DECEMBER 20, 2024

How CDC is monitoring influenza data among people to better understand the current avian influenza A (H5N1) situation

Weekly Snapshot for Week Ending December 14, 2024

AT A GLANCE

CDC influenza (flu) surveillance systems show no indicators of unusual influenza activity in people, including avian influenza A(H5N1).

Overview

This page provides information on how CDC systems that monitor national, state, and local level influenza data are being used during the current avian influenza A(H5N1) situation.

- Influenza virus and illness activity are monitored year-round through a collaborative effort between CDC and many partners, including state, local, and territorial health departments; public health and clinical laboratories; clinics; and emergency departments.
- Human cases of novel influenza, which are human infections with non-human influenza A viruses that are different from currently spreading seasonal human influenza viruses, are nationally notifiable. Every identified case is investigated and reported to CDC.
- CDC is actively looking at multiple flu indicators during the current situation to monitor for influenza A(H5N1) viruses, including looking for spread of the virus to, or among people, in jurisdictions where the virus has been identified in people or animals.

Monitoring of Persons Exposed to Infected Animals*

February 2022 – Present	CDC and state and local health departments monitor people exposed to infected birds, poultry, dairy cows or other animals for 10 days after exposure. Between February 2022 and now, there have been • At least 19,700 people monitored and • At least 810 people tested for novel influenza A

Current HPAI Outbreak (2024)	CDC and state and local health departments monitor people exposed to infected birds, poultry, dairy cows and other animals for 10 days after exposure. Between March 24, 2024, and now, there have been
	• At least 10,300 people monitored
	  ◦ At least 6,670 with exposures to dairy cows
	  ◦ At least 3,700 with exposures to birds and other animals including poultry (non-dairy cow source)
	• At least 500 persons tested for novel influenza A
	  ◦ At least 155 with exposures to dairy cows
	  ◦ At least 370 with exposures to birds and other animals including poultry (non-dairy cow source)

*CDC numbers are based on weekly state aggregate reports since 2022. CDC defers to states for updated information on people being monitored and tested. March 24, 2024, was the date of the first reported dairy cow infections in the United States.

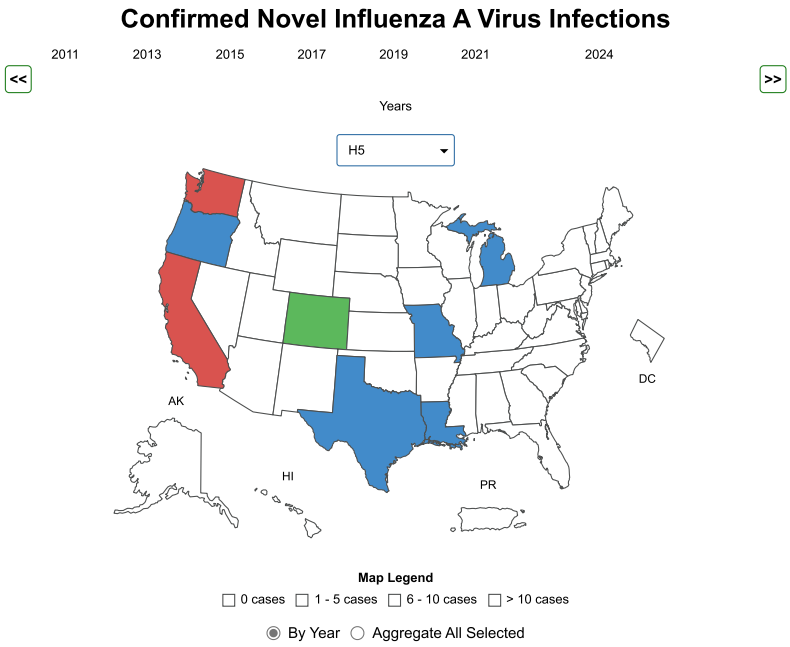
Main Findings from Surveillance Systems

CDC has multiple surveillance systems that are used year-round to monitor key flu indicators. These data are reviewed comprehensively each week. Taken together, as of December 20, 2024, these systems currently show no indicators of unusual flu activity in people, including avian influenza A(H5N1) viruses.

