



# **H5N1 Avian Influenza (Bird Flu) Situational Awareness Webinar for Chicago Providers**

**January 30, 2025**

**Disease Control Bureau**

**Chicago Department of Public Health**



# Agenda

- Welcome
- Presentations
  - H5N1 National Response
  - CDPH Response & Surveillance
  - Testing & Coordination
  - Clinical Presentation and Screening
  - Treatment and Post-Exposure Prophylaxis
  - Infection Control
  - Information for Veterinary Providers
- Summary & Close
  - Questions



# CDPH Presenters:

- **Janna Kerins, VMD, MPH**
  - CDPH Medical Director Communicable Disease
- **Brian Borah, MD, MA**
  - CDPH Medical Director Vaccine-Preventable Diseases Surveillance
- **Kendall Anderson, MS, MPH**
  - CDPH Laboratory Lead – Manager of Quality Assurance
- **Alexander Sloboda, MD, MPH**
  - CDPH Medical Director of Immunizations and Emergency Preparedness
- **Shane Zelencik, MPH, CIC**
  - CDPH Senior Infection Preventionist & Projects Administrator
- **Michelle Funk, DVM, MPH**
  - CDPH Medical Director of Healthcare and Congregate Settings



# Overview of National Epidemiology of H5N1

- H5N1 is widespread in wild birds worldwide.
  - In the United states, ongoing multistate outbreaks in **poultry and dairy cows**
    - 145,077,200 poultry affected as of 1/27/2024
    - 943 dairy herds affected as of 1/27/2024
- Since 2024, **67 confirmed human cases, 1 death**
  - Most human cases are associated with exposure to dairy herds followed by poultry farms.
  - There are 3 human cases with unknown exposure source.
  - There has been no known person-to-person spread.

Confirmed human case summary since 2024, by state and exposure source

## Exposure Source

State	Exposure Associated with Commercial Agriculture and Related Operations		Other Animal Exposure <sup>†</sup>	Exposure Source Unknown <sup>‡</sup>	State Total
	Dairy Herds (Cattle)	Poultry Farms and Culling Operations			
California	36	0	0	2	38
Colorado	1	9	0	0	10
Iowa	0	1	0	0	1
Louisiana	0	0	1	0	1
Michigan	2	0	0	0	2
Missouri	0	0	0	1	1
Oregon	0	1	0	0	1
Texas	1	0	0	0	1
Washington	0	11	0	0	11
Wisconsin	0	1	0	0	1
Source Total	40	23	1	3	67

# National H5N1 Surveillance

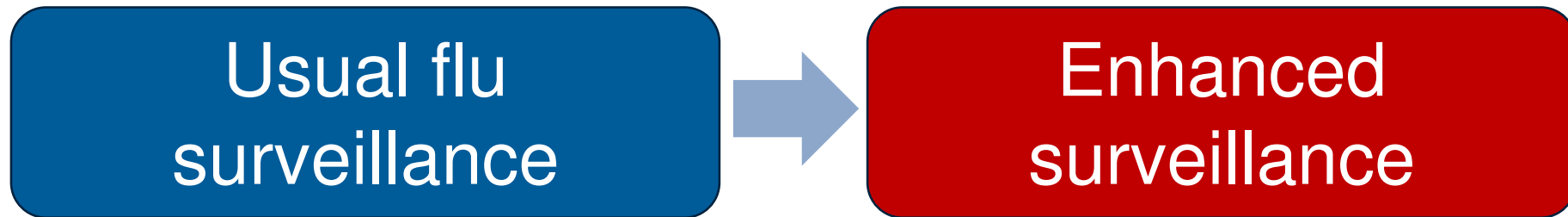
National flu surveillance (since February 25, 2024)



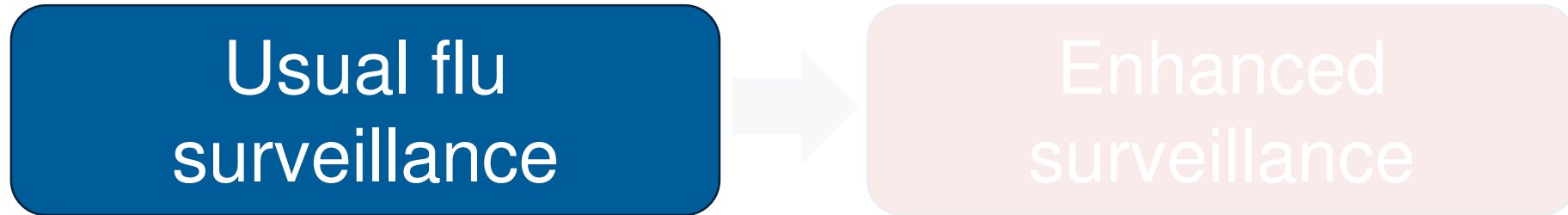
Targeted H5 surveillance (since March 24, 2024)



# ★ Illinois/Chicago Surveillance



# ★ Illinois/Chicago Surveillance



## Goals:

1. When, where, and among whom is influenza activity occurring?
2. Measure the burden of severe illness, and describe risk factors for severe disease
3. **Determine what influenza viruses are circulating and detect changes in influenza virus**

