NORTHERN NEVADA2023-2024 Influenza Surveillance ProgramPublic HealthCDC Week #52 Dec. 24, 2023-Dec. 30, 2023

Division of Epidemiology & Public Health Preparedness (EPHP) 775-328-2447 Danika Williams, MPH, Epidemiologist, Influenza Surv. Coord. <u>dmwilliams@nnph.org</u>

Weekly Summary & Changes from Previous Week *

- Influenza-like-illness (ILI) activity: 5.9% (increase from 4.4%)
- Hospitalizations: 29.7 per 100,000 population (increase from 21.4)
- Deaths: 7 reported to date (increase of 2)
- Pneumonia, Influenza, and COVID-19 (PIC) Mortality: 7.3% (increase from 3.3%)
- Syndromic surveillance: **Increase** in ILI ED and UC visits were observed for Dec. 24th-29th.
- Respiratory Syncytial Virus: 272 cases (decrease from 285)

*For definition and specifics on metrics summarized, please refer to corresponding sections.

Key Message(s)

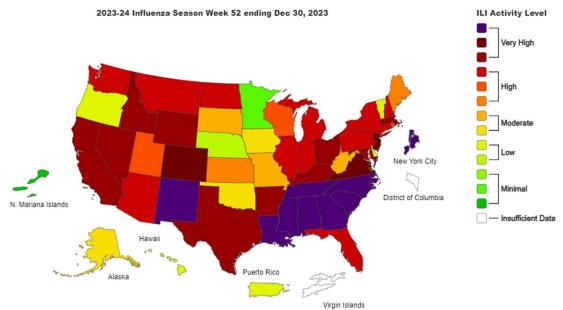
- Influenza activity is elevated and continues to increase locally and in most parts of the country.
- Washoe County ILI exceeded the Nevada and Region 9 baselines. Regional and national ILI are above their respective baselines.
- ILI activity continues to be highest in the 0–4-year age group, locally and nationally.
- The number of weekly influenza hospital admissions continues to increase, locally and nationally.
- Influenza hospitalization rates continue to be highest in the >65-year age group, locally and nationally.
- Routine annual influenza vaccination is recommended for ALL persons aged 6 months or older, as long as there are no contraindications.

Influenza-like-Illness (ILI)

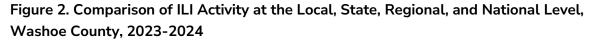
Influenza-like-illness (ILI) is defined as fever ($\geq 100^{\circ}$ F [37.8°C]) and cough and/or sore throat. ILI data is submitted weekly by inpatient and outpatient health services who have completed the onboarding process to be a sentinel surveillance provider. ILI activity levels use the proportion of outpatient visits to healthcare providers for respiratory illness, not laboratory confirmed influenza. ILI activity may capture patient visits due to other respiratory pathogens that cause similar symptoms to influenza.

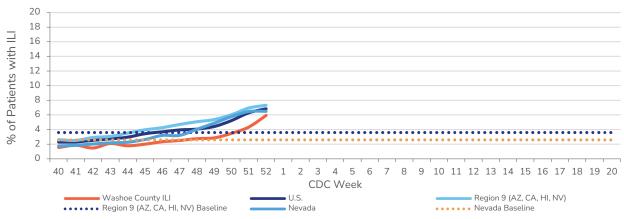
- Out of 14 sentinel providers, 14 reported data for this CDC week.
- U.S. percentage of patients presenting with ILI was 6.9% (increase from 6.3%).
- Region 9 percentage of patients presenting with ILI was 7.3% (increase from 7.0%), which is ABOVE the regional baseline of 3.6%.
- Nevada percentage of patients presenting with ILI was 6.5% (no change), which is **ABOVE** the state baseline of 2.6%.
- Washoe County percentage of patients presenting with ILI reported by sentinel providers for the current week was 5.9% (increase from 4.4%).
- The highest proportion of patients presenting with ILI was among the 0–4-year age group at 17.6% (no change in age group, increase from 15.3%).
- The lowest proportion of patients presenting with ILI was among the >65-year age group at 2.1 % (no change in age group, increase from 1.9%).

