

# Nebraska Influenza & Other Respiratory Disease Surveillance Report, 2023-24 Influenza Season, Week 02

(DATA THROUGH WEEK ENDING 1/13). All data are preliminary and may change as more reports are received.

## INFLUENZA WEEKLY SUMMARY

### INFLUENZA LABORATORY SURVEILLANCE

Positive Influenza A & B Tests, Percent Positive, and Change from Last Week

Week Ending Date	Influenza A Positives	Change from Last Week	Influenza B Positives	Change from Last Week	Overall Percent Positive	% Change from Last Week
1/13/24	451	▲ 17	214	▲ 17	14.2%	▲ 0.9%
<b>Grand Total</b>	<b>2,606</b>		<b>1,269</b>			

Cumulative Influenza Positive Tests by Subtype and Age Group

	0-4	5-17	18-24	25-49	50-64	65+	Season Total
<b>Flu A: H1</b>	60	43	11	60	45	83	<b>302</b>
<b>Flu A: H3</b>	13	11	11	26	8	23	<b>92</b>
<b>Flu B: Victoria</b>	*	8	*	*		*	<b>18</b>

### INFLUENZA-LIKE ILLNESS (ILI) OUTPATIENT SURVEILLANCE

Total ILI Visits Reported by the NE Outpatient ILI Surveillance Network (ILINet) and Change from Last Week

Week Ending Date	Total ILI Outpatient Visits	Change from Last Week
1/13/24	5	▼86
<b>Grand Total</b>	<b>944</b>	

### SCHOOL ABSENTEEISM SURVEILLANCE

Percent of Students Absent due to any Illness, Number of Classroom/School Closures due to Illness, and Change from Last Week

Week Ending Date	% Absent (any illness)	% Change from Last Week	Classrooms Closed	Change from Last Week	Schools Closed	Change from Last Week
1/20/24	1.6%	▼0.3%	0	0	0	0

### ILI EMERGENCY DEPARTMENT (ED) SURVEILLANCE

Total ILI ED Visits and Change from Last Week

Week Ending Date	Total ILI ED Visits	Change from Last Week
1/13/24	463	▼183
<b>Grand Total</b>	<b>6,218</b>	

### ILI HOSPITALIZATION SURVEILLANCE

Total ILI Hospital Admissions and Change from Last Week

Week Ending Date	Total ILI Hospital Admissions	Change from Last Week
1/13/24	255	▲5
<b>Grand Total</b>	<b>2,684</b>	

### LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

2 influenza-associated outbreaks have been reported for the surveillance season

### MORTALITY SURVEILLANCE

8 influenza-associated deaths have been reported for the surveillance season, including <6 pediatric deaths

National Influenza Summary: Please see <http://www.cdc.gov/flu/weekly/>

International Influenza Summary: Please see <https://www.who.int/teams/global-influenza-programme/surveillance-and-monitoring/influenza-updates>

For information on the prevention of influenza, please see: <http://www.cdc.gov/flu/protect/habits.htm>

## RESPIRATORY SYNCYTIAL VIRUS (RSV) WEEKLY SUMMARY

### RSV LABORATORY SURVEILLANCE

Positive RSV Tests, Percent Positive, and Change from Last Week

Week Ending Date	RSV Positives	Change from Last Week	Percent Positive	% Change from Last Week
1/13/24	452	▼61	14.2%	▼ 1.6%
<b>Grand Total</b>	<b>4,934</b>			

RSV Percent Positive by Test Type and Percent Change from Last Week

	PCR	Antigen
1/13/24	13.5% ▼2.1%	21.7% ▲2.2%

### LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

7 RSV-associated outbreaks have been reported for the surveillance season

### MORTALITY SURVEILLANCE

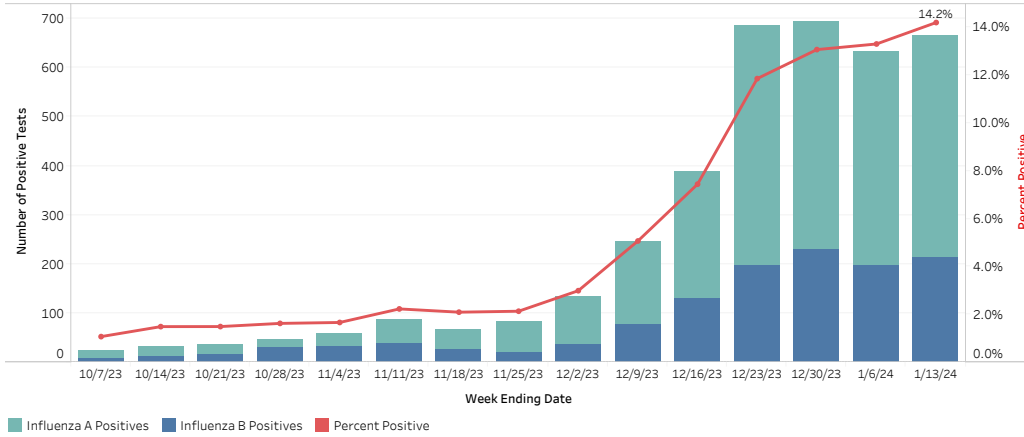
6 RSV-associated deaths have been reported for the surveillance season

# Influenza Surveillance Data, Week 02 (Week Ending 1/13)

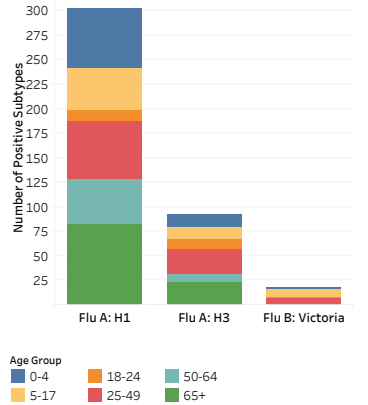
(All data are preliminary and may change as more reports are received.)

## INFLUENZA LABORATORY SURVEILLANCE

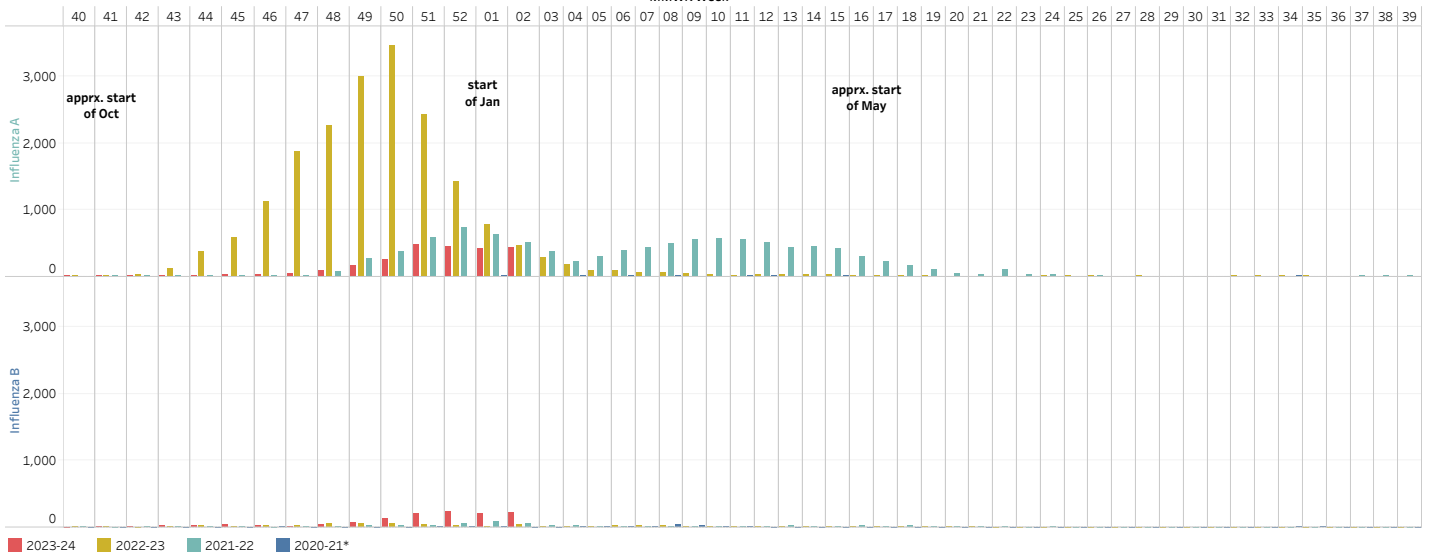
Number of Influenza A & B Positive Tests and Percent Positive, by Week Ending Date, 2023-24



Cumulative Influenza Positives by Subtype and Age Group, 2023-24

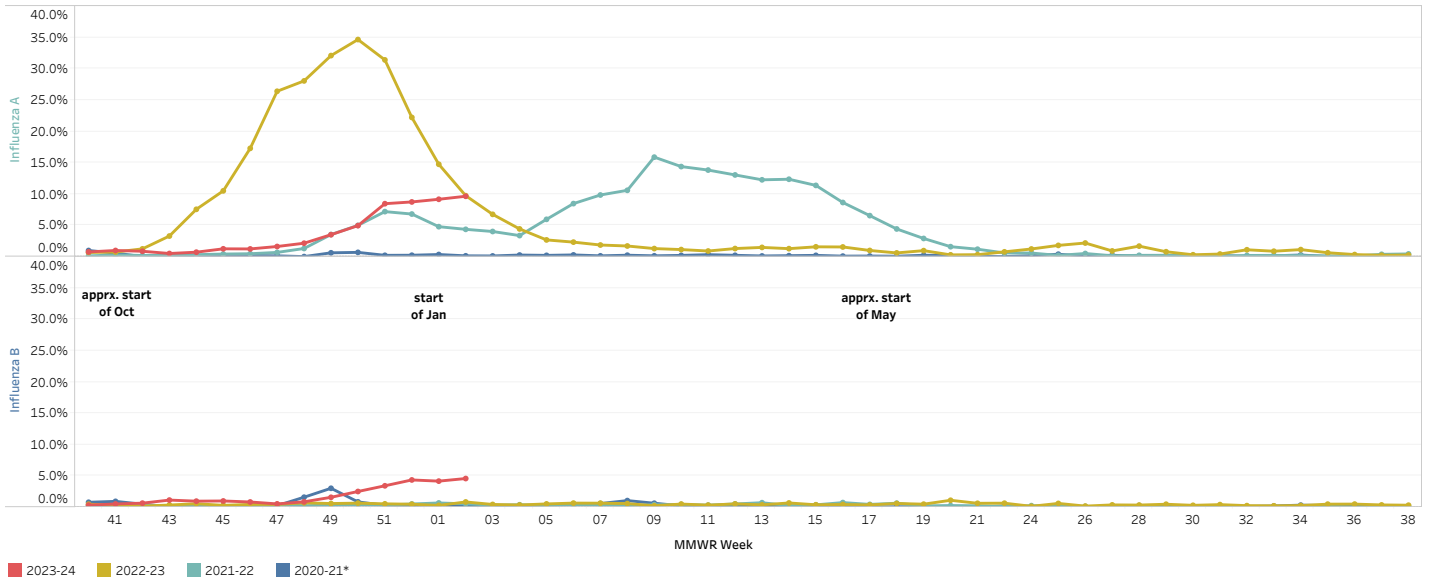


Number of Influenza A & B Positive Tests, by MMWR Week, 2020-2024



\*The 2020 - 2021 influenza season was unusually low due much in part to the ongoing COVID-19 pandemic. As such, numbers for that season are substantially different than previous seasons and should be considered an anomaly.

