

# Nebraska Influenza & Other Respiratory Disease Surveillance Report, 2021-22 Influenza Season, Week 12

(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

MMWR Week	Influenza A Positives	Change from Last Week	Influenza B Positives	Change from Last Week	Overall Percent Positive	% Change from Last Week
12	474	▼ 41	19	▲ 6	13.3%	▼ 1.1%
Season Total	7,739		568			

Cumulative Influenza Positive Tests by Subtype and Age Group

	0-4	5-17	18-24	25-49	50-64	65+	Season Total
Flu A: H1			1		1		2
Flu A: H3	146	196	102	151	74	103	772

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

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

MMWR Week	Total ILI Outpatient Visits	Change from Last Week
12	10	▲ 6
Season Total	871	

### SCHOOL ABSENTEEISM SURVEILLANCE

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

MMWR Week	Percent of Students Absent	% Change from Last Week	Classrooms Closed	Change from Last Week	Schools Closed	Change from Last Week
13	3.8%	▲ .3%	0	▼ 1	0	0

### ILI EMERGENCY DEPARTMENT (ED) SURVEILLANCE

Total ILI ED Visits and Change from Last Week

MMWR Week	Total ILI ED Visits	Change from Last Week
12	313	▼ 3
Season Total	9,083	

### ILI HOSPITALIZATION SURVEILLANCE

Total ILI Hospital Admissions and Change from Last Week

MMWR Week	Total ILI Hospital Admissions	Change from Last Week
12	107	▲ 30
Season Total	3,464	

### LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

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

### MORTALITY SURVEILLANCE

15 influenza-associated deaths have been reported for the surveillance season

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

MMWR Week	RSV Positives	Change from Last Week	Percent Positive	% Change from Last Week
12	8	▼ 6	0.7%	▲ .2%
Season Total	3,013			

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

MMWR Week	PCR	Antigen
12	0.7% ▲ .2%	0.0% 0.0%

### LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

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

### MORTALITY SURVEILLANCE

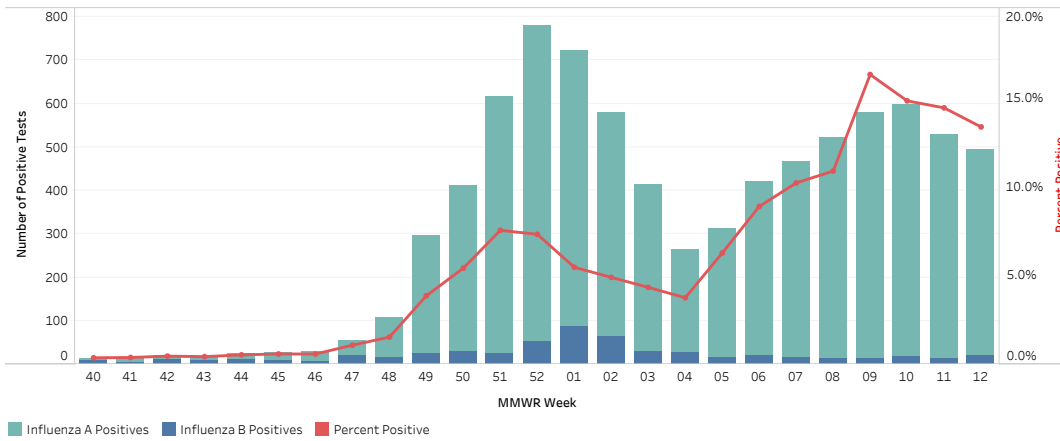
3 RSV-associated deaths have been reported for the surveillance season

# Nebraska Influenza & Other Respiratory Disease Surveillance Report, 2021-22 Influenza Season, Week 12

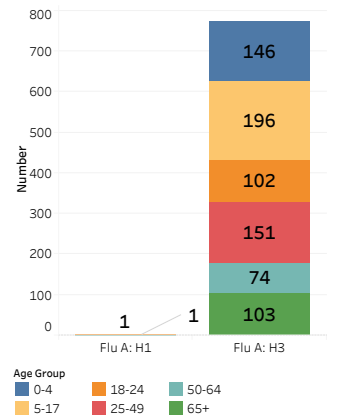
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## INFLUENZA LABORATORY SURVEILLANCE

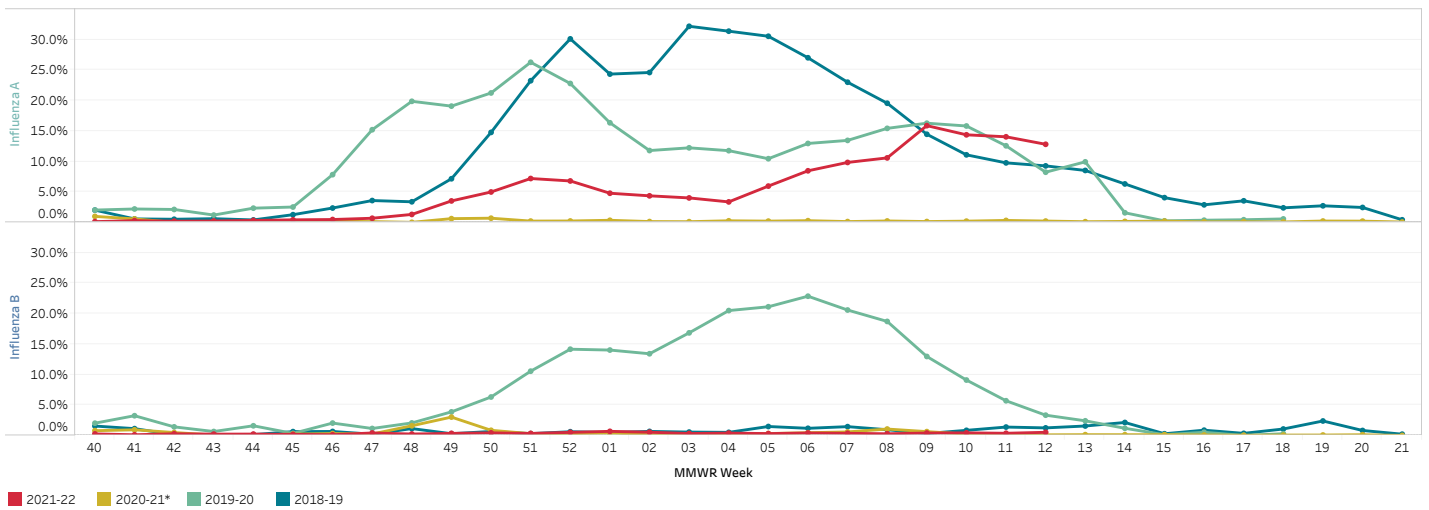
Number of Influenza A & B Positive Tests and Percent Positive, by MMWR Week, 2021-22



Cumulative Influenza Positives by Subtype and Age Group, 2021-22

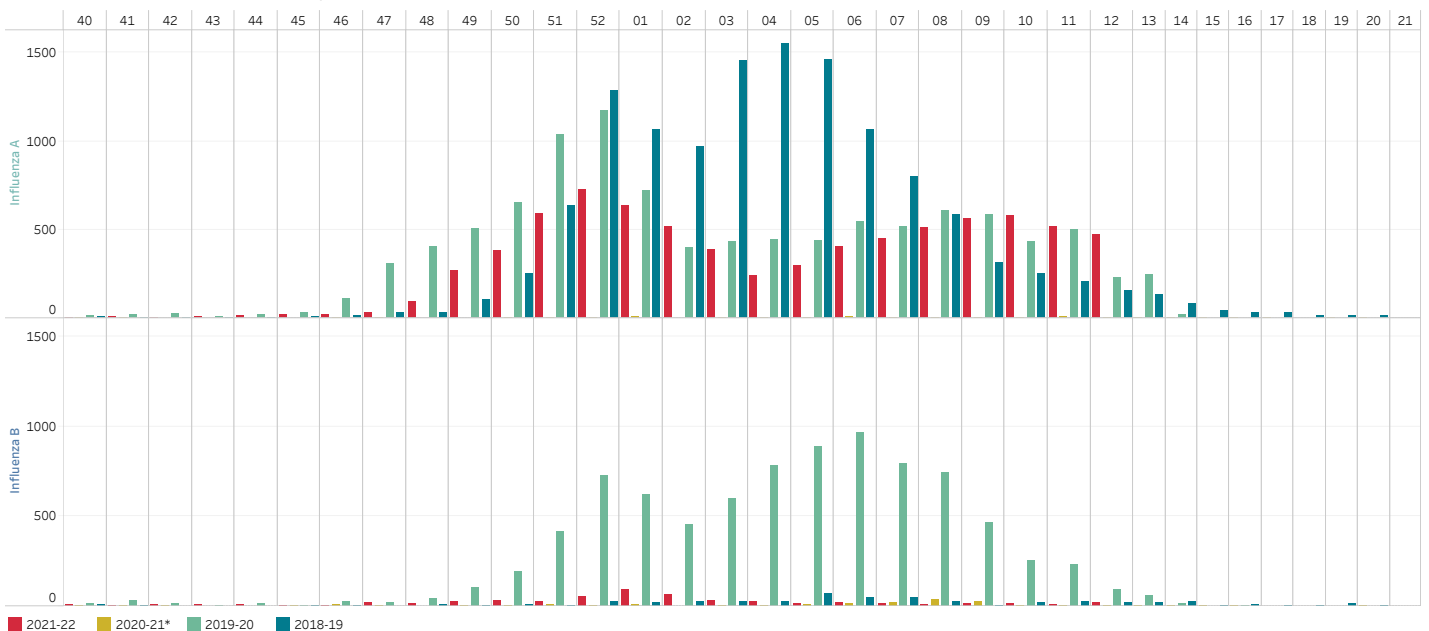


Influenza A & B Percent Positive, by MMWR Week, 2018-2022



\*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.

