



INFLUENZA REPORT

2023-2024 Influenza Season

MMWR Week 9 (2/25/24-3/2/24)

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



Influenza and Influenza-like Illness Activity

Spread

Regional

Transmission levels decreased significantly this week

Flu Activity

Moderate

Activity levels have started to trend down across the state

ILI Activity

Moderate

Outpatient respiratory illnesses continue to be reported

Co-circulating

Other Viruses:

SARS-CoV-2
RSV

Seasonal Data

Types of Flu

Influenza A and B viruses are circulating

Subtypes

Primary: B

Predominately A/H1N1 viruses reported across the country this week

Outbreaks

0

No newly reported LTCF or school associated outbreaks this week

Severity

Hospitalizations

The number of hospital admissions remained stable compared to last week

Deaths

0

No locally reported pediatric deaths; 103 pediatric deaths reported in the US so far this season

Syndromic

0

No syndromic anomalies were reported this week

EMS

19

Suspected ILI reports this week

Hot Spots

Tracking Trends

Several counties reported another slight decrease in case counts



Geographic Activity by Regions

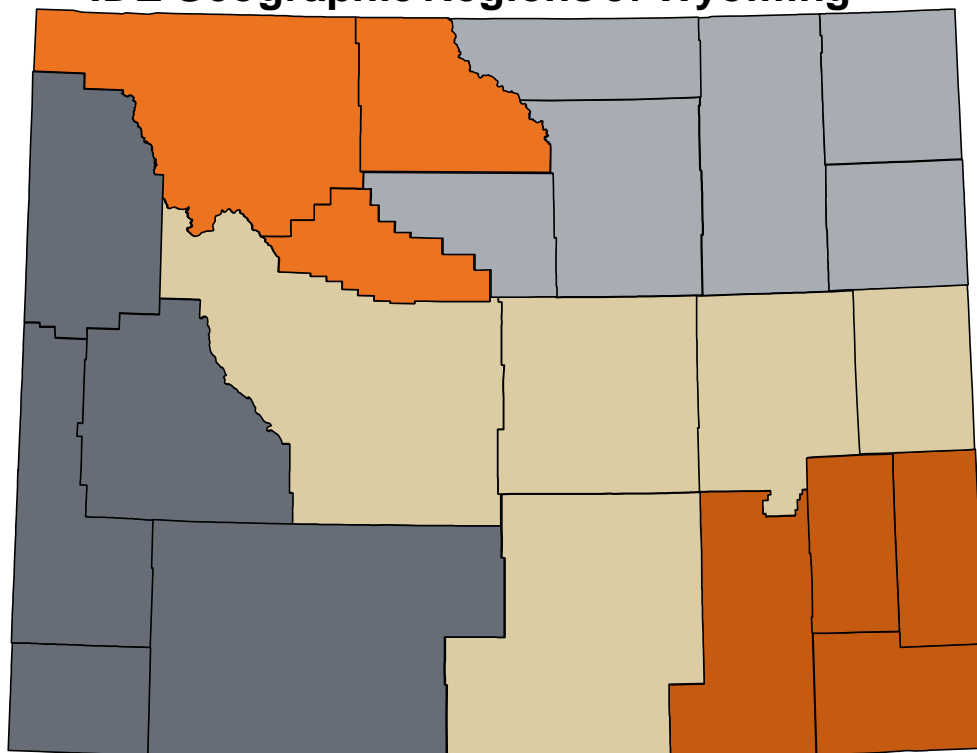
Wyoming as a whole had **moderate** activity this week (MMWR Week 9). Transmission levels remain elevated across the state.

Healthcare providers in **18** 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 **185 cases** of influenza (rapid influenza diagnostic tests and PCR confirmed tests) this week.

IDE Geographic Regions of Wyoming



- Southeastern (**regional**, with cases reported in Goshen, Laramie, and Platte counties)
- Central (**regional**, with cases reported in every County besides Niobrara)
- Western (**regional**, with cases reported in Lincoln, Teton and Uinta counties)
- Big Horn (**regional**, with cases reported in Big Horn and Park counties)
- Northeastern (**widespread**, with cases reported in every county)