Influenza A & B Percent Positive, by MMWR Week, 2020-2024

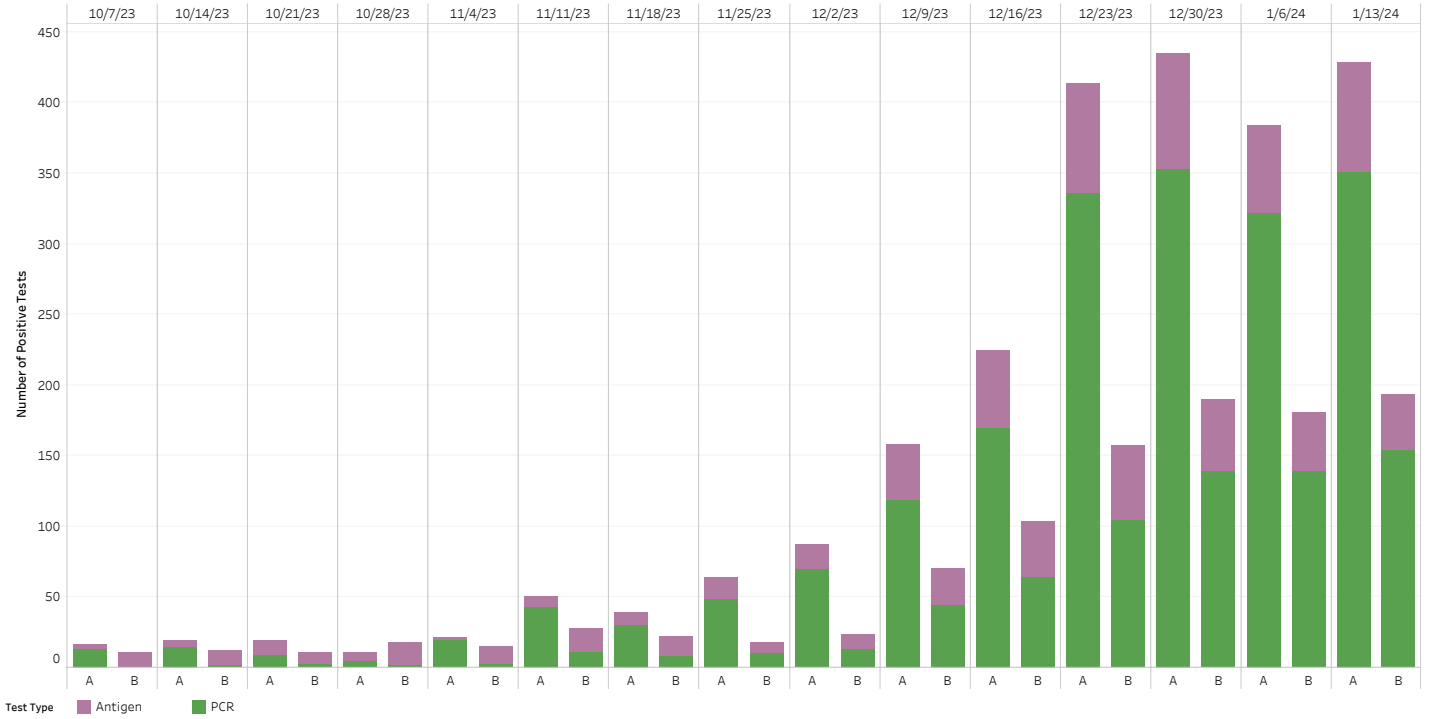


# Influenza Surveillance Data, Week 02 (Week Ending 1/13)

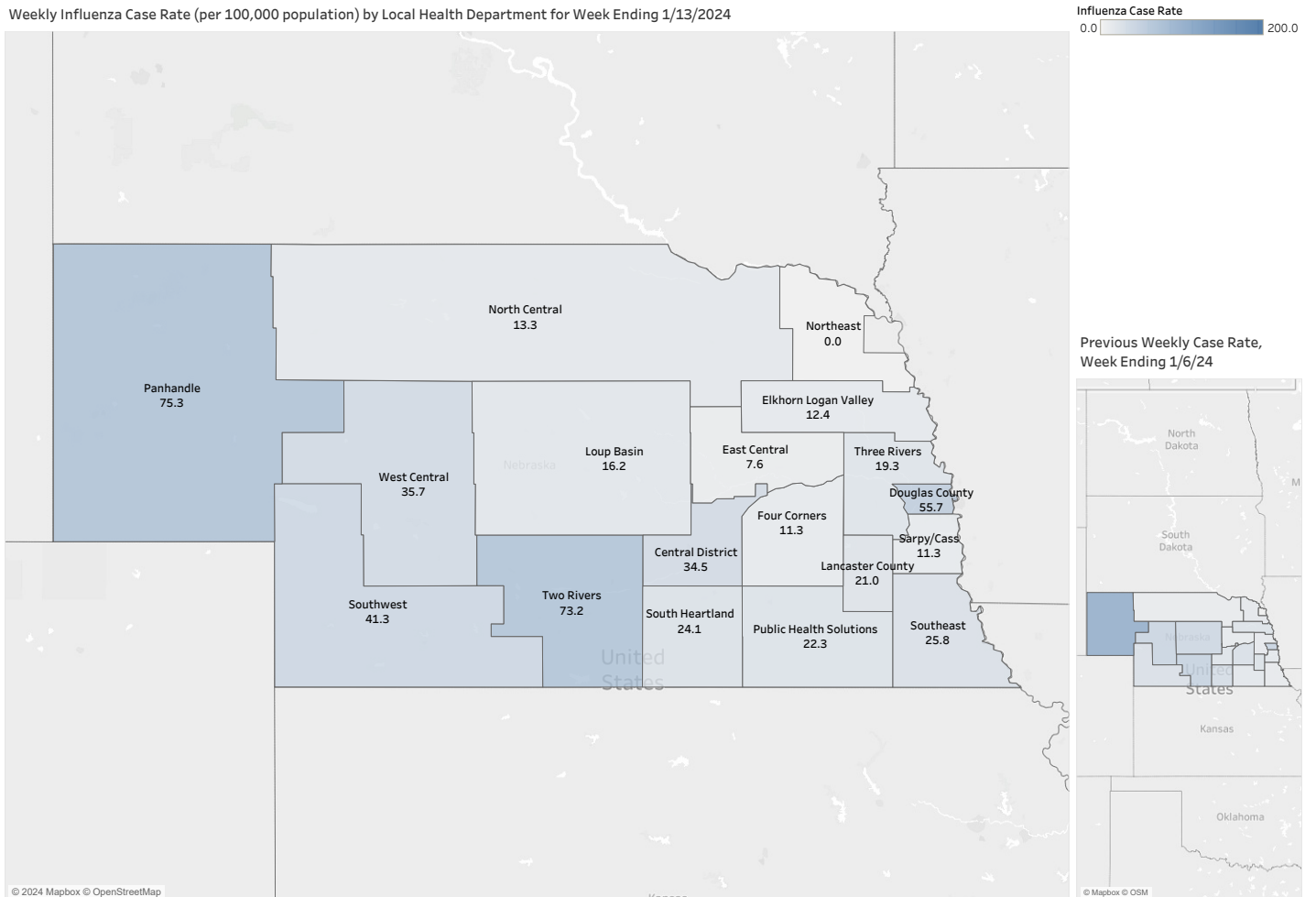
(All data are preliminary and may change as more reports are received.)

## INFLUENZA LABORATORY SURVEILLANCE, CONTINUED

Influenza A & B Positives by Test Type, by Week Ending Date, 2023-24



Weekly Influenza Case Rate (per 100,000 population) by Local Health Department for Week Ending 1/13/2024

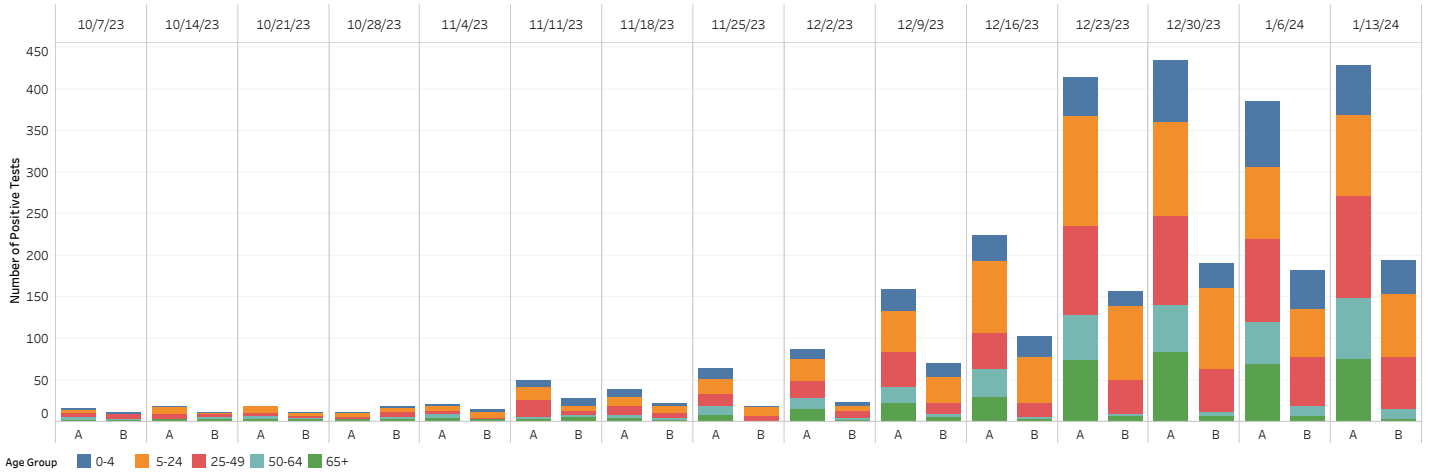


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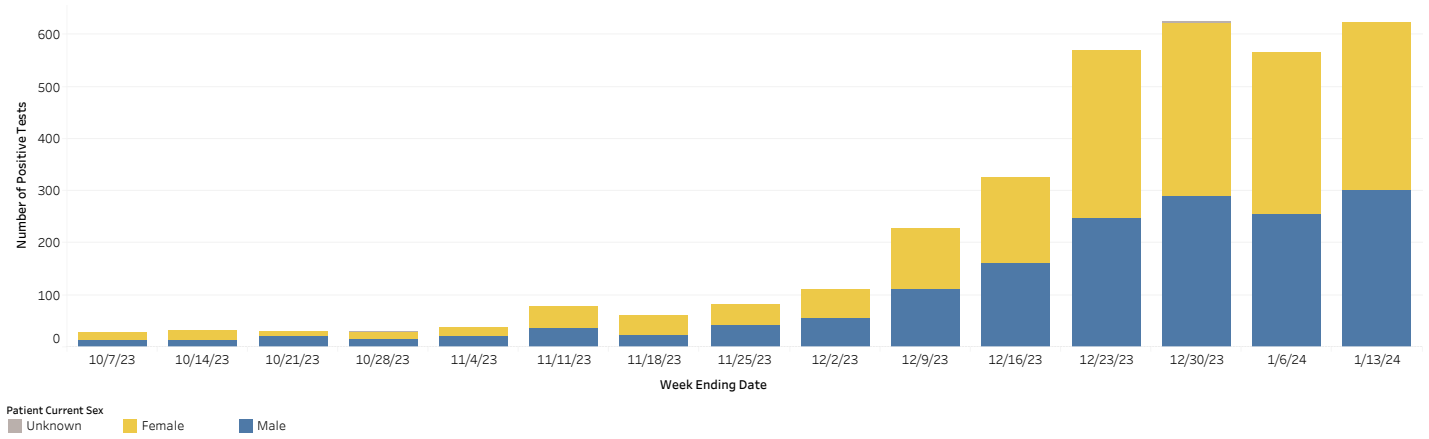
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## INFLUENZA LABORATORY SURVEILLANCE DEMOGRAPHICS