Number of Influenza A & B Positive Tests, by MMWR Week, 2018-2022

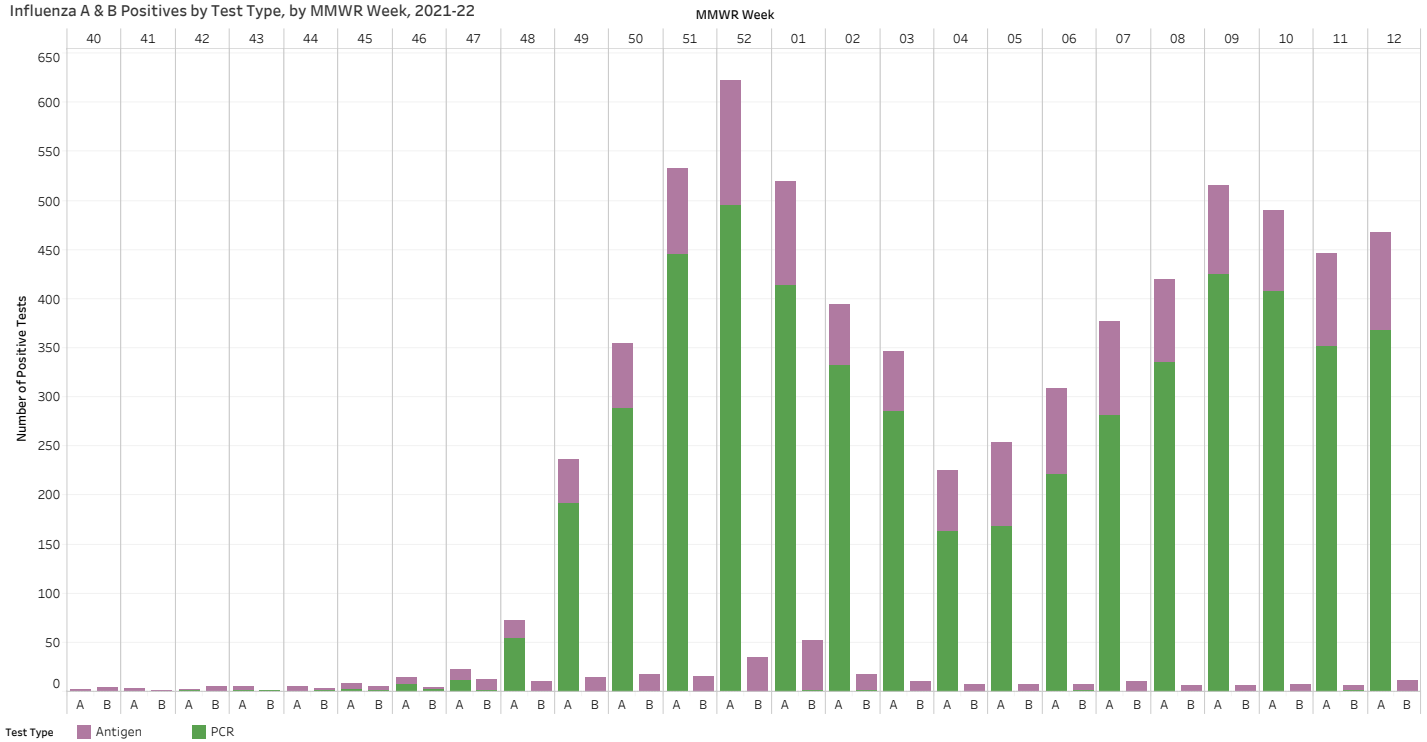


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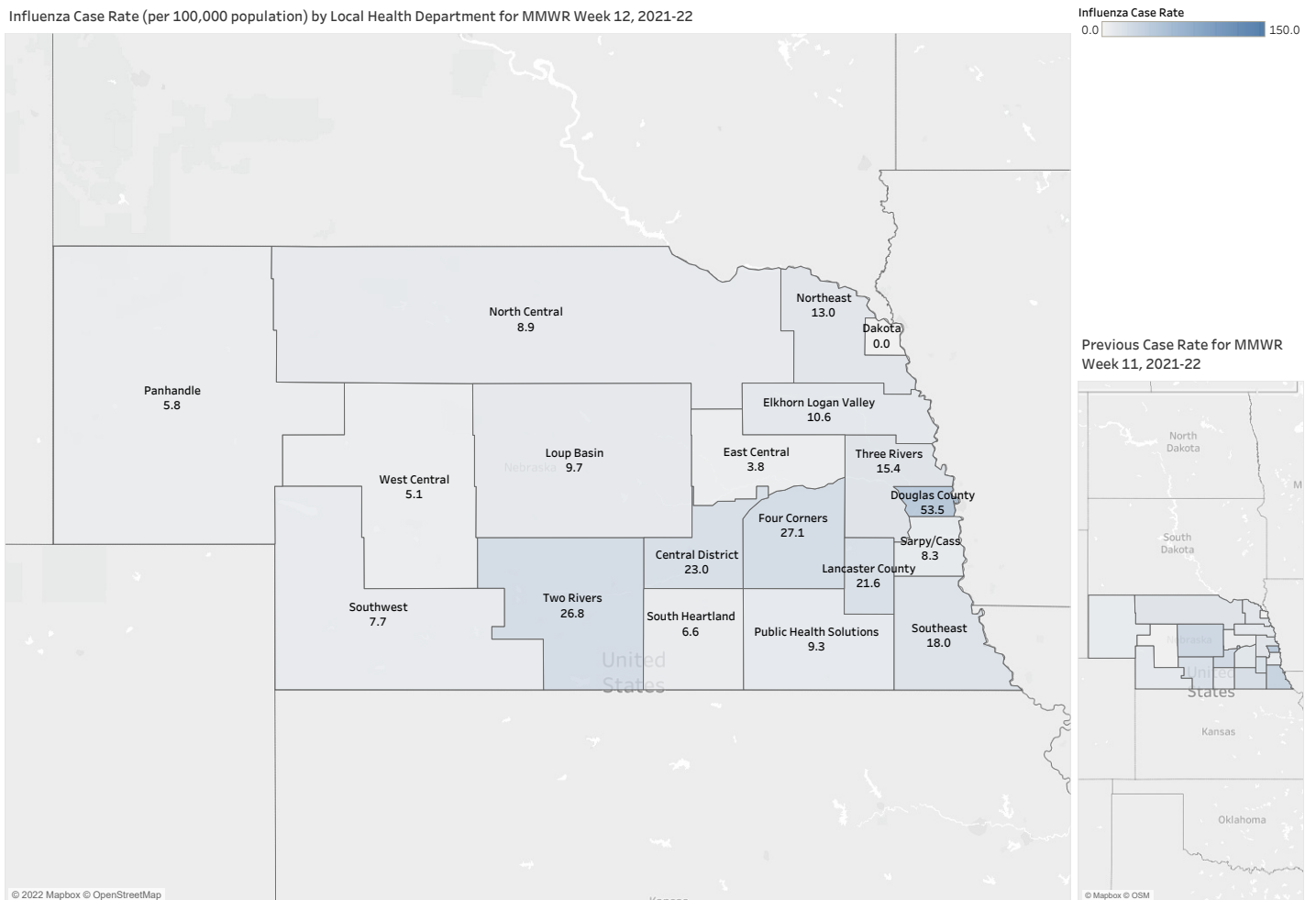
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## INFLUENZA LABORATORY SURVEILLANCE, CONTINUED

