

HHS Pandemic Influenza Preparedness Planning

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Influenza and Preparedness

- Seasonal and Pandemic Influenza
- Current situation
- Preparedness activities



Influenza

- Is a contagious respiratory infection that is characterized by fever, headache, muscle aches, tiredness, dry cough, runny nose, and sore throat
- Seasonal Influenza—annual winter epidemic caused by a viral strain that already circulate among people
- Pandemic Influenza—global outbreak caused by a new strain or one that has not circulated for a long time



Seasonal Influenza Preparedness



Pandemic Influenza Preparedness



The Burden of Influenza

Seasonal Influenza

- Globally: 250,000 to 500,000 deaths each year
- In the United States each year:
 - 36,000 deaths
 - >200,000 hospitalizations
 - \$37.5 billion in economic costs from influenza and pneumonia

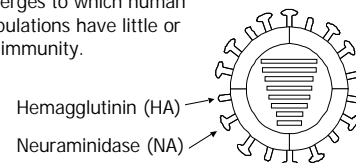
Pandemic Influenza

- An ever-present threat



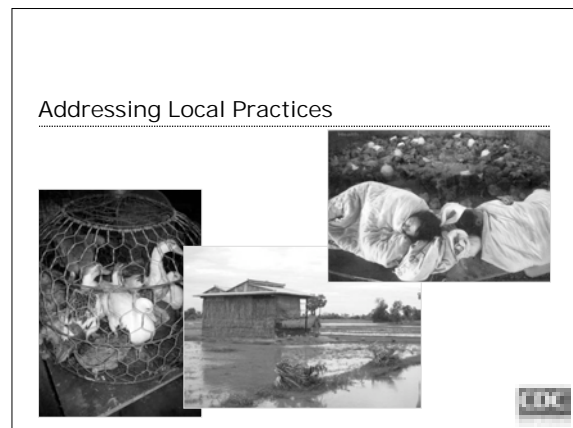
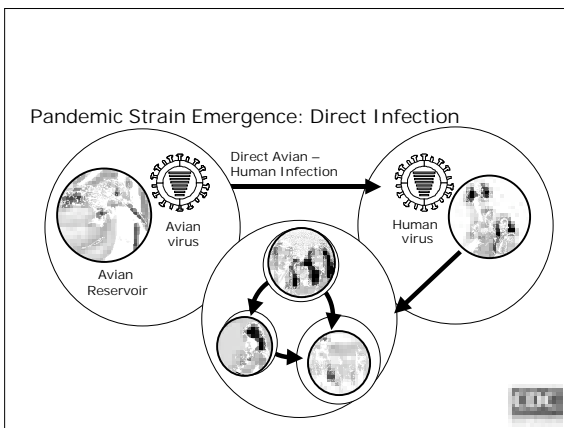
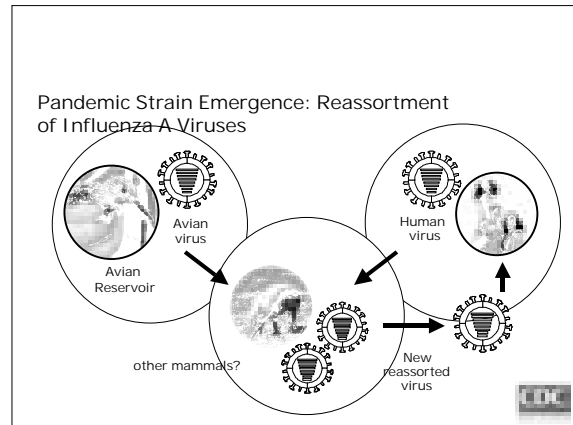
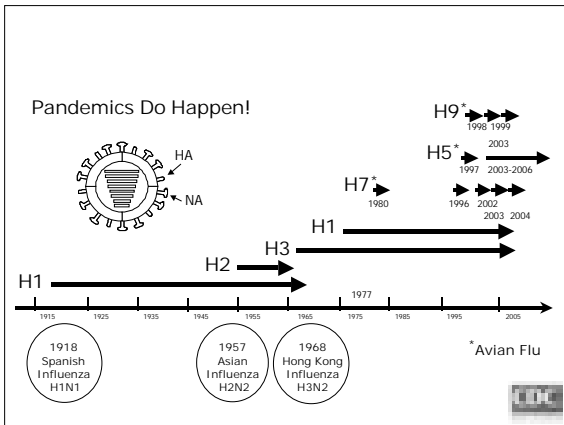
Pandemic Influenza

A pandemic occurs when a strain of influenza emerges to which human populations have little or no immunity.

