Wyoming Department of Health

INFLUENZA REPORT

2023-2024 Influenza Season

MMWR Week 14 (3/31/24-4/6/24)

Weekly Report of Influenza and Influenza-like Illness (ILI) Activity

Overview (MMWR Week 14)

Influenza and Influenza-like Illness Activity

Spread
Local
Transmission levels continued to decrease in most counties this week

Flu Activity
Low
Reported activity levels have decreased across the state

ILI Activity
Low
Reports of outpatient respiratory illnesses continue to decline

Co-circulating
Other Viruses:
low levels of SARS-CoV-2 and RSV

Seasonal Data
Types of Flu
Influenza A and B viruses are circulating

Subtypes
All three viruses (A/H1N1, A/H3N2, and B/Victoria) were reported in equal proportions this week

Outbreaks
0
No newly reported LTCF or school associated outbreaks this week

Severity
Hospitalizations
Nationally, the number of hospital admissions has been decreasing since January

Deaths
0
No locally reported pediatric deaths; 138 pediatric deaths reported in the US so far this season

Syndromic
1
One syndromic anomaly was reported in Laramie County this week

EMS
26
Suspected ILI reports this week

Hot Spots
Tracking Trends
Most counties continue to report a decrease in case counts

Geographic Activity by Regions

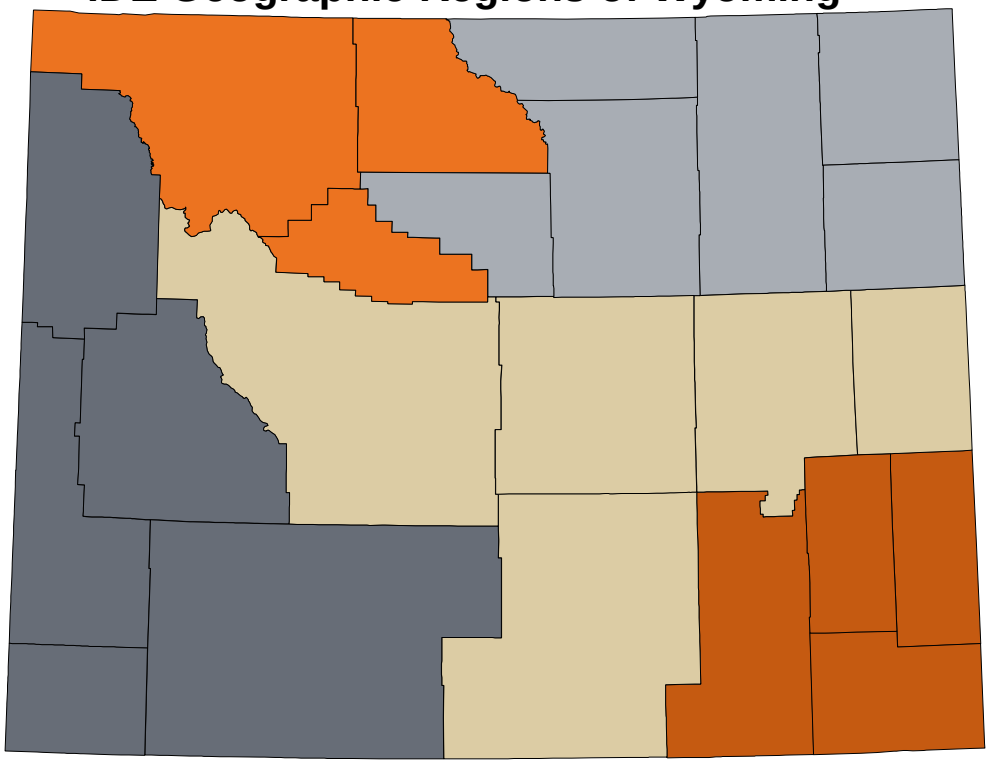
Wyoming as a whole had **low** ILI activity this week (MMWR Week 14). Transmission levels continue to decrease across the state.

Healthcare providers in **9** counties reported ILI activity.

The electronically reported influenza cases represent **all five** Infectious Disease Epidemiology (IDE) Geographic Regions.

Healthcare providers across the state electronically reported **40 cases** of influenza (rapid influenza diagnostic tests and PCR confirmed tests) this week.

