A herd of cows and cats in a field under a cloudy sky. The cows are in the foreground, and several cats are perched on their backs. The scene is set in a rural landscape with rolling hills and a cloudy sky.

All Together Now: Herding Health Systems for Pandemic Preparedness

San Francisco Department of Public Health

Farrell Tobolowsky, DO, MS, Communicable Disease Branch

Tiffany Rivera, BSN, CEN, Emergency Preparedness & Response Branch

Presenter



Farrell Tobolowsky, DO, MS
Medical Director, Communicable Disease Program
Deputy Director, Communicable Disease Branch
San Francisco Department of Public Health

Prior to her current role, Ms. Tobolowsky worked at CDC for more than 5 years as a medical epidemiologist and subject matter expert in diphtheria, polio, and enteric infections. During her time at CDC and SFDPH, she has served in key leadership roles in emergency responses for avian influenza, domestic and international polio, mpox, COVID-19, and a large international Guillain-Barre Syndrome outbreak. She continues to practice clinically in acute care settings as an adult infectious disease physician.

Presenter



Tiffany Rivera, BSN, CEN, TCRN
Deputy Director, Emergency Preparedness & Response,
Medical Health Operational Area Coordinator (MHOAC)
San Francisco Department of Public Health

Tiffany Rivera began her work with San Francisco's Department of Public Health in June of 2018. Prior to that she worked as an Emergency Room and Trauma nurse for 10 years, including time as a Nurse Leader in acute care settings. Since joining San Francisco Public Health, Ms. Rivera has helped lead the Emergency Preparedness Branch in successful responses to public health emergencies, including COVID-19, the Tenderloin Overdose Epidemic Initiatives, 2022 M-Pox response and H5N1 Planning.

Disclosure of Relevant Financial Relationships

Farrell Tobolowsky, DO, MS reports no relevant financial relationships or relationships she has with ineligible companies of any amount during the past 24 months.

Tiffany Rivera, BSN, CEN, TCRN reports no relevant financial relationships or relationships she has with ineligible companies of any amount during the past 24 months.

Agenda & Objective

Agenda

- Background on H5N1 planning
- Formation of clinical workgroup
- Workgroup facilitation
- Clinical deliverables
- Lessons learned

Objective

Describe strategies for facilitating pandemic planning across diverse healthcare departments

Poll Question

- Question: Who is in the audience today?
- Responses:
 - Health system clinician
 - Health system emergency manager
 - Non-system-affiliated hospital clinician
 - Non-system-affiliated hospital emergency manager
 - Government- Local
 - Government- State
 - Government Federal
 - Other

It all began in March 2024...

Highly Pathogenic Avian Influenza A(H5N1) Virus: Identification of Human Infection and Recommendations for Investigations and Response

[Print](#)



Distributed via the CDC Health Alert Network
April 05, 2024, 01:30 PM ET
CDCHAN-00506

Summary

The Centers for Disease Control and Prevention (CDC) is issuing this Health Alert Network (HAN) Health Advisory to inform clinicians, state health departments, and the public of a recently confirmed human infection with highly pathogenic avian influenza (HPAI) A(H5N1) virus in the United States following exposure to presumably infected dairy cattle. The U.S. Department of Agriculture (USDA) recently reported detection of highly pathogenic avian influenza A(H5N1) virus in U.S. dairy cattle in [preventing, monitoring, and responding to highly pathogenic avian influenza \(HPAI\) A\(H5N1\) virus in U.S. dairy cattle](#).

HEALTH

Bird flu detected in San Francisco, first city in California to report in wastewater

By **Aidin Vaziri**, Staff Writer

Updated June 3, 2024 12:35 p.m.

Bird Flu Spreads to Dairy Cows

U.S. regulators confirmed that sick cattle in Texas, Kansas and possibly in New Mexico contracted avian influenza. They stressed that the nation's milk supply is safe.