Influenza A & B Positives by Test Type, by MMWR Week, 2021-22



Influenza Case Rate (per 100,000 population) by Local Health Department for MMWR Week 12, 2021-22

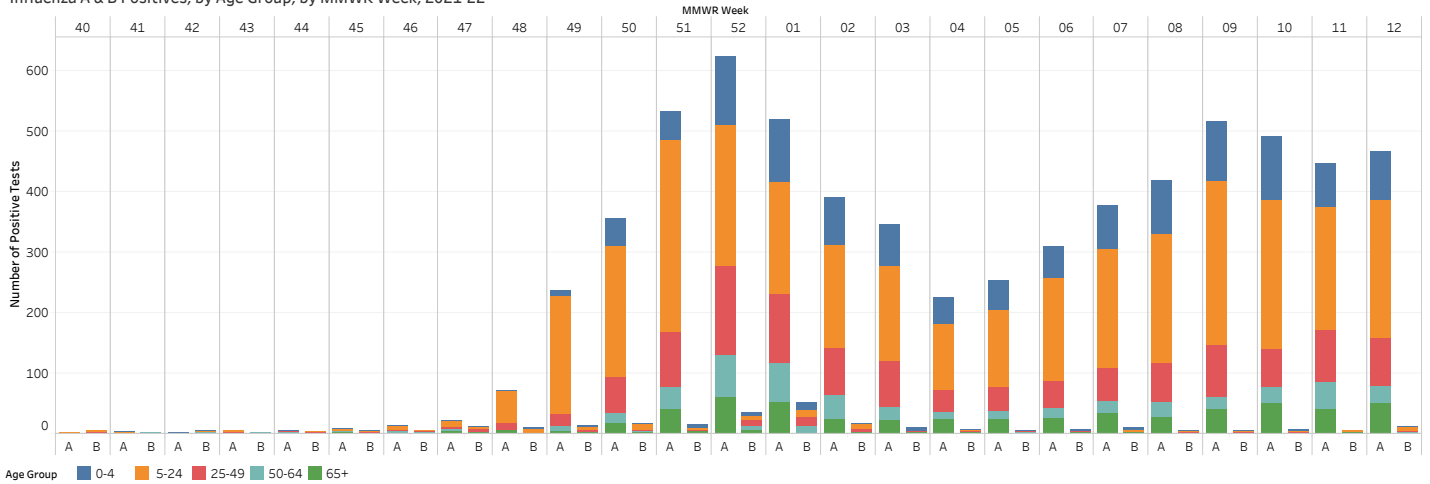


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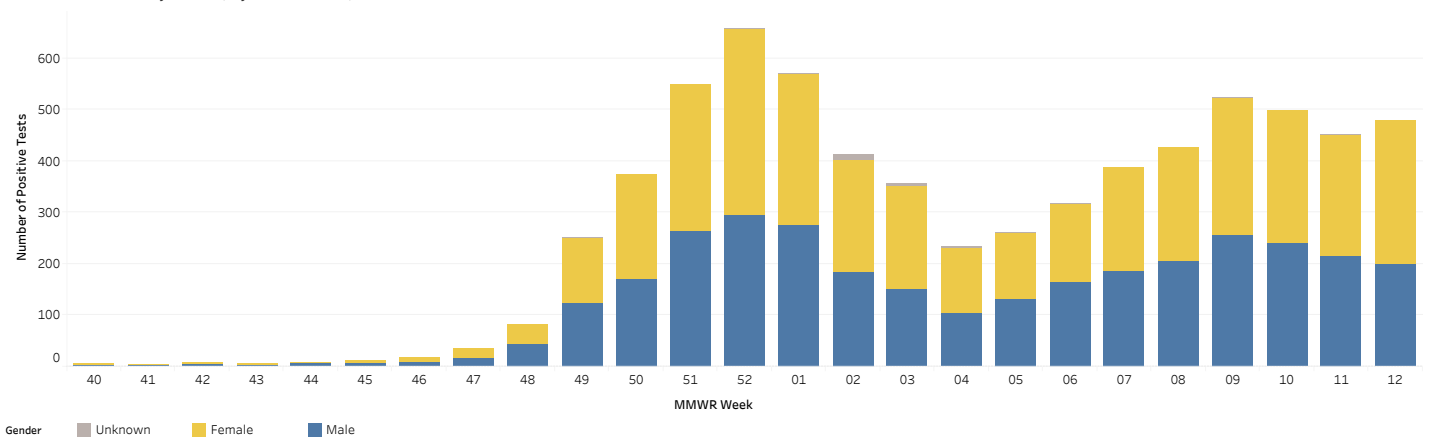
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## INFLUENZA LABORATORY SURVEILLANCE DEMOGRAPHICS

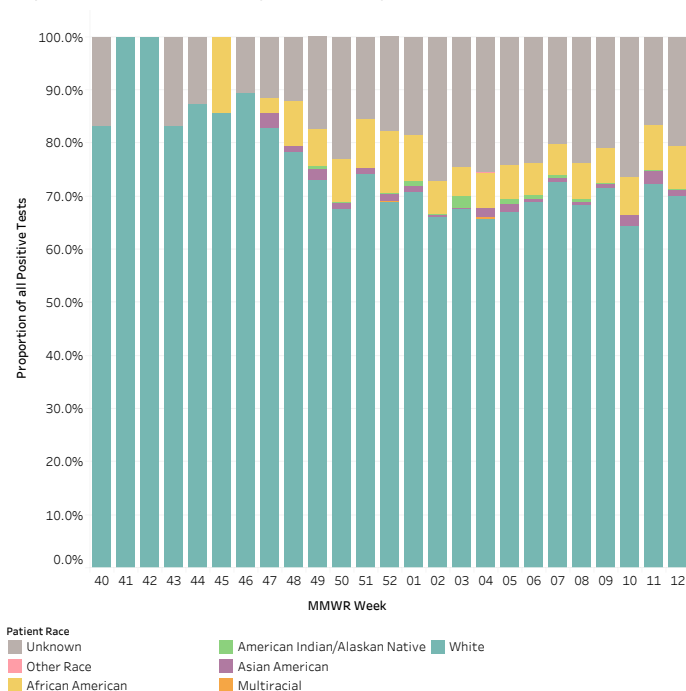
Influenza A & B Positives, by Age Group, by MMWR Week, 2021-22



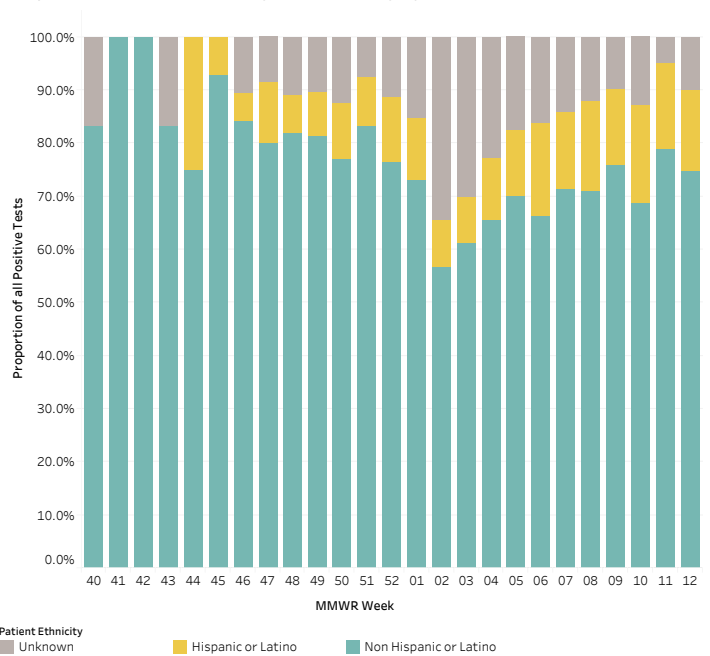
Influenza Positives by Gender, by MMWR Week, 2021-22



Proportion of Influenza Positives by Patient Race, by MMWR Week, 2021-22



Proportion of Influenza Positives by Patient Ethnicity, by MMWR Week, 2021-22

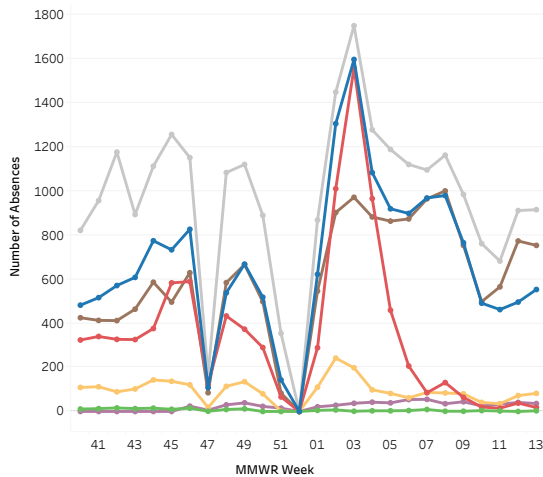


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## SCHOOL ABSENTEEISM SURVEILLANCE