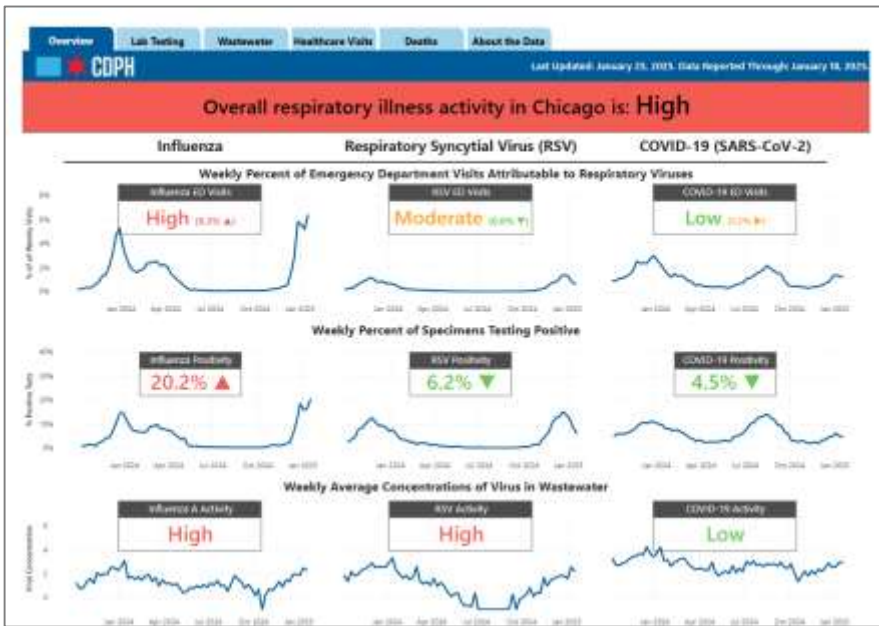


# CDPH uses various data sources to track flu activity

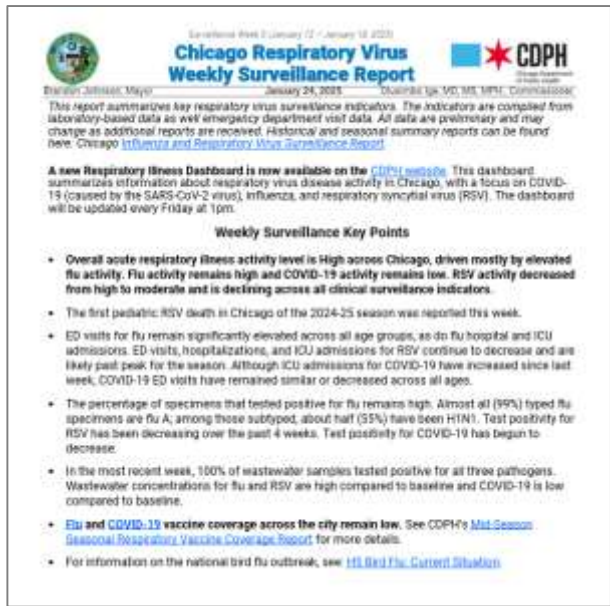
- Outpatient **influenza-like-illness (ILI) activity**
- ILI and influenza **discharge diagnoses** in Emergency Departments
- Flu **ICU admissions**
- **Pediatric deaths <18y**
- Positive **flu tests**
- **Wastewater surveillance** for Flu A and B



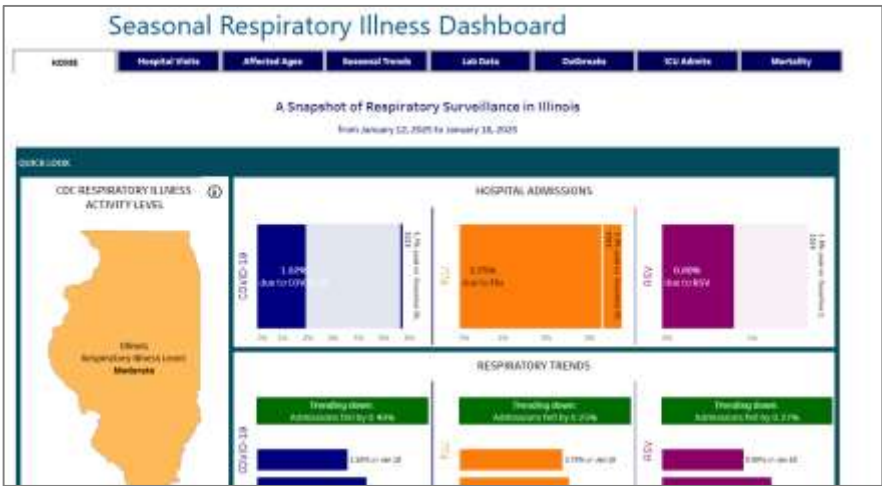
# ★ Weekly flu surveillance data are publicly available.



[chicago.gov/respiratorydashboard](https://chicago.gov/respiratorydashboard)



[CDPH weekly report.](#)

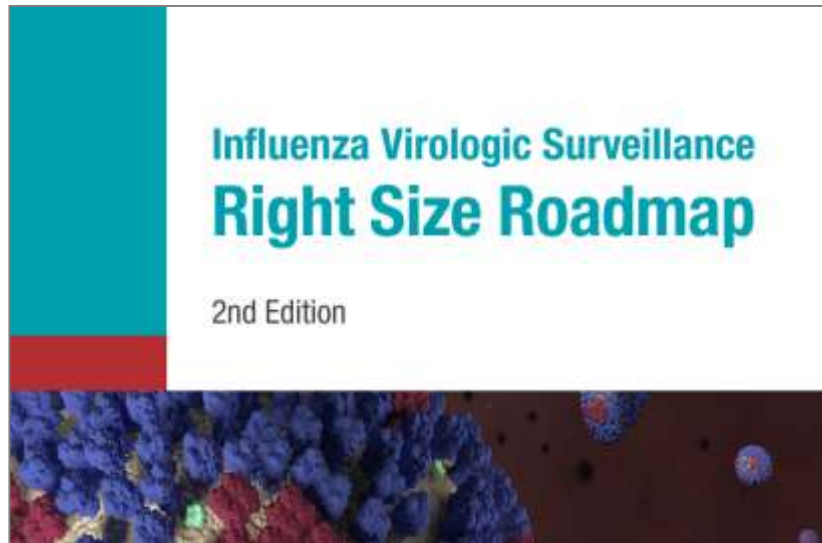


[IL's weekly surveillance report](#)



# Detection of novel flu is also part of usual surveillance

## Sentinel Virologic Surveillance



Objectives:

- Novel flu detection
- Antiviral resistance
- Vaccine virus selection

## Sentinel Surveillance Sign-Up Form

**Respiratory Sentinel Surveillance Provider Sign-Up Form**

Thank you for your interest in becoming a sentinel surveillance provider. Please fill out the following form to enroll in the program.

If you have questions about any of the programs, please contact one of the following for additional details:

- ILNet Program or NREVS: IDPH Communicable Disease Control Section, Influenza Program at 217-762-2816 or [IDPH.ilnet@idph.state.il.us](mailto:IDPH.ilnet@idph.state.il.us)
- Virologic Sentinel Surveillance Program: Chicago IDPH Laboratory (312-793-4760), Springfield IDPH Laboratory (217-782-6562), or Carbondale IDPH Laboratory (618-457-5131)

Please indicate the surveillance programs your facility is interested in participating in:

Provider ILNet Program

Virologic Sentinel Surveillance Program

NREVS Respiratory Surveillance Program

Are you interested in seasonal or year-round participation?

What is your practice or facility name?