Share full article

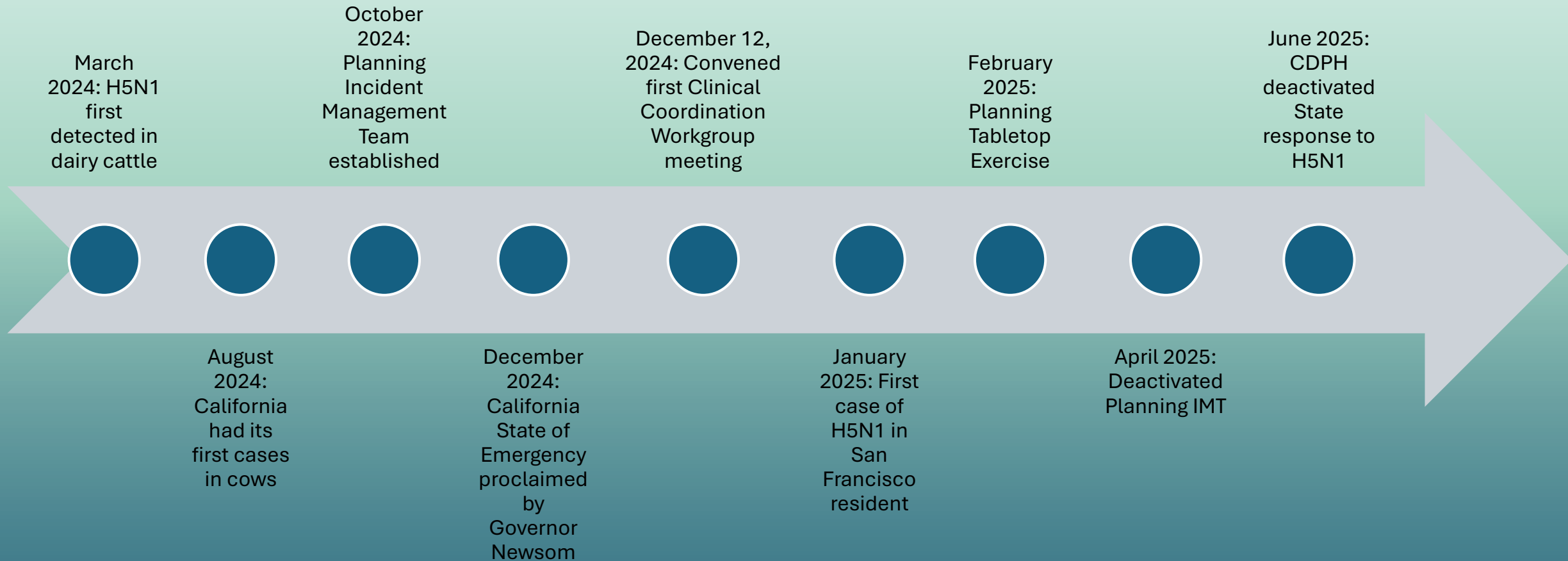


Gift Article

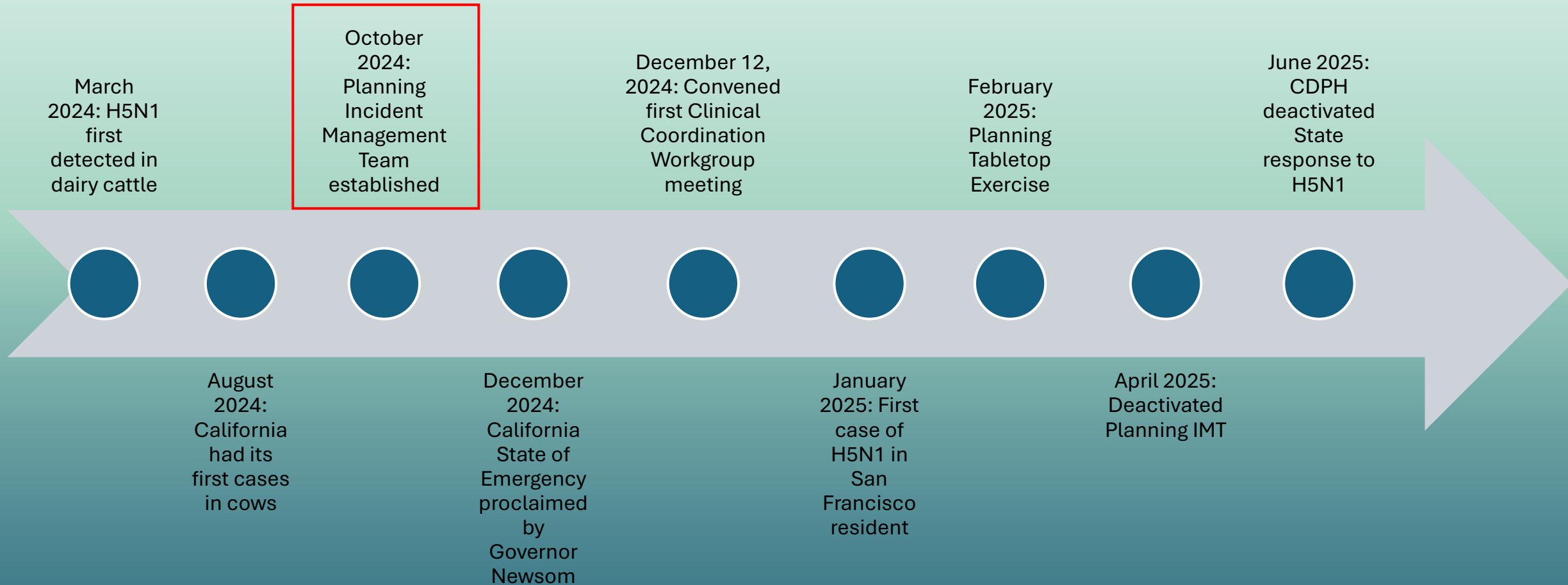


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H5N1 Emergence and Decision Making

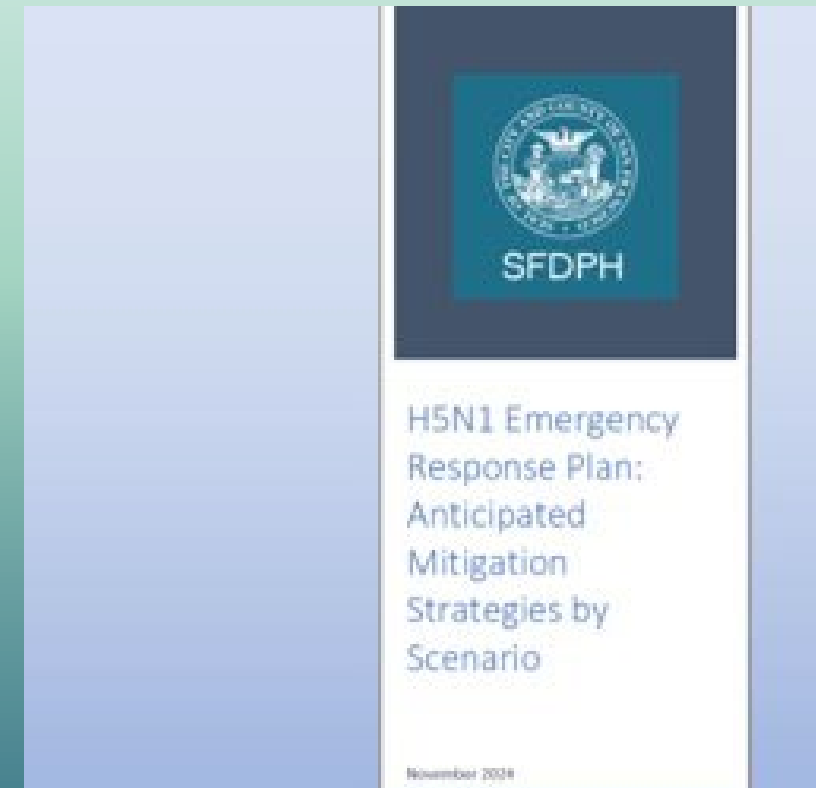


H5N1 Emergence and Decision Making



Planning Incident Management Team (IMT)