Case Reporting	For the latest case counts, please visit the H5 Bird Flu: Current Situation page.
Public Health Laboratory Monitoring	Since February 25, 2024, 70,562 specimens have been tested using a protocol that would have detected A(H5) and other novel viruses.
Clinical Laboratory Trends	CDC has not identified any unusual trends in reported clinical laboratory data at the national, state, or local levels.
Emergency Departments	CDC has not identified any unusual trends in emergency department visits associated with influenza or potentially related symptoms at the national, state, or local levels.
Wastewater Surveillance	For the week ending December 14, 2024, 337 sites reported results for avian influenza A(H5) in wastewater, and 49 (14.5%) sites from 5 states reported H5 detections.

Monitoring for Novel Influenza A virus infections among people, including Influenza A (H5)

Rapid detection and reporting of human infections with novel influenza A viruses, including influenza A(H5), is important to facilitate prompt awareness and an effective public health response. For confirmed cases, the reporting jurisdiction completes a case report form, which is submitted to CDC. The information includes patient demographics, symptoms, the clinical course of illness, and exposure history. The reporting jurisdiction for influenza A(H5) cases reported in 2024 are summarized below.



View FluView Interactive (https://gis.cdc.gov/grasp/fluview/Novel_Influenza.html) | Download Map Data | Download PowerPoint Presentation

Data presented through: 12/14/2024; Data as of: 12/18/2024

Additional cases meeting the Council of State and Territorial Epidemiologists (CSTE) probable case definition PDF have been reported by states: CA (1), WA (3), AZ (2), DE (1). Confirmatory testing at CDC for these cases was negative.

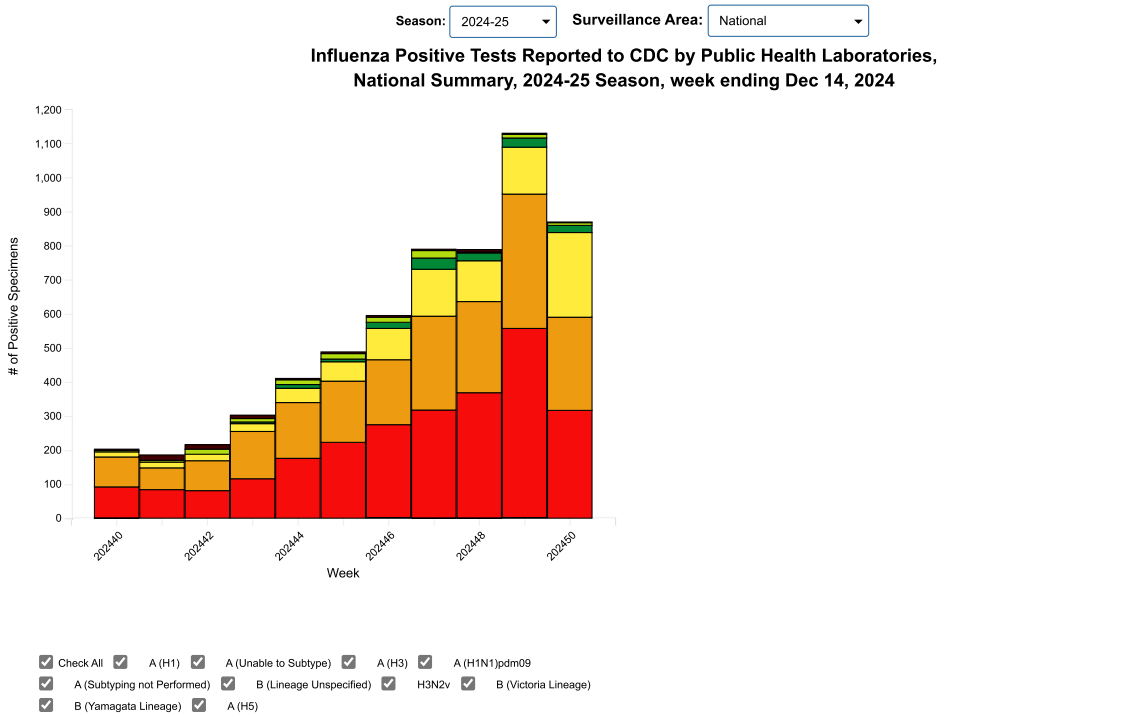
Resource

Additional novel influenza surveillance information for current and past seasons:

Surveillance Methods | FluView Interactive

Public health laboratory reporting

Public health laboratories use CDC's diagnostic tools to detect both seasonal influenza viruses and novel influenza A viruses including influenza A(H5). These diagnostic tools are used at more than 100 public health laboratories in all 50 U.S. states. The results of tests performed by these public health laboratories nationwide are summarized below.



View Additional Graphs and Data (http://gis.cdc.gov/grasp/fluview/fluportaldashboard.html) | Download Chart Data | Download PowerPoint Presentation

*This graph reflects the number of specimens tested and the number determined to be positive for influenza viruses at the public health lab (specimens tested is not the same as cases). It does not reflect specimens tested only at CDC and could include more than one specimen tested per person. Specimens tested as part of routine influenza surveillance as well as those tested as part of targeted testing for people exposed to influenza A(H5) are included.

Data presented through: 12/14/2024; Data as of: 12/18/2024

Resource

Additional virologic surveillance information for current and past seasons:

Surveillance Methods | FluView Interactive: National, Regional, and State Data or Age Data

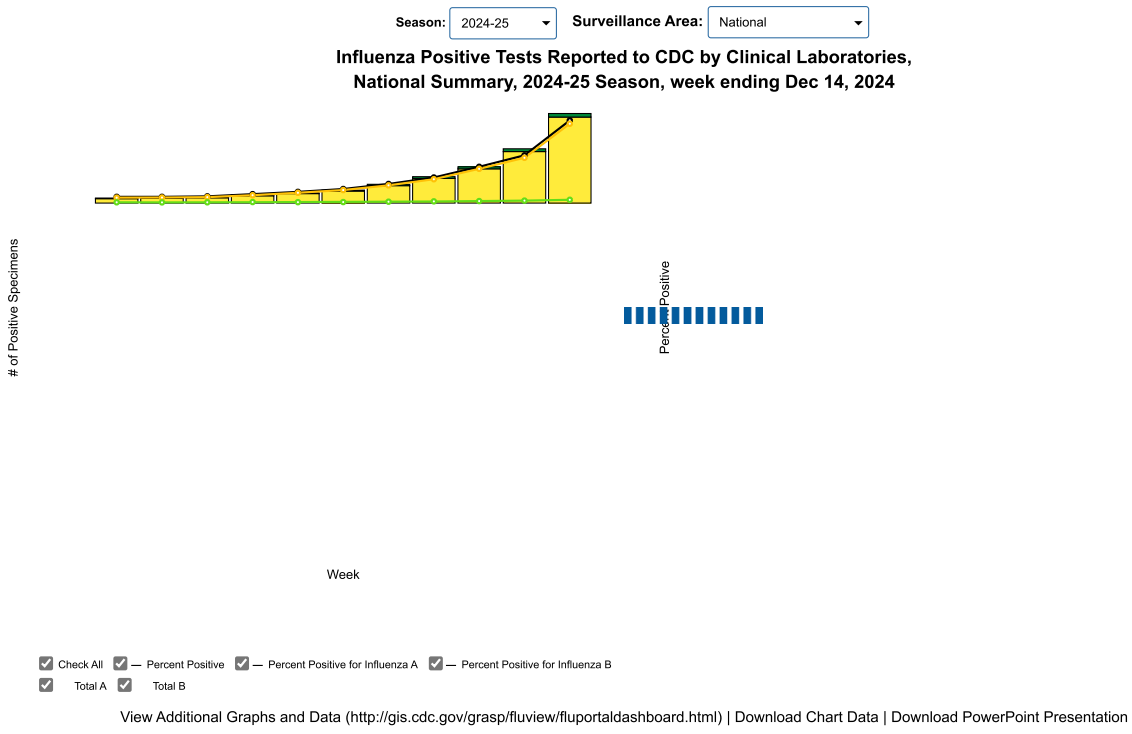
Systems used to monitor influenza activity