Weekly convenience sample of 10 positive influenza specimens



# Detection of novel flu is also part of usual surveillance

## Unsubtypeable flu A results

Table 1. Possible Assay Results for Influenza A and the Corresponding Interpretation

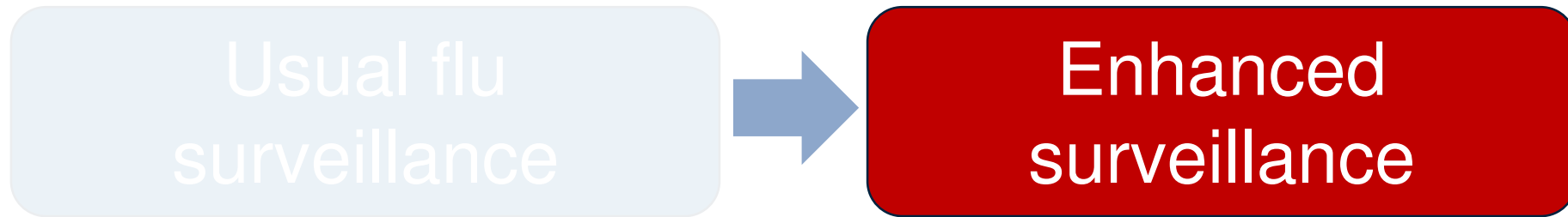
Result	Assay	FluA-pan Assays (n=2)	FluA-H1-2	FluA-H1-2009	FluA-H3	Action
Influenza A Not Detected		Negative	Negative	Negative	Negative	None
Influenza A H1		≥1 positive	Positive	Negative	Negative	
Influenza A H3		≥1 positive	Negative	Negative	Positive	
Influenza A H1-2009		≥1 positive	Any result	Positive	Negative	Multiple infections are possible but rare <sup>a</sup> , retest ONCE to confirm result <sup>b</sup>
Influenza A H1 Influenza A H3		≥1 positive	Positive	Negative	Positive	
Influenza A H1-2009 Influenza A H3		≥1 positive	Any result	Positive	Positive	
Influenza A (no subtype detected)		2 positive	Negative	Negative	Negative	Retest (see below)
Influenza A Equivocal		1 positive	Negative	Negative	Negative	Retest once (see Result Summary section below for further instruction).
Influenza A H1 Equivocal		Negative	Positive	Negative	Negative	
Influenza A H3 Equivocal		Negative	Negative	Negative	Positive	
Influenza A H1-2009 Equivocal		Negative	Any result	Positive	Negative	

<sup>a</sup> The BioFire RP2.1 can simultaneously detect multiple influenza viruses contained in multivalent vaccines (see Limitations).

<sup>b</sup> Repeated multiple positives should be further confirmed by other FDA cleared Influenza subtyping tests.

**\*\*Do not submit a test to IDPH without a CDPH-issued auth code\*\***

# ★ Illinois/Chicago Surveillance



1. Accelerated H5 testing for severe (ICU) flu cases
2. Enhanced patient screening for H5 risk factors
3. Public health monitoring of known exposures

# ★ 1. Accelerated H5 testing for severe cases

## Accelerated Subtyping of Influenza A in Hospitalized Patients

[Print](#)



Distributed via the CDC Health Alert Network

January 16, 2025, 10:00 AM ET

CDCHAN-00520

- Facilities encouraged to subtype flu A specimens for H1/H3 in own labs
- IDPH Lab limited to **ICU-level patients only**

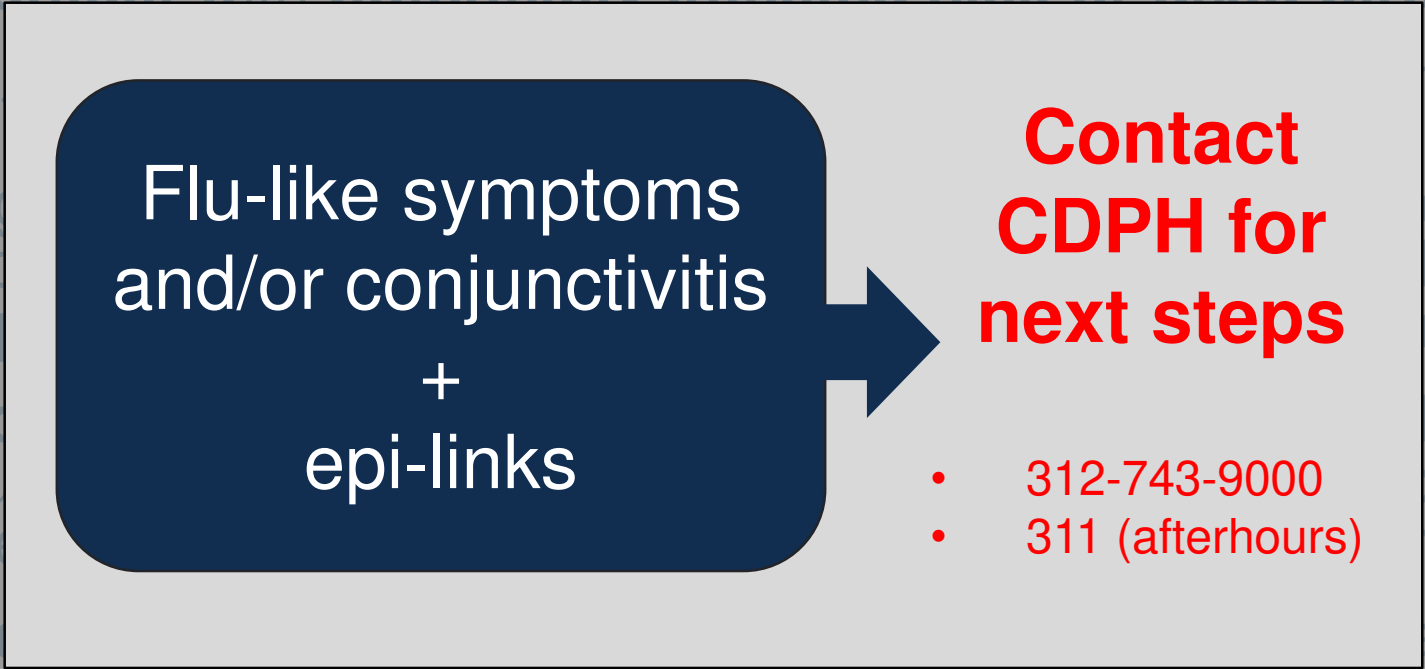
***\*\*Do not submit a test to IDPH without a CDPH-issued auth code\*\****

## ★ 2. Enhanced patient screening

- **Direct contact with potentially infected sick or dead birds**, livestock, or other animals (e.g., handling, slaughtering, defeathering, butchering, culling infected animals)
- Preparing for consumption or **consuming uncooked** or undercooked food or related uncooked food products, including unpasteurized (**raw**) **milk** or other **unpasteurized dairy products (ice cream, yogurt, cheese)**
- **Direct contact with water or surfaces contaminated with feces**, unpasteurized (raw) milk or unpasteurized dairy products, or parts (carcasses, internal organs, etc.) of potentially infected animals;
- **Prolonged exposure** to potentially infected birds or other animals in a **confined space**