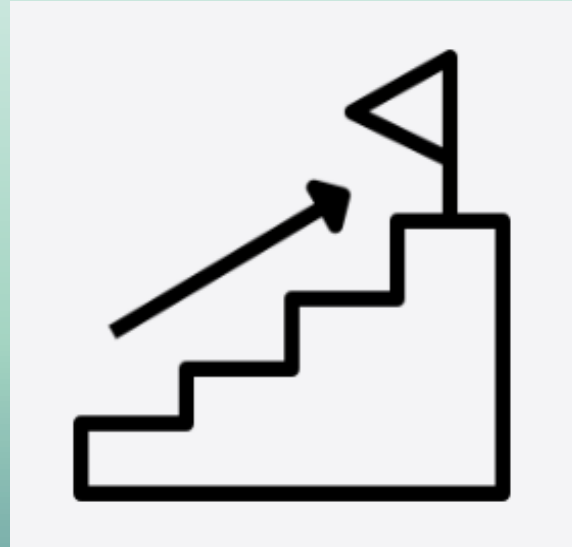
- What is a planning IMT?
- Deliverable: Response Plan
- Three scenarios:
 1. No person-to-person transmission, but isolated animal to human transmission case(s) in San Francisco
 2. Person-to-person transmission with slow increase in cases and/or low case fatality rates
 3. Person-to-person transmission with rapid increase in cases and/or high case fatality rates



Guiding Principles of planning IMT



Clinical services should be provided through health systems

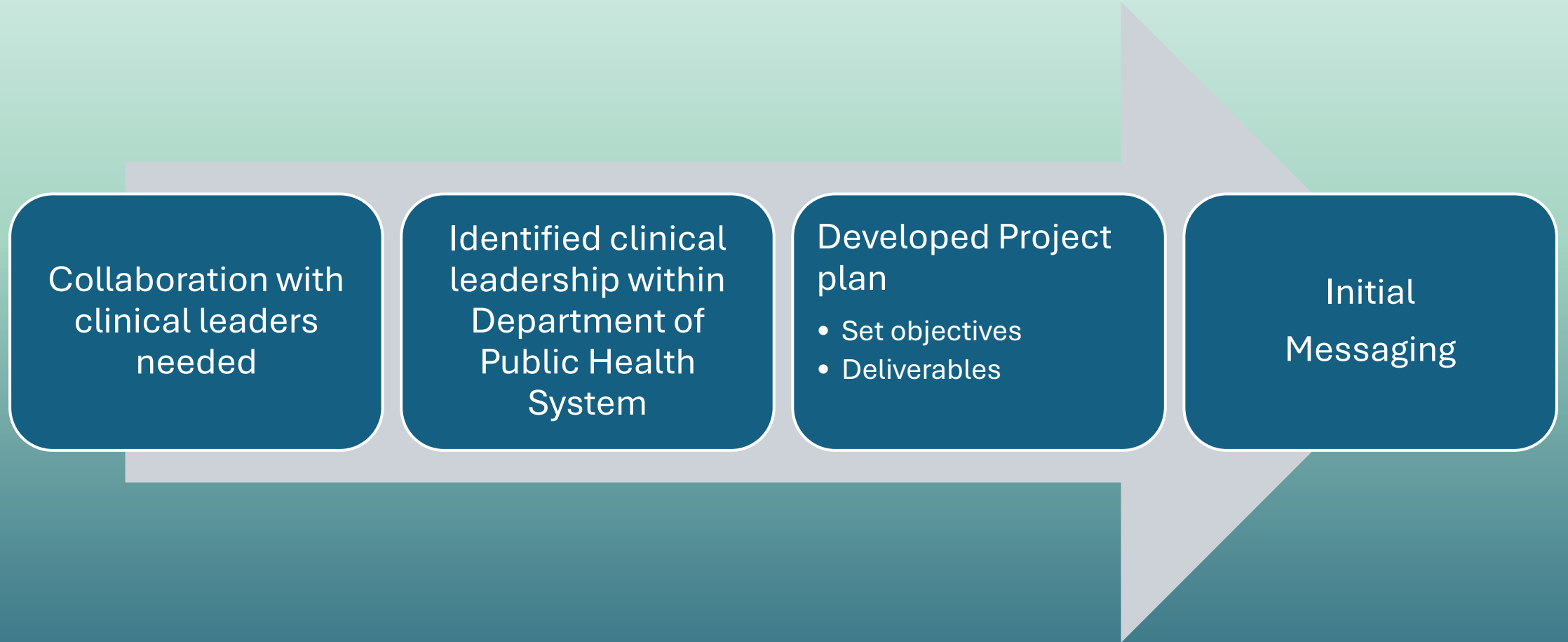


Structure is designed to rapidly scale up support services, data, and guidance from the Department of Public Health to support the health system response



The San Francisco Department of Public Health will utilize and disseminate federal and state guidance