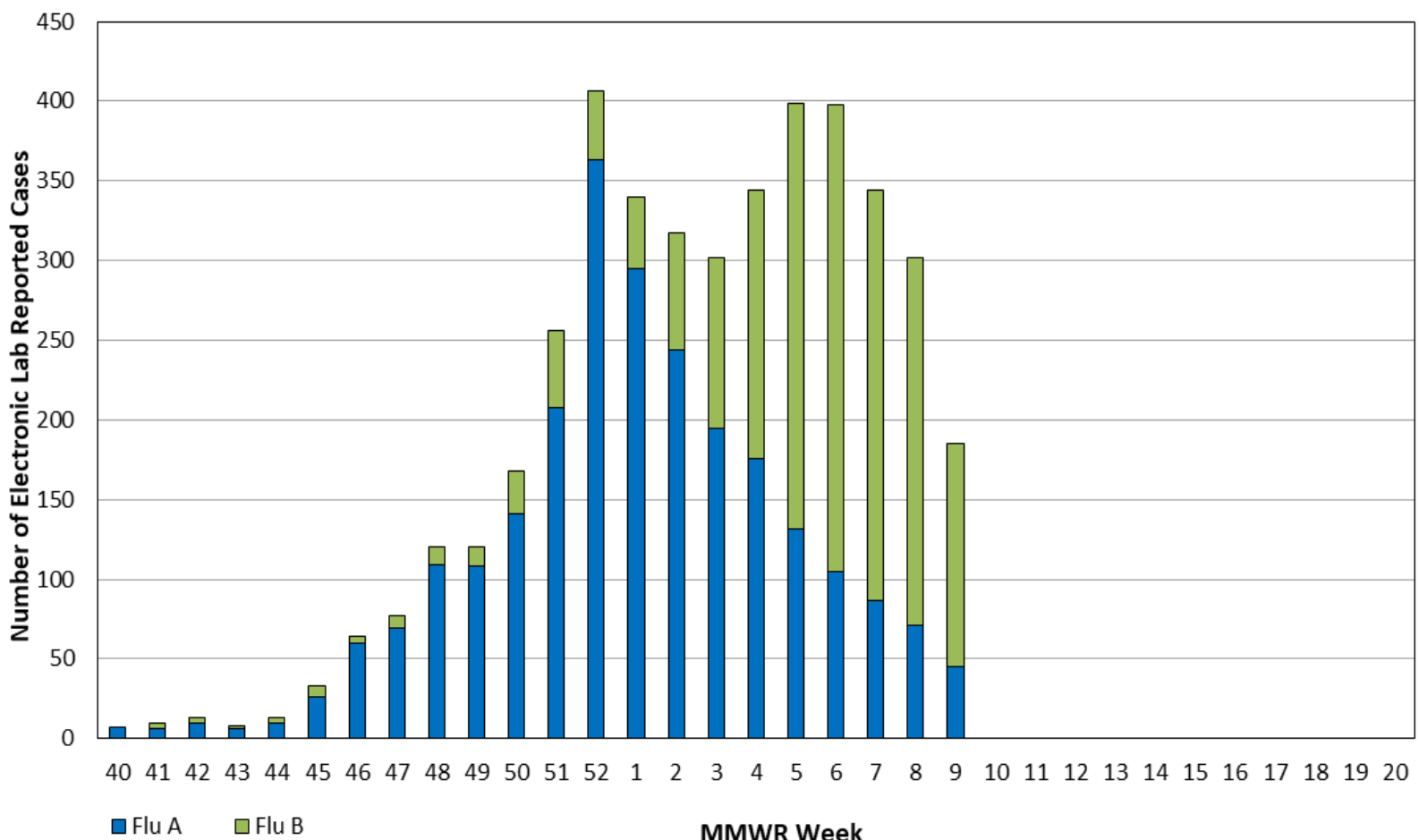
Public Health Laboratory

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 **significant decrease** in the number of positive influenza specimens reported this week compared to week 8.

Healthcare and Clinical Laboratories

Clinical laboratories across the United States most frequently reported **influenza A/H1N1 viruses** during MMWR Week 9, with some influenza A/H3N2 and B/Victoria viruses. Wyoming continues to see an increasing proportion of influenza B lab reports as is consistent with many jurisdictions.