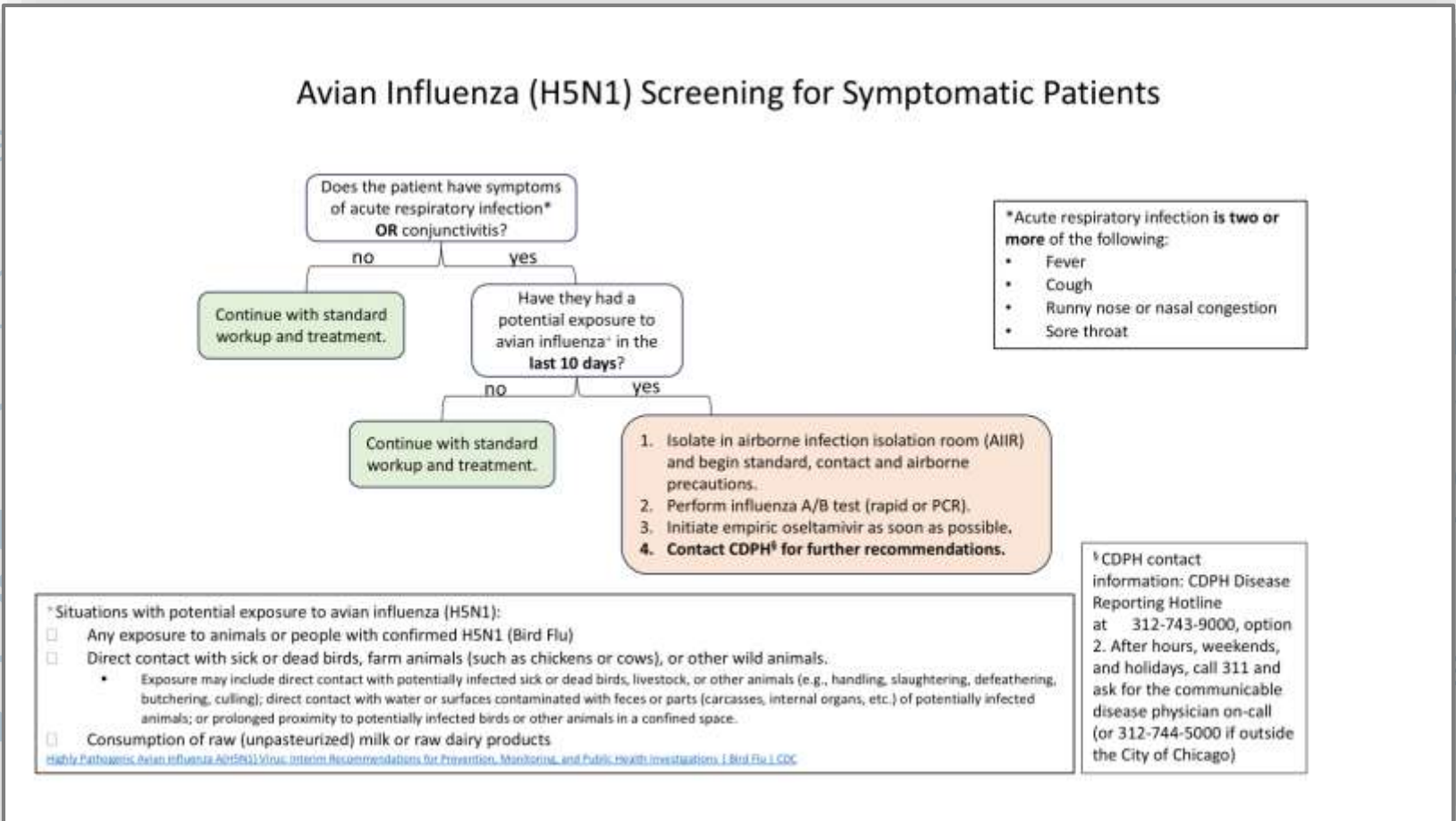
## ★ 2. Enhanced patient screening

- Direct contact with potentially infected sick or dead birds, livestock, or other animals; slaughtering, butchering, plucking, eviscerating, or culling in a confined space
- Preparing or handling animal products (e.g., raw meat, poultry, or other uncooked animal products) or related materials (e.g., feathers, fur, or skins) or other uncooked animal products
- Direct contact with animal feces, urine, or parts of animals; contact with animal carcasses (e.g., uncooked meat, poultry, or other uncooked animal products)
- Prolonged contact in a confined space with animals in a confined space



# ★ 2. Enhanced patient screening

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# ★ 3. Public Health monitoring of known contacts



- 10 days monitoring for symptoms
- Link to PEP and treatment
- Testing coordination
- Protocol development for local providers



# TESTING: HPAI Flu A-H5N1

- **If you suspect a human H5N1 infection:**
  - Review H5N1 suspicion criteria / examples.
  - Call the **CDPH Disease Reporting Hotline at 312-743-9000, option 2**, for guidance and testing instructions.
    - After hours, weekends, and holidays, call 311 and ask for the communicable disease medical director on-call (or 312-744-5000 if outside the City of Chicago).



# TESTING: Flu A Positive – ICU Admission Subtyping

- Diagnostic influenza A subtyping at IDPH laboratory will be limited to specimens from patients who are critically ill (i.e. receiving intensive care).
- **Healthcare facilities are encouraged to subtype influenza A specimens from hospitalized patients for H1/H3 in their own labs when possible.**
- Influenza A-positive ICU patients for whom subtyping cannot be performed at a clinical or commercial laboratory can have influenza subtyping performed at IDPH laboratory.
- Submitters are required by [IL State Code, 690.468](#): Influenza, to report into I-NEDSS.

Flu A  
Subtyping  
Request  
Form



# ★ TESTING: Flu A Positive – Unsubtypeable Testing

- Influenza specimens that are unsubtypeable (e.g., from molecular assays capable of detecting all currently circulating seasonal influenza A virus subtypes that identify an unsubtypeable result) should be submitted to the IDPH laboratory for diagnostic influenza A subtyping.

- **Equivocal Subtyping Results:**

If results of influenza subtyping produce an “equivocal” result after initial and repeat testing, the final test interpretation should be considered Flu A Positive – Unsubtypeable. Thus, should be sent to IDPH for Flu A – Unsubtypeable testing.

Flu A  
Subtyping  
Request  
Form



# TESTING: Process Overview



To request **influenza subtyping at IDPH**, please complete this [CDPH Flu A Subtyping Request Form](#) or the QR code on this slide.

Please review the specimen and submission requirements via [IDPH - Manual of Services - Influenza Virus Molecular \(Page 34\)](#) prior to submission.



**Do Not Submit a Test to IDPH Without a CDPH Issued Authorization Code**

*IDPH-Chicago Lab: 2121 W Taylor St. Chicago. Open M-F 8:00A – 4:30P, Closed Sat/Sun and State of IL Holidays.*

**Suspected human H5N1 infection**

Call **312-743-9000, option 2**  
(311 in off-hours)

CDPH Med Dir Consult

IF APPROVED: Will be given Authorization Code / Submission Instructions

ICU subtyping and Unsubtypeables

Complete CDPH Flu A Subtyping Request Form  
(all hours)

Criteria attestation

IF APPROVED: Submitter is emailed Authorization Code / Submission Instructions

# ★ Clinical Signs & Symptoms

- **ARI (Acute Respiratory Illness)** defined as 2 or more signs or symptoms:
  - Fever
  - Cough
  - Runny nose or nasal congestion
  - Sore Throat
- **Conjunctivitis**
- Incubation period usually 2-5 days (**10 days or less**)
- Still **NO person-person transmission** in the USA.