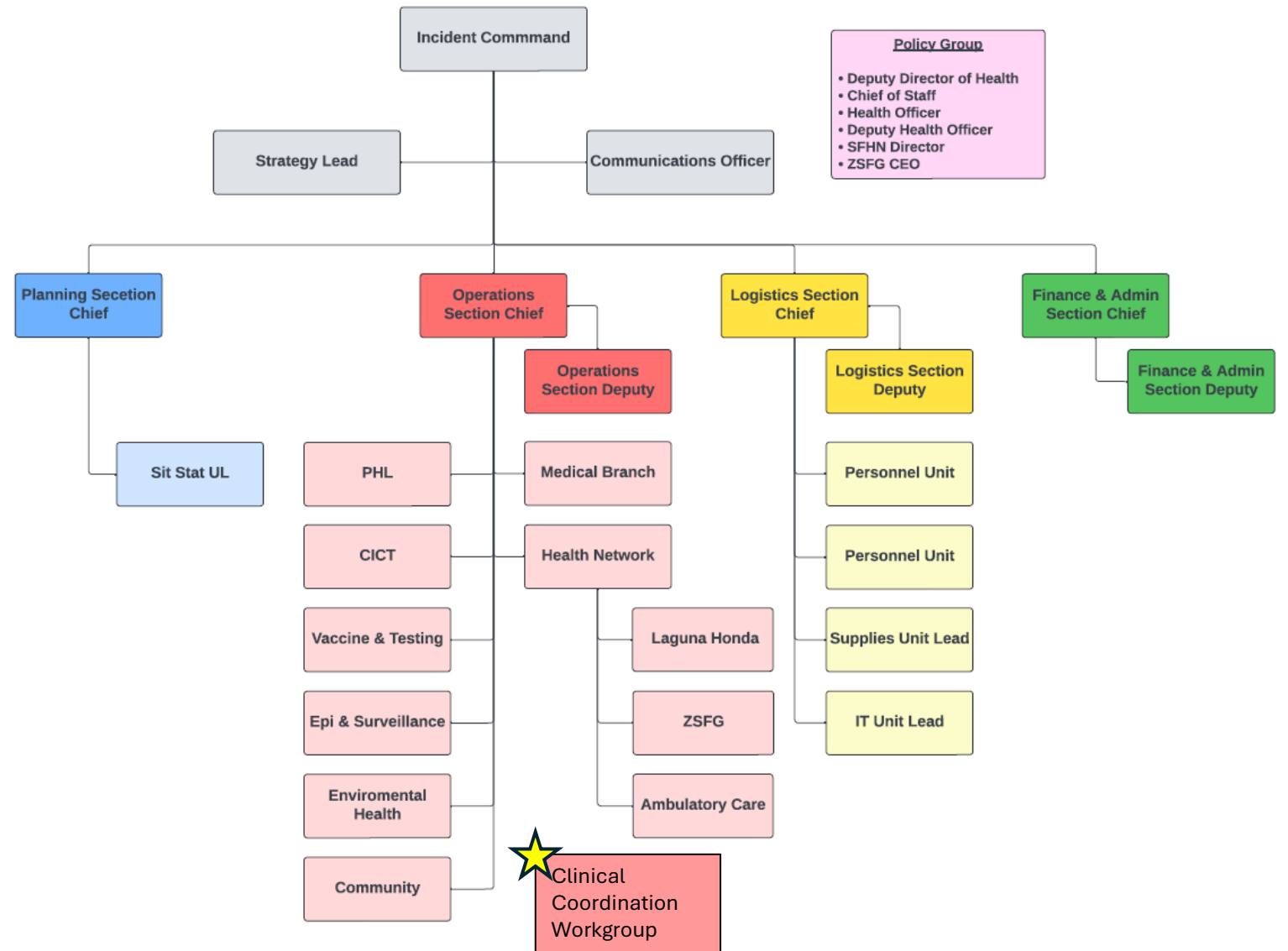
Formation of Clinical Workgroup



H5N1 IMT Organizational Chart

H5N1 IMT ORG CHART OP12 FINAL

03/20/25

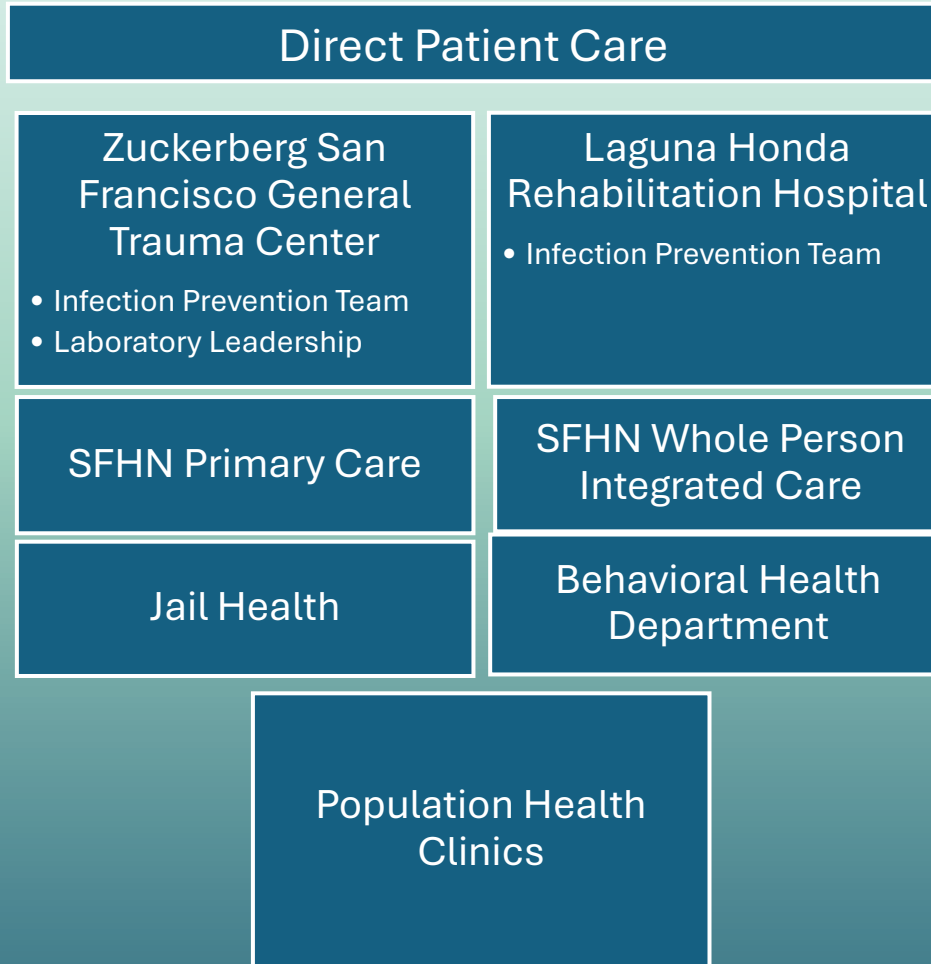


Workgroup Objectives

- Coordinate and standardize H5N1 clinical needs across all DPH clinical sites to include:
 - Infection prevention and control plan
 - Signage & Messaging
 - Screening and testing protocols
 - Clinical operation workflows