IDE Geographic Regions of Wyoming



- Southeastern (**sporadic**, with cases reported only in Laramie County)
- Central (**sporadic**, with cases reported in Fremont, and Carbon counties)
- Western (**sporadic**, with cases reported in Teton and Uinta counties)
- Big Horn (**local**, with cases reported in Park and Big Horn counties)
- Northeastern (**local**, with cases reported in Campbell and Sheridan counties)

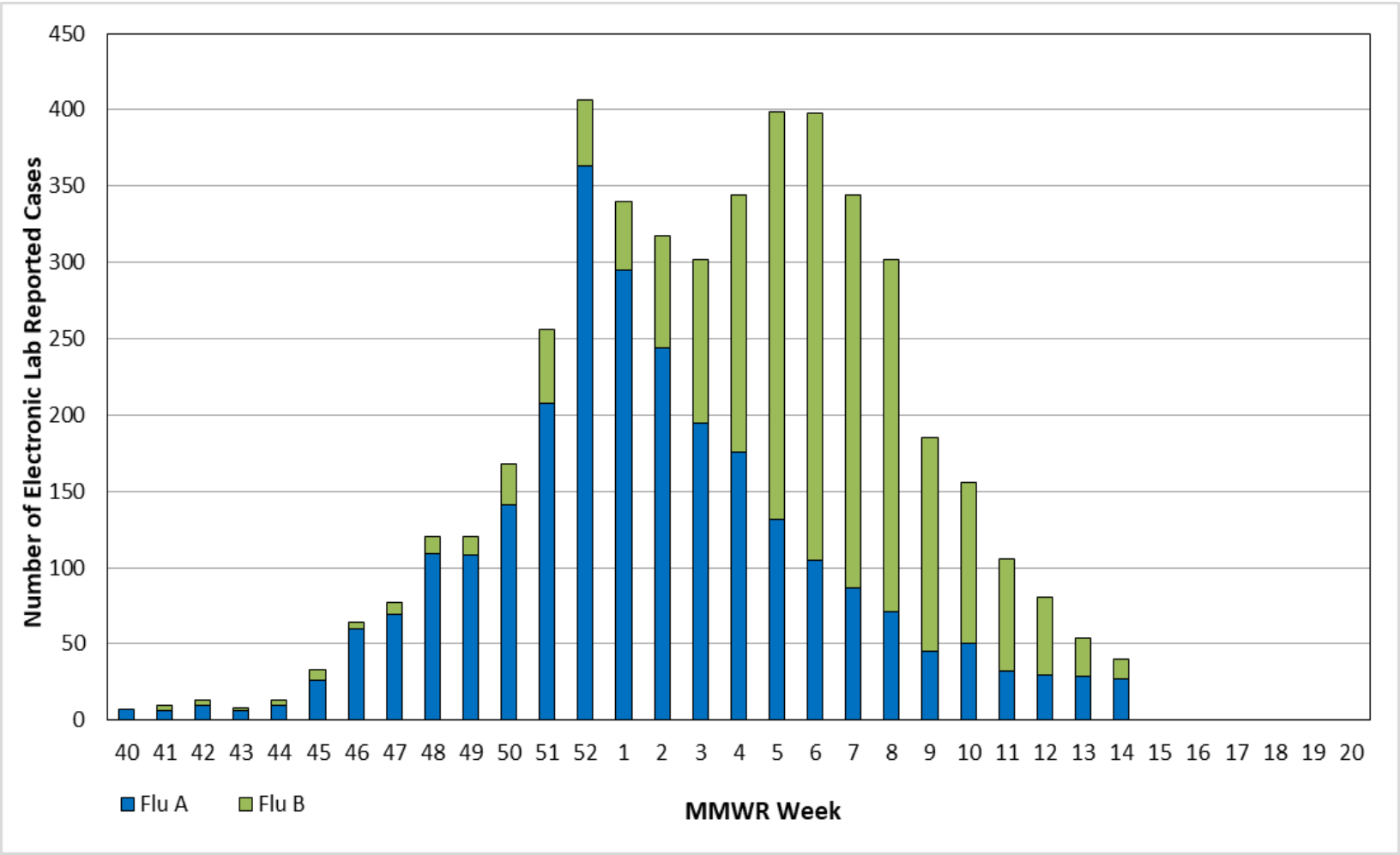
Public Health Laboratory

The overall volume of samples tested for influenza at the Wyoming Public Health Laboratory has increased since the introduction of the CDC Influenza SARS-CoV-2 Multiplex Assay. Wyoming saw a **slight decrease** in the number of positive influenza specimens reported this week compared to week 13.

