



The Return of Influenza

A summary of the 2021-2022 Influenza Season

National Adult and Influenza Immunization Summit
May 20, 2022

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Outline

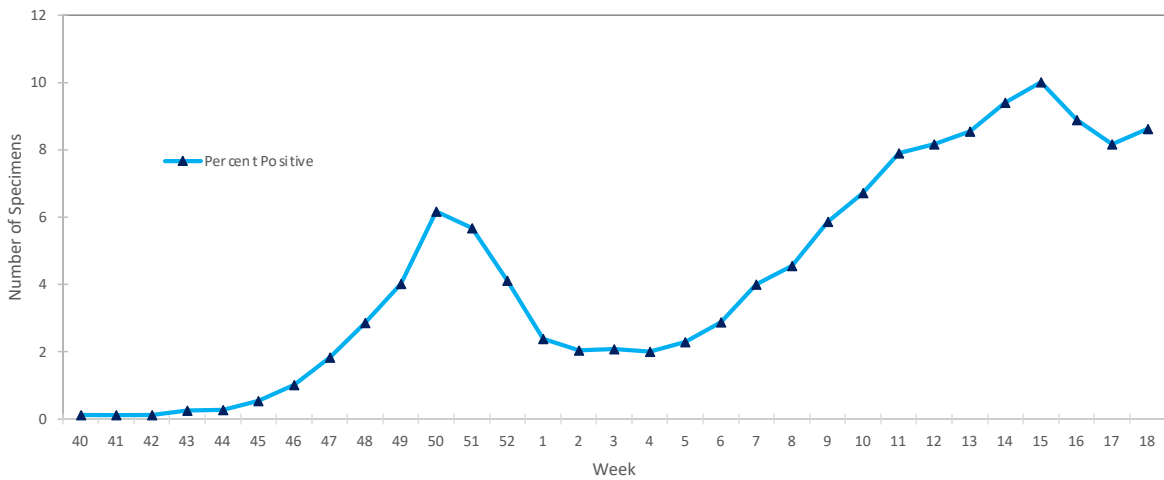
- Seasonal influenza activity in the United States
- Highly pathogenic avian influenza (HPAI) A/H5N1

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Seasonal Influenza Activity in the United States

