

# Preparing Workplaces for an Influenza Pandemic

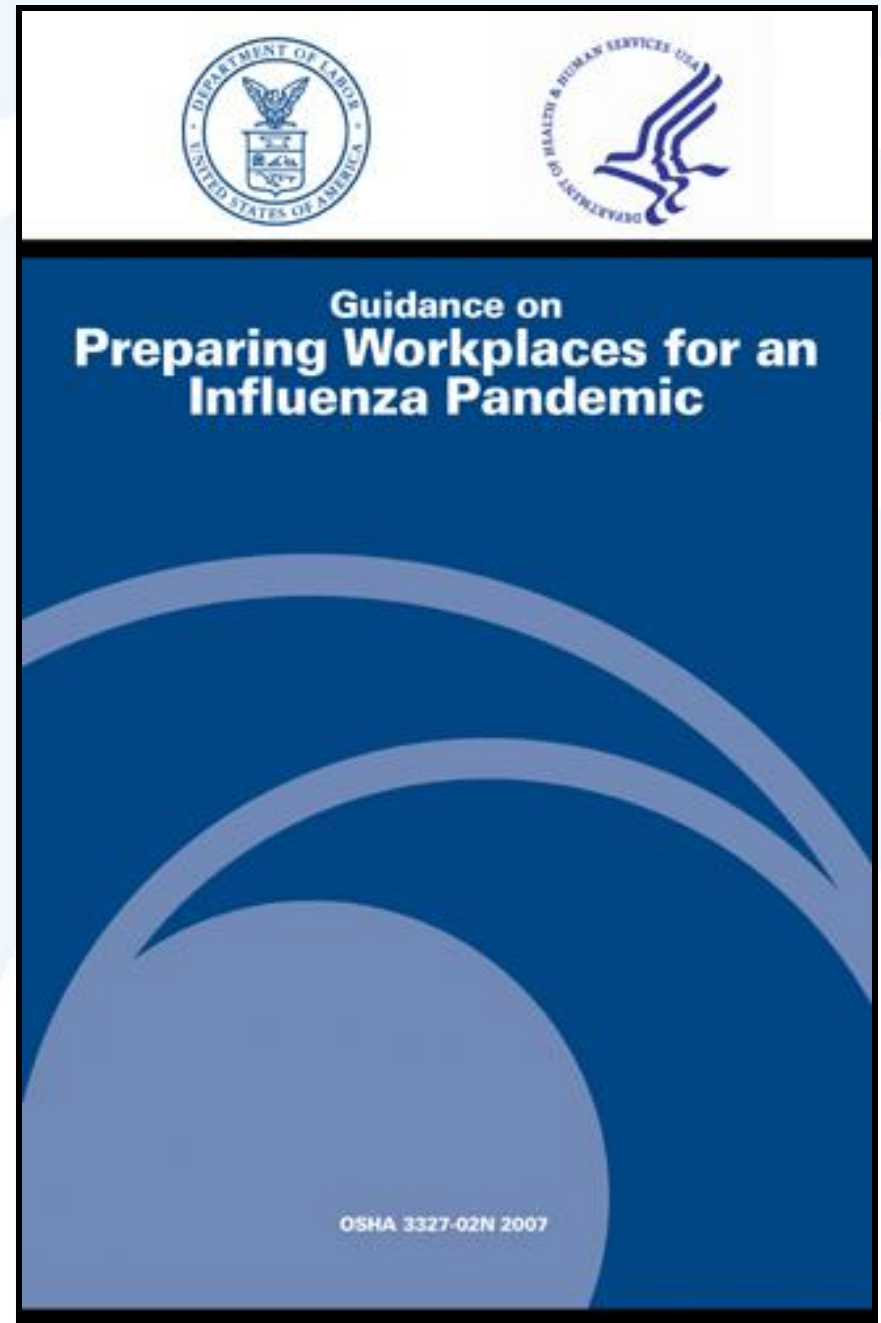
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- **Joint DOL/HHS document**
- **Released: 2007**
- **Available at:**
  - **PandemicFlu.gov**
  - **OSHA.gov**



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# Seasonal Influenza

- **Regular periodic outbreaks of respiratory illness.**
- **Typically occur in fall and winter.**
- **Vaccine prepared in advance.**
- **International business travelers – different influenza seasons in different geographic areas.**

# **Pandemic Influenza**

- **A new strain of virus emerges, to which people have limited immunity, and spreads easily from person-to-person.**
- **A worldwide outbreak of illness.**
- **A vaccine will not be available for some time.**
- **Pandemics have occurred throughout recorded history, it is only a matter of time before the next one.**
- **Pandemic can vary in severity from mild to very severe.**