Electronic Lab Reports of Influenza Cases



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

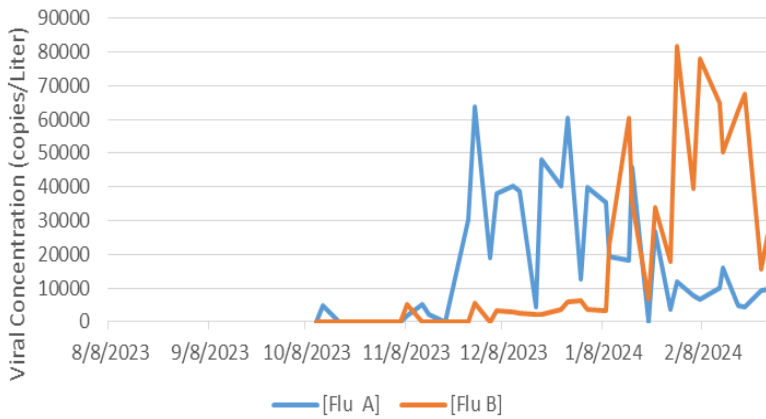
Wastewater Surveillance



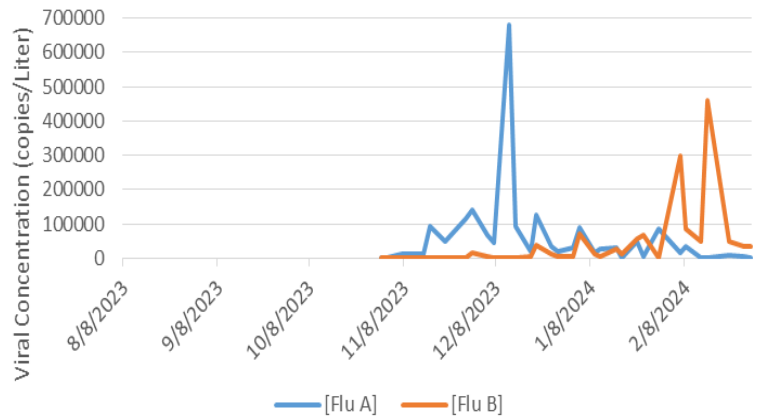
Importance of Wastewater Surveillance:

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 preliminary graphs pictured below depict trend lines that correlate relatively well with the case counts and activity percentages we have seen so far this season.

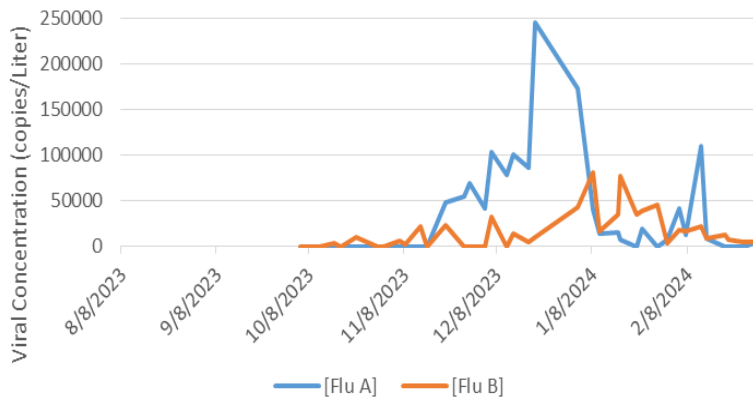
Influenza A and B Concentration Levels in Cheyenne Wastewater



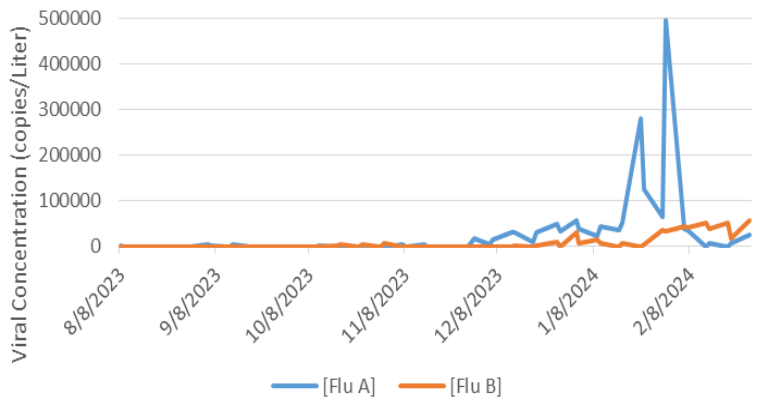
Influenza A and B Concentration Levels in Rawlins Wastewater



Influenza A and B Concentration Levels in Green River Wastewater



Influenza A and B Concentration Levels in Sheridan Wastewater



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.