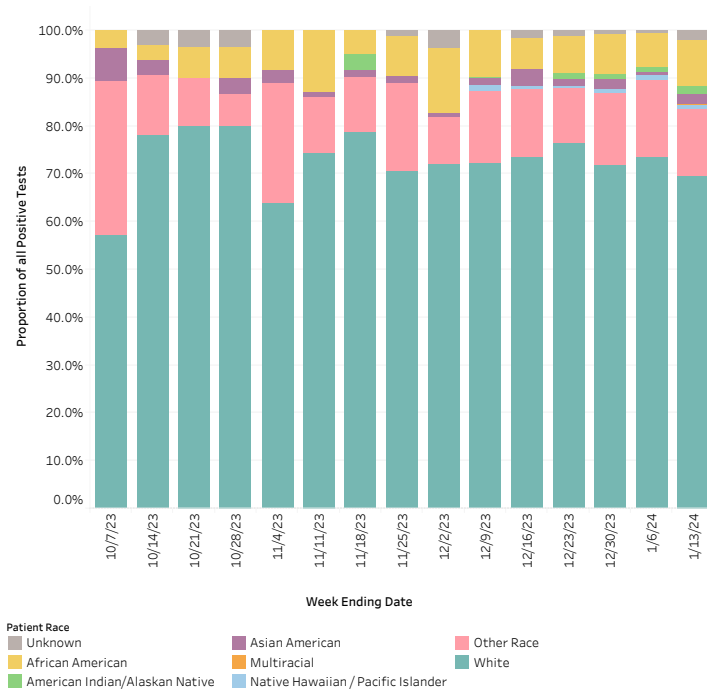
Influenza A & B Positives, by Age Group, by Week Ending Date, 2023-24



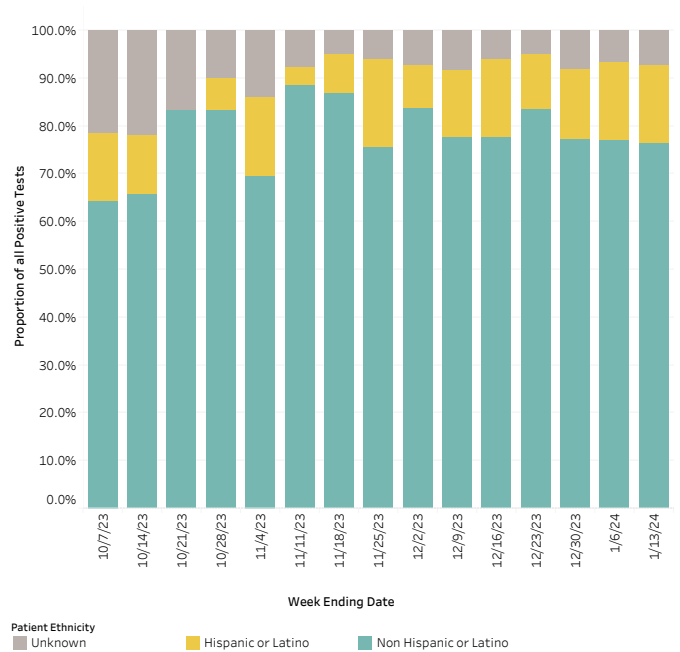
Influenza Positives by Patient Current Sex by Week Ending Date, 2023-24



Proportion of Influenza Positives by Patient Race, by Week Ending Date, 2023-24



Proportion of Influenza Positives by Patient Ethnicity, by Week Ending Date, 2023-24

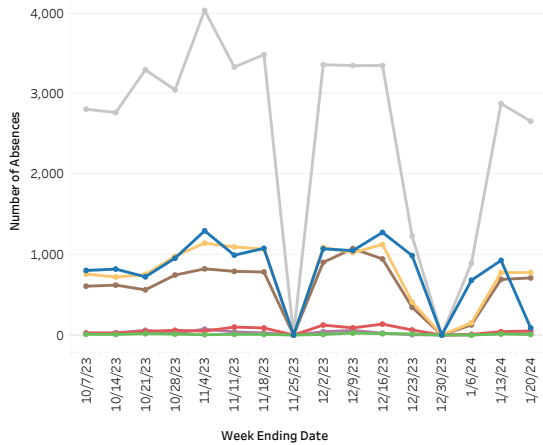


# Influenza Surveillance Data, Week 02 (Week Ending 1/13)

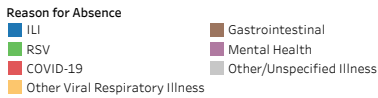
(All data are preliminary and may change as more reports are received.)

## SCHOOL ABSENTEEISM SURVEILLANCE

Student Absences due to Illness, by Week Ending Date, 2023-24



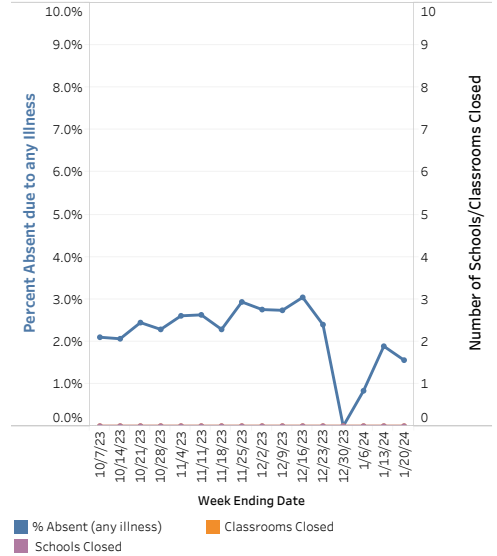
\*Low reporting on the following weeks due to holidays/breaks: week ending 11/25, 12/23, 12/30, 1/6



Absenteeism Surveillance System Reporting Record over past 5 Weeks, 2023-24 (N=1,302 schools)

Week Ending Date	New Reporters Enrolled	Number of Reports	Percent of Enrolled Reporting	Total Enrolled Reporters
12/23	2	497	49.4%	1,007
12/30	0	0	0.0%	1,007
1/6	0	708	70.3%	1,007
1/13	0	849	84.3%	1,007
1/20	0	836	83.0%	1,007

Percentage of Students Absent due to any Illness and Number of Schools Closed due to Illness, by Week Ending Date, 2023-24

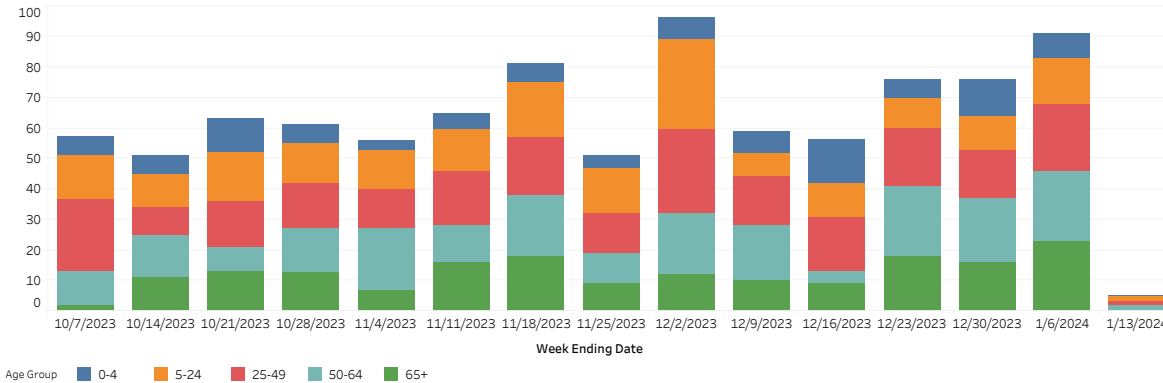


## LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

2 influenza-associated outbreaks have been reported for the surveillance season

## INFLUENZA-LIKE ILLNESS (ILI) OUTPATIENT SURVEILLANCE

Number of ILI Visits Reported by the Nebraska Outpatient ILI Surveillance Network (ILINet), by Week Ending Date, 2023-24

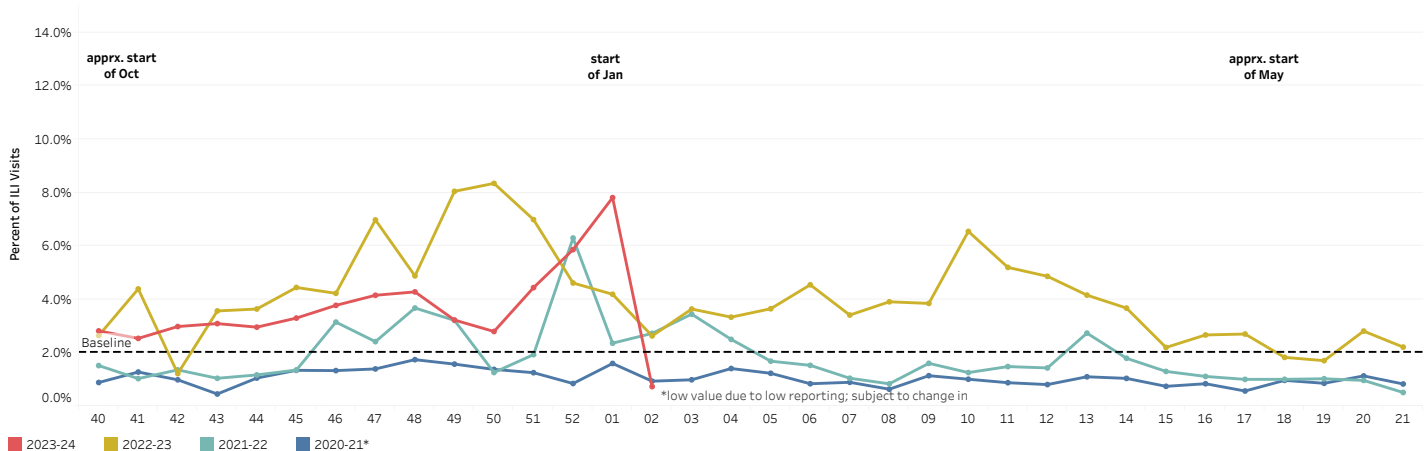


Age Group: 0-4, 5-24, 25-49, 50-64, 65+

ILINet Sentinel Provider Reporting Record over the past 5 Weeks, 2023-24 (N=14, as of week ending 1/13)

Week Ending Date	Number of Reports
12/16/23	12
12/23/23	11
12/30/23	10
1/6/24	8
1/13/24	6

Percentage of ILI Visits Reported by the Nebraska Outpatient ILI Surveillance Network (ILINet), by MMWR Week, 2020-2024

