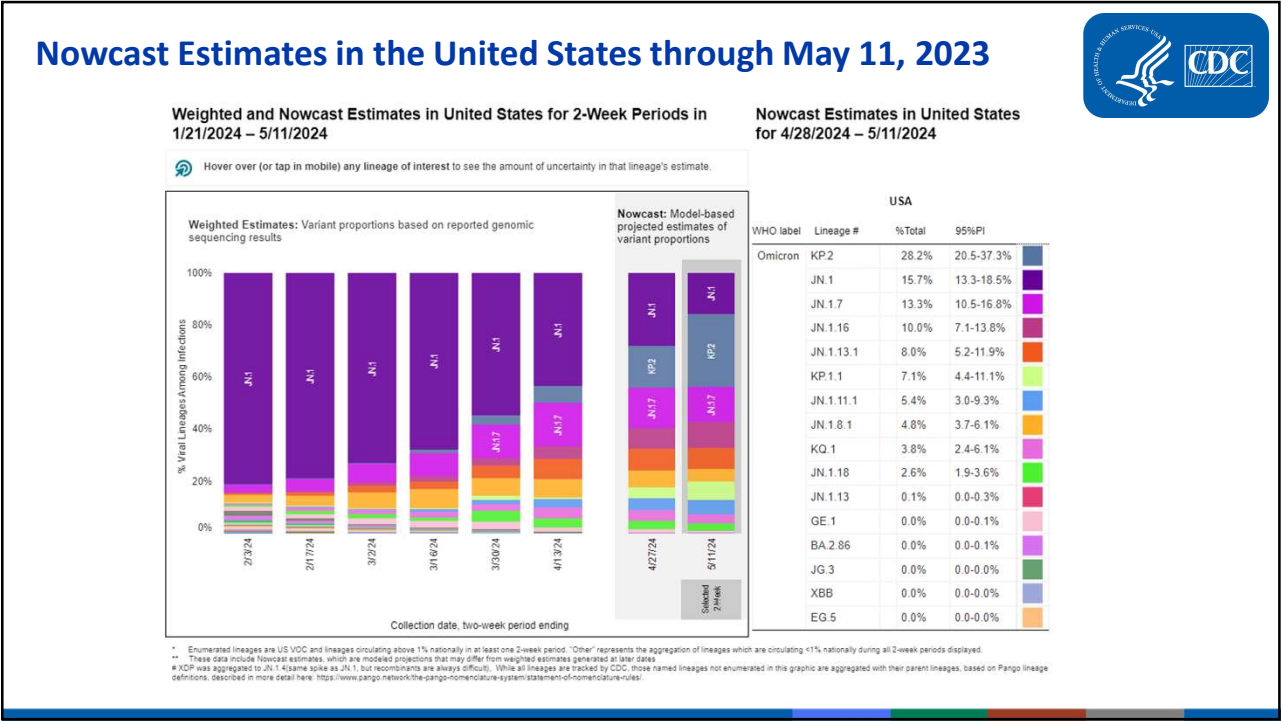


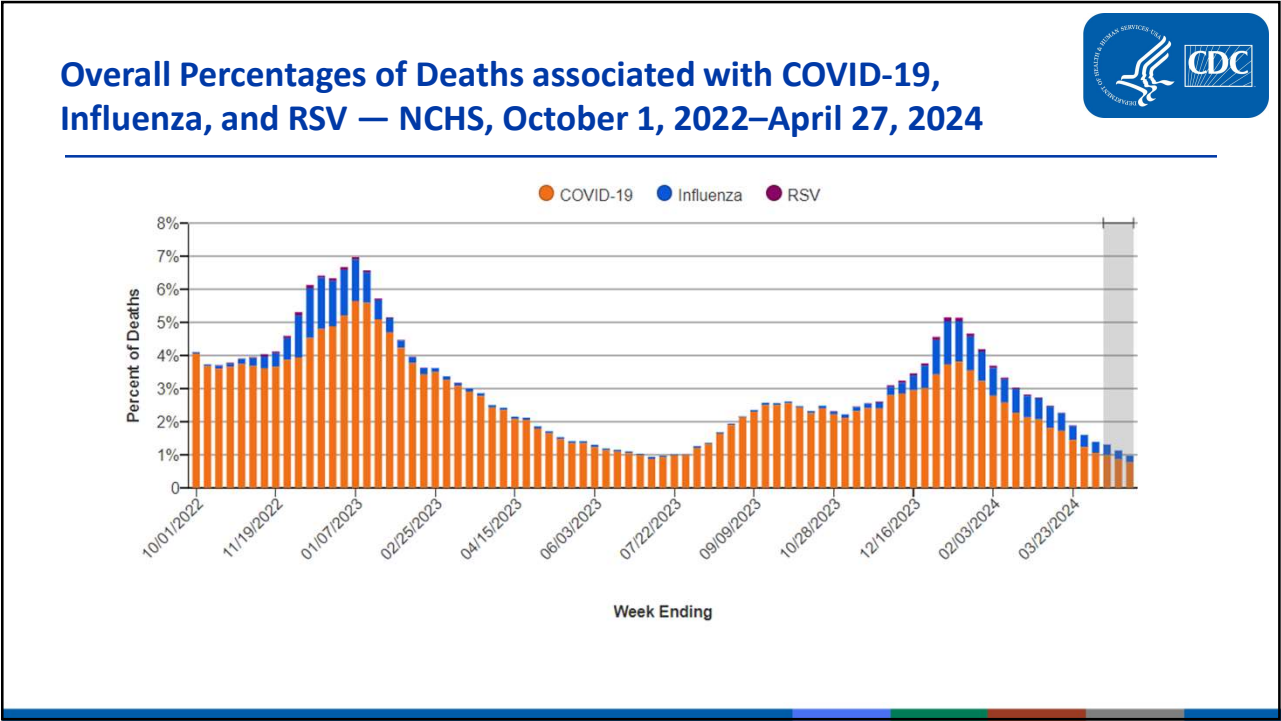
Nowcast

Genomic Surveillance

National SARS-CoV-2 genomic surveillance system: data workflow







Questions?

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For more information, contact CDC Emergency Operations Center
770-488-7100
www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.