[Highly Pathogenic Avian Influenza A\(H5N1\) Virus Infection in a Dairy Farm Worker | New England Journal of Medicine](#)

# ★ Severe Disease/Complications

- January 6, 2025: first death in US from H5N1
  - **Over 65 years old.**
  - **Underlying health conditions.**
  - Exposure to **backyard flock.**
- November 4-28, 2024: **critically ill adolescent** in British Columbia
  - 13-year-old girl with asthma
  - Initially conjunctivitis and fever
  - Eventually: ARDS, unstable, pneumonia, AKI, thrombocytopenia, and leukopenia...
  - Required intubation, mechanical ventilation, ECMO, and CRRT.
  - Additional antivirals: oseltamivir + amantadine and baloxavir
- **Severe Disease:**
  - Respiratory Distress
  - Altered Mental Status
  - Seizures
- **Complications:**
  - Acute Respiratory Failure
  - Acute Respiratory Distress Syndrome
  - Pneumonia
  - Acute Kidney Injury
  - Multi-organ failure
  - Sepsis and shock
  - Meningoencephalitis



# NEJM: Highly Pathogenic Avian Influenza A(H5N1) Virus Infections in Humans

- As of November 1, 2024, there's been a **cumulative case fatality of approximately 50% globally.**
- The article analyzes a total of 46 U.S. human A(H5N1) cases that were identified across 6 US states from **March through October 2024.**
  - 1 case patient with an undetermined exposure source.
  - Median age 34 years.
  - 76% no underlying medical conditions

**Table 1. Epidemiologic Characteristics of 41 Case Patients with Highly Pathogenic Avian Influenza A(H5N1) Virus Infection Who Had Exposure to Infected Animals.\***

Characteristic	Exposure to Poultry (N=28)	Exposure to Dairy Cows (N=13)	Overall (N=41)
Median age — yr†	28	18	34
Male sex — no. (%)	11 (39)	23 (100)	34 (83)
Race and ethnic group — no. (%)‡			
White and Hispanic or Latino	—	—	11 (27)
Other	—	—	23 (56)
State of report — no. (%)			
Colorado	8 (28)	1 (8)	9 (22)
Washington	11 (39)	0	11 (27)
California	8	21 (84)	21 (51)
Michigan	8	2 (8)	10 (24)
Texas	8	1 (8)	9 (22)
Exposure type — no. (%)			
Healthy asymptomatic event	20 (71)	0	20 (49)
Direct contact with cows	0	4 (31)	4 (10)
Raw milk and direct contact with cows§	0	21 (84)	21 (51)
Median time between symptom onset and raw-milk contact (range) — days¶	4.5 (2.0–12.8)	2.0 (0–12.8)	3.0 (0–12.8)
Median time between symptom onset and specimen collection (range) — days¶	1.3 (0.4–6)	2.0 (0.5–6)	2.0 (0.5–6)
Median no. of persons in household (range)**	3 (1–7)	3 (0–5)	3 (0–5)
Seasonal influenza vaccination in past 12 mo — no. (total no. (%)	6/17 (35)	4/21 (17)	10/40 (25)
PPE use — no. (%)††			
Eye protection and respirator or face mask	13 (46)	7 (54)	20 (49)
Respirator	4 (14)	0	4 (10)
Face mask	13 (46)	6 (46)	19 (46)
Eye protection	13 (46)	12 (92)	25 (61)
Gloves	11 (39)	15 (100)	26 (63)
Boots	11 (39)	7 (54)	18 (44)
Coat	14 (50)	4 (31)	18 (44)
Underlying medical conditions — no. (%)			
No. of conditions			
None	33 (77)	18 (100)	51 (76)
1	4 (10)	4 (31)	8 (19)
2 or more	0	1 (8)	1 (2)
Missing or not reported	3 (7)	1 (8)	4 (10)
Asthma, reactive airway disease, or other chronic lung disease	—	—	3 (7)
Other chronic condition‡‡	3 (11)	7 (54)	10 (24)

\* The table includes 45 U.S. case patients with highly pathogenic avian influenza A(H5N1) virus infection who had occupational exposure to infected poultry or infected or potentially infected dairy cows; cases were identified from March through October 2024. The table excludes the 11 case patients with no identified exposure source. Some data are not presented to protect participants' privacy. Percentages may not total 100 because of rounding.

† All case patients were 18 to 84 years of age.

‡ Race and ethnic group were reported by the case patients. Data on race and ethnic group were unknown for 3 case patients.

§ "Raw milk" refers to raw-milk consumption, raw-milk exposure, or both. We were unable to separate out raw-milk exposure from exposure to infected dairy cows owing to the way that the data were collected.

¶ Data were available for 50 case patients (14 with exposure to poultry and 22 with exposure to dairy cows).

\*\* Data were available for 42 case patients (17 with exposure to poultry and 25 with exposure to dairy cows).

†† Only data were available for 33 case patients (18 with exposure to poultry and 12 with exposure to dairy cows).

‡‡ Included are diabetes, hypothyroidism, hypertension, pre-eclampsia, and chronic hepatitis.