Healthcare and Clinical Laboratories

Clinical laboratories across the United States reported **all three influenza viruses (A/H1N1, A/H3N2, and B/Victoria)** co-circulating in equal proportions during MMWR Week 14.

Electronic Lab Reports of Influenza Cases

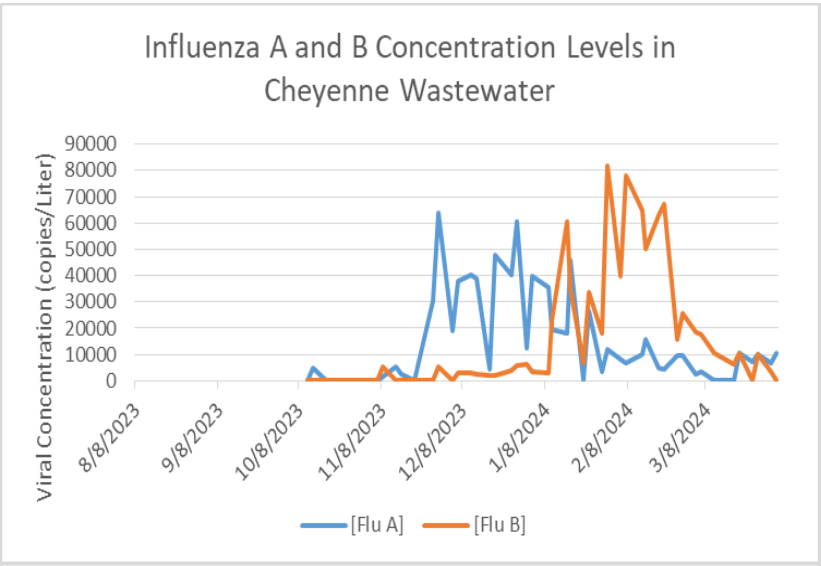


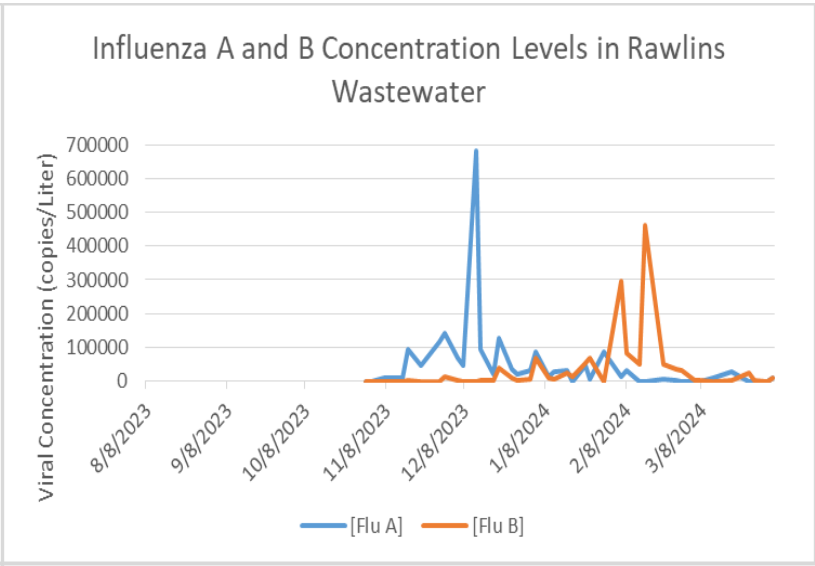
*** This graph is not representative of all influenza cases across the state**