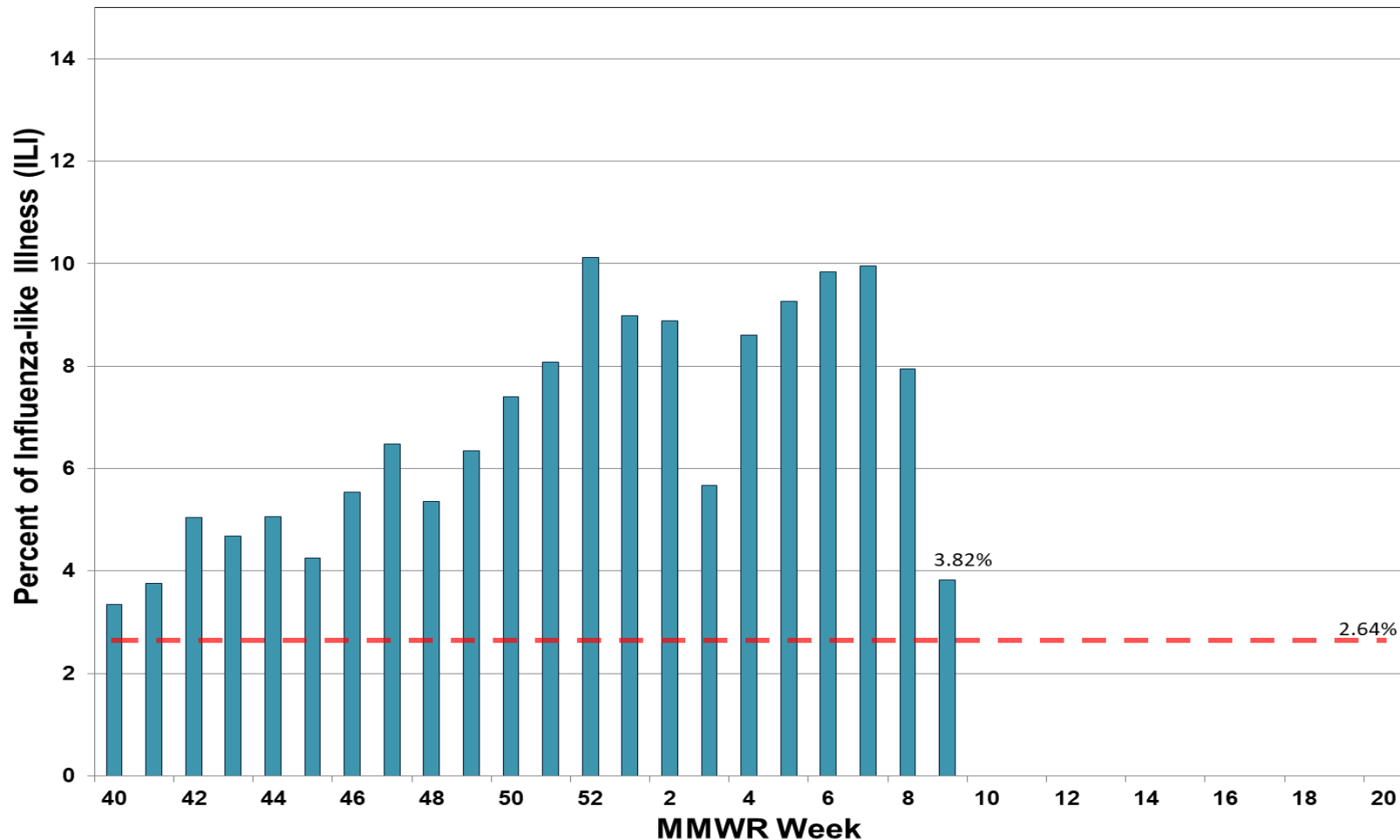
ILINet Providers

The percent of patient visits to ILINet Sentinel Providers for an influenza-like illness was **3.82%**, which is **above** Wyoming's baseline (**2.64%**), and a **significant decrease** compared to week 8.

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

Key Updates: Outpatient respiratory illness declined slightly, but remains above baseline nationally. Two of the 10 HHS Regions (Regions 8 and 9) are below their respective baselines this week. Based on CDC calculations, transmission within Wyoming was **moderate** this week. Seasonal influenza activity remains elevated nationally with increases in some parts of 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 **40** pneumonia and influenza (P&I) mortality reports certified since the beginning of the 2023-2024 Influenza Season.

Monthly P&I Mortality Reports (2019-2024)