Influenza activity is monitored year-round using multiple systems. These systems are used for monitoring seasonal influenza and, because influenza viruses are constantly changing in small, and occasionally more significant ways, these systems are also useful for monitoring signals and trends from novel influenza virus infections. Some examples are provided below.

Monitoring for changes in tests positive for influenza in clinical settings

Approximately 300 clinical laboratories located throughout all 50 states, Puerto Rico, Guam, and the District of Columbia report the results of clinical testing for influenza through either the U.S. WHO Collaborating Laboratories System or the National Respiratory and Enteric Virus Surveillance System (NREVSS). The results of tests performed by clinical laboratories nationwide are summarized below. While these

laboratories don't test specifically for influenza A(H5) virus, by tracking the percentage of specimens tested that are positive for influenza A viruses, we can monitor for unusual increases in influenza activity that may be an early sign of spread of novel influenza A viruses, including H5.



Data presented through: 12/14/2024; Data as of: 12/18/2024

Resource

Additional virologic surveillance information for current and past seasons:

Surveillance Methods | FluView Interactive: National, Regional, and State Data

Monitoring for changes in emergency department visits for influenza

EXPAND ALL +

The National Syndromic Surveillance Program (NSSP) collects, analyzes, and shares electronic data received from multiple health care settings, including emergency departments (ED). CDC uses syndromic surveillance in partnership with participating state and local health departments to capture data quickly, monitor for unusual trends, improve situational awareness, and inform decision making.

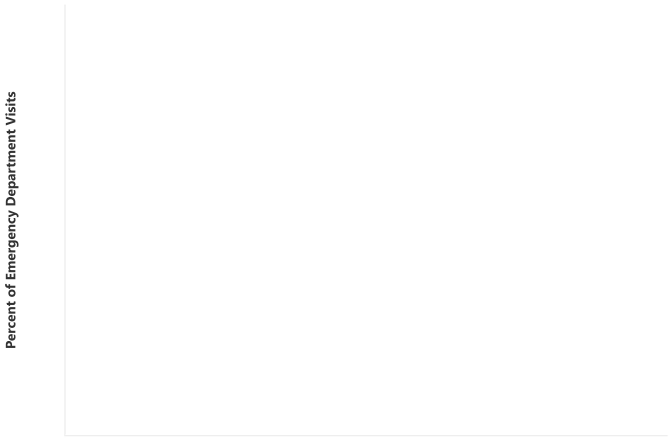
Data from NSSP on the weekly percentage of total emergency department visits associated with influenza-related diagnoses are summarized below and are closely monitored by the NSSP team. **It's important to note that these visits are among persons with any influenza diagnosis and are not specific to avian influenza A(H5N1) viruses.** However, by tracking all influenza diagnoses, as well as symptoms potentially related to influenza virus infections, among patients in EDs, the chance of detecting unusual levels of influenza is improved, including in jurisdictions where A(H5N1) viruses have been identified in animals or in the one person.

State: United States

County:

Counties included in this area

Weekly percent of total emergency department visits associated with influenza



Data presented through: 12/14/2024; Data as of: 12/18/2024
Dataset on data.cdc.gov | Link to Dataset

Data Table +

Download Data (CSV)

Resource

Additional emergency department surveillance information for current and past seasons:

Surveillance Methods | Data.CDC.gov: NSSP Emergency Department Visit Trajectories | NSSP Companion Guide

About the Data: +

- **Source**: National Syndromic Surveillance Program: https://www.cdc.gov/nssp/index.html
- There are no data available for the following states/territories: Guam, Missouri, New Hampshire, and South Dakota.
- Additional information available at: Companion Guide: NSSP Emergency Department Data on Respiratory Illness

Monitoring for Avian Influenza A(H5) Virus In Wastewater

EXPAND ALL +

Wastewater surveillance may complement other existing human influenza surveillance systems to monitor influenza. Data on wastewater testing for influenza A viruses can be found through CDC's National Wastewater Surveillance System (NWSS). In addition to influenza A virus data, CDC receives weekly avian influenza A(H5) virus data from an academic partner (approximately 150 sites) and some state health departments. In each site, wastewater sampling and testing occurs one or more times during the week.