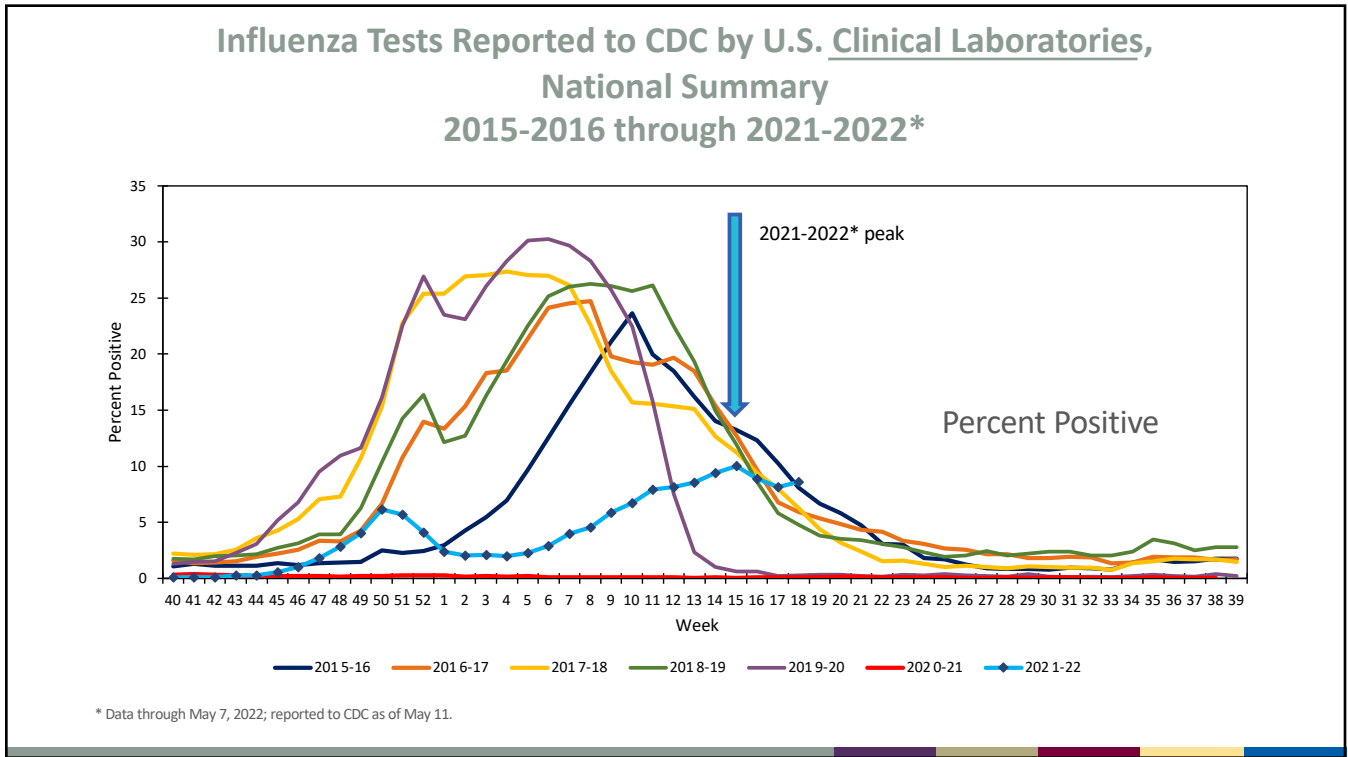
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Influenza Tests Reported to CDC by U.S. Clinical Laboratories,
National Summary
2021-2022*