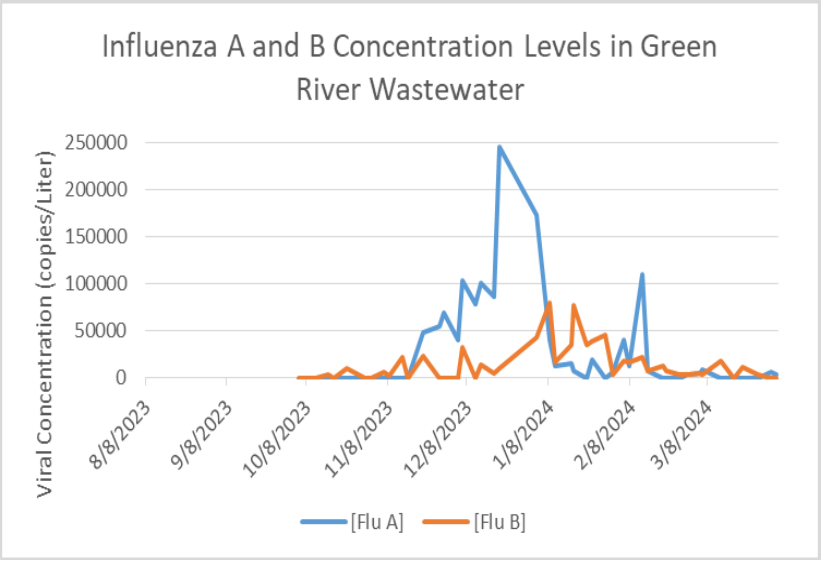
Wastewater Surveillance

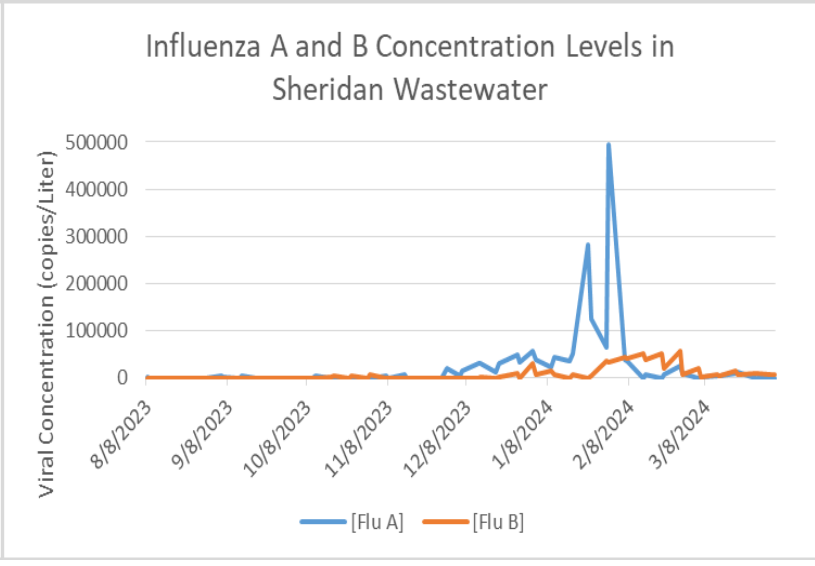
Importance of Wastewater Surveillance:

Jurisdictions across the country have recently started utilizing wastewater sampling to conduct surveillance for different pathogens. Here at the WPHL, we have a team of scientists working to analyze wastewater samples to identify trends in influenza (and many other targets). The graphs pictured below depict trend lines that correlate relatively well with the case counts and activity percentages we have seen so far this season.









Sampling and Analysis Methodologies:

For each city, twice a week, we have a wastewater utility operator take a 24 hour composite sample from the influent channel prior to treatment, of which they send us a total of 150mL in three 50mL tubes for us to test. They then ship the samples chilled via priority overnight so that we can run all of our measurements the following day. The sampling procedure is conducted in triplicate, and we take an average of the three to determine the estimated concentration of viral particles present in the wastewater for any given day. We then take the average concentration and divide it by our percent recovery to account for any deviation due to differing levels of present inhibitors. Each plot point on the graph represents the average viral concentration for a set of triplicates, normalized for the percent recovery.