Wastewater data cannot determine the source of avian influenza A(H5) viruses. They could come from a human or from an animal (like a bird) or an animal product (like milk from an infected cow), and detections of avian influenza A(H5) virus in wastewater do not necessarily indicate human cases. During the spring and summer of 2024, investigations in many states with avian influenza A(H5) virus detections in wastewater revealed likely animal-related inputs including milk-processing inputs. CDC, state and local public health departments, and other partners are closely monitoring the data from these wastewater sites to identify potential contributing factors. Wastewater results for avian influenza A(H5) virus provide an additional source of data to complement traditional influenza surveillance systems and inform public health planning and response efforts. Efforts to monitor avian influenza A(H5) virus activity using wastewater data are likely to evolve as the methodologies and interpretation are evaluated and refined.

This interactive map shows current site-level data for avian influenza A(H5) viral RNA detections in wastewater. Each dot on the map represents a wastewater sampling site. For each site, results are reported as "H5 Detection" when any of the samples were positive during the week reported. When avian influenza A(H5) virus is not detected in any of the samples, then the site is classified as "No Detection." All data are preliminary and may change as more reports are received. Data will be updated on this site every Friday, based on data submitted to CDC by the end of the day on the previous Wednesday.

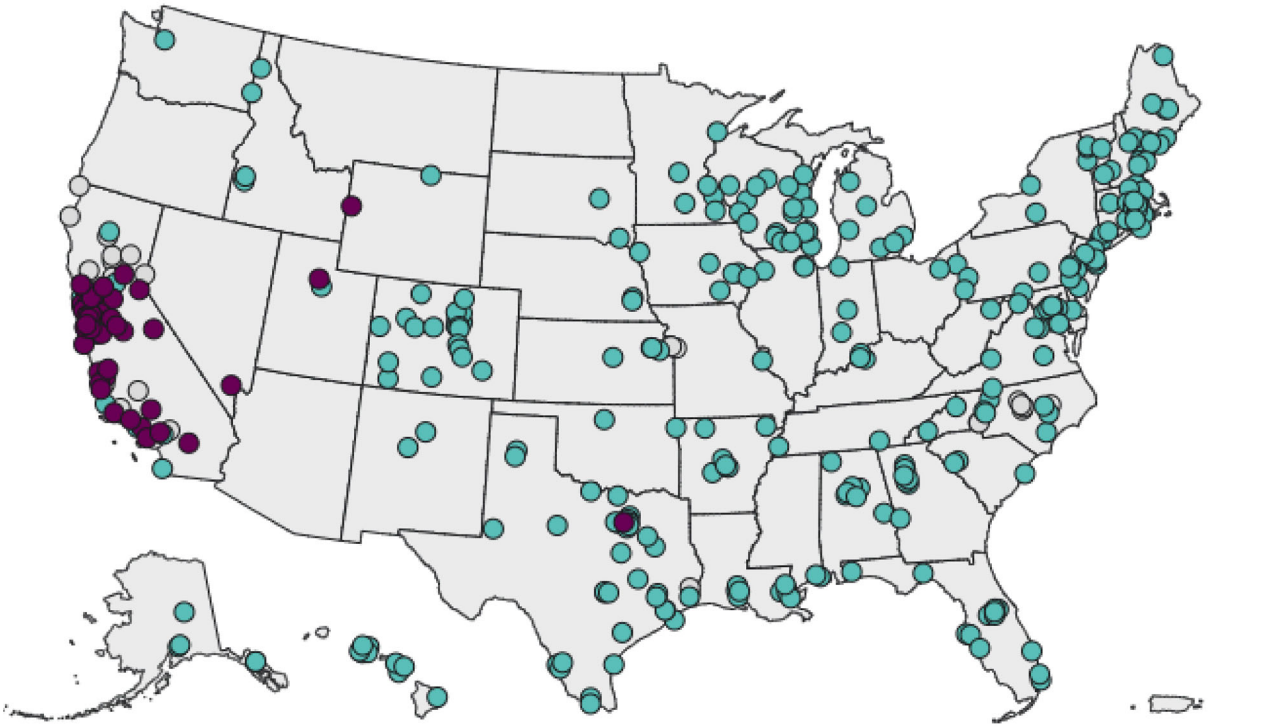
Time Period: December 08 - December 14, 2024