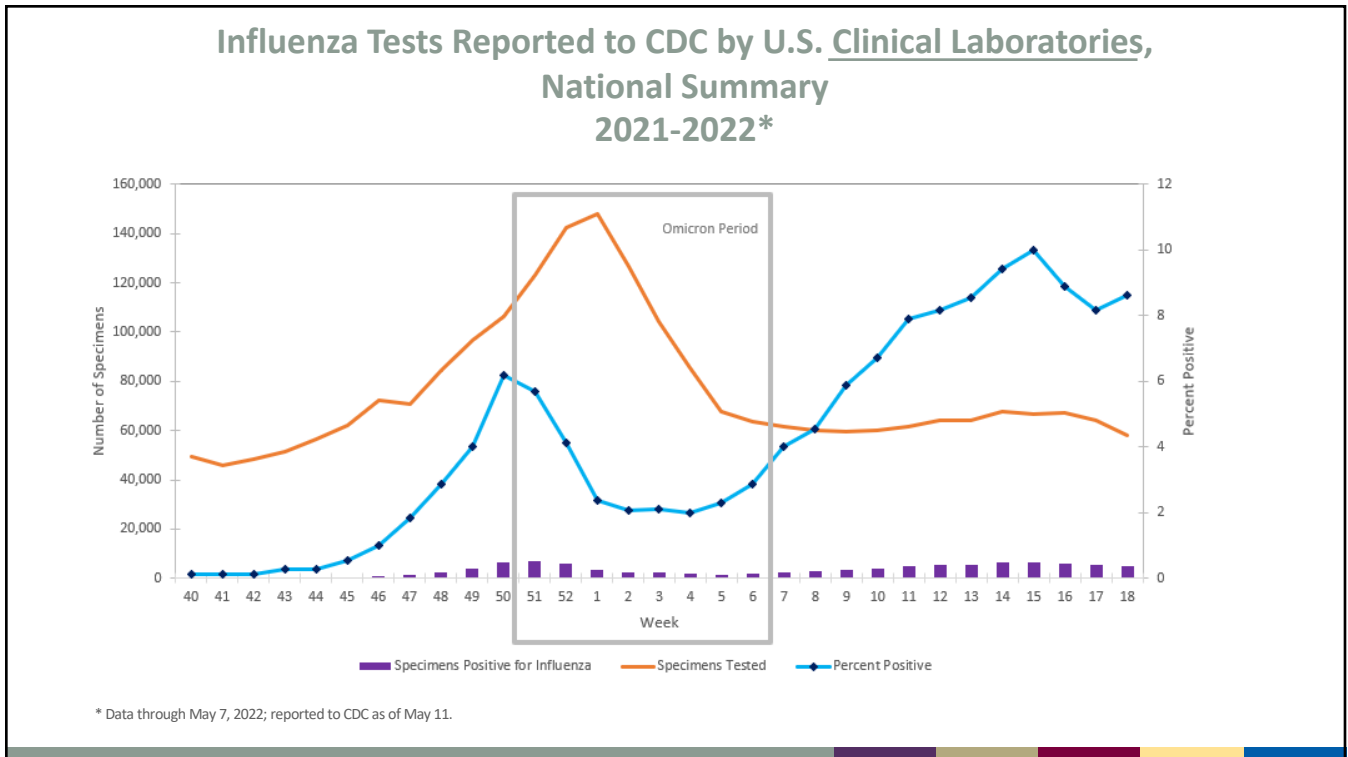


* Data through May 7, 2022; reported to CDC as of May 11.