Figure 1. Outpatient Respiratory Illness Activity Map by State for Week 52, United States, 2023-2024



Data Source https://www.cdc.gov/flu/weekly/index.htm#ILIActivityMap





Data source for U.S., Region 9, and Nevada ILI activity and baselines: <u>https://www.cdc.gov/flu/weekly/fluviewinteractive.htm</u>. Region 9 & U.S. data are weighted, Nevada is unweighted. CDC methods: <u>https://www.cdc.gov/flu/weekly/overview.htm#ILINet</u>

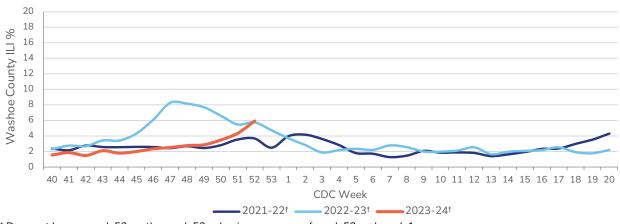


Figure 3. ILI Activity Reported by Sentinel Providers, Washoe County, 2021-2023 Seasons[†]

[†] Does not have a week 53, so the week 53 value is an average of week 52 and week 1.

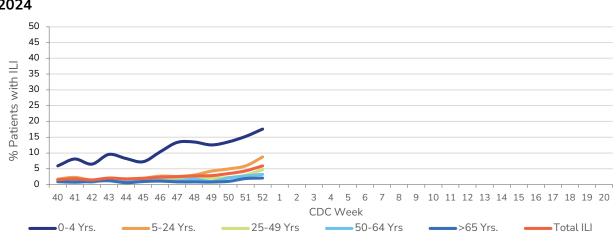


Figure 4. ILI Activity Reported by Sentinel Providers by Age Group, Washoe County, 2023-2024

Data presented in this report is preliminary and may be updated in future reports as additional information is received throughout the influenza season.

3

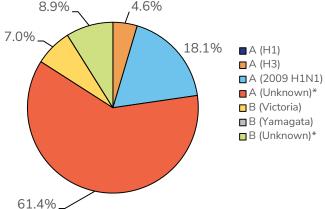
Nevada State Public Health Laboratory (NSPHL) Test Results

The NSPHL performs influenza subtyping of specimens submitted for surveillance purposes. Specimens are primarily submitted to the NSPHL by sentinel provider sites; however, all typed specimens are included in surveillance, even those not submitted by sentinel providers.

- The highest proportion of NSPHL specimens were A (unknown) at 100% (n=9) of specimens (no change in type).
- The highest proportion of NSPHL specimens to date have been A (unknown) at 61.4% of specimens, followed by A (2009 H1N1) at 18.1% and B (unknown) at 8.9% of specimens.

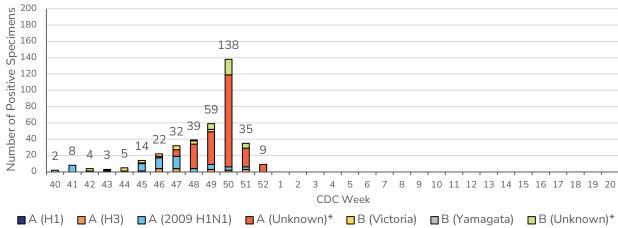
Table 1 & Figure 5. Specimens Submitted to NS	PHL for Subtyp	oing to Date, Washoe
County, 2023-2024		

Influenza Subtype	# of Specimens	% of Total Specimens
A (H1)	0	0.0%
A (H3)	17	4.6%
A (2009 H1N1)	67	18.1%
A (Unknown)*	227	61.4%
B (Victoria)	26	7.0%
B (Yamagata)	0	0.0%
B (Unknown)*	33	8.9%
Total	370	100%



*Unknown includes both rapid and unsubtyped PCR results.





*Unknown includes both rapid and unsubtyped PCR results.

Hospitalizations

Medical records are reviewed for cases with evidence of a positive influenza test who were hospitalized for greater than or equal to 24 hours. Information on the number of hospitalized cases, the number of hospitalized cases vaccinated at least two weeks prior to symptom onset, number of intensive care unit (ICU) admissions, and number of deaths among hospitalized cases are reported in Table 2. The seasonal cumulative hospitalization rate per 100,000 population is presented in Figure 8, and by age group in Figure 9.

- The highest proportion of specimens among hospitalized cases was A (unknown) at 90.5% of specimens (no change in type).
- The highest proportion of specimens among hospitalized cases to date has been A (unknown) at 85.3% of specimens (no change in type).
- Influenza hospitalization rate per 100,000 population in Washoe County was 29.7 (increase from 21.4).
- The age group with the highest influenza hospitalization rate per 100,000 population in Washoe County was >65-year age group at 84.0 (no change in age group, increase from 59.2).