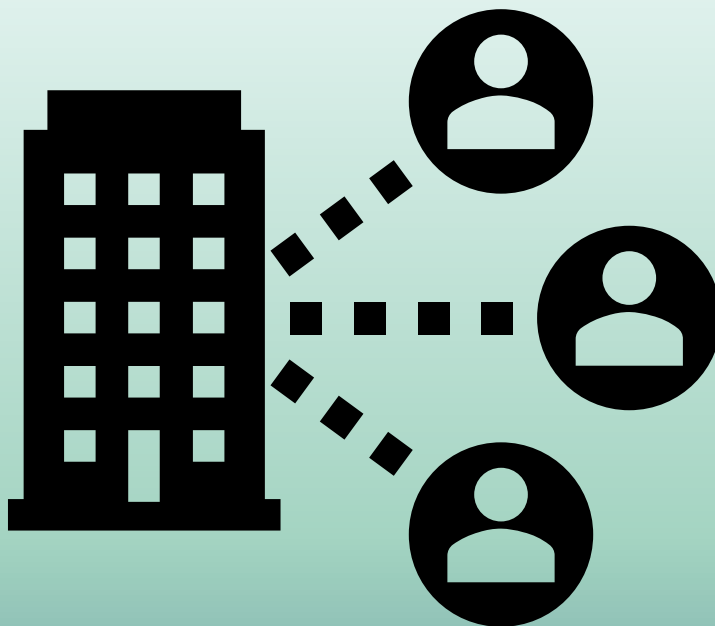


Workgroup Stakeholders



Polling Question

- Does your facility or health system engage in pandemic planning?
 - Yes
 - No
 - Kind of...



Workgroup Facilitation

Raise Your Hand...

What challenges have you experienced in cross-collaborative projects?

Workgroup Facilitation Challenges

- Cross sector collaboration
- Managing diverse stakeholder priorities
- Groups who had not worked together before
- Institutional knowledge without standard procedures
- Novel influenza virus with evolving science
- Logistics:
 - Virtual environment
 - Scheduling
 - Busy workgroup members



Start With These General Considerations...

- Right people at the table
 - Decision making capacity
 - Subject matter experts
 - Non-traditional clinical groups
- People Management
- Messaging
 - Leadership buy in and approval
 - Messaging to the point, clear and concise
 - Iterative
 - Aligns with current science
- Pandemic Trauma



Administrative Considerations

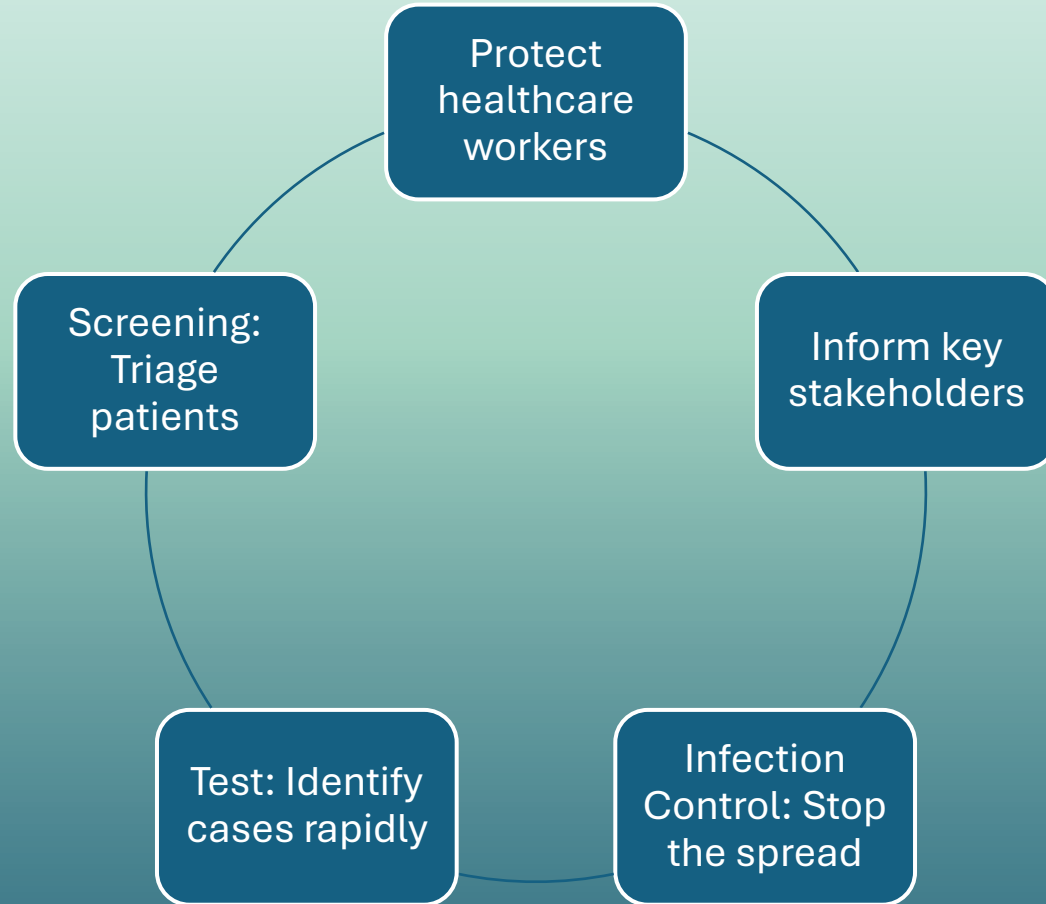
- Recurring Meetings
 - Agree on best time for recurring meetings
 - Conflicting meetings- ensure they are sending a designee
- Agenda
 - Transparency
 - Time Management
 - Focus
- Minutes
- Follow up with action items