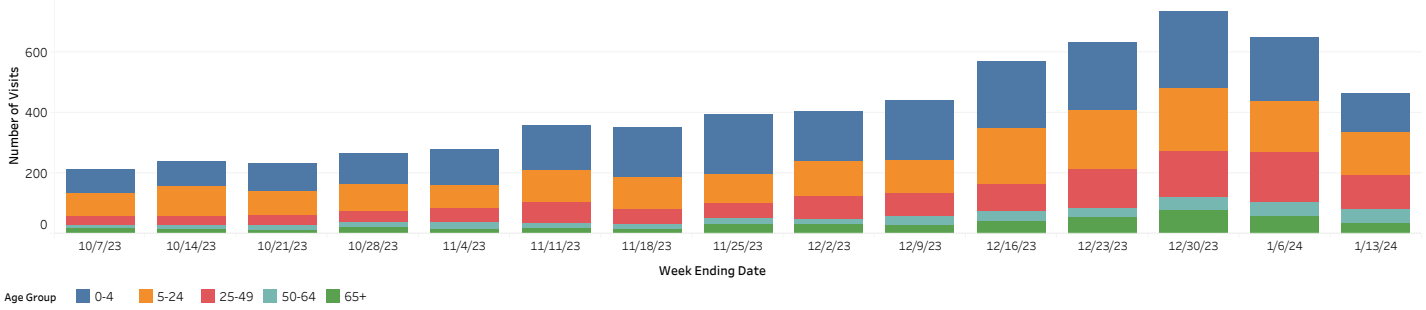


# Influenza Surveillance Data, Week 02 (Week Ending 1/13)

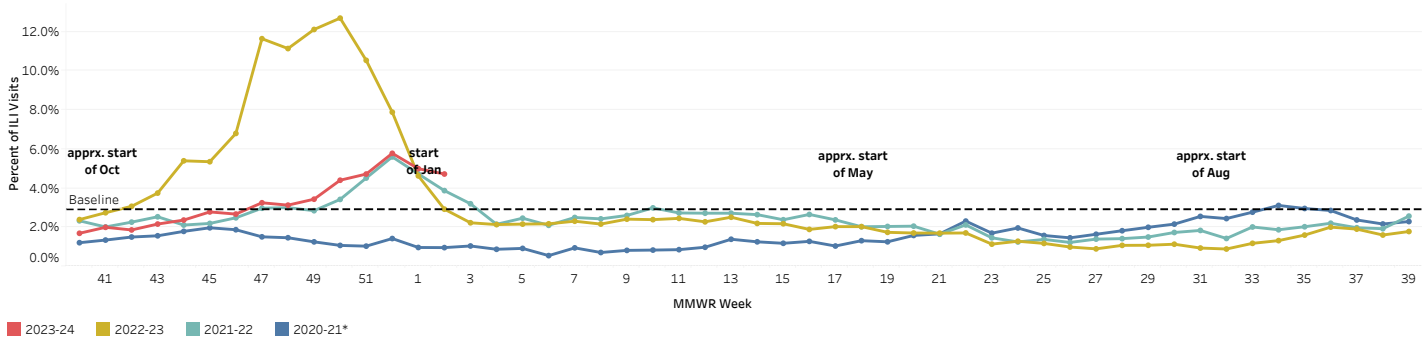
(All data are preliminary and may change as more reports are received.)

## INFLUENZA-LIKE ILLNESS (ILI) EMERGENCY DEPARTMENT (ED) SURVEILLANCE

Number of ILI Emergency Department (ED) Visits by Age Group, by Week Ending Date, 2023-24

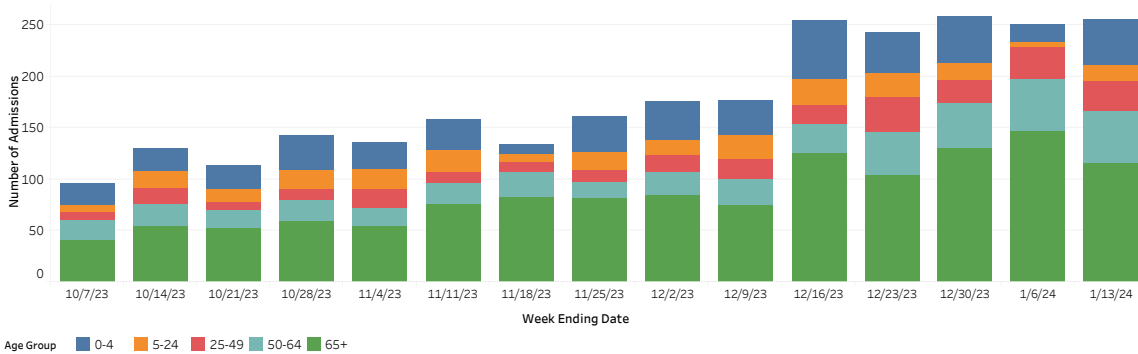


Percentage of ILI Emergency Department Visits among all ED Visits by MMWR Week, 2020-2024



## INFLUENZA-LIKE ILLNESS (ILI) HOSPITALIZATION SURVEILLANCE

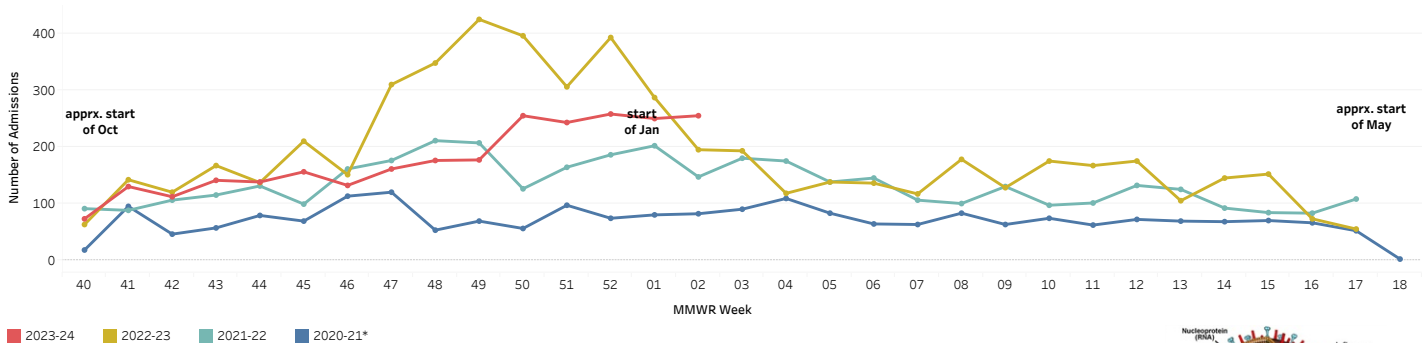
Number of ILI Hospital Admissions by Age Group, by Week Ending Date, 2023-24



ILI Hospital Reporting Record over the last 5 Weeks, 2023-24 (N=88 Hospitals)

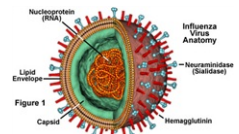
Week Ending Date	Number of Hospitals Reporting	Percent of Hospitals Reporting
12/16/23	69	78.4%
12/23/23	68	77.3%
12/30/23	65	73.9%
1/6/24	62	70.5%
1/13/24	54	61.4%

Number of ILI Admissions by MMWR Week, 2020-2024



## MORTALITY SURVEILLANCE

8 influenza-associated deaths have been reported for the surveillance season, including <6 pediatric deaths  
Median Age: 58 years

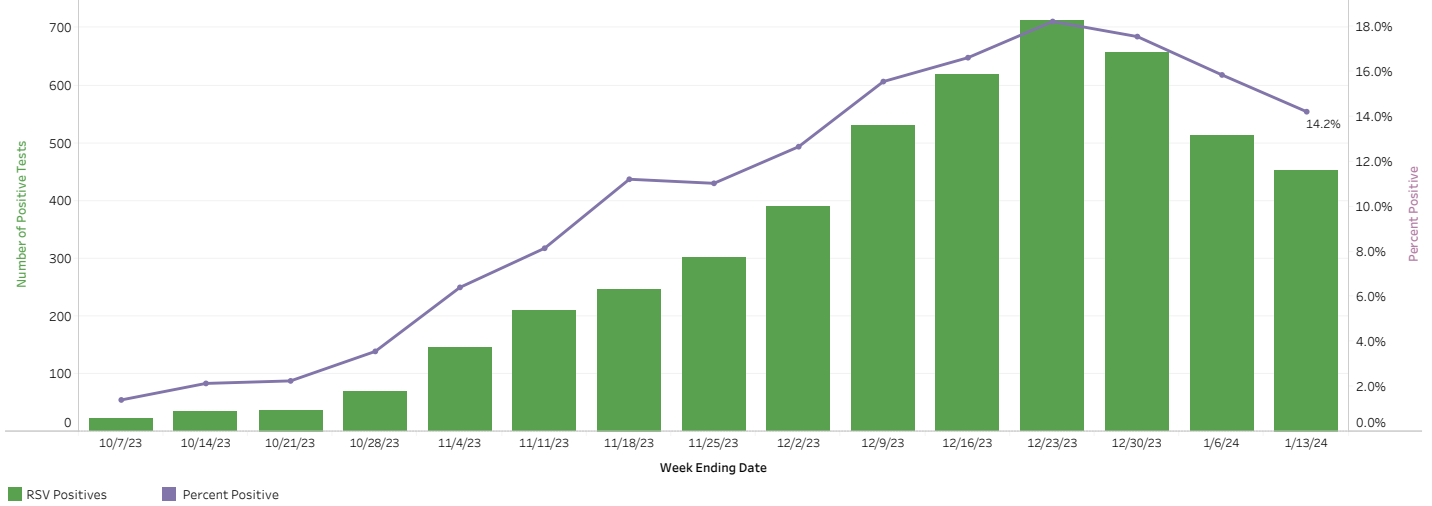


# RSV Surveillance Data, Week 02 (Week Ending 1/13)

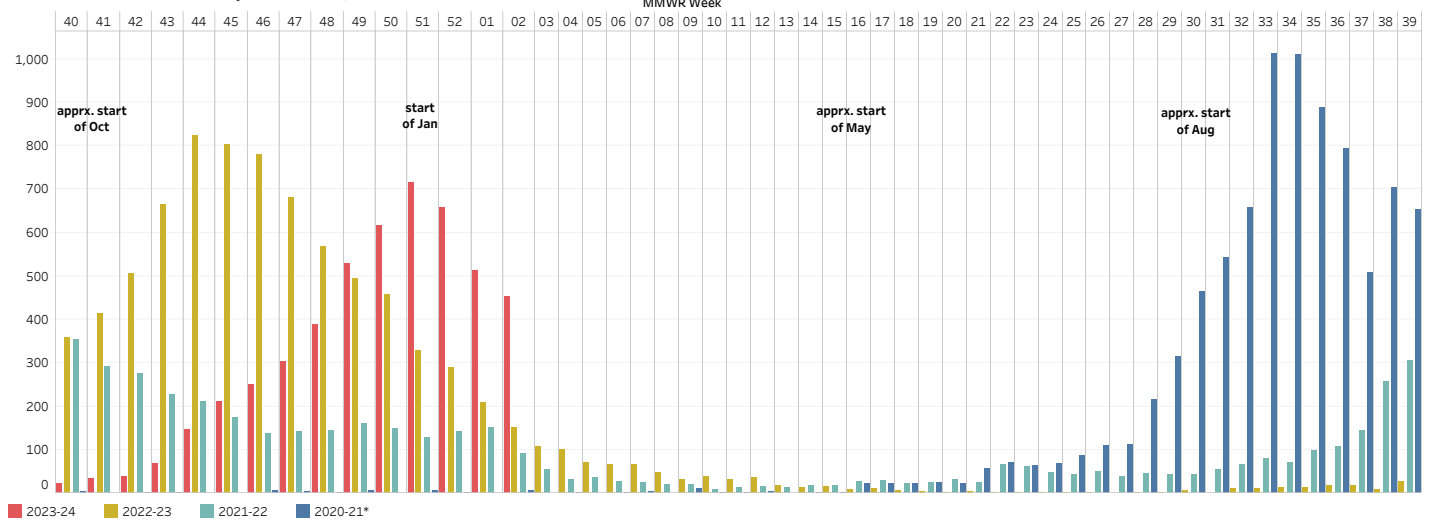
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## RESPIRATORY SYNCYTIAL VIRUS (RSV) LABORATORY SURVEILLANCE