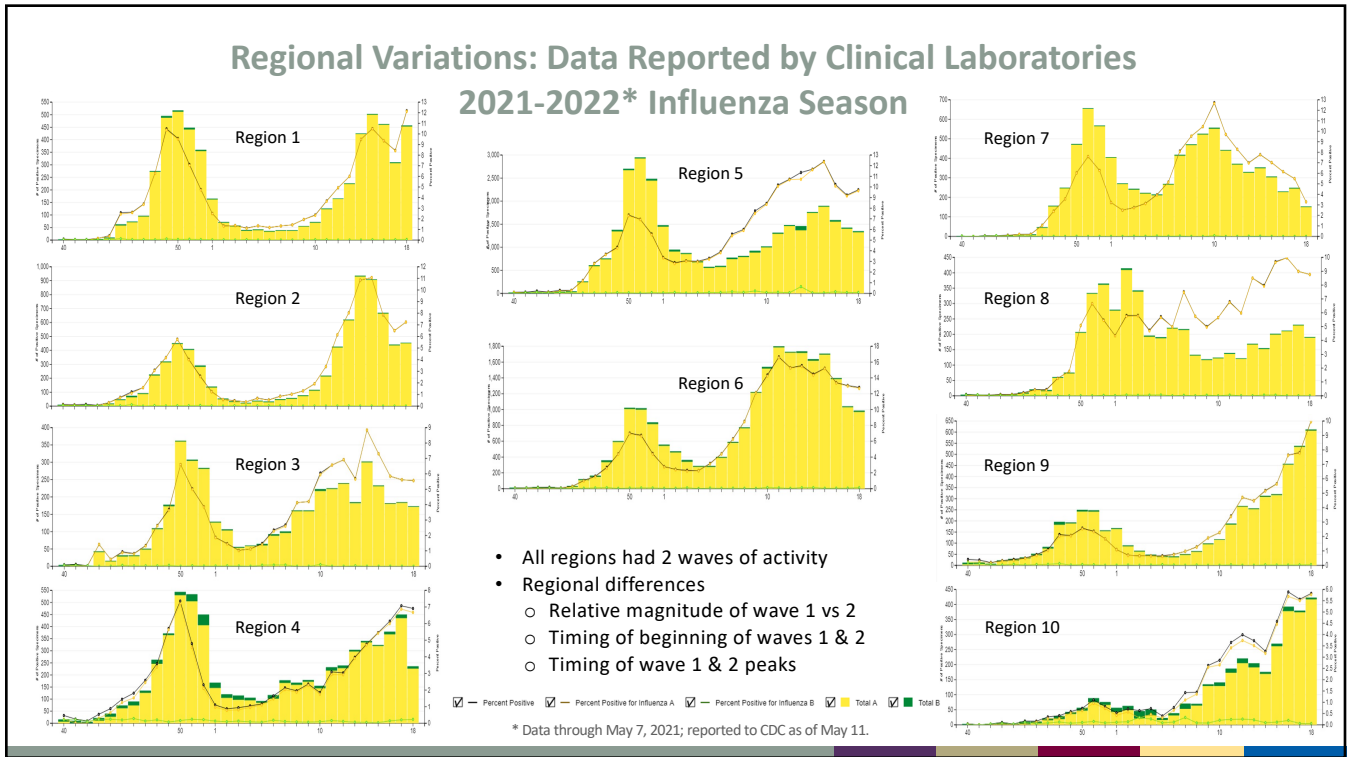
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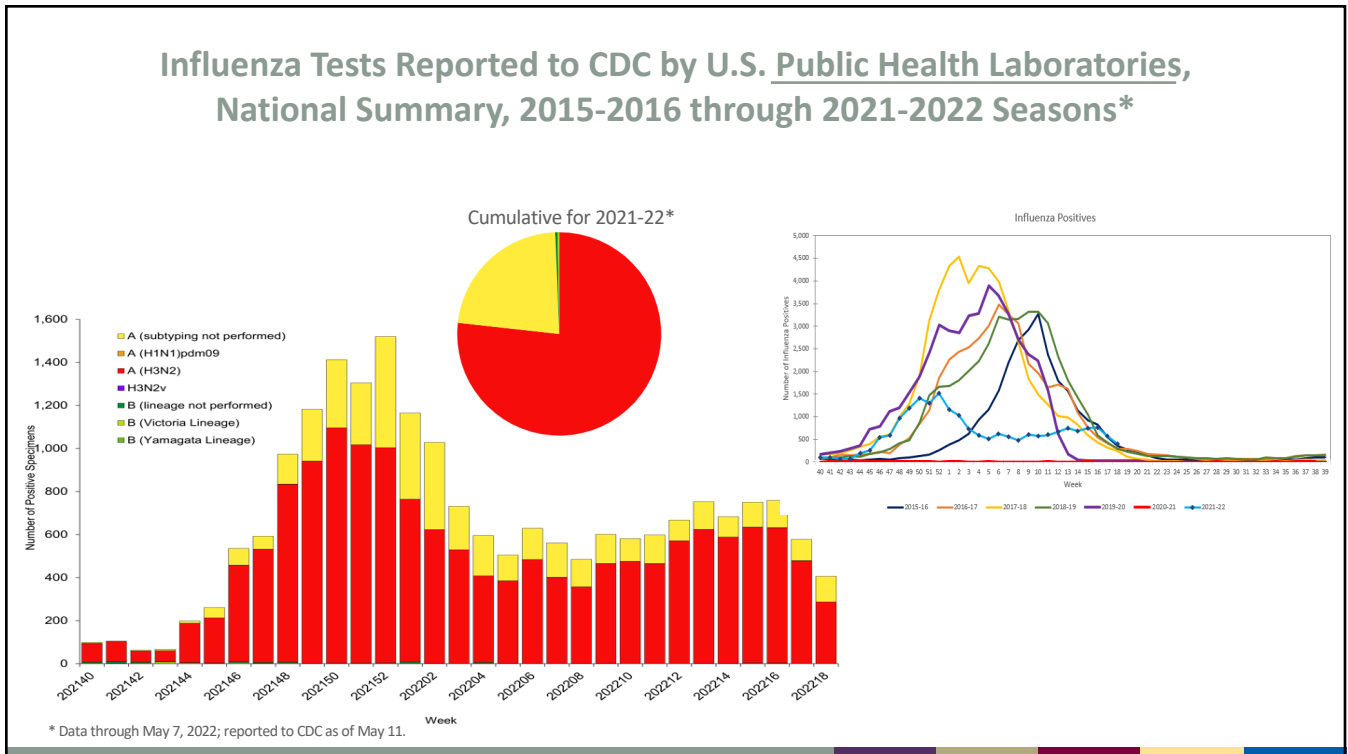
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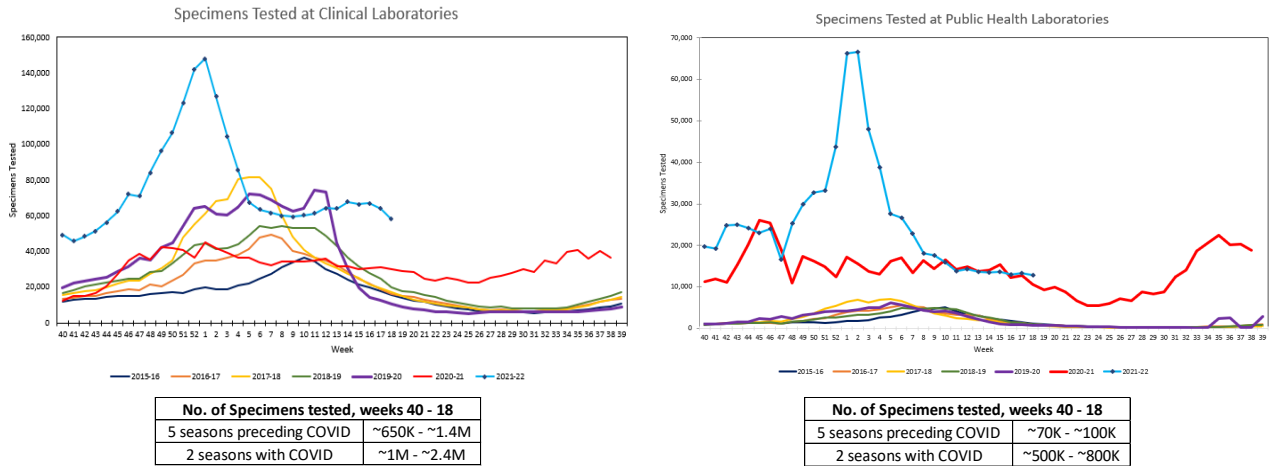