H5N1 Planning- Clinical Deliverables

Identifying Essential Deliverables



Infection Prevention and Control Plan

- What's Included

- Protect healthcare workers: Personal protective equipment recommendations
- Screening: Triage patients
- Identify cases rapidly: Specimen collection

- Challenges

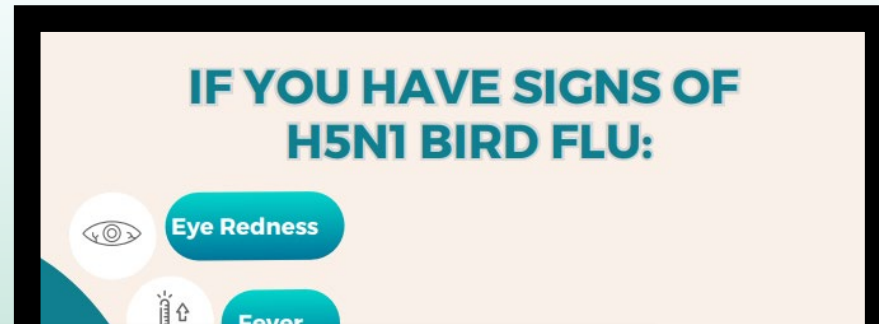
- Minimal experience with H5N1 (novel pathogen)
- Facilities with different needs and resources
- Evolving science (clinical, epidemiology) → need to continuously align with guidance
- No known human-to-human transmission
- No available vaccine for prevention



Standardized Screening

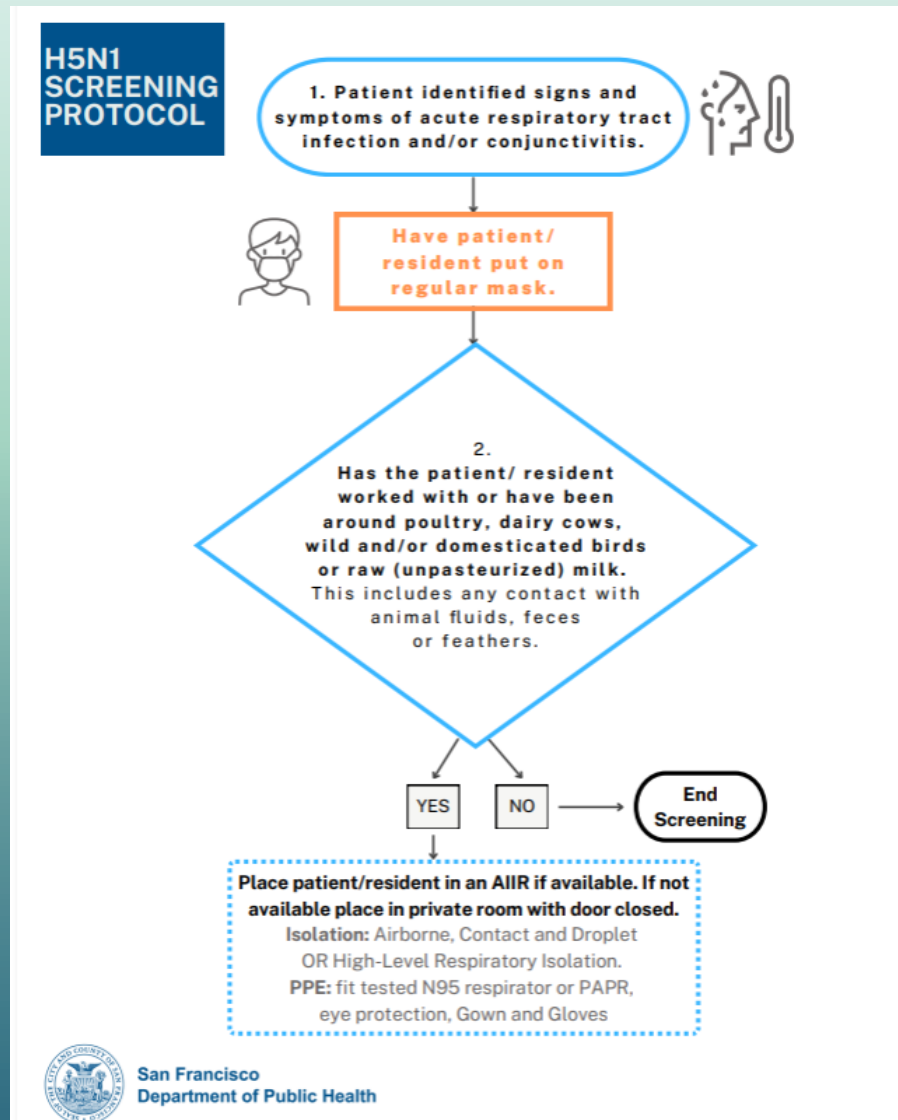
- Goal: Triage Patients
- Patient-facing
- Challenges
 - Different triage processes
 - Avoid creating fear
 - Design and Format
 - Translations
 - Needs additional clinician assessment

Screening:
Triage patients



YOUR
HEALTH CARE
PROVIDER

Screening Protocol



- Goal: Isolate and mask ill individuals
- Healthcare-facing
- Simple algorithm that is easy to follow
- Can be printed and posted
- Incorporates clinical and epidemiologic risk factors

Screening Protocol

- Includes guidance and case definitions → clinicians do not need to reference other materials
- One-pager

Control: Stop
spread to
other patients

Screening:
Triage patients

1. Symptoms of Acute Respiratory tract infections:

- **Mild flu like illness:** cough, sore throat, fever or feeling feverish, running nose, feeling tired or fatigue, joint pain, muscle pain, headache or conjunctivitis (red eye), discharge from eye.
- **Moderate to severe illness:** shortness of breath or difficulty breathing, altered mental status, seizures.