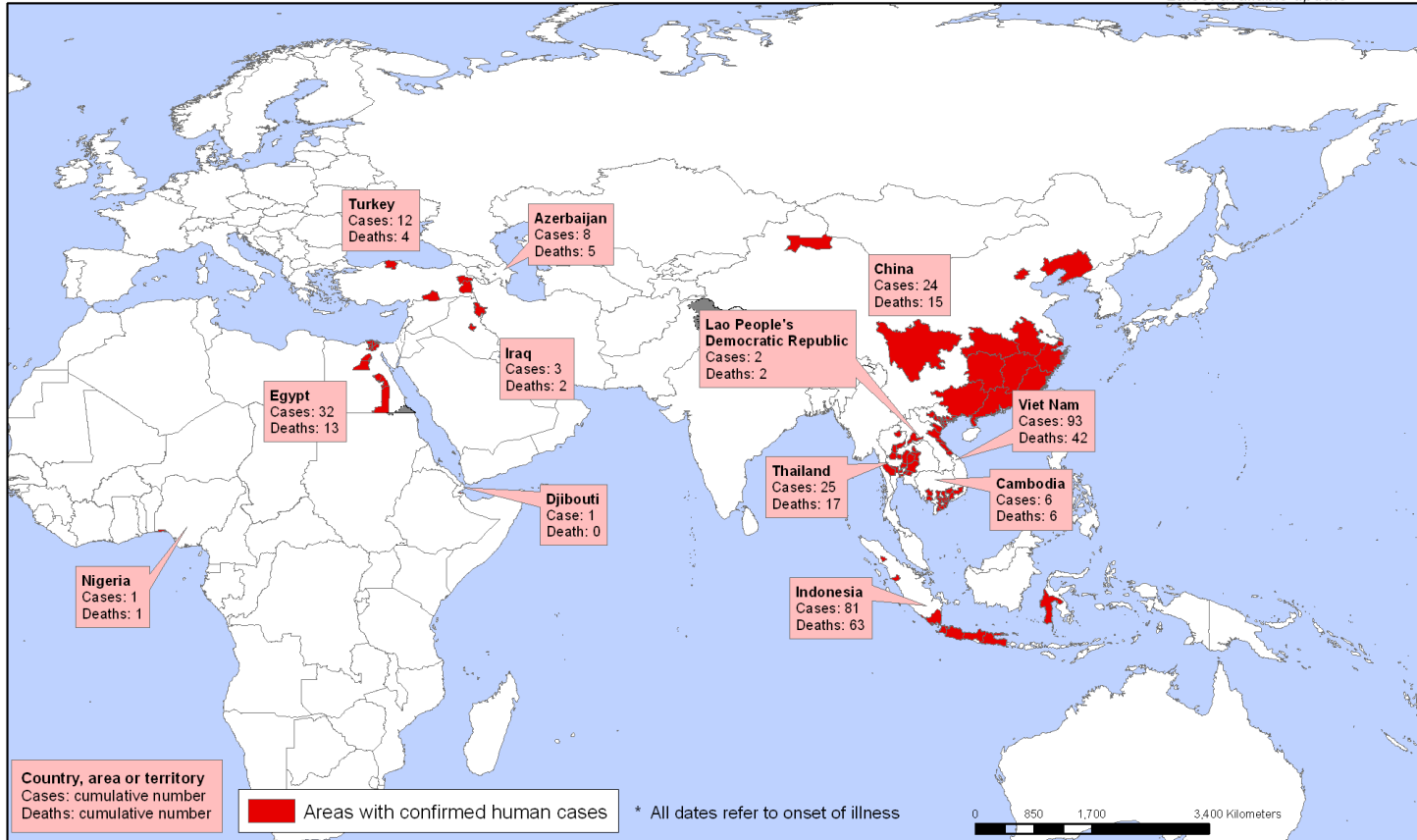
## Avian Influenza (“Bird Flu”)

- A virus of wild birds and domestic poultry.
- Many forms of avian influenza of varying severity (LPAI vs. HPAI).
- Usually of little threat to humans.
- The current strain of HPAI (H5N1) is very virulent and has shown a limited ability to infect humans.