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Specimens Tested for Influenza and Reported to CDC by U.S. Clinical and Public Health Laboratories, National Summary 2015-2016 through 2021-2022*



* Data through May 7, 2022; reported to CDC as of May 11.

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Influenza Virus Characterization 2021-2022*

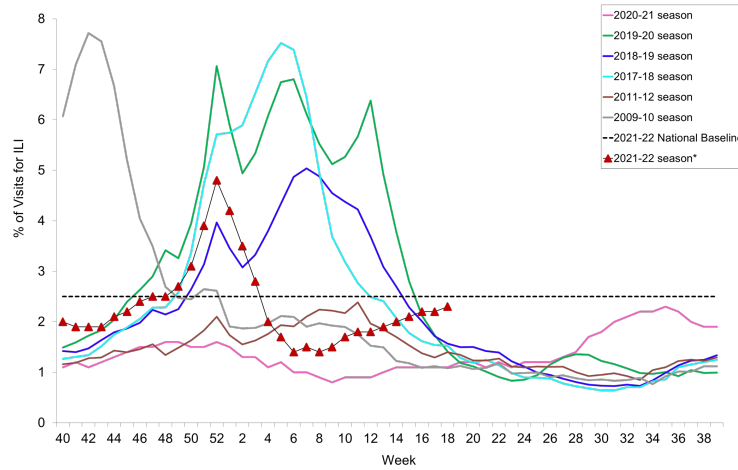
Virus	Genetic Characterization		Antigenic Characterization	
	Number Tested	Clade/Subclade	Number Tested	Similarity to vaccine reference virus
H3	1,202	99.7% - 3C.2a1b.2a.2	101	4% similar to cell-grown
				19% similar to egg-grown
B/Victoria	23	39% - V1A.3	15	73% similar to cell-grown
		61% - V1A.3a.2		73% similar to egg-grown

Virus Susceptibility to Antiviral Medications		
Antiviral	Number Tested	Number with Reduced Inhibition/Decr. Susceptibility
Oseltamivir, Peramivir, Zanamivir	1,253	0
Baloxivir	1,230	1

* Data through May 7, 2022; reported to CDC as of May 11.