H5 Detection
49 sites (14.5%)

No Detection
288 sites (85.5%)

No samples in last week
35 sites

Click on the legend below to see detections.



Select a detection type below to add or remove it from the map.

H5 Detection No Detection No Samples in Last Week

Data 12/19/2024

Data Table +

Download Data (CSV)

H5 detection in wastewater in the past six weeks

Time Period: November 03 - December 14, 2024

This searchable table shows site-level data for avian influenza A(H5) viral RNA detections in wastewater for the past six weeks. The date in the column header is the last day for that week of sample collection. The table shows if:

\+ H5 was detected at the site

\- H5 was not detected at a site

No Data No samples were taken for that site or no data is available for that site

To filter for sites with a recent H5 detection, type + in the search bar.

Show 10 entries Search

Sewershed	State/Territory	County	12/14/2024	12/07/2024	11/30/2024	11/23/2024	11/16/2024	11/09/2024
ID:114	California	Los Angeles	+	+	+	+	+	+
ID:140	California	Sacramento	+	+	+	+	+	+
ID:147	California	San Francisco, San Mateo	+	+	+	+	+	+
ID:148	California	San Francisco, San Mateo	+	+	+	+	+	+
ID:166	California	San Luis Obispo	+	+	+	+	+	+
ID:169	California	San Mateo	+	+	+	+	+	+
ID:170	California	San Mateo	+	+	+	+	+	+
ID:173	California	Santa Clara	+	+	+	+	+	+
ID:175	California	Santa Clara	+	+	+	+	+	+
ID:176	California	Santa Clara	+	+	+	+	+	+

Showing 1 to 10 of 372 entries

Previous 1 2 3 4 5 ... 38 Next

About the Data

- Each wastewater sampling site can represent all or part of a sewershed, which is the geographic area contributing wastewater to a sampling location. Sewersheds can encompass populations of varying sizes and may cross county or state boundaries.
- Avian influenza A(H5) virus data in wastewater include data collected and reported to CDC's National Wastewater Surveillance System (NWSS) by:
  - An academic partner group (WastewaterSCAN): These data were collected as part of a partnership between Stanford University, Emory University, and Verily funded philanthropically through a gift to Stanford University. Find more about these data and their use at: data.wastewaterscan.org/about/#15.
  - State and local public health departments: Data from state and local health departments were reported through the NWSS program and funded through the Epidemiology and Laboratory Capacity for the Prevention and Control of Emerging Infectious Diseases (ELC) Cooperative Agreement.

Keep Reading:
Data Methods

Data Interpretation and Limitations

Laboratory tests used for avian influenza A(H5) virus monitoring in wastewater can tell us if the genetic material from the virus (viral RNA) is present in untreated community wastewater. If avian influenza A(H5) viral RNA is detected, it means that H5 virus was present in the wastewater that flows to the treatment plant but does not determine whether infectious virus is present. However, current testing methods cannot determine whether the source of the virus was animal/animal by-products or human cases.

Explore Deeper

FluView

Novel A FluView Interactive

Respiratory Virus Data Channel Weekly Snapshot

Wastewater Data for Avian Influenza A(H5)

SOURCES

CONTENT SOURCE:

National Center for Immunization and Respiratory Diseases (NCIRD)