# Human Cases of Avian Influenza

Areas with confirmed human cases of H5N1 avian influenza since 2003 \*

Status as of 02 April 2007  
Latest available update



World Health Organization


The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: WHO / Map Production: Public Health Mapping and GIS  
Communicable Diseases (CDS) World Health Organization

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	2003	2004	2005	2006	2007 (YTD)	Total
<b>Deaths</b>	4	32	43	79	12	170
<b>Cases</b>	4	46	98	115	25	288

# What Kind of 'Flu'??



	Infection Rate*	Mortality	Population Affected	Control Measures
Seasonal	~10%	~36,000/yr in US	Elderly, infants	Vaccine; anti-virals
Avian	minimal	•50% 89% Thai children	Poultry workers	Poultry culling; isolation
Pandemic (1918) Spanish flu	10-75% average ~30%	50-100 Million	Young adults	quarantine

# **The Link Between Avian and Pandemic Influenza**

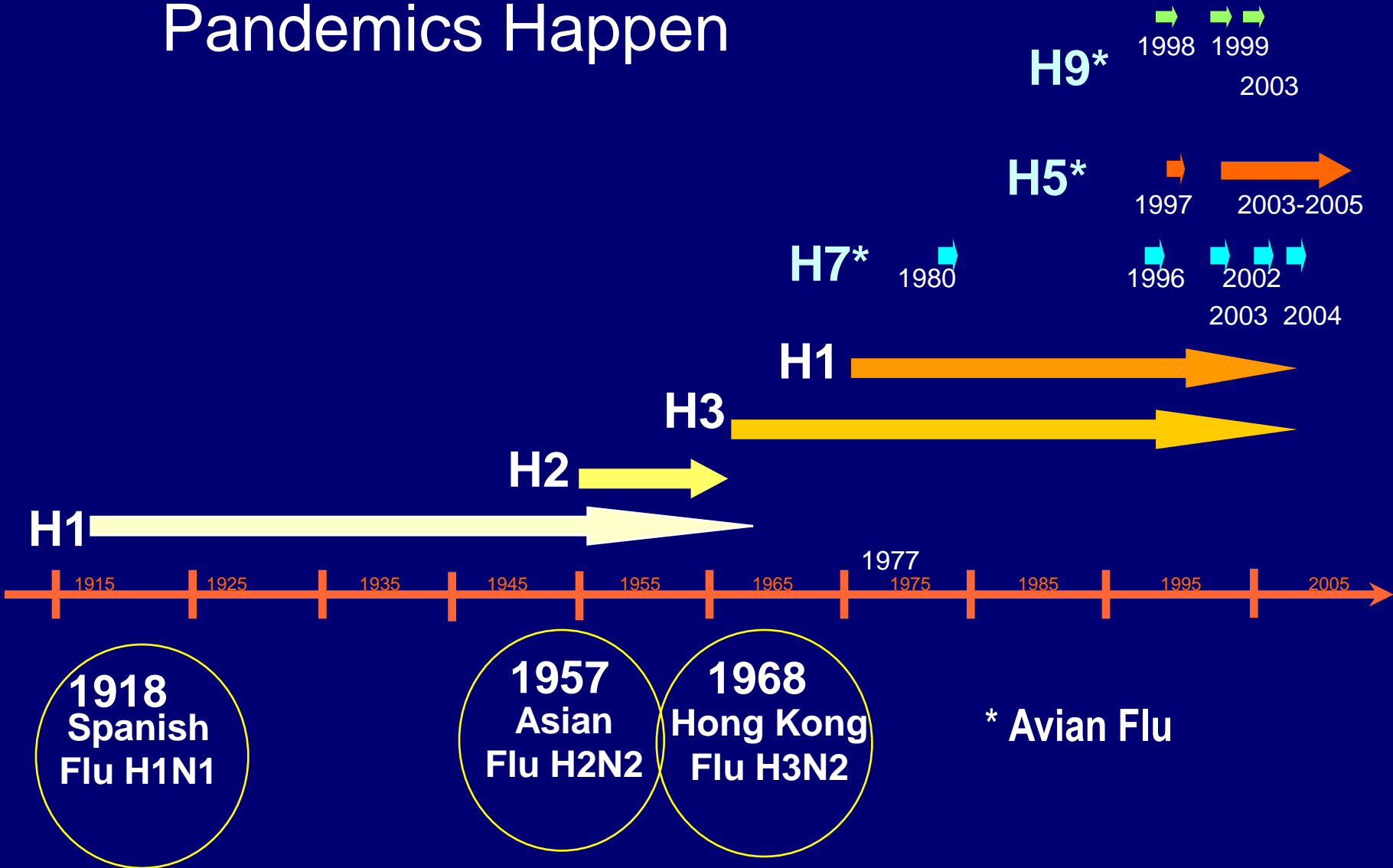
**Scientists and government officials are concerned that the current strain of highly pathogenic avian influenza virus (H5N1) will combine with a normal seasonal human influenza virus to create a new strain of human influenza virus with the potential to cause a pandemic.**

**We won't know if the next pandemic will be mild or severe until the new strain emerges.**

# Pandemic Factoid

- Pandemics are inevitable:  
Not IF but WHEN
- There will be little warning
- Outbreaks will occur simultaneously in many areas
- The world is “overdue”
  - “The pandemic clock is ticking loudly.  
Unfortunately, we don’t know what time it is.”