Student Absences due to Illness, by MMWR Week, 2021-22



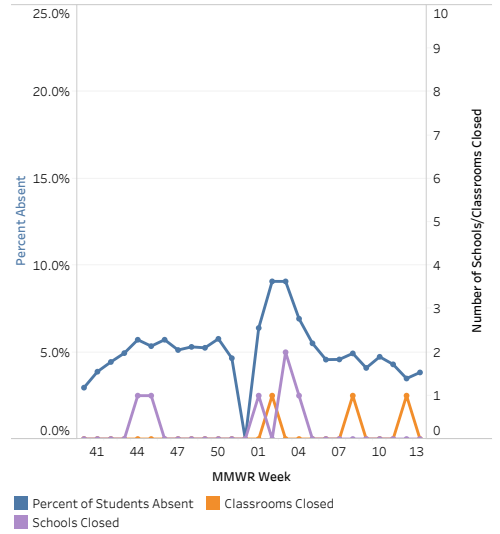
Low Reporting Affected by Holiday for MMWR Weeks 47 & 52



Absenteeism Surveillance System Reporting Record over the past 5 MMWR Weeks, 2021-22 (N=1,565 schools)

MMWR Week	Number of Reports	Total Enrolled Reporters	Percent of Enrolled Reporting	New Reporters Enrolled
09	387	552	70.1%	+0
10	322	552	58.3%	+0
11	312	552	56.5%	+0
12	412	552	74.6%	+0
13	374	553	67.6%	+1

Percentage of Students Absent due to any Reason and Number of Schools Closed due to Illness, by MMWR Week, 2021-22

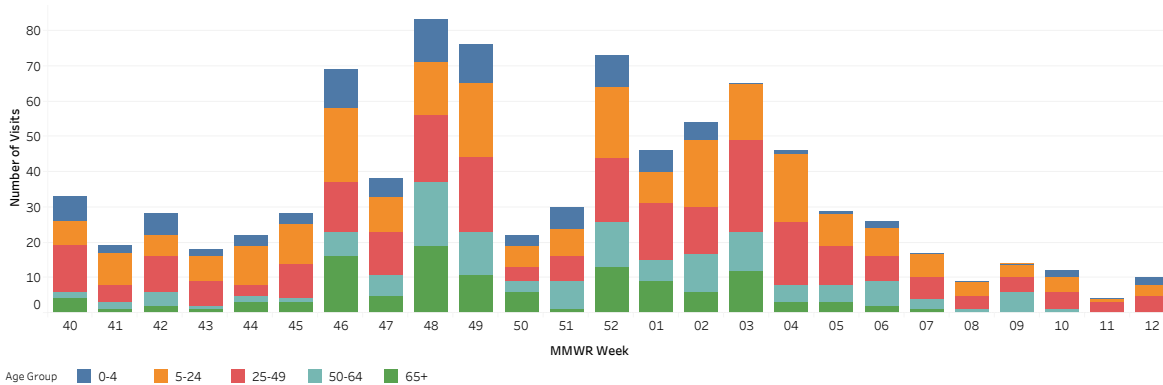


## LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

21 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 MMWR Week, 2021-22

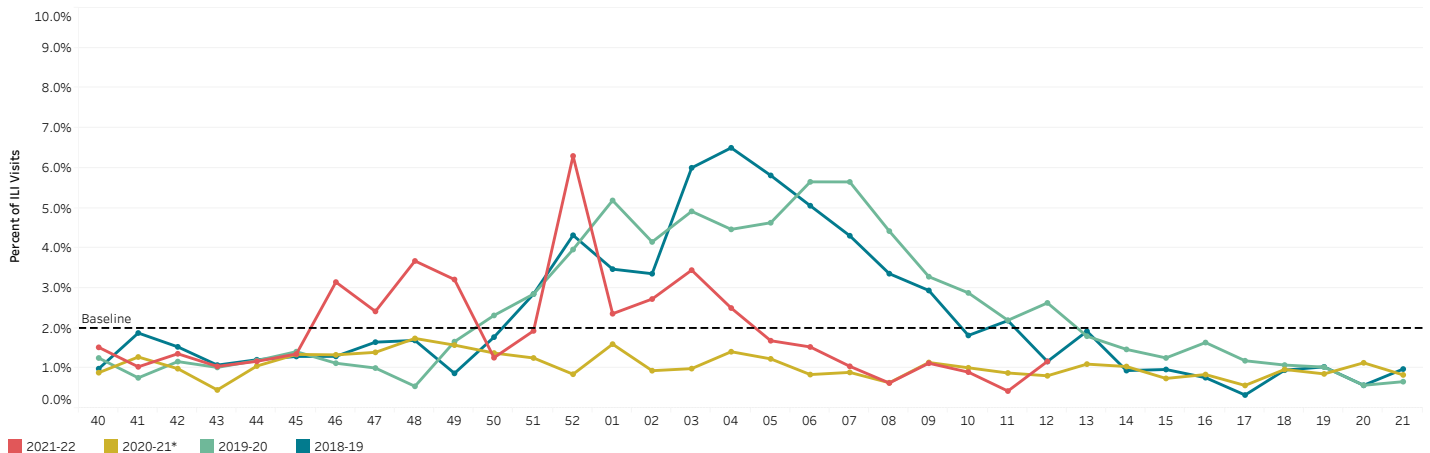


Age Group: 0-4, 5-24, 25-49, 50-64, 65+

ILINet Sentinel Provider Reporting Record over the past 5 MMWR Weeks, 2021-22 (N=13)

MMWR Week	Number of Reports
08	11
09	10
10	10
11	8
12	7

Percentage of ILI Visits Reported by the Nebraska Outpatient ILI Surveillance Network (ILINet), by MMWR Week, 2018-2022

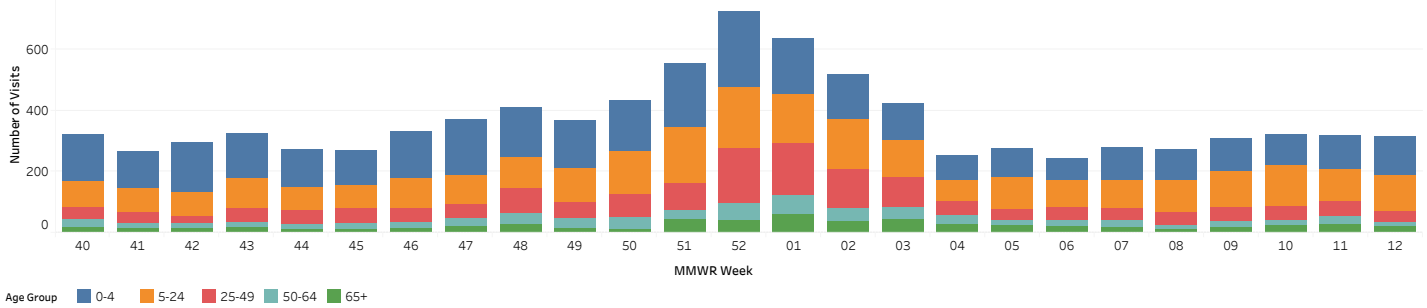


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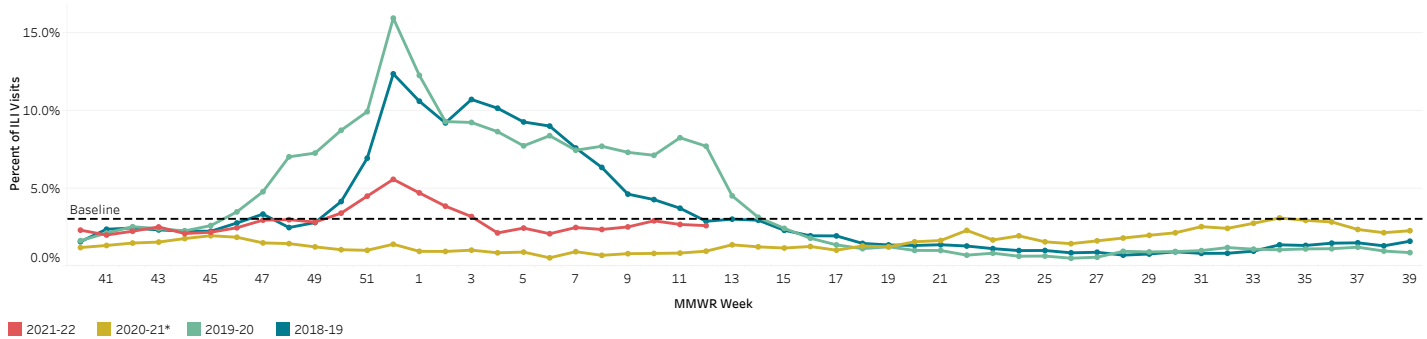
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## INFLUENZA-LIKE ILLNESS (ILI) EMERGENCY DEPARTMENT (ED) SURVEILLANCE