2. Persons with exposure within the 10 days prior to illness onset through one of the following:

1) Exposure to animals infected with H5N1 influenza virus (defined as follows):

- a. Close contact (within six feet) with infected animals; such exposures can include, but are not limited to: handling, slaughtering, defeathering, butchering, culling, care for, or milking; **OR**
- b. Preparing or consuming raw animal products, or consuming uncooked or undercooked food or related uncooked food products, including unpasteurized milk, from infected animals; **OR**
- c. Direct contact with surfaces contaminated with feces, unpasteurized milk or other unpasteurized dairy products, or animal parts (e.g., carcasses, internal organs) from infected animals, **OR**

2) Exposure to an infected person: Close (with six feet) unprotected (without the use of respiratory and eye protection) contact with a person who is a confirmed, presumptive, or symptomatic suspected H5N1 case (e.g., in a household or healthcare facility); **OR**

3) Laboratory exposure - Unprotected (without use of respiratory and eye protection) exposure to avian influenza A virus in a laboratory.

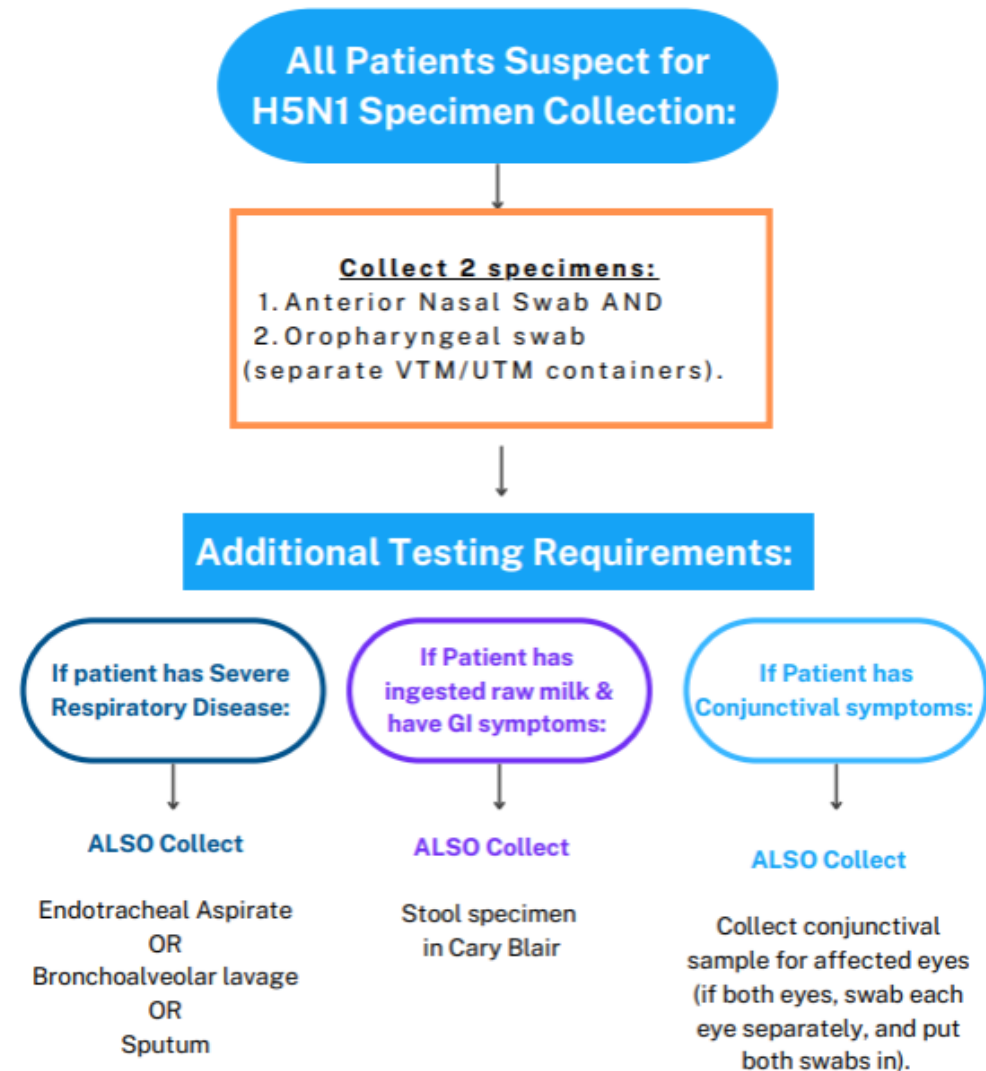


San Francisco
Department of Public Health

Specimen Collection

- Goal: test to identify cases rapidly
- Challenges:
 - Different resources available in each setting (e.g., trained staff, specimen collection tools, inpatient vs. outpatient)
 - Multiple labs for testing
 - Atypical specimens (e.g., conjunctival)