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Percentage of Outpatient Visits for Influenza-like Illness U.S. Outpatient Influenza- like Illness Surveillance Network (ILINet) 2020-2021* and Selected Previous Influenza Seasons

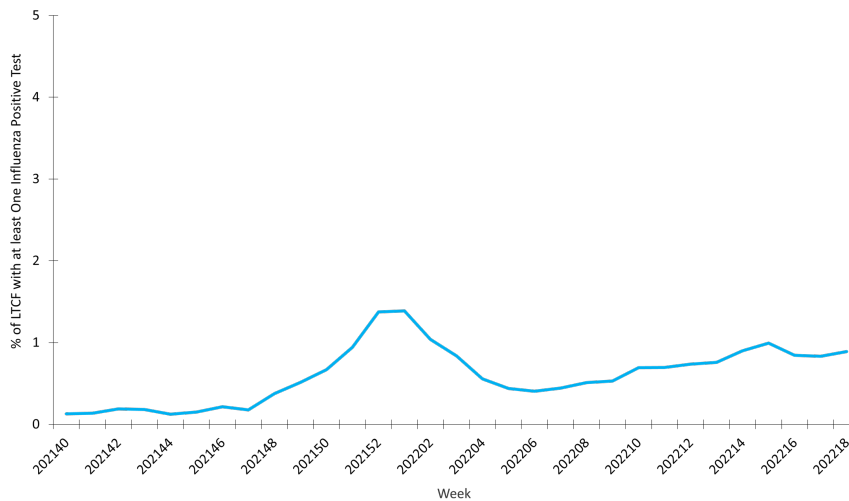


This system monitors visits for ILI (fever and cough or sore throat), not laboratory confirmed influenza and may capture patient visits due to other respiratory pathogens that cause similar symptoms.

* Data through May 7, 2021; reported to CDC as of May 11.

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Percentage of Long-term Care Facilities (LTCF) with at Least One Confirmed Influenza Positive Test among Residents, Reported to CDC's National Healthcare Safety Network (NHSN) 2021-2022* Influenza Season

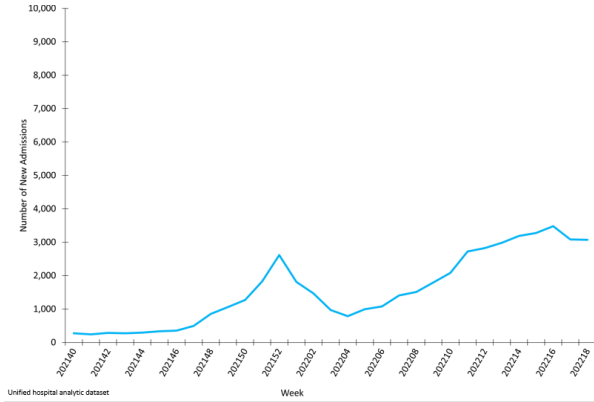


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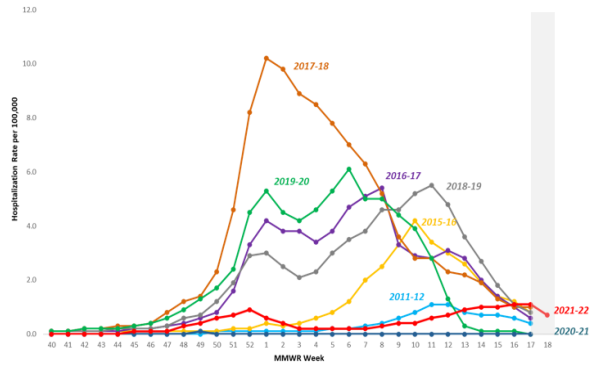
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Influenza-Associated Hospitalizations: HHS Protect and FluSurv-NET