Number of ILI Emergency Department (ED) Visits by Age Group, by MMWR Week, 2021-22

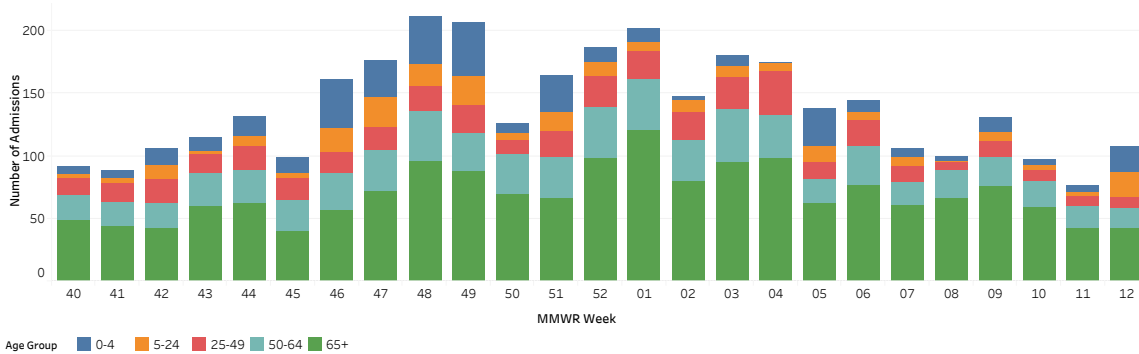


Percentage of ILI Emergency Department Visits among all ED Visits by MMWR Week, 2018-2022



## INFLUENZA-LIKE ILLNESS (ILI) HOSPITALIZATION SURVEILLANCE

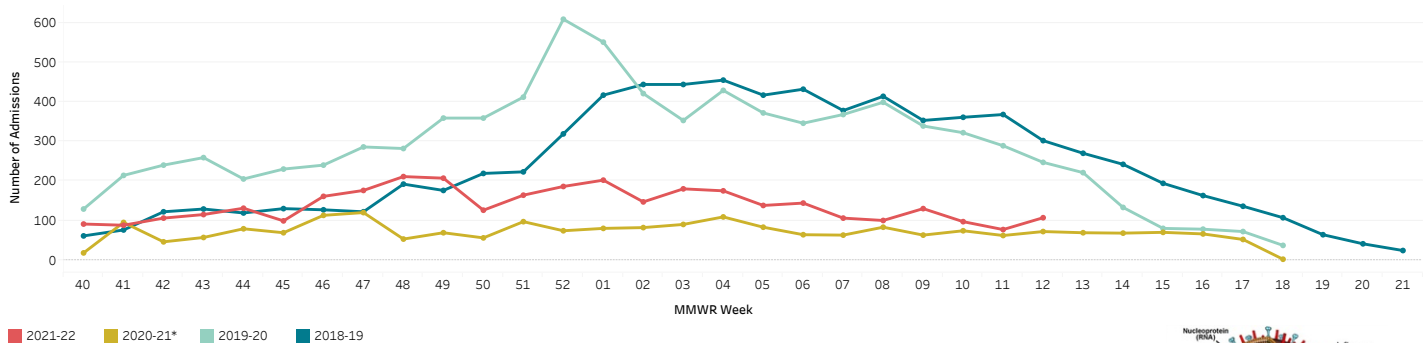
Number of ILI Hospital Admissions by Age Group, by MMWR Week, 2021-22



ILI Hospital Reporting Record over the past 5 MMWR Weeks, 2021-22 (N=88 Hospitals)

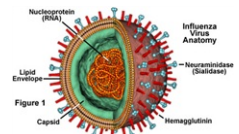
MMWR Week	Number of Hospitals Reporting	Percent of Hospitals Reporting
08	63	71.6%
09	62	70.5%
10	60	68.2%
11	55	62.5%
12	60	68.2%

Number of ILI Admissions by MMWR Week, 2018-2022



## MORTALITY SURVEILLANCE

15 influenza-associated deaths have been reported for the surveillance season  
Age Range: 57-96 years; Median Age: 77 years

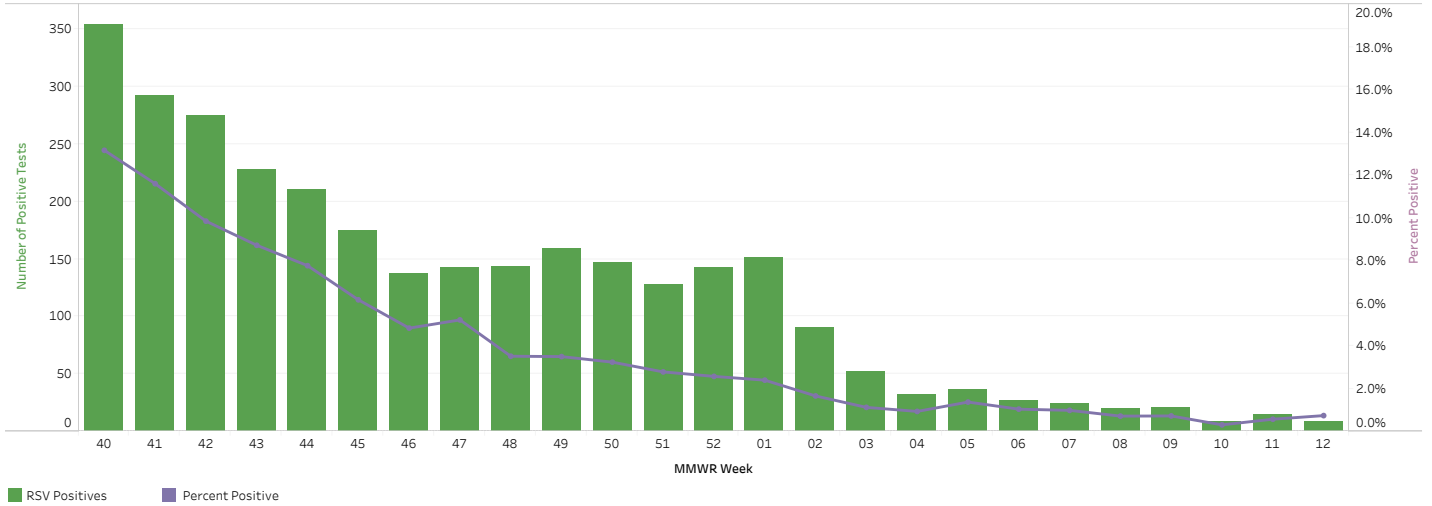


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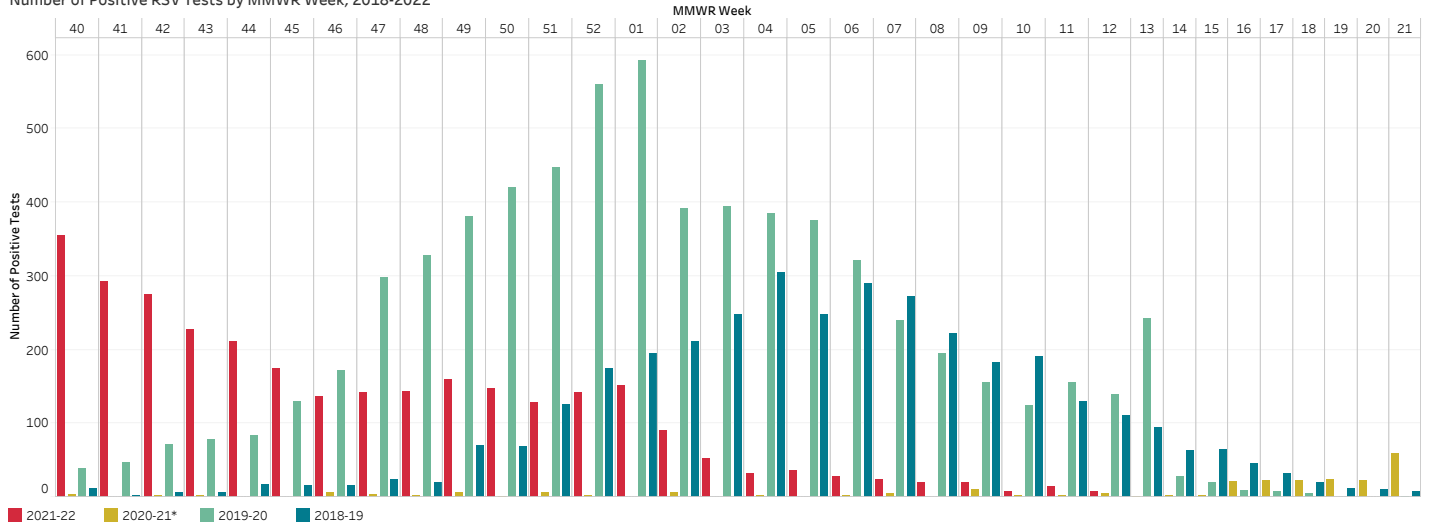
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## RESPIRATORY SYNCYTIAL VIRUS (RSV) LABORATORY SURVEILLANCE