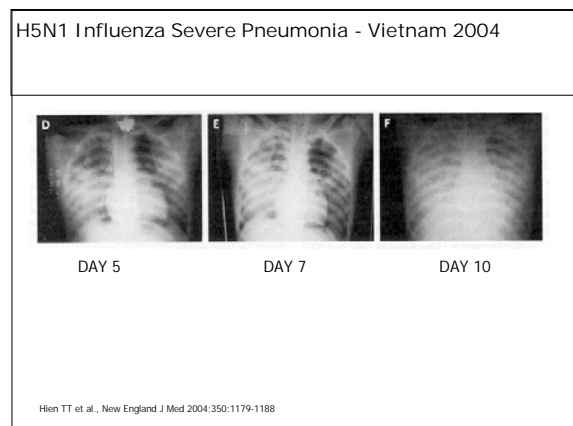


Nomenclature: H_N_ (e.g. H5N1)





- Situation Report: Avian Influenza**
- ☒ Widespread and spreading prevalence in migratory birds; broad host range
 - ☒ Continued outbreaks among domestic poultry(>19 countries)
 - ☒ Mammalian infection (cats, pigs, etc.) lethal
 - ☒ Virus is evolving
 - ☒ Sporadic human cases (>165 reports to date in 7 countries)
 - Most in young and healthy
 - Case-fatality 50% (88 deaths)
 - Rare person-to-person transmission
 - ☐ Sustained and rapid person-to-person transmission



Planning Assumptions: Health Care

- 50% or more of those who become ill will seek medical care
- Number of hospitalizations and deaths will depend on the virulence of the pandemic virus

	Moderate (1957-like)	Severe (1918-like)
Illness	90 million (30%)	90 million (30%)
Outpatient medical care	45 million (50%)	45 million (50%)
Hospitalization	865,000	9,900,000
ICU care	128,750	1,485,000
Mechanical ventilation	64,875	745,500
Deaths	209,000	1,903,000



Planning Assumptions: Health Care--Alabama

- 50% or more of those who become ill will seek medical care
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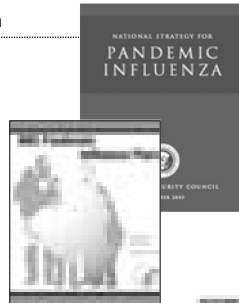
	Moderate (1957-like)	Severe (1918-like)
Illness	1.4 million (30%)	1.4 million (30%)
Outpatient medical care	700,000 (50%)	700,000 (50%)
Hospitalization	13,000	150,000
ICU care	2,000	22,000
Mechanical ventilation	1,000	11,000
Deaths	3,100	28,000



HHS Pandemic Influenza Plan

- Support the National Strategy for Pandemic Influenza
- Outlines planning assumptions and doctrine for health sector pandemic preparedness and response
- Public Health Guidance for State and Local Partners
- 11 Supplements with detailed guidance

www.pandemicflu.gov



HHS Pandemic Influenza Doctrine: Saving Lives

- A threat anywhere is a threat everywhere!
- Quench first outbreaks: detect and contain where it emerges, if feasible
 - International collaborations
 - Frontline detection and response; rapid laboratory diagnosis
 - Isolation / quarantine / antiviral prophylaxis / social distancing / animal culling



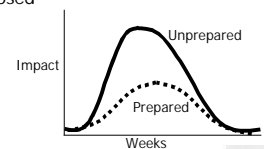
HHS Pandemic Influenza Doctrine: Saving Lives

- Prevent or at least delay introduction into the United States
 - May involve travel advisories, exit or entry screening
 - For first cases, may involve isolation / short-term quarantine of arriving passengers



HHS Pandemic Influenza Doctrine: Saving Lives

- Slow spread, decrease illness and death, buy time
 - Antiviral treatment and isolation for people with illness
 - Quarantine for those exposed
 - Social distancing
 - Vaccine when available
 - Local decisions



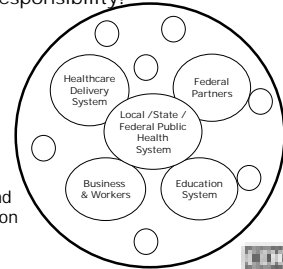
HHS Pandemic Influenza Doctrine: Saving Lives

- Provide the Public with clear risk and health communications
 - Prepare people with information
 - Encourage action steps to prepare now
 - Provide updates when new information emerges
 - Use trusted messengers
 - Coordinate to ensure consistent messages
 - Address rumors and inaccuracies



Our Health Protection Preparedness System A NETWORK of Shared Responsibility!