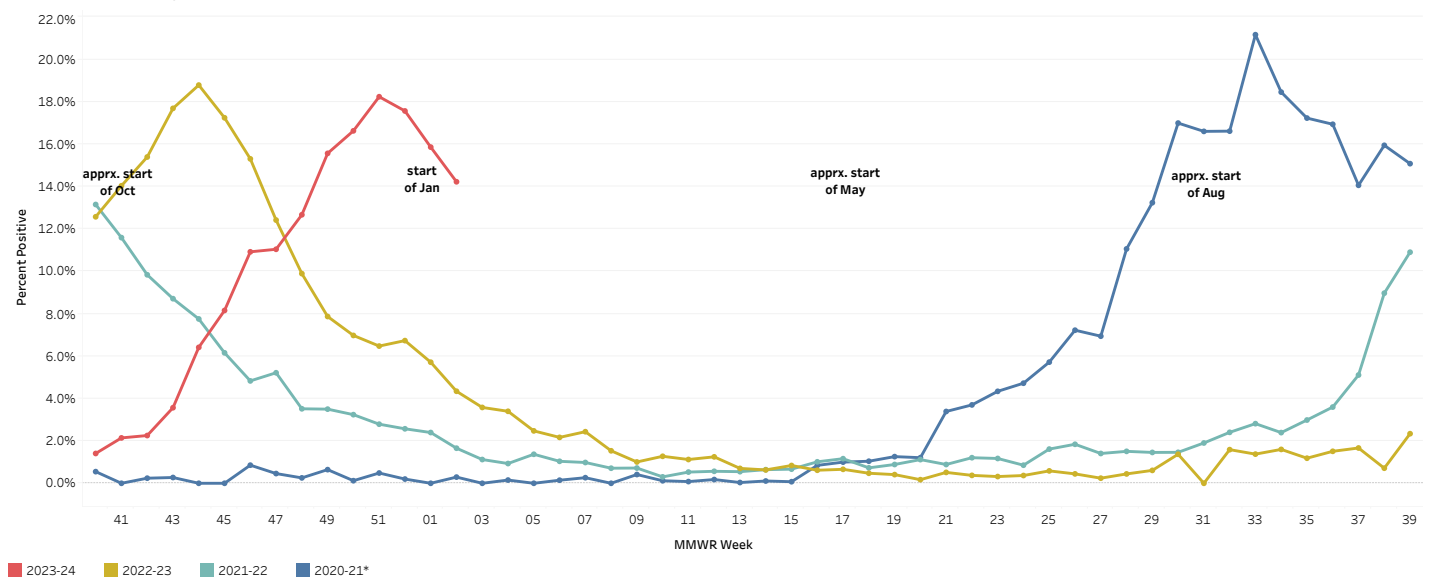
Number of Positive RSV Tests and Percent Positive by Week Ending Date, 2023-24



Number of Positive RSV Tests by MMWR Week, 2020-2024



RSV Percent Positive by MMWR Week, 2020-2024

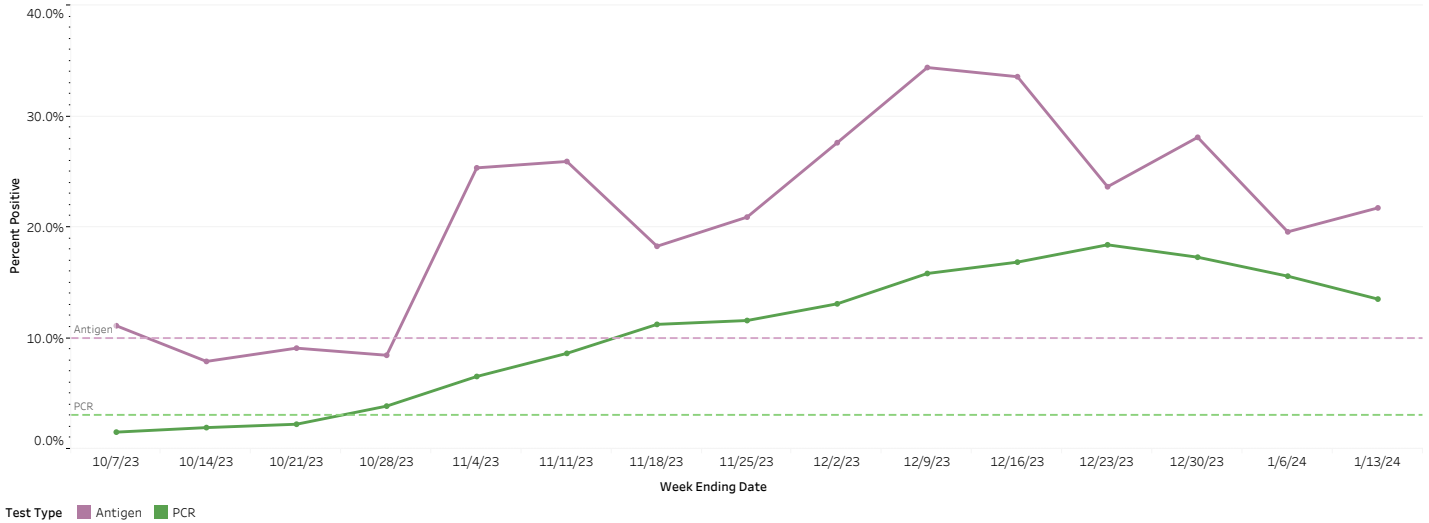


# RSV Surveillance Data, Week 02 (Week Ending 1/13)

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## RSV LABORATORY SURVEILLANCE, CONTINUED

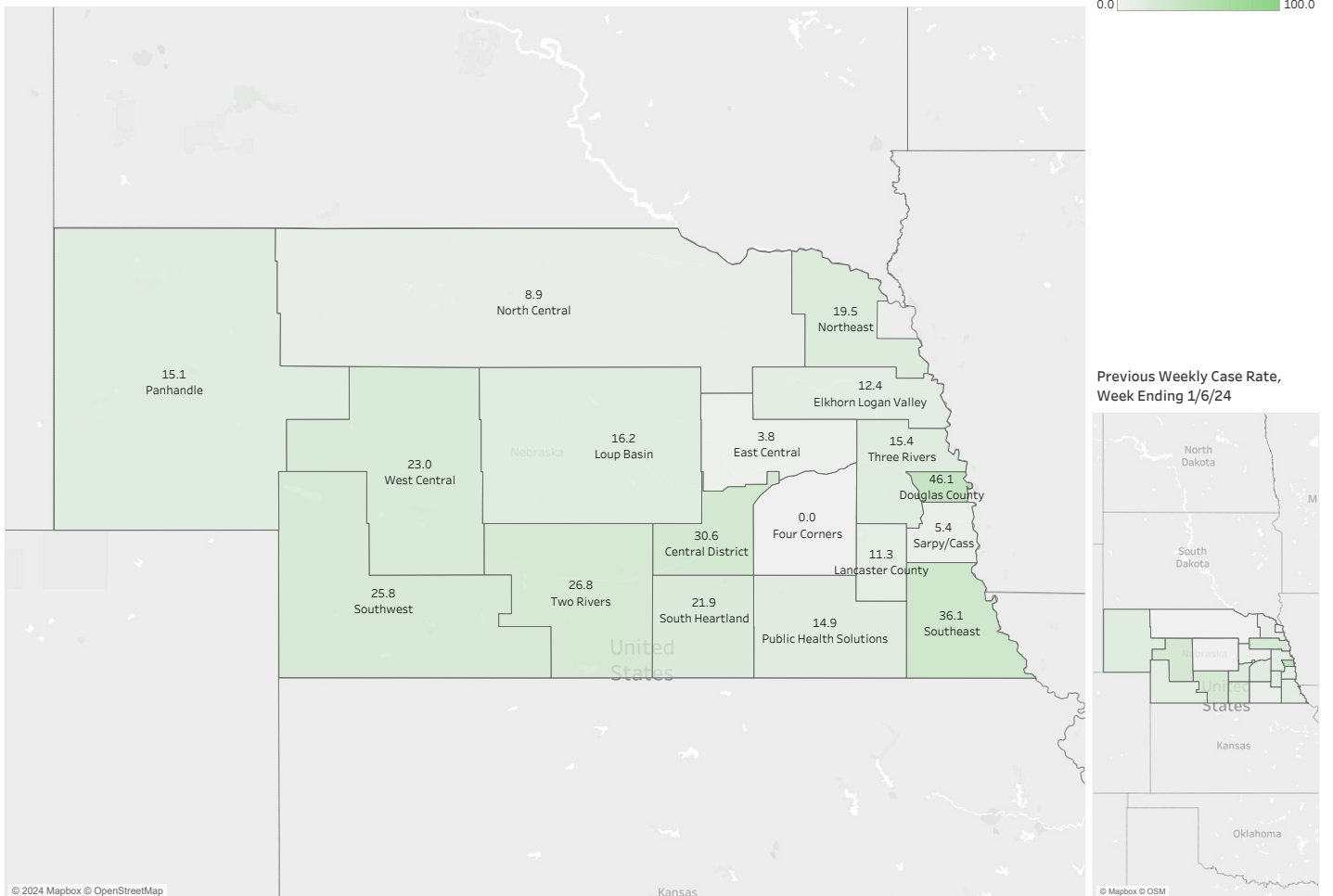
RSV Percent Positive by Test Type, by Week Ending Date, 2023-24



Total RSV Tests by Test Type for past 10 Weeks

	11/11/23	11/18/23	11/25/23	12/2/23	12/9/23	12/16/23	12/23/23	12/30/23	1/6/24	1/13/24
<b>Antigen</b>	108	93	110	105	125	140	148	153	143	138
<b>PCR</b>	2,023	1,965	2,232	2,519	2,777	3,016	3,206	3,079	2,757	2,646

Weekly RSV Case Rate (per 100,000 population) by Local Health Department for Week Ending 1/13/2024