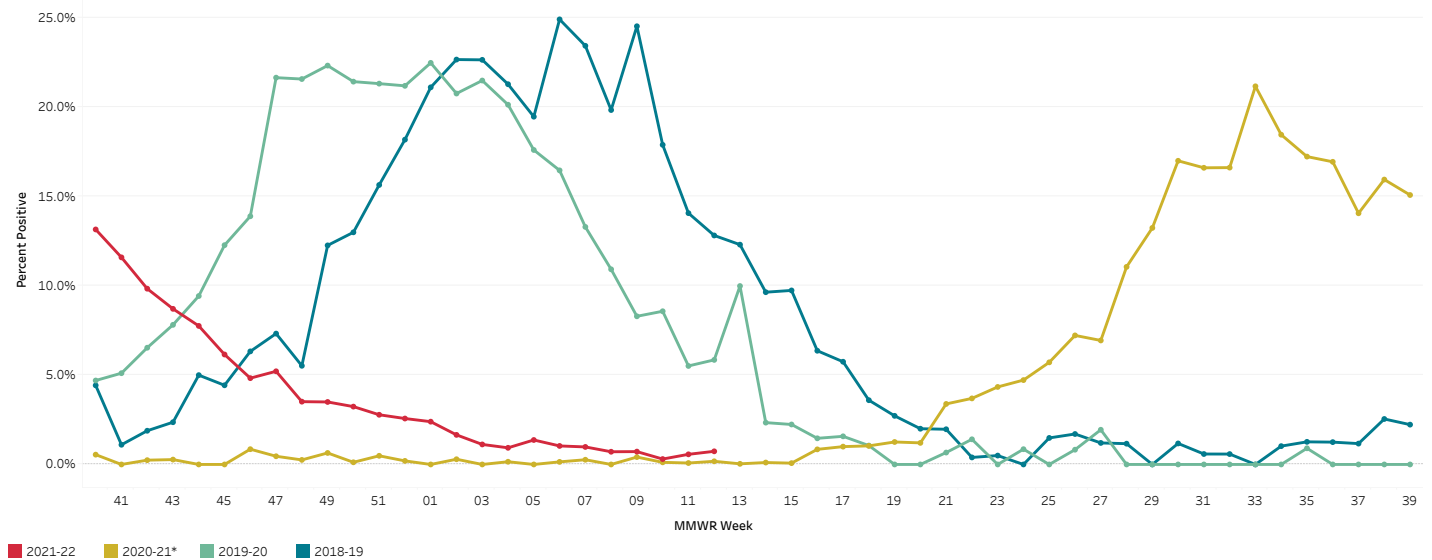
Number of Positive RSV Tests and Percent Positive by MMWR Week, 2021-22