- Local - state - federal
- Domestic – international
- Public – private
- Multi-sector
- Non-partisan
- Animal – human
- Health protection – homeland security – economic protection



Our Health Protection Preparedness System A NETWORK of Shared Responsibility!

- Federal Responsibilities
 - Monitoring international and domestic outbreaks
 - Providing funding and technical assistance to foster state and local preparedness
 - Stockpiling and distributing countermeasures
 - Developing new treatments and intervention strategies
 - Coordinating the National response



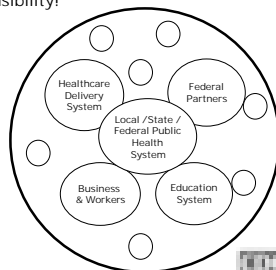
Our Health Protection Preparedness System A NETWORK of Shared Responsibility!

- State and Local Responsibilities
 - Community preparedness leadership and networking
 - Surveillance and laboratory testing
 - Health care delivery and infection control
 - Distribution and use of vaccine and antiviral drugs
 - Community disease control and prevention
 - Public health communications



Our Health Protection Preparedness System A NETWORK of Shared Responsibility!

- Public and Private Sector Organizations have important roles!



Countermeasures: Vaccines, Antivirals, and Medical Supplies



Strategic National Stockpile



Vaccine Production and Use: U.S. Seasonal Influenza

	Doses Produced (millions)	Doses Distributed (millions)
1980	15.7	12.4
1985	23.1	20.1
1990	32.3	28.3
1995	71.5	54.9
1999	77.2	76.8
2000	77.9	70.4
2001	87.7	77.7
2002	95.0	83.0
2003	86.9	83.1
2004	61.0	56.5
2005	86.0	> 80 so far



Overcoming Challenges to Pandemic Vaccine

- Expand production of current (egg-based) vaccine
- Evaluate dose-sparing technology (adjuvants, intramuscular vs. intradermal route)
- Accelerate development of modern (non-egg) vaccines
- Target new antigens



Antivirals and Medical Supplies: Influenza Treatments

- Stockpile
 - Tamiflu: 5 million courses in Strategic National Stockpile (SNS) with an additional 300,000 courses by end of April 2006
 - Tamiflu oral suspension: 97,000 courses in SNS with an additional 260,000 on order (arrival date to be determined)
 - Relenza: 84,000 courses in SNS
- Strategy
 - Procure 81 million courses of antivirals
 - 6 million courses to be used to contain an initial U.S. outbreak
 - 75 million courses to treat 25 percent of U.S. population
- Accelerate development of promising new antiviral candidates



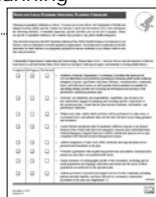
Antivirals and Medical Supplies: Influenza Treatments

- \$350 million appropriated in FY 2006 to upgrade state and local response capacity for pandemic influenza
 - \$100 million of the funding is scheduled to be awarded to all 50 states; 7 territories; Puerto Rico; Washington, D.C.; New York City; Chicago; and Los Angeles County and allocated according to a base + population formula
 - \$250 million will be awarded later this year. Application for funding is supplemental to current cooperative agreements



State and Local Pandemic Influenza Planning Checklist

- ☒ Community Leadership and Networking
- ☒ Surveillance
- ☒ Health System Partnerships
- ☒ Infection Control and Clinical Care
- ☒ Vaccine Distribution and Use
- ☒ Antiviral Drug Distribution and Use
- ☒ Community Disease Control and Prevention
- ☒ Communications
- ☒ Workforce Support



Pandemic Influenza Checklists

- State and Local
- Business
- Preschool
- Schools (K-12)
- Colleges & Universities
- Faith-based & Community Organizations
- Physician Offices and Ambulatory Care
- Home Health
- Emergency Medical Services
- Travel Industry

www.pandemicflu.gov



Pandemic Influenza Checklists include action steps to

- Plan for impact on organizations and their operations
- Plan for impact on people involved with organizations
- Establish policies to maximize infection control
- Allocate resources to protect health and safety
- Communicate and educate people
- Coordinate with external organizations

www.pandemicflu.gov



Health Protection at the Frontline: Local, County, and State Public Health Departments



Seasonal Influenza Preparedness



Pandemic Influenza Preparedness

Preparing for a pandemic now will mean:

- Lives saved during seasonal influenza
 - Modern seasonal influenza vaccine for all who need it
 - New antiviral drugs for prevention and treatment
- Community health protection from other threats
- Peace of mind



Pandemic Influenza Preparedness

Those who cannot remember the past are condemned to repeat it.

George Santayana
The Life of Reason, 1905



Complacency is the enemy of health protection!



www.cdc.gov

www.pandemicflu.gov