Weekly Number of Hospital Admissions Reported to HHS Protect



Weekly Rate of Hospital Admissions Reported to FluSurv-NET



*In this figure, weekly rates for all seasons prior to the 2021-22 season reflect end-of-season rates. For the 2021-22 season, rates for recent hospital admissions are subject to reporting delays. As hospitalization data are received each week, prior case counts and rates are updated accordingly. Due to late season activity during the 2021-2022 season, FluSurv-NET surveillance has been extended beyond the typical end date of April 30 (MMWR week 17).

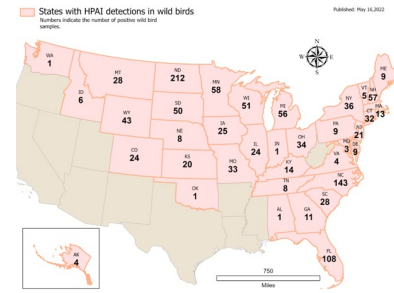
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Highly Pathogenic Avian Influenza (HPAI) A/H5N1

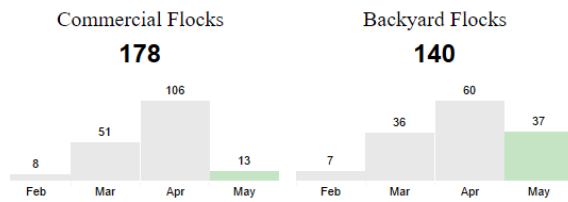
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Highly Pathogenic Avian Influenza (HPAI) A/H5N1: United States

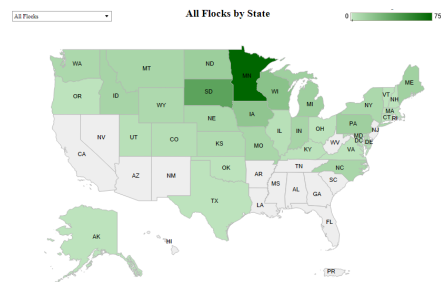
- USDA first reported wild birds infected with HPAI A/H5N1 in January 2022
- First infected commercial/backyard flock was identified in February
- As of May 16, 37 states have identified infected wild birds and 34 states have identified infected flocks



<https://www.aphis.usda.gov/aphis/ourfocus/animalhealth/animal-disease-information/avian/avian-influenza/hpai-2022/2022-hpai-wild-birds>



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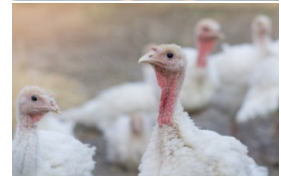
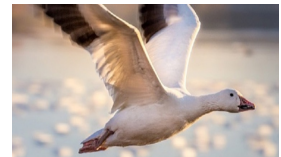


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The Virus



- HPAI A/H5N1
 - Clade 2.3.4.4b – predominant H5N1 avian influenza virus worldwide since the fall of 2021
- Can be detected using CDC’s diagnostic tools
 - Tools used at public health labs in all 50 states
- A candidate vaccine virus exists
- Antivirals for seasonal flu would work against these viruses



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Monitoring for Human Infections

- CDC is working with USDA and state partners to monitor for infections in people who have had HPAI A/H5N1 virus exposures
- Approximately 3,200 people monitored
 - ~ 100 persons tested
 - H5 detected in 1 person
 - Close, prolonged exposure to infected birds and their environment
 - Only reported symptom was fatigue, resolved after 3 days
 - No known human-to-human transmission
 - This group of H5 viruses has only been detected in one other person – Dec 2021 in the United Kingdom; raised infected birds; asymptomatic



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Summary

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Summary

- Seasonal influenza
 - The 2021-2022 flu season is not over
 - Peak activity is later than usual
 - Activity is lower than almost all pre-COVID flu seasons on record

Burden Estimates	2021-22 Estimate	2010-2020 Range
Illnesses	at least 6.4 million	9 million to 41 million
Hospitalizations	at least 65,000	140,000 to 710,000
Deaths	at least 4,000	12,000 to 52,000

- What will flu do next...and when?????
- HPAI A/H5N1 outbreak is continuing in birds
 - Risk to general public remains low
 - People exposed to infected poultry and wild birds may be at increased risk of H5 infection

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Thank you!