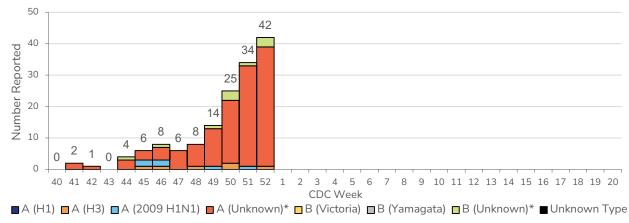
	Current Week (Week 52)							Cumulative for 2023-2024 Influenza Season								
	December 24, 2023 - December 30, 2023						October 1, 2023 - December 30, 2023									
	Hosp.		<u>Vax§</u>		<u>ICU</u>		<u>Death</u>		Hosp.		<u>Vax§</u>		ICU		<u>Death</u>	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total # of cases reported	42	N/A	7	17	5	12	1	2	150	N/A	30	20	24	16	6	4
Influenza A (H1)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Influenza A (H3)	1	2	0	0	1	20	0	0	6	4	0	0	2	8	1	17
Influenza A (2009 H1N1)	0	0	0	0	0	0	0	0	6	4	2	7	2	8	0	0
Influenza A (Unknown)*	38	90	7	100	4	80	1	100	128	85	28	93	19	79	4	67
Influenza B (Victoria)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Influenza B (Yamagata)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Influenza B (Unknown)*	3	7	0	0	0	0	0	0	10	7	0	0	1	4	1	17
Influenza Unknown Type	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 2. Number of Hospitalized Cases with Lab-Confirmed Influenza by Vaccination, ICU, and Death Status, Washoe County, 2023-2024

*Unknown includes both rapid and unsubtyped PCR results.

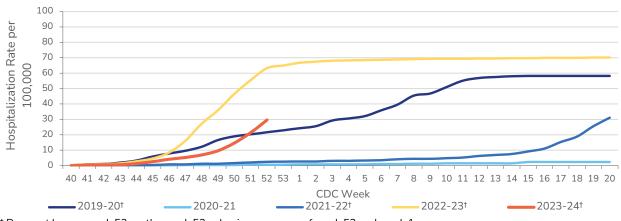
 $Vaccination status determined among hospitalized cases only. Patient is considered vaccinated if they received a flu vaccine <math>\geq 2$ weeks prior to illness onset.



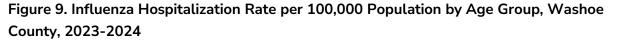


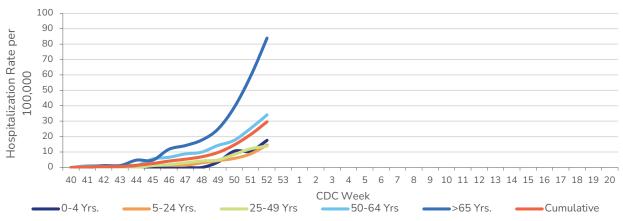
*Unknown includes both rapid and unsubtyped PCR results.

Figure 8. Influenza Hospitalization Rate per 100,000 Population, Washoe County, 2023-2024



[†] Does not have a week 53, so the week 53 value is an average of week 52 and week 1.





[†] Does not have a week 53, so the week 53 value is an average of week 52 and week 1.

Deaths

For surveillance purposes, an influenza-associated death is defined as a death resulting from a clinically compatible illness that was confirmed to be influenza by an appropriate laboratory or rapid diagnostic test with no period of complete recovery between the illness and death. Only pediatric deaths are considered reportable. Hospitalization is not required to be considered an influenza-associated death; therefore, counts presented here may be higher than those presented among hospitalized cases. Deaths by hospitalization status are delineated in Table 3.

• To date, 7 influenza-associated deaths have been reported (increase of 2).

Table 3. Number of Influenza-Associated Deaths by Age Group & Hospitalization Status, Washoe County, 2023-2024

Age Group	Deaths (Hospitalized)	Deaths (All)
0-4 Yrs.	0	0
5-24 Yrs.	0	0
25-49 Yrs.	0	0
50-64 Yrs.	2	2
>65 Yrs.	4	5
Total	6	7

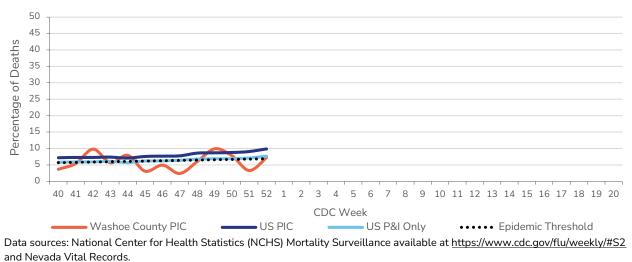
Pneumonia, Influenza, and COVID-19 Mortality

Data from the National Center for Health Statistics Mortality Surveillance are used to determine the percentage of deaths that occurred each week due to pneumonia, influenza, and/or COVID-19 (PIC). Washoe County vital statistic records are reviewed to calculate the percentage of deaths attributed to PIC. Records are pulled based on the CDC week deaths are registered and not date of death.