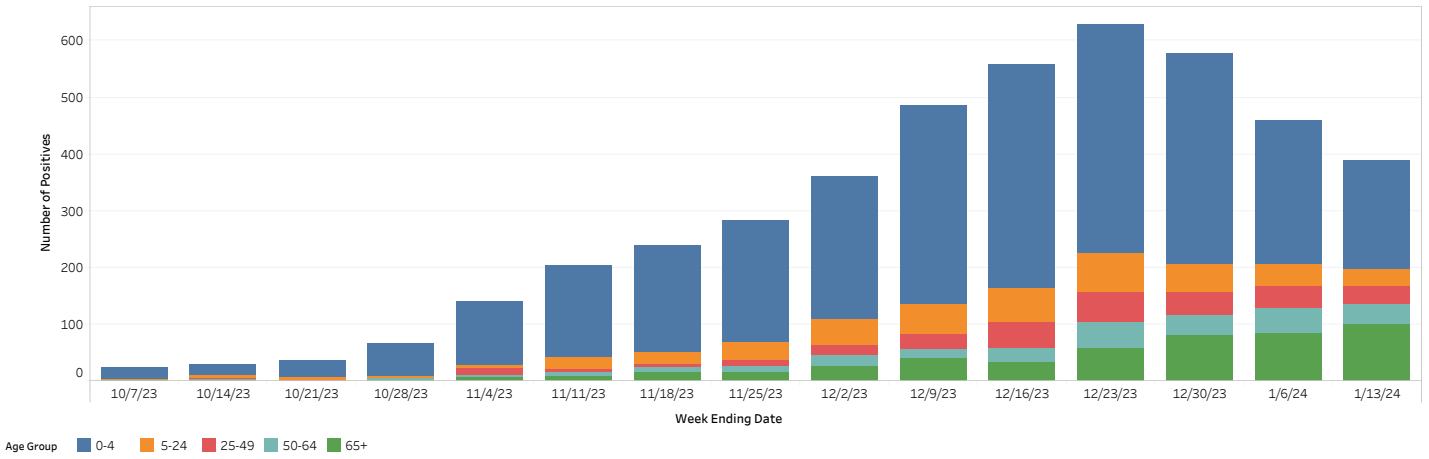


# RSV Surveillance Data, Week 02 (Week Ending 1/13)

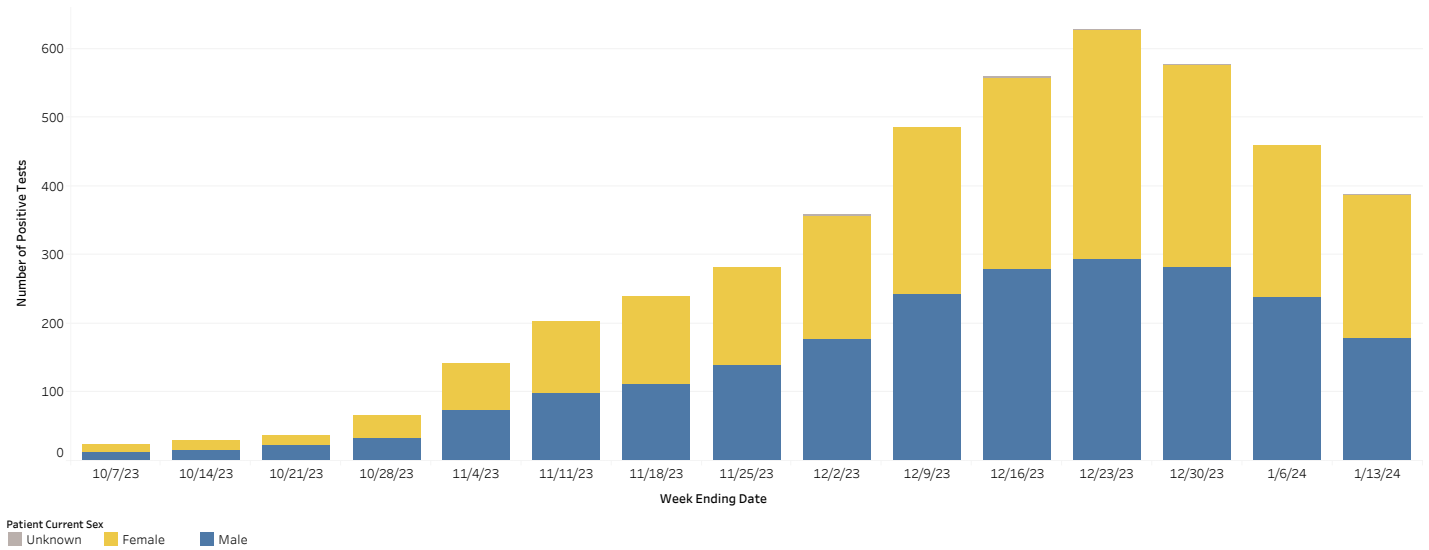
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## RSV LABORATORY SURVEILLANCE DEMOGRAPHICS

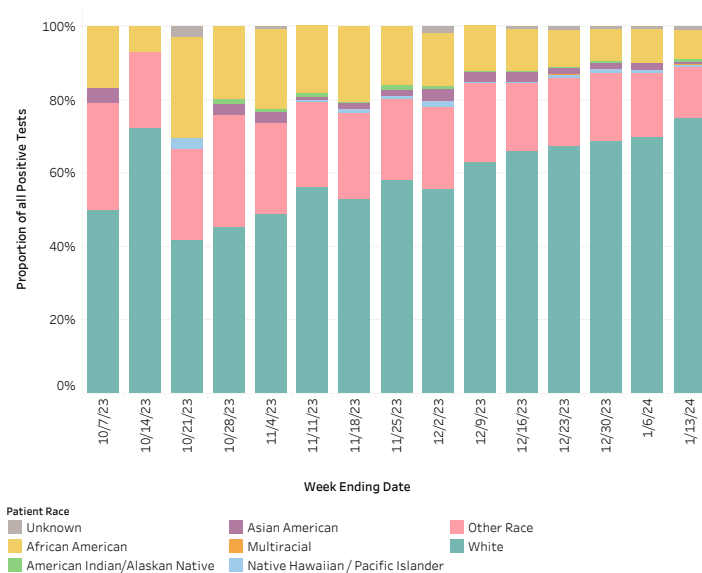
RSV Positives by Age Group, by Week Ending Date, 2023-24



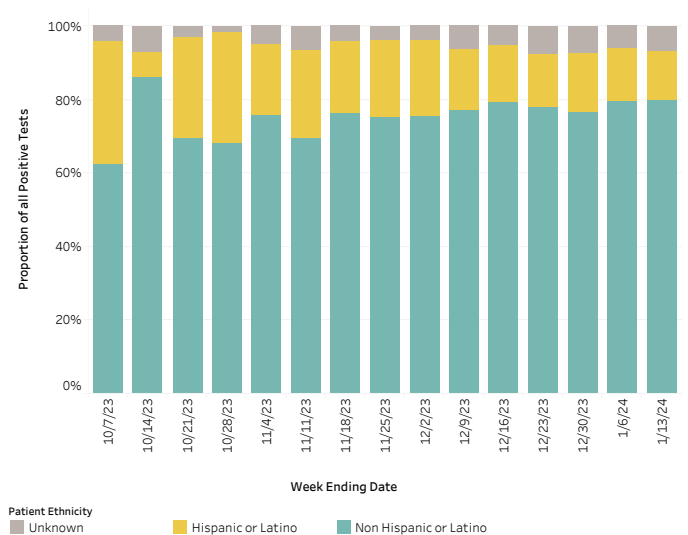
RSV Positives by Patient Current Sex, by Week Ending Date, 2023-24



Proportion of RSV Positives by Patient Race, by Week Ending Date, 2023-24



Proportion of RSV Positives by Patient Ethnicity, by Week Ending Date, 2023-24



# RSV Surveillance Data, Week 02 (Week Ending 1/13)

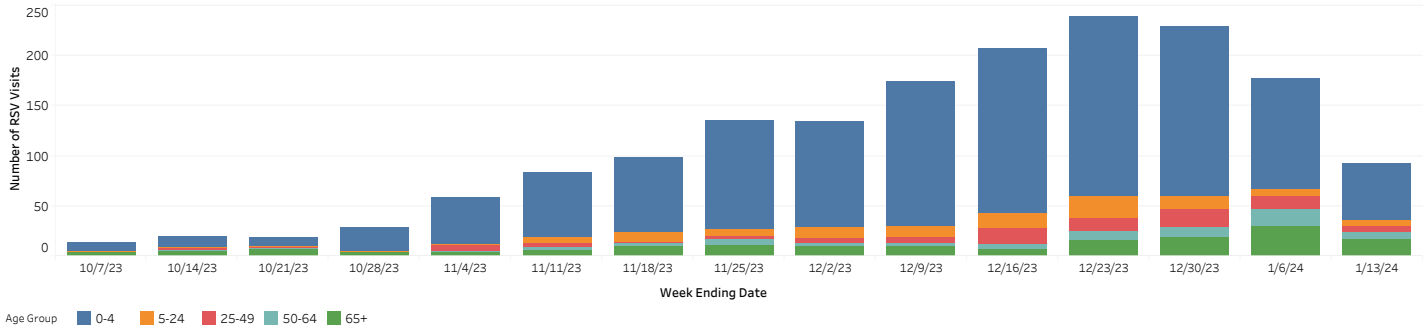
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## OUTBREAK SURVEILLANCE

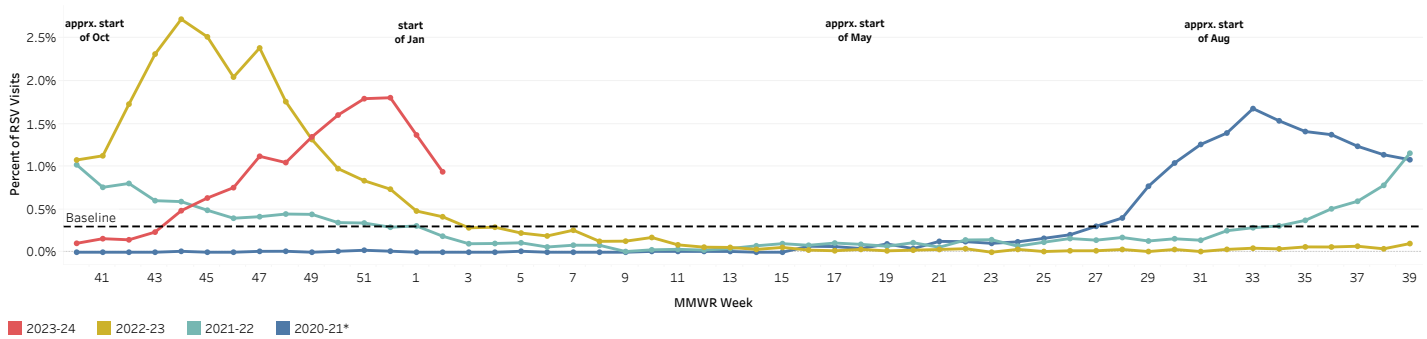
7 RSV-associated outbreaks have been reported in long-term care facilities for the surveillance season

## RSV EMERGENCY DEPARTMENT (ED) SYNDROMIC SURVEILLANCE

Number of RSV ED Visits by Age Group, by Week Ending Date, 2023-24

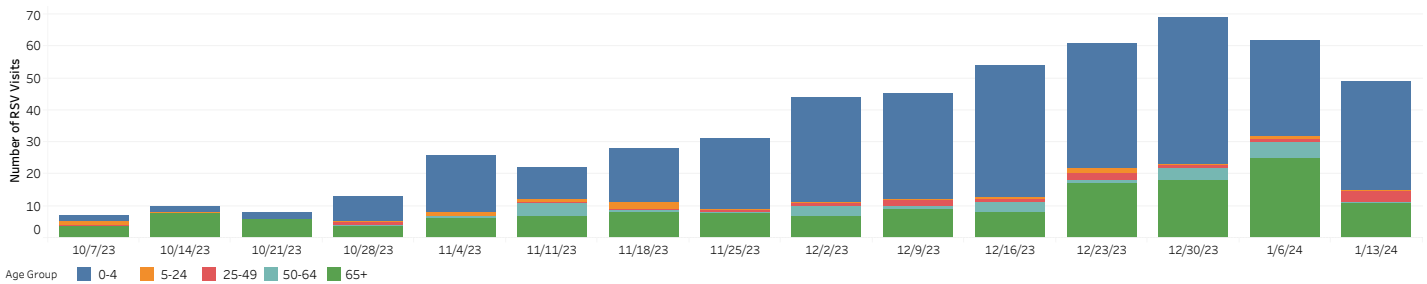


Percentage of RSV Emergency Department Visits among All ED Visits, by MMWR Week, 2020-2024

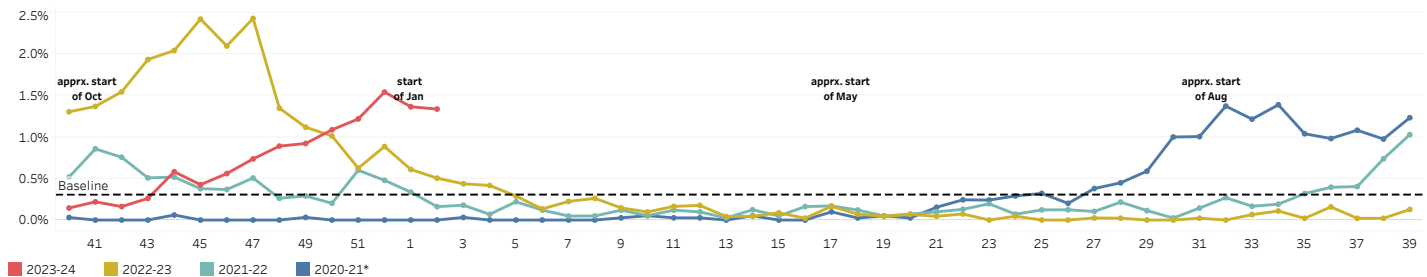


## RSV INPATIENT SYNDROMIC SURVEILLANCE

Number of RSV-Associated Inpatient Visits by Age Group, by Week Ending Date, 2023-24