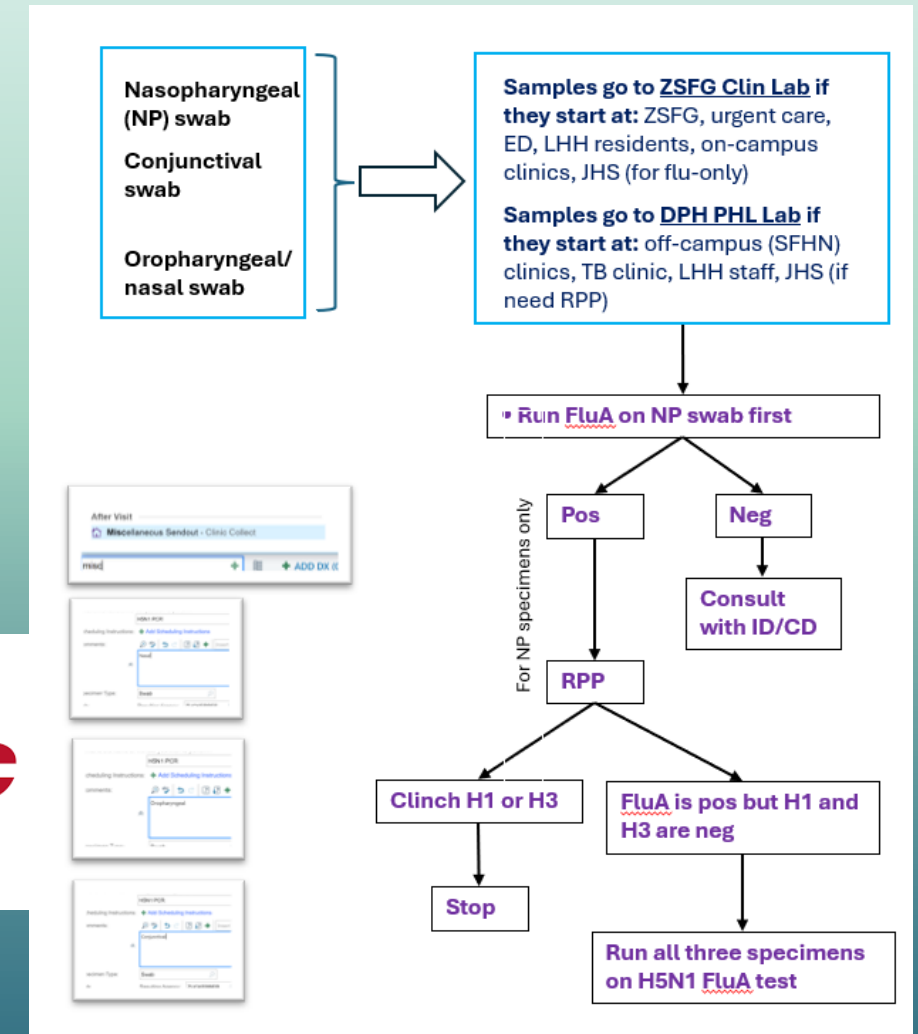
Test: Identify cases rapidly



Specimen Testing Workflows

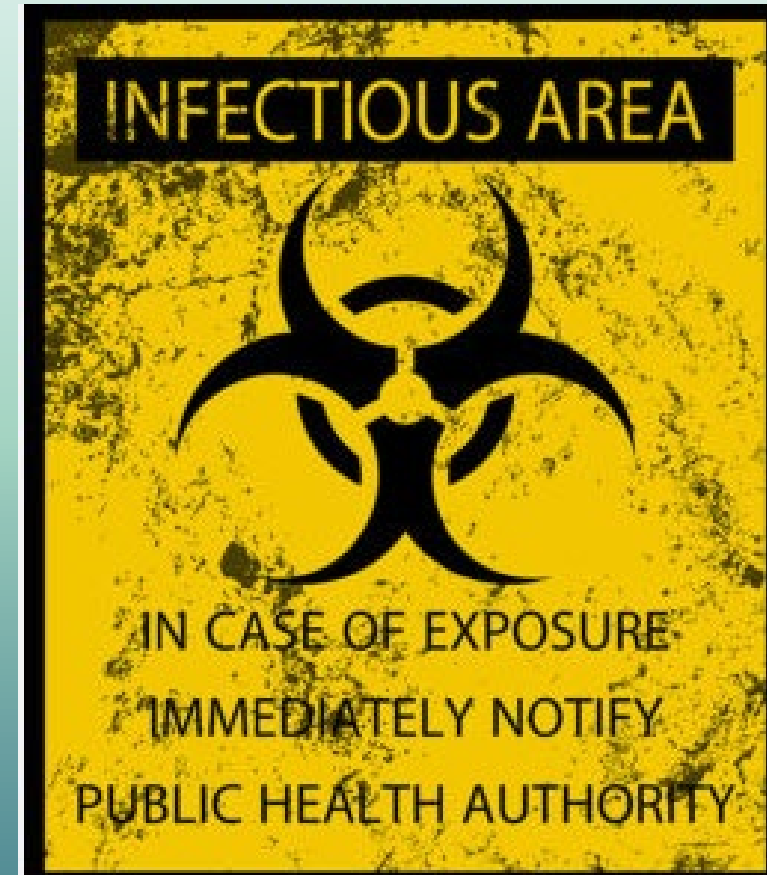
- Goal: Test to identify cases rapidly
- Challenges
 - Need to be able to order test for suspect cases with epidemiologic and clinical risk factors (electronically vs. manually)
 - Additional laboratory-based surveillance
 - Algorithm to use testing resources efficiently

Test: Identify cases rapidly



DPH Suspect Case Notification and Testing Workflow

- Goal: inform key stakeholders to report a suspect case
- Enables rapid public health response
- Efficient communication and testing pathways for 5 different groups
 - Regular business hours
 - Evenings & Weekends



Inform key
stakeholders

Key Takeaways



1. Framework for system-level pandemic planning
2. Transferable tools for health systems of all sizes and versatile for emerging pathogens
3. Start forming relationships and planning now!
4. Ensure key stakeholders are included in the decision-making and process
5. Build upon previous experiences (e.g., COVID-19), no need to start from scratch

Pandemic Preparedness Resources

- [CDC- Healthcare System Preparedness & Response](#)
- ASPR TRACIE- [Healthcare Coalition Pandemic Checklist](#)
 - [Infectious Disease Page](#)
- [Pediatric Pandemic Network](#)
- [California Department Public Health- H5N1 Information for Health Professionals](#)

Questions?

Thank You!

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