Number of Positive RSV Tests by MMWR Week, 2018-2022



RSV Percent Positive by MMWR Week, 2018-2022

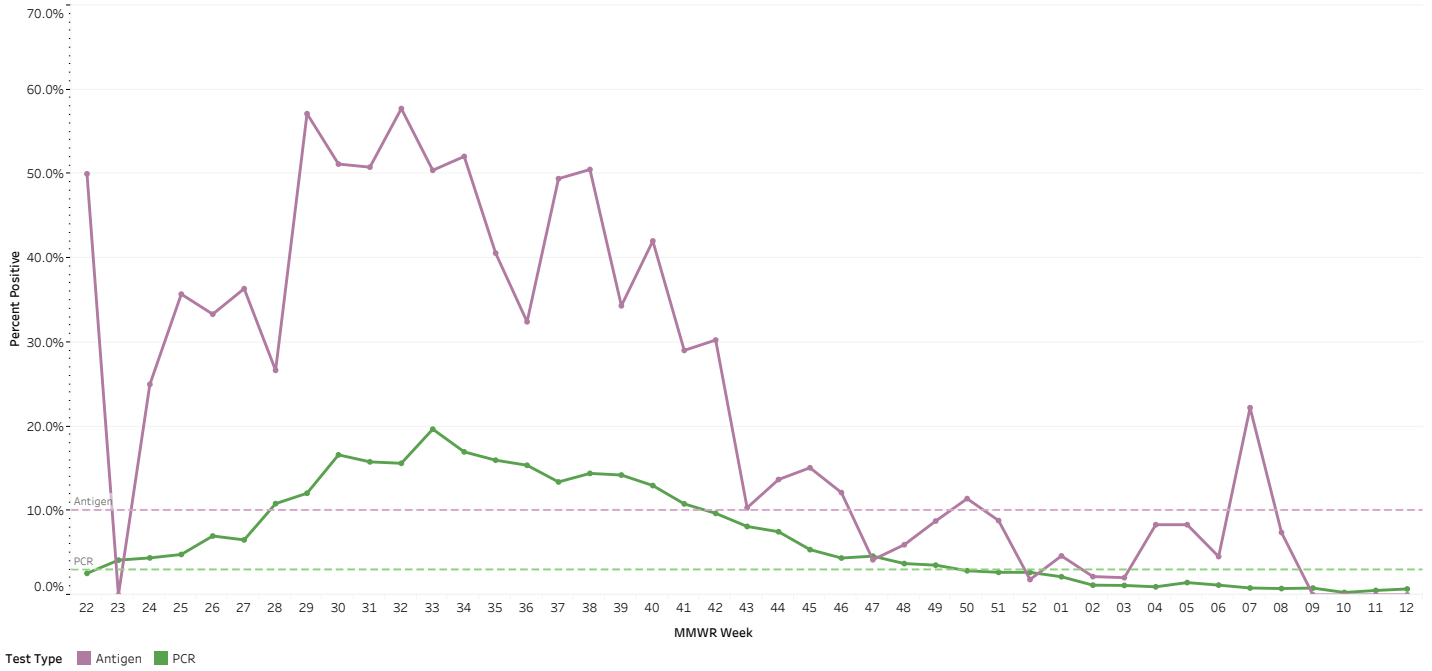


# Nebraska Inﬂuenza & Other Respiratory Disease Surveillance Report, 2021-22 Inﬂuenza Season, Week 12

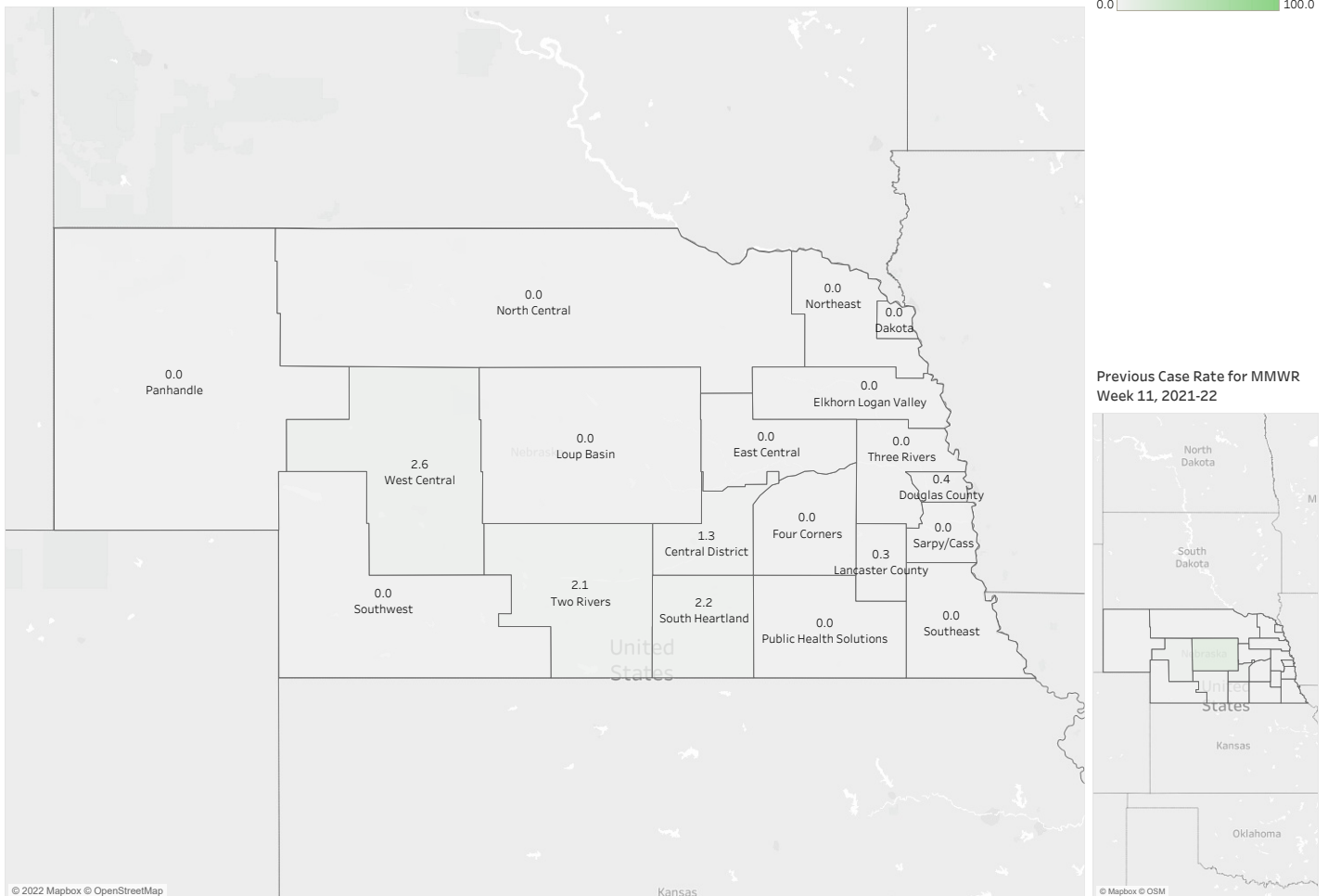
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## RSV LABORATORY SURVEILLANCE, CONTINUED

RSV Percent Positive by Test Type, by MMWR Week, 2021-22



RSV Case Rate (per 100,000 population) by Local Health Department for MMWR Week 12, 2021-22



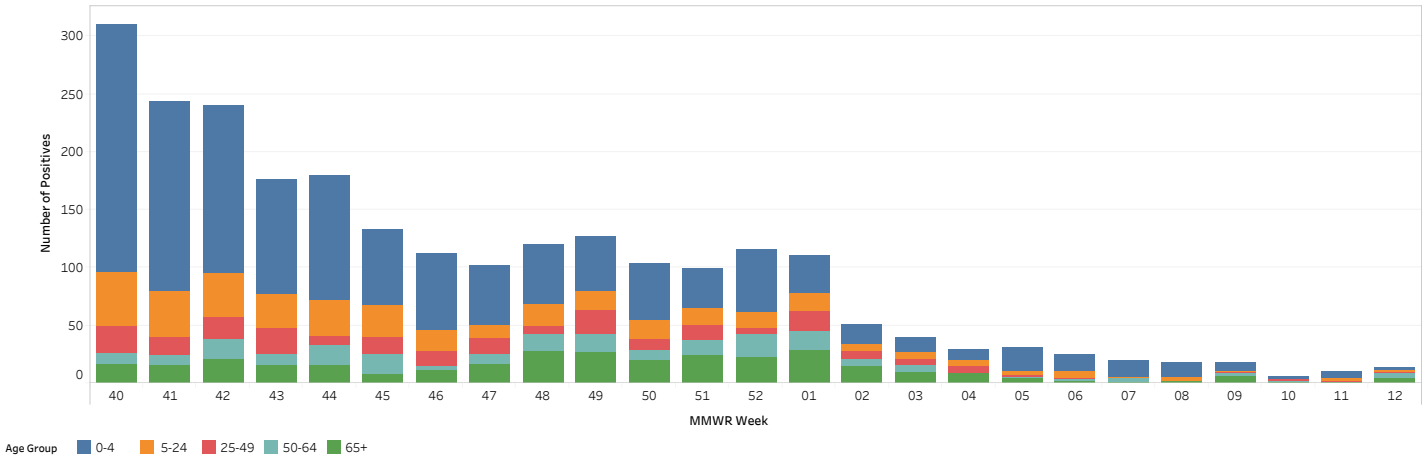


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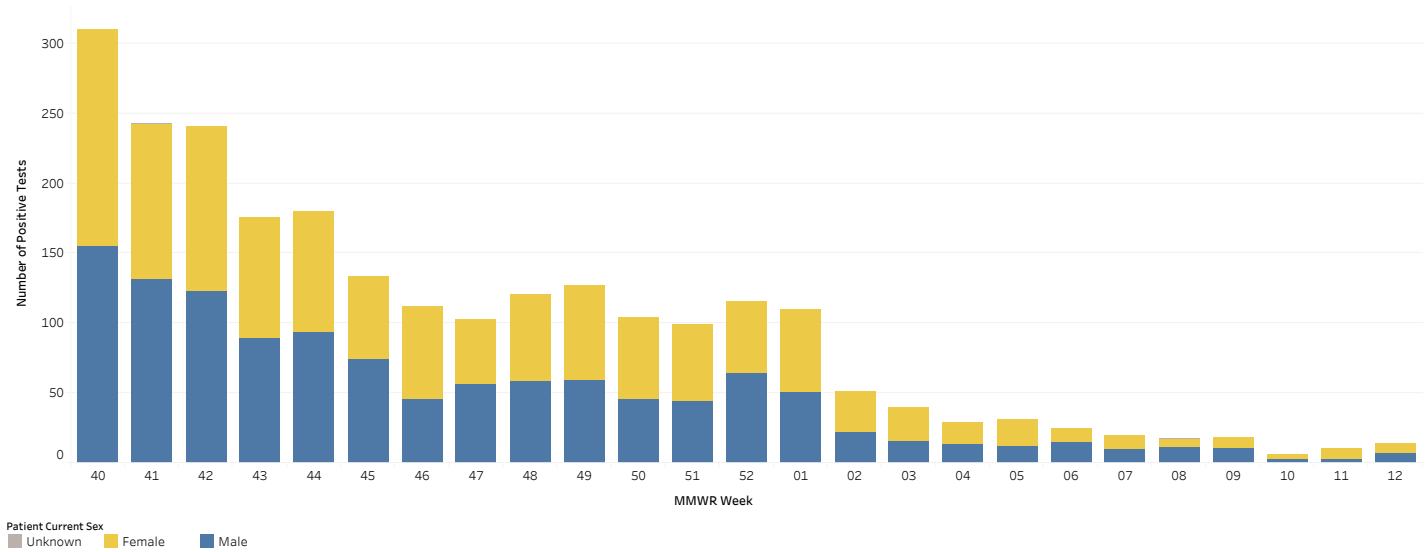
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## RSV LABORATORY SURVEILLANCE DEMOGRAPHICS

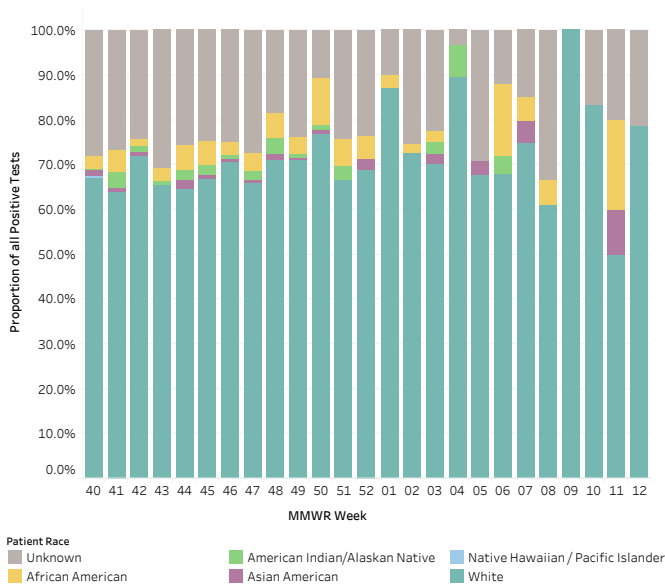
RSV Positives by Age Group, by MMWR Week, 2021-22