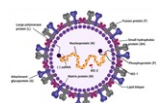


Percentage of RSV-Associated Inpatient Visits among All Inpatient Visits, by MMWR Week, 2020-2024



## MORTALITY SURVEILLANCE

6 RSV-associated deaths have been reported for the surveillance season  
Median Age: 83 years

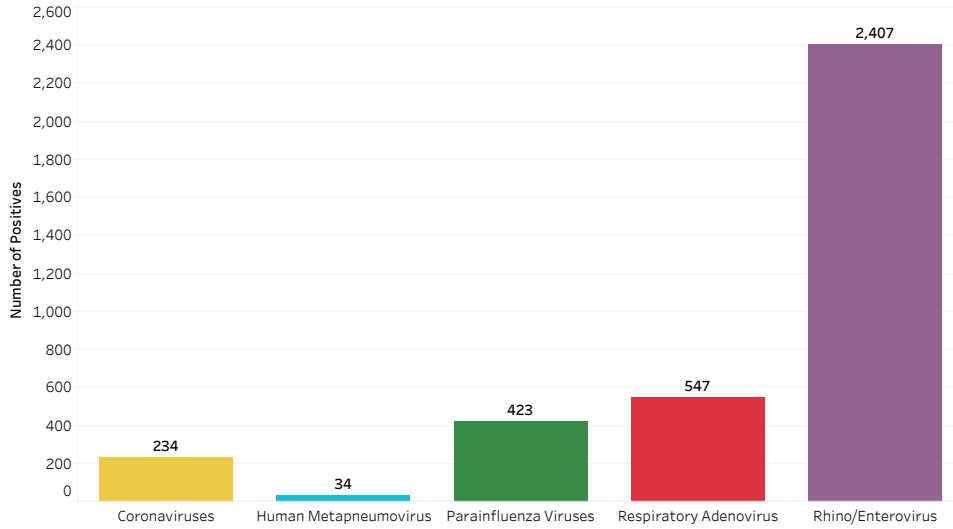


# Other Respiratory Viruses Surveillance Data, Week 2 (Week Ending 1/13)

(All data are preliminary and may change as more reports are received.)

## OTHER RESPIRATORY VIRUSES LABORATORY SURVEILLANCE

Cumulative PCR Positives by Respiratory Virus, 2023-24 season (starting 10/1/23)

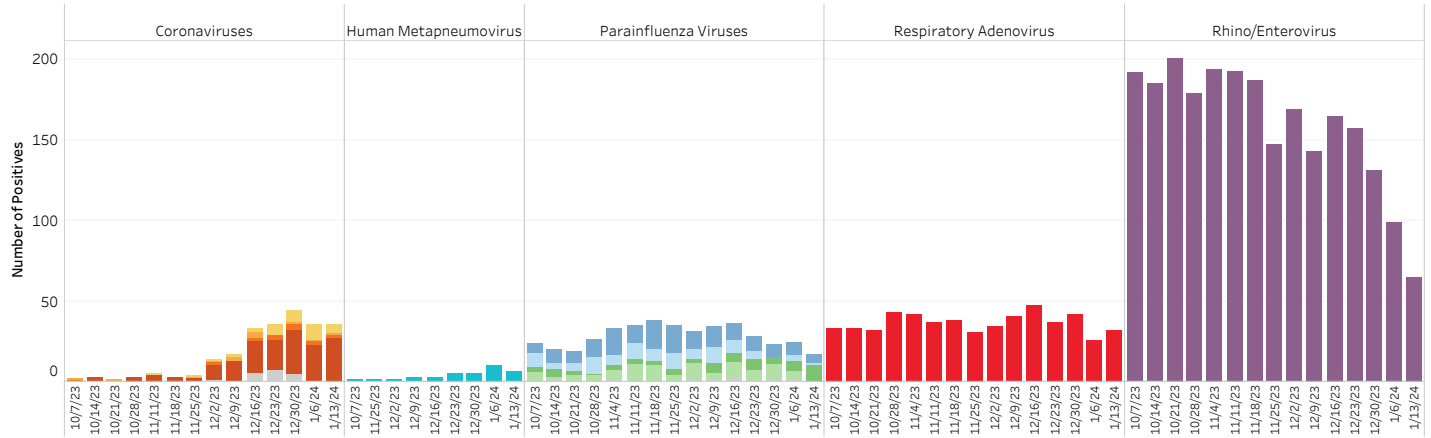


Cumulative PCR Positives by Respiratory Virus and Virus Type, 2023-24

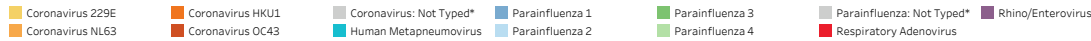
<b>Coronaviruses</b>	Coronavirus 229E	35
	Coronavirus HKU1	16
	Coronavirus NL63	13
	Coronavirus OC43	152
	Coronavirus: Not Typed*	18
<b>Total</b>	<b>234</b>	
<b>Human Metapneumovirus</b>	Human Metapneumovirus	34
<b>Total</b>	<b>34</b>	
<b>Parainfluenza Viruses</b>	Parainfluenza 1	159
	Parainfluenza 2	95
	Parainfluenza 3	67
	Parainfluenza 4	94
	Parainfluenza: Not Typed*	8
<b>Total</b>	<b>423</b>	
<b>Respiratory Adenovirus</b>	Respiratory Adenovirus	547
<b>Total</b>	<b>547</b>	
<b>Rhino/Enterovirus</b>	Rhino/Enterovirus	2,407
<b>Total</b>	<b>2,407</b>	

\*Not typed coronavirus and parainfluenza virus positives are NOT novel viruses. The specimens were simply were not typed out on their respective tests and both represent either known human seasonal coronaviruses (NOT SARS-CoV-2) or known seasonal human parainfluenza viruses respectively.

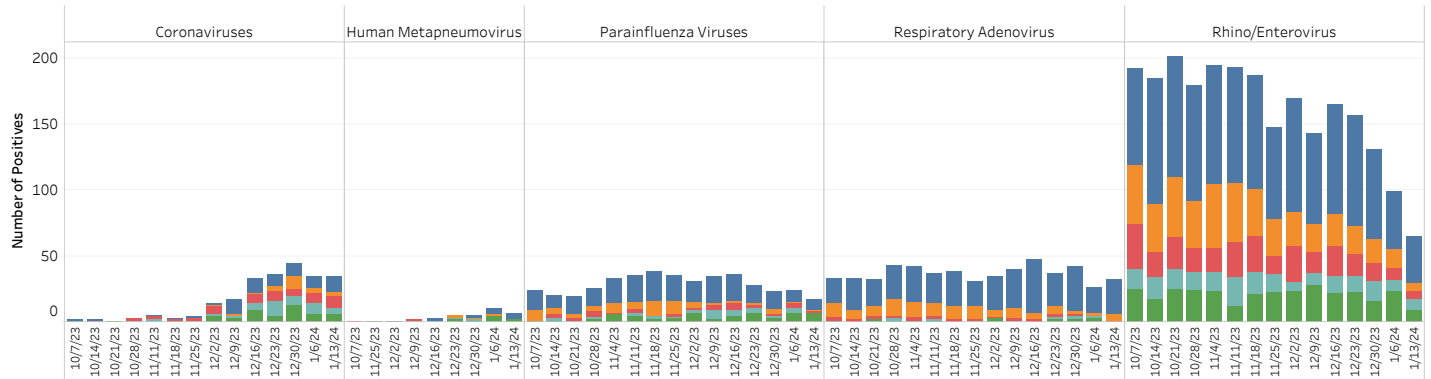
PCR Positives by Respiratory Virus and Virus Type, by Week Ending Date, 2023-24



\*Not typed coronavirus and parainfluenza virus positives are NOT novel viruses. The specimens were simply were not typed out on their respective tests and both represent either known human seasonal coronaviruses (NOT SARS-CoV-2) or known seasonal human parainfluenza viruses respectively.



PCR Positives by Respiratory Virus and Age Group, by Week Ending Date, 2023-24

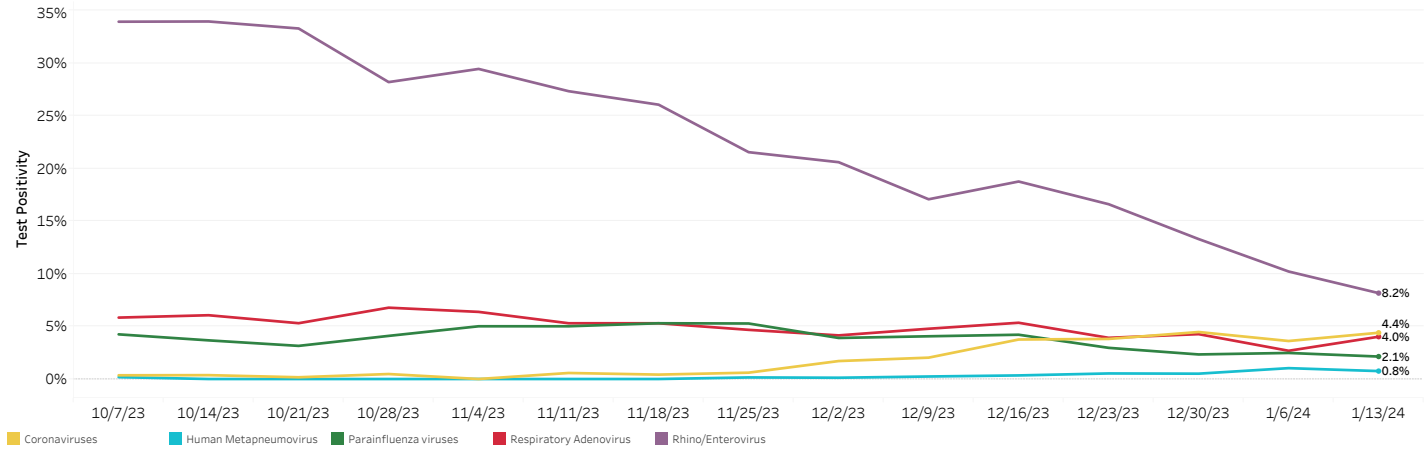


# Other Respiratory Viruses Surveillance Data, Week 2 (Week Ending 1/13)

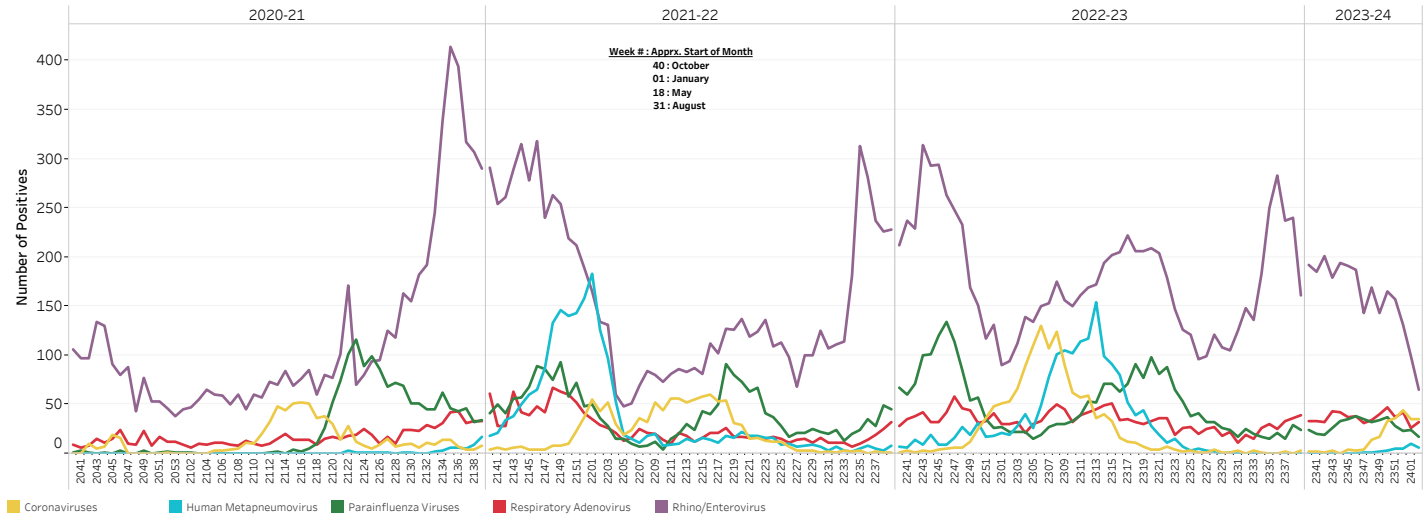
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## OTHER RESPIRATORY VIRUSES LABORATORY SURVEILLANCE, CONTINUED