Any questions?

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For more information, contact CDC
 1-800-CDC-INFO (232-4636)
 TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

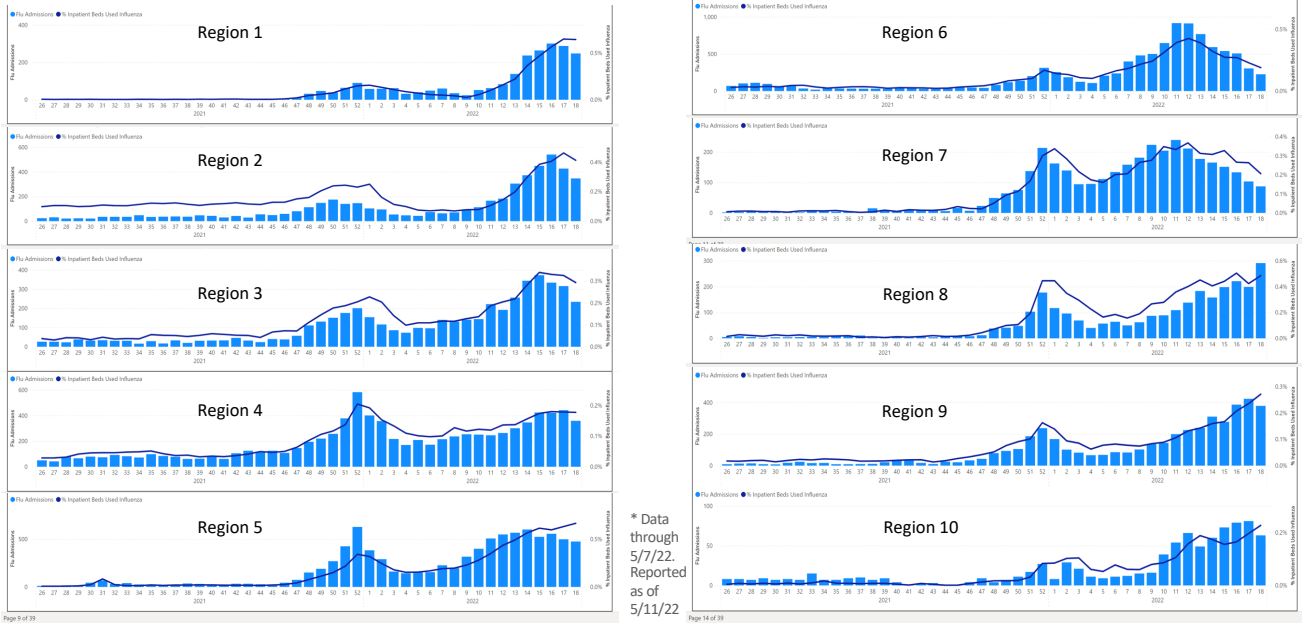


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Extra Slides

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Regional Variations: Hospitalizations Reported to HHS Protect 2021-2022* Influenza Season



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What you can do

- Clinicians
 - Consider the possibility of H5N1 infection in persons showing signs or symptoms of respiratory illness who have relevant exposures
 - Contact with potentially infected birds and their environment
- State health departments
 - Monitor exposed individuals and investigate potential human cases of H5N1 virus infection and notify CDC within 24 hours of identifying a case under investigation.
- General public
 - Avoid unprotected exposure to sick or dead birds and their environment
 - If exposed - monitored for signs and symptoms of influenza beginning after their first exposure and for 10 days after their last exposure.

Health Alert Network Notice - <https://emergency.cdc.gov/han/2022/han00464.asp>