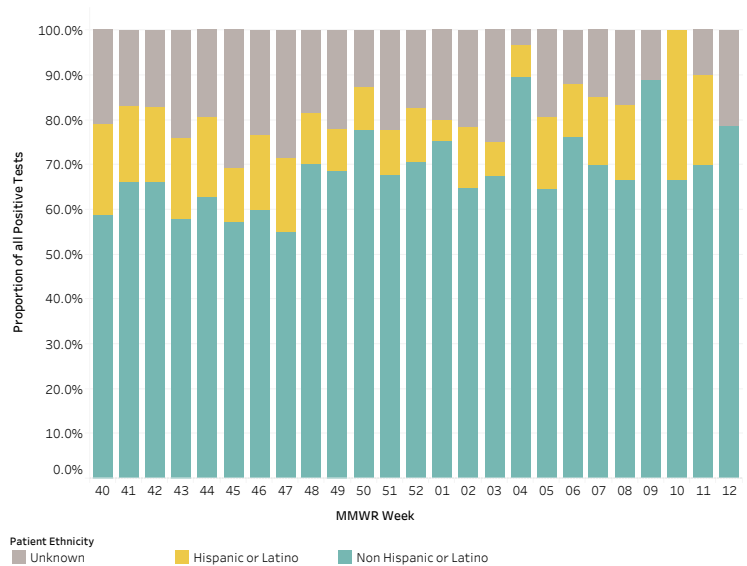
RSV Positives by Gender, by MMWR Week, 2021-22



Proportion of RSV Positives by Patient Race, by MMWR Week, 2021-22



Proportion of RSV Positives by Patient Ethnicity, by MMWR Week, 2021-22



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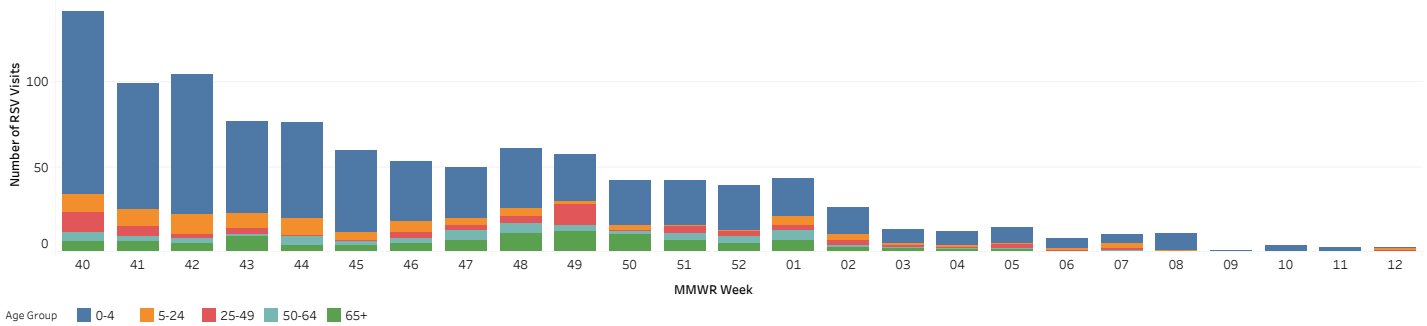
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## LONG-TERM CARE FACILITY OUTBREAK SURVEILLANCE

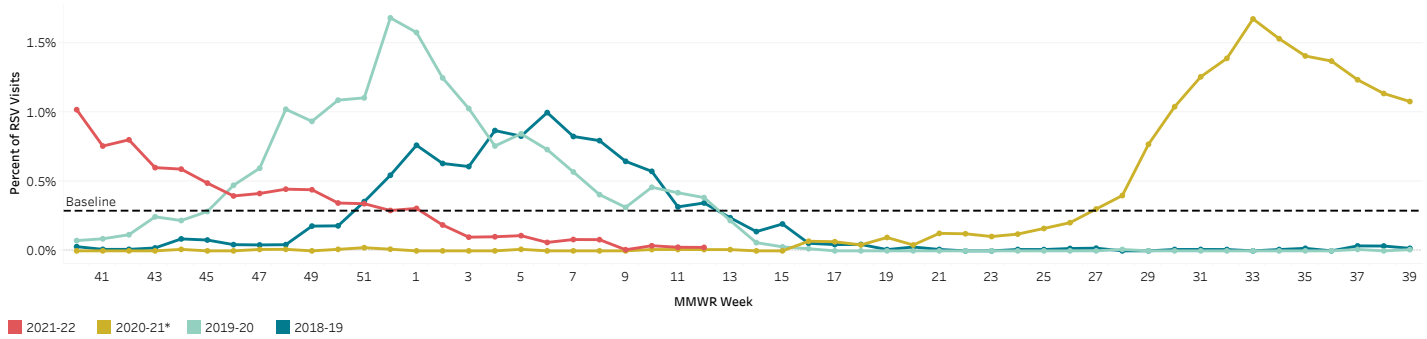
5 RSV-associated outbreaks have been reported for the surveillance season

## RSV EMERGENCY DEPARTMENT (ED) SYNDROMIC SURVEILLANCE

Number of RSV ED Visits by Age Group, by MMWR Week, 2021-22

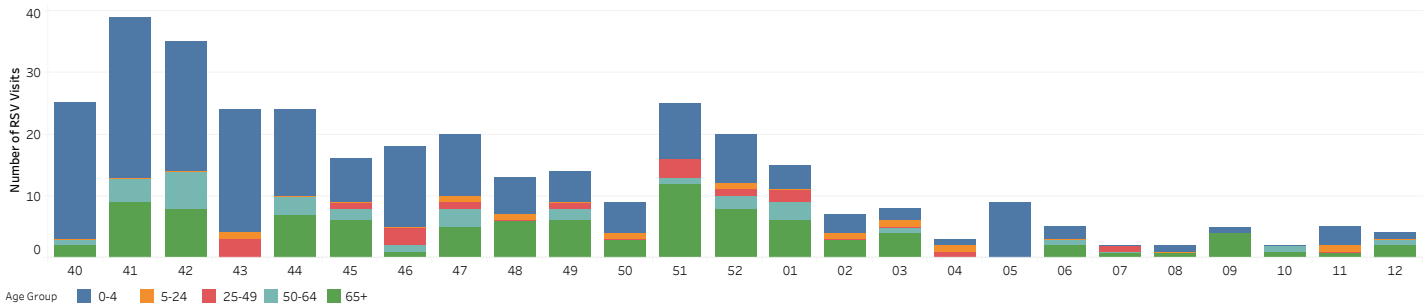


Percentage of RSV Emergency Department Visits among All ED Visits, by MMWR Week, 2018-2022

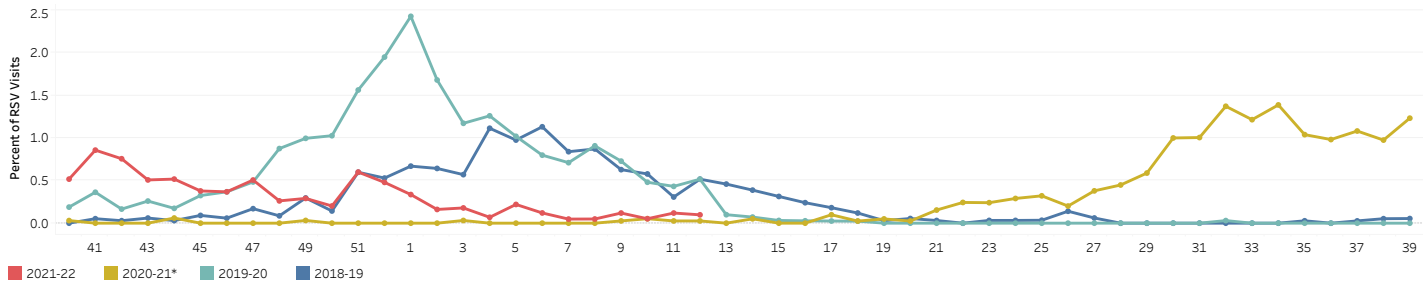


## RSV INPATIENT SYNDROMIC SURVEILLANCE

Number of RSV-Associated Inpatient Visits by Age Group, by MMWR Week, 2021-22

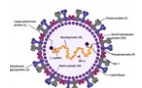


Percentage of RSV-Associated Inpatient Visits among All Inpatient Visits, by MMWR Week, 2018-2022



## MORTALITY SURVEILLANCE

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



## **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 2021-2022 MMWR Week Calendar, please see:

<https://ndc.services.cdc.gov/wp-content/uploads/W2021-22.pdf>

## **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, gender, 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. 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 treatment (i.e. Palivizumab, or "SYNAGIS") to infants under the age of 2 who may be at high risk for severe illness due to RSV.

## **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.