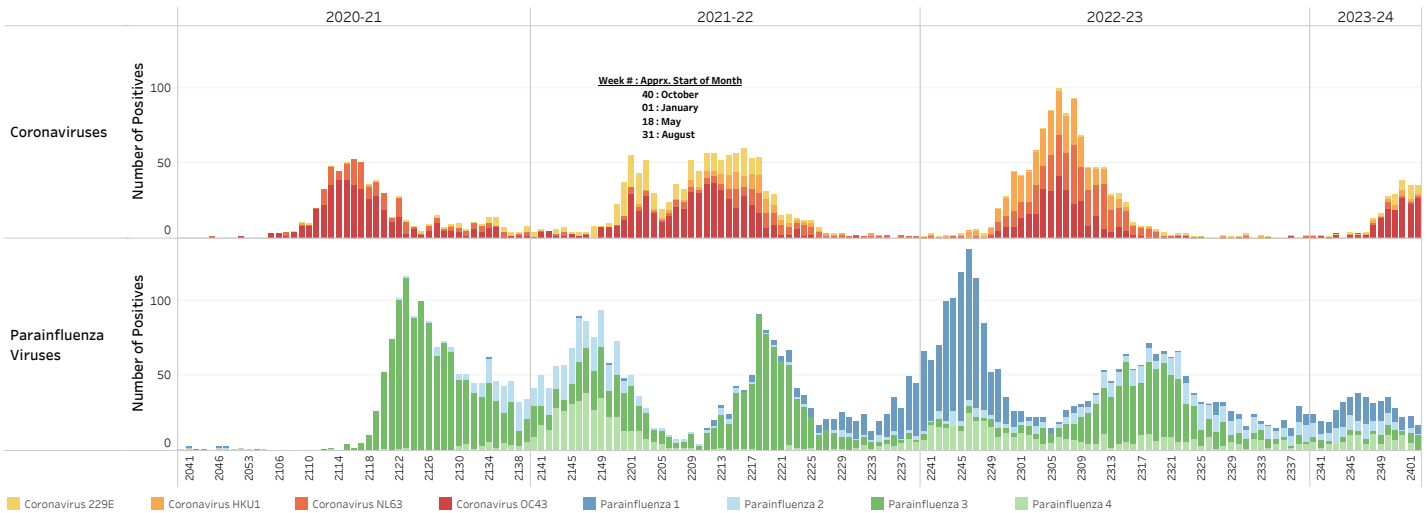
PCR Percent Positivity by Respiratory Virus, by Week Ending Date, 2023-24



Respiratory Virus PCR Positives by Respiratory Season and MMWR Week, 2020-2024



Coronavirus and Parainfluenza PCR Positives by Virus Type, by Respiratory Season and MMWR Week, 2020-2024



## About the Data

The Nebraska Influenza and other Respiratory Disease Surveillance System (NIRDSS) is a collaborative effort between DHHS and its many partners in the state including local health departments, public health and clinical laboratories, vital statistics offices, healthcare providers, clinics, and emergency departments.

Influenza surveillance allows us to determine when we first start to see influenza activity each year (the "first influenza case of the season"), and provides an indicator of the progression of the influenza season as well as prevalence of disease in the community, which assists healthcare providers in diagnosing patients with influenza-like illness (ILI). ILI is defined as any patient with clinically diagnosed influenza or any patient with fever  $\geq 100^{\circ}\text{F}$  ( $\geq 37.8^{\circ}\text{C}$ ), oral or equivalent, AND cough and/or sore throat. The case definition no longer includes "without a known cause other than influenza". Surveillance additionally identifies what strains of influenza are circulating in any given year, and thus determines whether the current vaccine protects against the circulating strain. By incorporating multiple data sources, we are able to communicate a more complete picture of influenza activity.

For information about Morbidity and Mortality Weekly Report (MMWR) weeks, please see:

[https://ndc.services.cdc.gov/wp-content/uploads/MMWR\\_week\\_overview.pdf](https://ndc.services.cdc.gov/wp-content/uploads/MMWR_week_overview.pdf)

For the 2022-2023 MMWR Week Calendar, please see:

<https://ndc.services.cdc.gov/wp-content/uploads/MMWR-Week-Log-2022-2023.pdf>

**NOTE: Data values of 1-5 are suppressed throughout this report for patient confidentiality purposes. These values are denoted with '\*' or '<6'.**

## Laboratory Surveillance

The Nebraska Laboratory Influenza Surveillance Program consists of hospital-based laboratories that submit testing data, either by weekly survey or daily electronic laboratory report (ELR). These laboratories perform rapid antigen or PCR testing for influenza and Respiratory Syncytial Virus (RSV). The Nebraska Public Health Laboratory provides further characterization of a subset of influenza isolates to determine the subtype of influenza A viruses and the lineage of influenza B viruses. Influenza A subtypes are determined by proteins, hemagglutinin (H) and neuraminidase (N), found on the outside of the virus. For the purpose of this report, influenza A subtypes are categorized into two groups, H1 and H3, as these two subtypes most commonly circulate during influenza season. Influenza B lineages are classified into one of two lineages: Yamagata and Victoria. The age, patient current sex, race, ethnicity, and test type data figures in the laboratory surveillance section utilizes ELR data only. The age, gender, race, and ethnicity data is obtained directly from lab reports; data missing from lab reports or specifically listed as unknown in the lab report are combined as "Unknown" in this report. All other data figures in this section utilize ELR data and laboratory data received via survey from Nebraska labs who do not participate in ELR.

Many influenza and RSV disease cases are never reported. Most people with influenza or RSV do not see a doctor about their illness. Many of those who do seek care are not tested, and only a portion of test results that are obtained are reported to DHHS. DHHS receives laboratory reports from facilities participating in automated electronic laboratory reporting. We do not receive reports on all positive tests. Because some providers actively test for influenza and others do not, relying solely on case counts for influenza could result in an incomplete assessment of influenza community activity.

When testing for respiratory illnesses, there are two tests most commonly used in practices. The first of the two is an antigen test, which is most common between the two. Antigen tests are inexpensive tests that generally take only 15-30 minutes to return with results. Antigen tests try to identify specific proteins on the surface of the virus. The other type of test is a polymerase chain reaction (PCR) test. This test tries to identify specific genetic material for the virus. PCR tests take longer to produce results compared to antigen tests, but it is considered the gold standard for testing because it is a lot more sensitive than the antigen test.

Note on RSV Percent Positive: An antigen test positivity of 10% and a polymerase chain reaction (PCR) test positivity of 3% are accepted threshold levels for determining when RSV activity is considered to be at an epidemic level. The healthcare community monitors these test positivity thresholds, and when they are surpassed it indicates RSV activity is increasing throughout the population. These signals give healthcare providers more insight to know when to begin recommending monoclonal antibody therapy (i.e. Palivizumab and Nirsevimab) to infants to protect them from severe illness due to RSV. More information on these therapies can be found here:

<https://www.cdc.gov/vaccines/vpd/rsv/immunization-information-statement.html>

All data presented for the "OTHER RESPIRATORY VIRUSES LABORATORY SURVEILLANCE" is obtained from our ELR data. This data only includes PCR tests, and a majority of these PCR tests are PCR respiratory virus panels. This data is limited to the number of laboratories who participate in ELR. Furthermore, historical data may be limited due to a fewer number of laboratories participating in ELR compared to more recent years, making it more difficult to compare data from recent years to years further in the past.

## **About the Data, Continued**

### **School Absenteeism Surveillance**

The School Absenteeism Surveillance System captures data on the total expected enrollment at Nebraska schools, the number of total absences, and the number of absences due to specific illnesses, like influenza and COVID-19. This surveillance system is also used to alert local health departments if absenteeism is above 10% which could indicate an outbreak situation. This system is designed to encourage communication between schools and local health departments and to promote the accessibility of Nebraska's public health system if schools need assistance, for example, with potential disease outbreaks. This data is analyzed and reported for the current surveillance week so potential outbreak situations can be identified and responded to in a timely manner.

A school closure is when an entire school is closed (all students and staff are sent home or a switch to virtual learning). A classroom closure is if the school is open for most students, but, due to an outbreak cluster in a particular classroom, only the students / staff in that classroom are absent.

For more information on preventing outbreaks in schools, visit: <https://www.cdc.gov/flu/school/guidance.htm>

### **Long-Term Care Facility Outbreak Surveillance**

Reporting of influenza outbreaks in long-term care facilities (LTCF), schools and other congregate settings is required by rules and regulations.

173 NAC 1 1-004.01B Clusters, Outbreaks, or Unusual Events, Including Possible Bioterroristic Attacks: Clusters, outbreaks, or epidemics of any health problem, infectious or other, including food poisoning, healthcare-associated outbreaks or clusters, influenza, or possible bioterroristic attack; increased disease incidence beyond expectations; unexplained deaths possibly due to unidentified infectious causes; and any unusual disease or manifestations of illness must be reported immediately.

### **Definition of respiratory outbreak (not COVID-19):**

A sudden increase in acute febrile respiratory illness\* over the normal background rate (e.g., 2 or more cases of acute respiratory illness occurring within 72 hours of each other)

\*Acute febrile respiratory illness is defined as fever > 100°F AND one or more respiratory symptoms (runny nose, sore throat, laryngitis, or cough). However, please note that elderly patients with influenza may not develop a fever.

### **Nebraska Outpatient ILI Surveillance (ILINet)**

Voluntary reporting by a statewide network of sentinel clinicians of the number of patients presenting with influenza-like illness (ILI) and the total number of patient visits by age group each week.

### **Emergency Department and Inpatient Syndromic Surveillance**

The NE Syndromic Surveillance System monitors influenza-like and RSV-associated illness data received by 71/85 Nebraska emergency departments and 64/88 Nebraska inpatient facilities. Syndromic surveillance is the real-time (or near real-time) collection of patient visits to a Nebraska emergency department where discharge diagnoses and/or chief complaint include influenza and RSV-associated illness.

### **ILI Hospitalization Surveillance**

Voluntary reporting by hospital infection preventionists of the number of hospitalizations with a diagnosis of ILI and the total number of admissions by age group each surveillance week.

### **Mortality Surveillance**

Pediatric deaths associated with influenza are required to be reported. Influenza-associated deaths in adults are not reportable. RSV-associated deaths are not reportable of any age. Voluntary reporting to public health of deaths in adults is encouraged to help determine the severity of the current circulating virus.