For the current reporting week:

National	 The percentage of deaths due to PIC was 9.9%, which is ABOVE the epidemic threshold of 6.9% (increase from 9.1%). The percentage of deaths due to pneumonia and influenza (P&I) was 7.7% (increase from 7.1%).
Washoe County	 The percentage of deaths due to PIC was 7.3% (increase from 3.3%). The percentage of PIC deaths that had COVID-19 as a contributing cause was 14.3% (decrease from 25.0%).

Figure 10. Pneumonia, Influenza, and COVID-19 Mortality, Washoe County and the United States, 2023-2024



Respiratory Syncytial Virus

Respiratory Syncytial Virus (RSV) is a common respiratory virus that can present with flu-like signs and symptoms (e.g., fever, coughing, runny nose). RSV, while usually presented with mild symptoms, can be serious, especially for infants and older adults. It is the most common cause of bronchiolitis and pneumonia in children younger than 1 year of age. RSV is a reportable condition in Nevada.

• 272 cases were reported for the current week (decrease from 285).

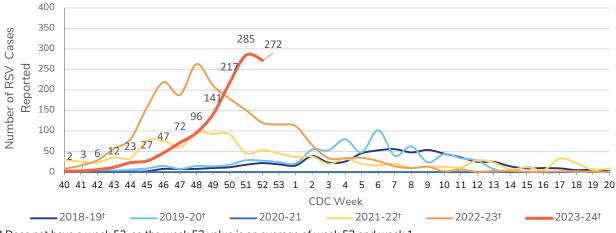


Figure 11. Number of RSV Cases Reported by Week, Washoe County, 2018-2023 Seasons[†]

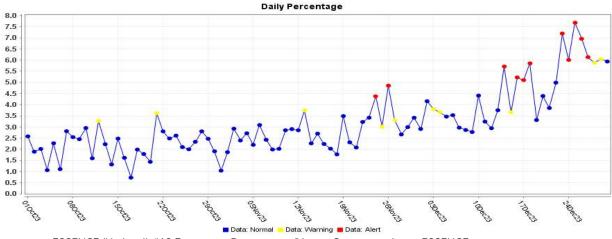
[†] Does not have a week 53, so the week 53 value is an average of week 52 and week 1.

Syndromic Surveillance

Emergency Department (ED) Visits and Urgent Care (UC) Visits

Percentage of patients seen for ILI in ED and UC is presented in Figure 12. ILI is defined as influenza or fever and a cough and/or a sore throat. The overlay below depicts ILI syndrome in blue. Alerts appear as yellow and/or red dots, indicating an unusually high percentage of ILI visits according to ESSENCE algorithms.

Figure 12. Percentage of ED and UC* Visits for ILI for Weeks 40-52, Washoe County, 2023-2024



Data source: ESSENCE (National), *13 Emergency Departments/Urgent Cares reporting to ESSENCE.

Over the Counter (OTC) Sales for Cough and/or Cold Remedies

Figure 13. OTC Sales for Cough and/or Cold Remedies for Weeks 40-52, Washoe County, 2023-2024



Data source: National Retail Data Monitor Data coverage in Washoe County

Surveillance Changes 2023-2024 Season

- Starting with the 2023-2024 influenza season, Nevada implemented the use of <u>ESSENCE</u> data for ILI data reporting to CDC's <u>ILINet</u>. As a result, Nevada's baseline (see Figure 2) was recalculated using historical ESSENCE data and the number of reporters for ILI for the state of Nevada went from 32 to 66 (13 to 14 for Washoe County, 11 now reporting using ESSENCE). Figure 3's historical ILI data has been recalculated with ESSENCE data to ensure comparability with the current season. See Influenza-like-illness & Syndromic Surveillance sections of this report for where ESSENCE data is utilized; this data should not be compared to previous reports published in prior seasons.
- Season 2022-2023 Influenza Report's Figure 2 was removed as it showed ILI activity in Washoe County reported by sentinel providers from 2018-2021 using a previous case definition for ILI. It was no longer comparable to the seasons that proceeded 2021.
- Table 3 was added to depict influenza-associated deaths by age group and by hospitalization status.
- One sentinel provider, an urgent care, was re-onboarded. It had previously been a reporter but had been closed during the 2022-2023 season.
- Flu typing has been standardized throughout the report. Influenza A (H1) is reported separately from influenza A (2009 H1N1). Rapids are no longer reported separately, instead are combined with unknown subtypes cumulatively as either influenza A (unknown) or influenza B (unknown).
- Some figures and tables were rearranged within the report.

10