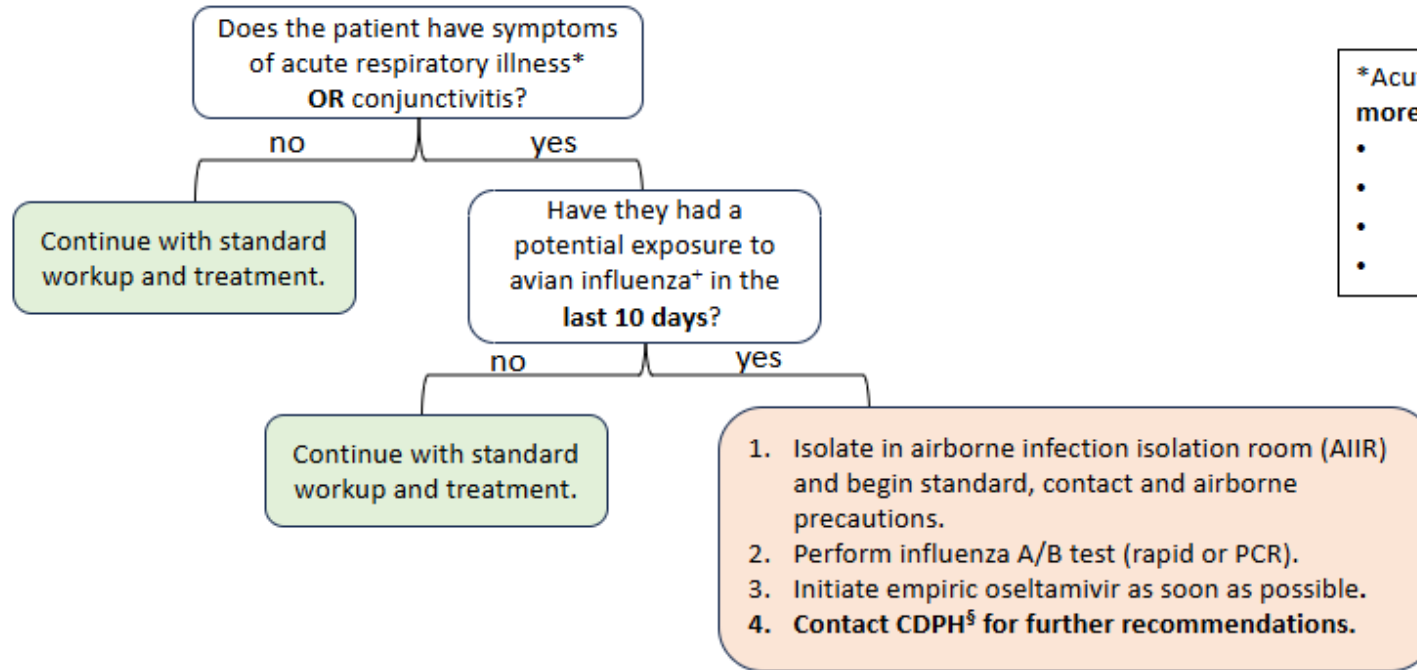
# NEJM: Highly Pathogenic Avian Influenza A(H5N1) Virus Infections in Humans

- **PPE use among occupationally exposed workers was suboptimal, including eye protection.**
- **Why recent U.S. cases have generally been clinically mild remains unclear; early detection and initiation of antiviral treatment may play a role.**

**Table 2.** Clinical Characteristics of and Outcomes in 45 Case Patients with Highly Pathogenic Avian Influenza A(H5N1) Virus Infection Who Had Exposure to Infected Animals.\*

Variable	Exposure to Poultry (N=20)	Exposure to Dairy Cows (N=25)	Overall (N=45)
<b>Signs and symptoms</b>			
Conjunctivitis — no. (%)	19 (95)	23 (92)	42 (93)
Measured fever or feeling feverish — no. (%)	12 (60)	10 (40)	22 (49)
Respiratory symptoms — no. (%) †	9 (45)	7 (28)	16 (36)
Cough	3 (15)	5 (20)	8 (18)
Sore throat	7 (35)	6 (24)	13 (29)
Shortness of breath	3 (15)	4 (16)	7 (16)
Myalgia — no. (%)	11 (55)	8 (32)	19 (42)
Headache — no. (%)	11 (55)	9 (36)	20 (44)
Fatigue — no. (%)	6 (30)	4 (16)	10 (22)
Nausea — no. (%)	6 (30)	0	6 (13)
Vomiting — no. (%)	1 (5)	1 (4)	2 (4)
Diarrhea — no. (%)	2 (10)	0	2 (4)
<b>Clinical constellations</b>			
Status with respect to conjunctivitis — no. (%)			
Conjunctivitis only	4 (20)	11 (44)	15 (33)
Conjunctivitis plus any respiratory symptom	8 (40)	6 (24)	14 (31)
Conjunctivitis plus any nonrespiratory symptom	7 (35)	6 (24)	13 (29)
Only nonconjunctival symptoms	1 (5)	2 (8)	3 (7)
Symptoms still present at time of interview — no. (%)	2 (10)	7 (28)	9 (20)
Median no. of days with symptoms (range) ‡	2.0 (1.0–8.0)	5.0 (2.0–7.0)	4.0 (1.0–8.0)
Osetamivir treatment — no. (%)	18 (90)	21 (84)	39 (87)
Median no. of days between symptom onset and treatment (range) §	1.0 (0–8.0)	2.5 (0–8.0)	2.0 (0–8.0)
Median no. of days of osetamivir treatment (range) ¶	5.0 (3.0–10.0)	5.0 (5.0–10.0)	5.0 (3.0–10.0)
Hospitalization — no.	0	0	0
Death — no.	0	0	0

# Avian Influenza (H5N1) Screening for Symptomatic Patients



\*Acute respiratory illness is **two or more** of the following:

- Fever
- Cough
- Runny nose or nasal congestion
- Sore throat

+ Situations with potential exposure to avian influenza (H5N1):

- Any exposure to animals or people with confirmed H5N1 (Bird Flu)
- Direct contact with sick or dead birds, farm animals (such as chickens or cows), or other wild animals.
  - Exposure may include direct contact with potentially infected sick or dead birds, livestock, or other animals (e.g., handling, slaughtering, defeathering, butchering, culling); direct contact with water or surfaces contaminated with feces or parts (carcasses, internal organs, etc.) of potentially infected animals; or prolonged proximity to potentially infected birds or other animals in a confined space.
- Consumption of raw (unpasteurized) milk or raw dairy products

[Highly Pathogenic Avian Influenza A\(H5N1\) Virus: Interim Recommendations for Prevention, Monitoring, and Public Health Investigations | Bird Flu | CDC](#)

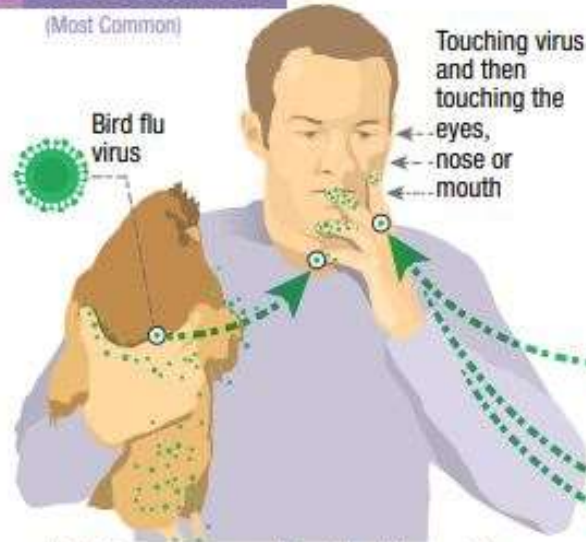
§ CDPH contact information: CDPH Disease Reporting Hotline at 312-743-9000, option 2. After hours, weekends, and holidays, call 311 and ask for the communicable disease physician on-call (or 312-744-5000 if outside the City of Chicago)

# How Infected Backyard Poultry Could Spread Bird Flu to People

Human Infections with Bird Flu Viruses Rare But Possible

## 1 Direct Contact

(Most Common)