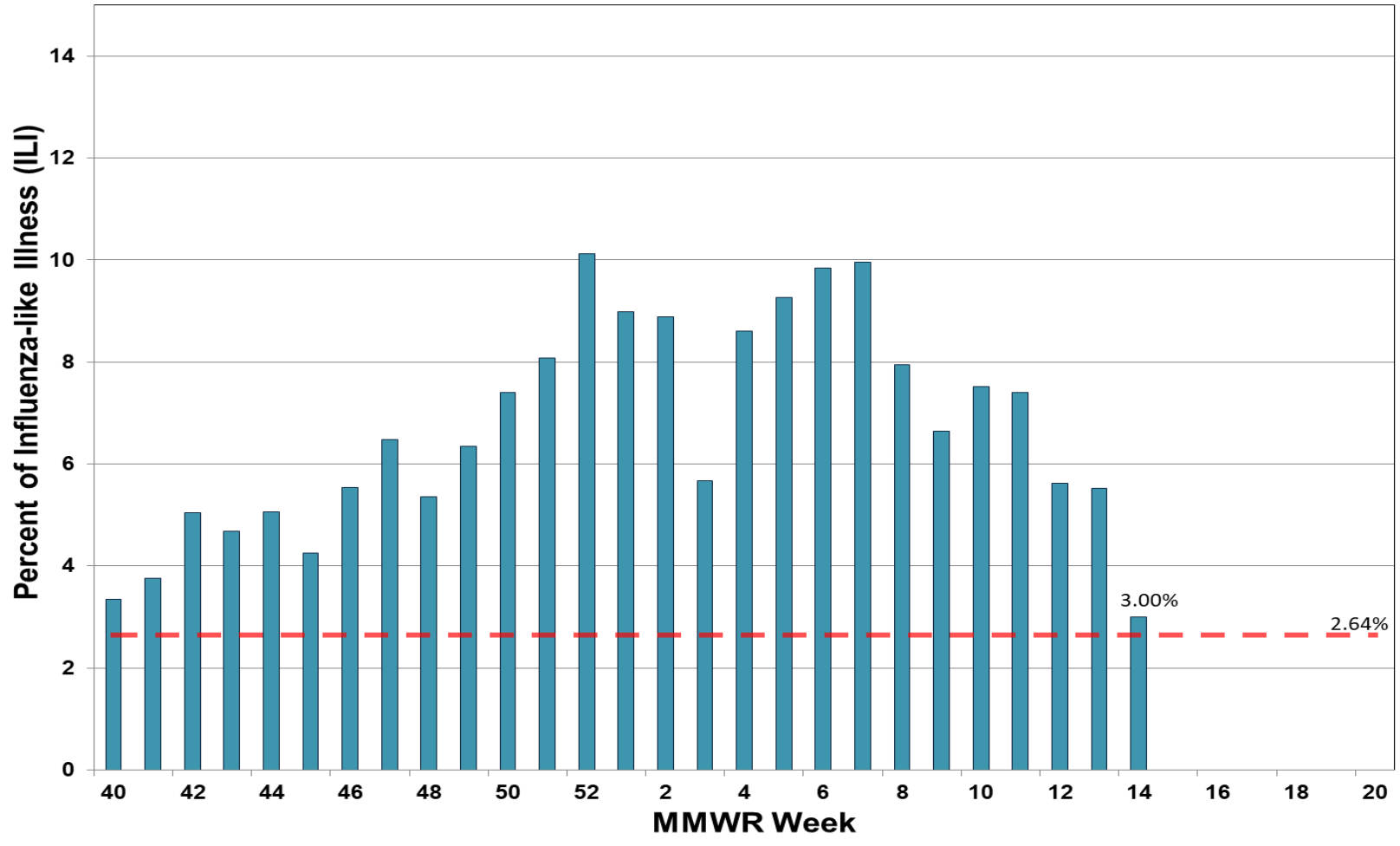
ILINet Providers

The percent of patient visits to ILINet Sentinel Providers for an influenza-like illness was **3.00%,** which is **above** Wyoming's baseline (**2.64%**), and a significant **decrease** compared to week 13.

The Wyoming Department of Health received reports from **less than 50%** of the ILINet providers across the state. Although weekly percentages could continue to change as additional values are submitted.

Key Updates: Nationally, outpatient respiratory illness declined, and is below baseline for the first time since late October. HHS Regions 2, 3, 4, 6, 8, 9, and 10 are below their baselines, while all other HHS regions remain above their region-specific baselines. Based on CDC calculations, transmission within Wyoming was **low** this week. Seasonal influenza activity remains elevated, but continues to decrease across the country.

Weekly Percent of ILI Visits



Mortality Data

Tracking death certificates is the best surveillance system to capture and identify pneumonia and influenza-associated deaths in Wyoming. According to the CDC, influenza is infrequently listed on death certificates. Also, testing for seasonal influenza infections is not frequently performed, particularly among the elderly, who are at greatest risk for seasonal influenza complications and death. Therefore, public health officials may not identify influenza-associated deaths in many instances; consequently, this surveillance system may underestimate the true impact of influenza-associated deaths across the state.

There have been **44** pneumonia and influenza (P&I) mortality reports certified since the beginning of the 2023-2024 Influenza Season.