# Pandemics Happen



# Pandemics: Learning From History

## Spanish Flu (1918-1919)

- 50 - 100 million deaths worldwide
- 3-5 percent of the worlds population died
- Life expectancy dropped 10 years.
- Highest mortality rate was 16 -24 year olds



# How a Severe Pandemic Could Affect Workplaces

- **Absenteeism – up to 40% of employees affected**
  - Sick/dead employees
  - Caring for sick family members
  - Child care – schools may close
  - Afraid to come to work
- **Changes in Patterns of Commerce**
  - Increased demand for some goods/services
  - Decreased demand for other goods/services
  - Home delivery, drive-through windows, expanded hours
- **Interrupted Supply/Delivery Chain**

# How Can Influenza Spread Between People?



# How Influenza Can Spread Between People

- **Contact of infectious materials with nose, mouth, and eyes.**
- **Thought to be primarily spread by relatively large droplets traveling less than 6 feet (droplet transmission).**
- **Touching contaminated objects can also be a factor (fomite transmission).**
- **Influenza may also be spread through very small particles traveling across longer distances (aerosol transmission).**
- **The importance of each route is uncertain and may vary based upon the characteristics of the influenza strain.**

# How Influenza Can Spread Between People

## Normal seasonal influenza:

- **Aerosol infectious for at least 24 hours**
  - **Indoors, low humidity**
- **5 minutes on hands**
- **24-48 hrs; non-porous surfaces**
- **People are reservoirs:**
  - **Incubation period: 2-4 days (WHO)**
  - **Contagious at least 24 hrs before symptoms**
  - **Children transmit virus > 7 days**
  - **Immuno-compromised may transmit for weeks**

# Classifying Employee Exposure to Pandemic Influenza at Work

- **Very high exposure risk**

Exposure to high concentrations of known or suspected sources of pandemic influenza lab procedures with known specimens.

- **High exposure risk**

High potential for exposure to known or suspected sources of pandemic influenza virus – medical staff.

- **Medium exposure risk**

Requires frequent, close contact (within 6 feet) exposure to others (e.g. schools, high volume retail).

- **Lower exposure risk (caution)**

No frequent close contact (within 6 feet) with others (e.g. office workers).

# How to Protect Employees

- **Develop a disaster/business continuity plan.**
- **Promote social distancing.**
- **Encourage good hygiene practices.**
- **Develop a sick leave policy that encourages sick employees to stay at home.**
- **Use the Hierarchy of Controls:**
  - **Work Practice and Engineering Controls - Barriers**
  - **Administrative Controls – phone meetings**
  - **Personal Protective Equipment - respirator**

# Steps Every Employer Can Take

- If you are ill – STAY AT HOME !!!
- Telecommute if Possible
- Avoid Public Meetings/Public Transportation
- Social Distancing (6 feet)
- Cross train staff
- Maximize Electronic Communication
- Make Alcohol Gel - Disinfectant Wipes available
- Hand washing
- Vaccinate – Provide Antiviral therapy

# Steps for Lower Exposure Risk Workplaces

- **Follow steps for every employer.**
- **Communicate with employees about office leave policies, child care policies, telework policies.**
- **Promote hygiene and social distancing.**
- **Monitor public health communication about pandemic flu.**

# Steps for Medium Exposure Risk Workplaces

- **Follow steps for every employer.**
- **Avoid close contact where possible.**
- **Promote hygiene (provide cleaning supplies, hand sanitizer, tissues).**
- **Expand internet, phone-based, home delivery, drive-through window service.**
- **Consider installing sneeze guards or other engineering controls, where appropriate.**
- **Expand communication with employees about workplace policies.**
- **PPE (surgical masks, respirators, face shields, gloves).**

# Steps for Very High/High Exposure Risk Workplaces

- Follow steps for every employer.
- Isolation rooms for aerosol generating medical procedures.
- Laboratory work in appropriate facilities.
- Consider installing sneeze guards, where appropriate.
- Promote hygiene (provide cleaning supplies, hand sanitizer, tissues).
- Expand communication with employees about workplace policies.
- Respirators:
  - N95 or better for most situations.
  - Surgical Respirator when both respiratory protection and fluid resistance are needed.
- PPE (gloves, gowns, face shields).

# Additional Sources of Information

- **Seasonal Influenza**

[www.cdc.gov/flu/](http://www.cdc.gov/flu/)

- **Avian Influenza**

[www.pandemicflu.gov](http://www.pandemicflu.gov) or [www.avianflu.gov](http://www.avianflu.gov)

[www.osha.gov/dsg/guidance/avian-flu.html](http://www.osha.gov/dsg/guidance/avian-flu.html)

- **Pandemic Influenza**

[www.pandemicflu.gov/](http://www.pandemicflu.gov/)

[www.osha.gov](http://www.osha.gov)



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