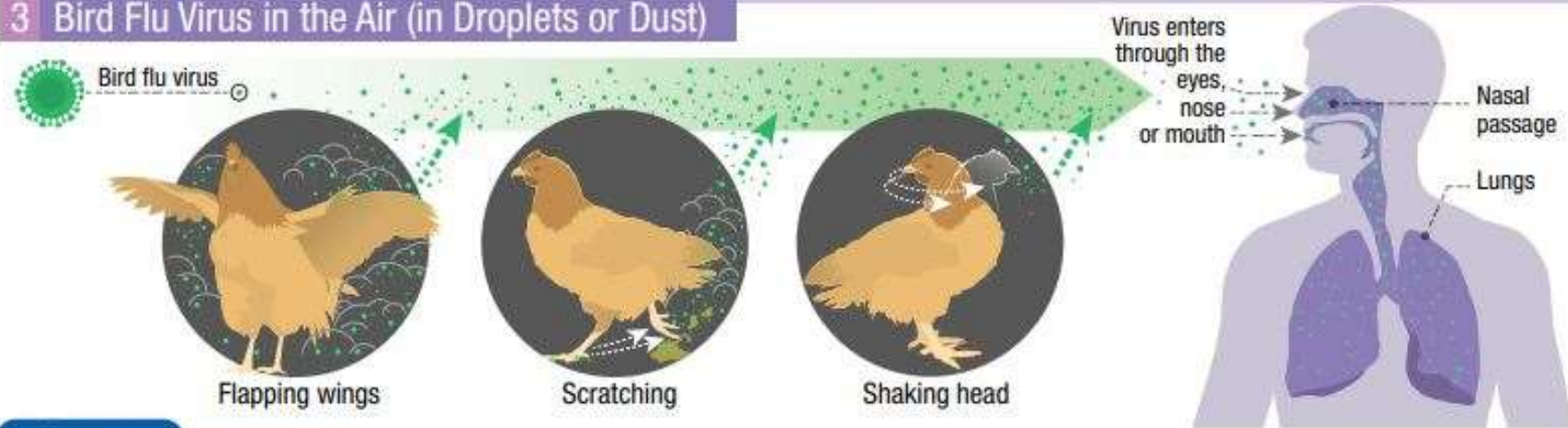


Infection can occur without touching poultry.

## 2 Contaminated Surfaces



## 3 Bird Flu Virus in the Air (in Droplets or Dust)



U.S. Department of Health and Human Services  
Centers for Disease Control and Prevention

[www.cdc.gov/flu/avianflu/avian-in-humans.htm](http://www.cdc.gov/flu/avianflu/avian-in-humans.htm)

CS201 152

# ★ H5N1 First Line Treatment

- **Oseltamivir Treatment:**
  - Initiation of **oral oseltamivir (twice daily x 5 days)** is recommended **as soon as possible** for any patient with **confirmed, probable, or suspected infection**.
    - Adults and children 13+ yo: **75 mg twice daily for treatment or PEP**.
      - Children <13 yo EUI weight base dosing.
      - Longer durations of treatment (10 days) be considered for **severely ill hospitalized patients** depending on clinical assessment.
      - Also, enteric tube administration option.
    - Antiviral treatment **should not be delayed** while waiting for laboratory test results.
    - Treatment should be initiated **even if more than 48 hours have elapsed** since illness onset and regardless of illness severity.



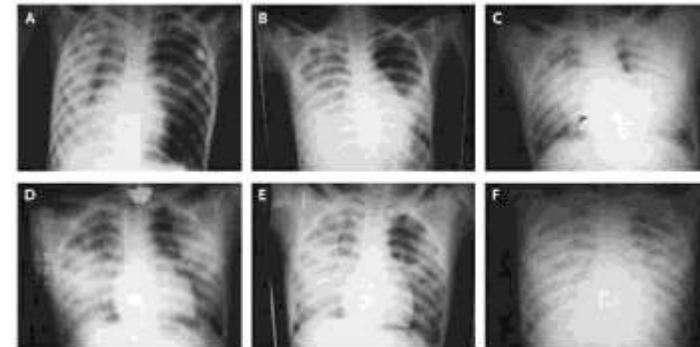
# ★ H5N1 Post-Exposure Prophylaxis

- **Oseltamivir Post Exposure Prophylaxis:**
  - **Oseltamivir PEP [twice daily x 5 days (treatment dosing)]** can be given to persons who experienced **high risk of exposure** (without using recommend PPE) to **animals confirmed or highly suspected** to be infected with HPAI A(H5N1) virus.
    - Longer duration of oseltamivir PEP (e.g., twice daily for 10 days) can be given for **ongoing high risk of exposure** (e.g., inadequate PPE) to infected animals.
  - **CDPH** may contact provider or send letter if their patient needs H5N1 PEP after a high-risk exposure.



# ★ Additional H5N1 Treatment Options

- Combination of **oseltamivir and baloxavir** can be considered:
  - Possible that some novel influenza A viruses have or could start becoming **resistant** to oseltamivir and peramivir.
  - Oseltamivir resistance a concern in patients with infection **progressing to lower respiratory disease**.
  - HPAs often resistant to amantadine and rimantadine.
  - Combination therapy can also be considered for **immunocompromised** patients.
- **Strongest evidence is for initiating oseltamivir as soon as possible to reduce mortality.**
- Oseltamivir preferred, but...
  - If patient cannot tolerate or absorb oral or enterically-administered oseltamivir, **IV peramivir is an alternative.**



# H5N1 Candidate Vaccines

- January 17, 2025: HHS will provide **\$590 million** to accelerate the development of **mRNA-based pandemic influenza vaccines**, including H5N1 vaccine.
  - **Enhance mRNA platform capabilities** so that the U.S. is better prepared to respond to other emerging infectious diseases.
- This funding will allow **Moderna** to accelerate development of an **H5N1 mRNA influenza vaccine** that is **well matched to strains currently circulating** in cows and birds or other influenza strains that may emerge with pandemic potential.
  - mRNA vaccines can be developed and distributed quickly, and they are easy to update to most current strain mutations.
- There are also several FDA approved H5N1 vaccines for a **national stockpile** of vaccine components that use traditional influenza egg- and cell-based platforms and adjuvants.



# Infection Control – Identification and Patient Placement

- Implement a process for **prompt screening and triage of symptomatic patients.**
  - Initiate respiratory hygiene and cough etiquette.
  - Place symptomatic patients in a facemask upon entry to the facility.
  - Consider use of source control for exposed but asymptomatic patients (e.g., household contacts).
- Room suspected or confirmed symptomatic patients immediately in an **airborne infection isolation room (AIIR)** with the door closed.
- **If an AIIR is not available**, a single-patient room with the door closed should be used until transfer to an AIIR is possible.
  - Avoid placing a patient in any room where exhaust is recirculated without HEPA filtration.
- Once the patient vacates a room, unprotected individuals, including healthcare personnel (HCP), should not be allowed in that room until sufficient time has elapsed for enough air changes to remove potentially infectious particles.



# ★ Infection Control – Isolation and PPE

- Limit HCP entering to those essential for the patient's care.
- HCP should perform **hand hygiene** before and after all patient contact, contact with potentially infectious material, and before putting on and upon removal of personal protective equipment, including gloves.
- Use **Standard, Contact, and Airborne precautions** when caring for suspected or confirmed patients.
  - Gloves
  - Gowns
  - **Eye Protection**
  - Respiratory Protection – a fit-tested NIOSH-approved disposable N95 respirator or PAPR/CAPR.
- Use caution when performing aerosol generating procedures and do so judiciously.



# H5N1 Epidemiology in US Companion Animals



Since 2022:

- No reported cases in domestic canines
- **84** cases reported in US domestic cats

# ★ Signs and Symptoms in Felines and Canines

- **Canine:** May be **asymptomatic** or causes mild respiratory infection
- **Feline:** Mild inappetence rapidly progressing **severe neurologic signs** including:
  - Ataxia, circling, tremors, blindness
  - Severe depression
  - Copious oculonasal discharge
  - Tachypnea, dyspnea +/- coughing and sneezing

Asymptomatic infection with clade 2.3.4.4b highly pathogenic avian influenza A(H5N1) in carnivore pets, Italy, April 2023

Antibodies to Influenza A(H5N1) Virus in Hunting Dogs Retrieving Wild Fowl, Washington, USA

**In cats, consider as an alternative differential diagnosis to rabies**

# ★ Risk Factors in Companion Animals

- Raw food (or raw milk) diet
  - Northwest Naturals and Monarch have been implicated in West Coast cases but any uncooked diet can be a risk.
- Cats that spend unsupervised time outdoors

Consider prescreening about **raw diet consumption** and **time spent outdoors** for **cats presenting with neurologic signs**.

# ★ Infection Prevention- Small Animal Veterinary and Animal Care Staff

- **Transmission:** Droplets risk from saliva, nasal discharge, feces, other body fluids



## PPE:

- N-95 respiratory
- Face shield or unvented safety goggles
- Head cover/ bonnet
- Disposable gloves
- Fluid-resistant gown
- Rubber boots or disposable boot covers

# ★ Animal Diagnostic Testing

- Suspected cases of avian influenza or infectious disease shall be reported immediately to the **Illinois Department of Agriculture, telephone 217-782-4944.**
    - If you are **in Chicago, also** reach out to Chicago Department of Public Health **312-743-9000 (option 7)**
    - If you are located outside of Chicago, and **cannot reach Illinois Department of Agriculture**, reach out to the State Public Health Veterinarian, **Dr. Austin 217-725-8059**
  - Handling of samples
    - Nasopharyngeal samples for feline- hold in white top culture tube – damp (not dry) with sterile saline at 4-8 C;
    - If neurologic, will first be tested for rabies. Can keep in refrigerator (4-8C) if short while until pick up but if >24 h deceased patients should be double bagged and frozen.
    - Submission form is available on IDPH's website.
- 
- **5 or more deceased wild birds** found in one location. Contact IDNR Strahl, Nicky | 847-608-3122 | [nicky.strahl@illinois.gov](mailto:nicky.strahl@illinois.gov)
    - **Remind public not to capture waterfowl that are sick.**

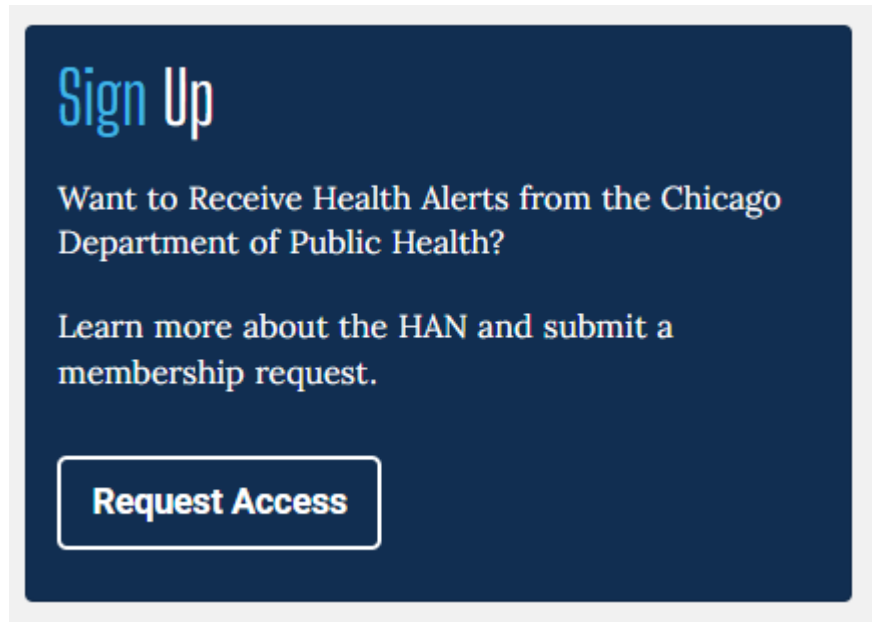
# Veterinary Client Education: Talking Points

- Do not feed raw or unpasteurized animal products to pets.
- Eliminate opportunities for pets to interact with wildlife:
  - Keep cats indoors.
  - If cats **must** go outside, remove birdbaths and feeders that attract birds to the yard.
- Practice infection control around backyard flocks:
  - Ensure that backyard coops are built to eliminate interaction with wildlife.
  - Have dedicated shoes for your coop.
  - Do not handle dead birds without appropriate PPE.
- Change clothes and wash hands thoroughly after handling sick or dead animals and before handling your own pets or flocks



# ★ Chicago Health Alert Network (HAN)

- Chicago HAN is a quick, efficient, and reliable tool providing 24/7 communication with providers of medical care, laboratories, schools, first responders and other members of the public health community.
- Register to receive HAN communications here:
  - <https://www.chicagohan.org/sign-up>
  - **Use your professional email when registering**, personal email addresses are rejected
- Public facing home page can be referenced without registering
  - <https://www.chicagohan.org/home>
- Influenza HAN page with H5N1 can be found here:
  - <https://www.chicagohan.org/diseases-and-conditions/influenza>



The screenshot shows a dark blue sign-up page for the Chicago Health Alert Network. At the top, it says "Sign Up" in a light blue font. Below that, it asks "Want to Receive Health Alerts from the Chicago Department of Public Health?". Underneath, it says "Learn more about the HAN and submit a membership request." At the bottom, there is a white button with the text "Request Access".



# Thank You!



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