

Pandemic Influenza Overview and Current Planning Considerations

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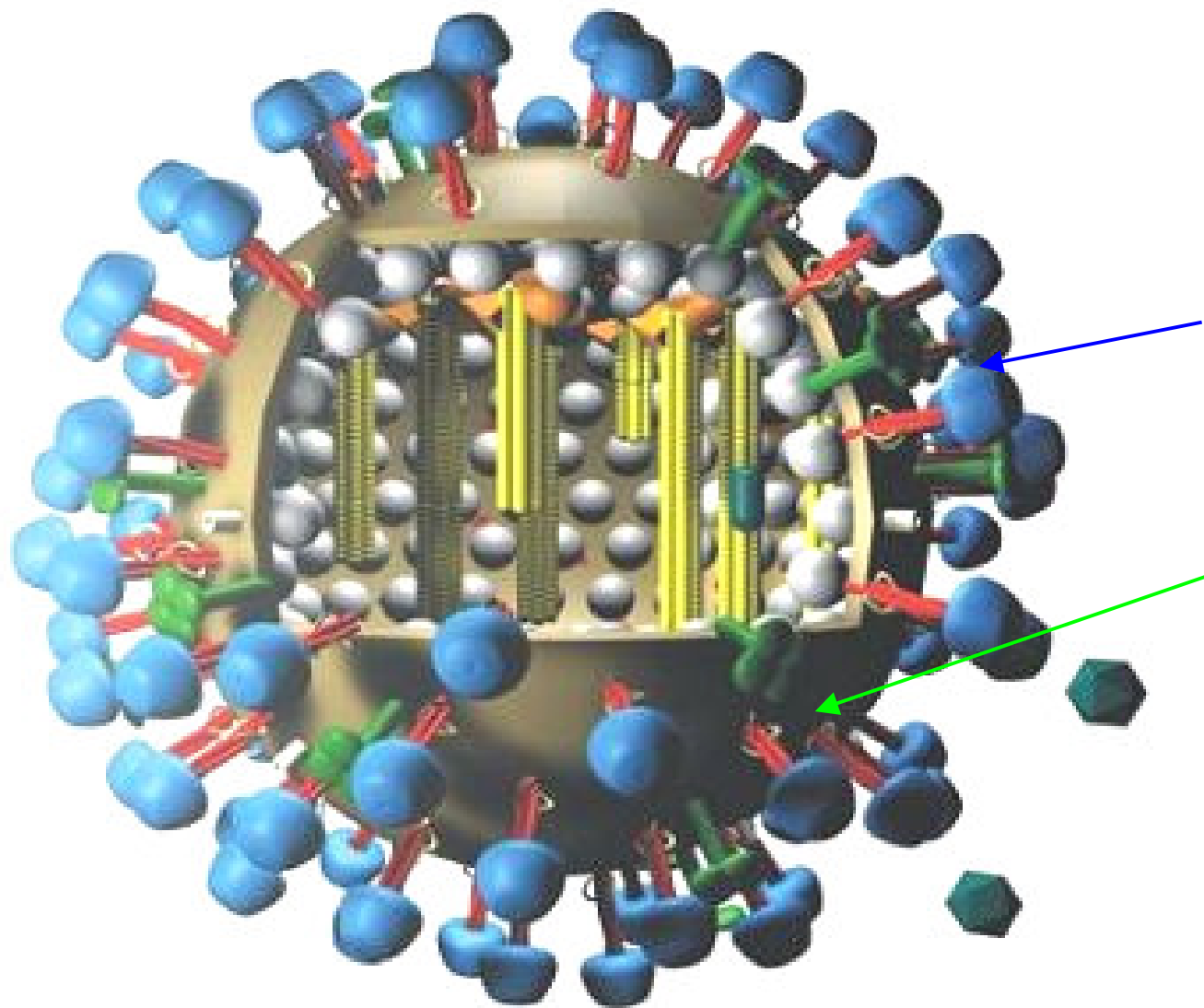


Definitions

❖ Bird Flu/Avian Influenza

- Domestic Poultry
- Migratory Waterfowl

❖ Pandemic Influenza



-  PB1, PB2, PA
-  HA
-  NP
-  NA
-  M1
-  M2
-  NS2
-  NS1

Current WHO Statistics

❖ **Total Human Cases: 285**

❖ **Total Human Deaths: 170**

❖ **Total Avian Deaths: Hundreds of Millions**

➤ **Viral etiology**

➤ **Culling**

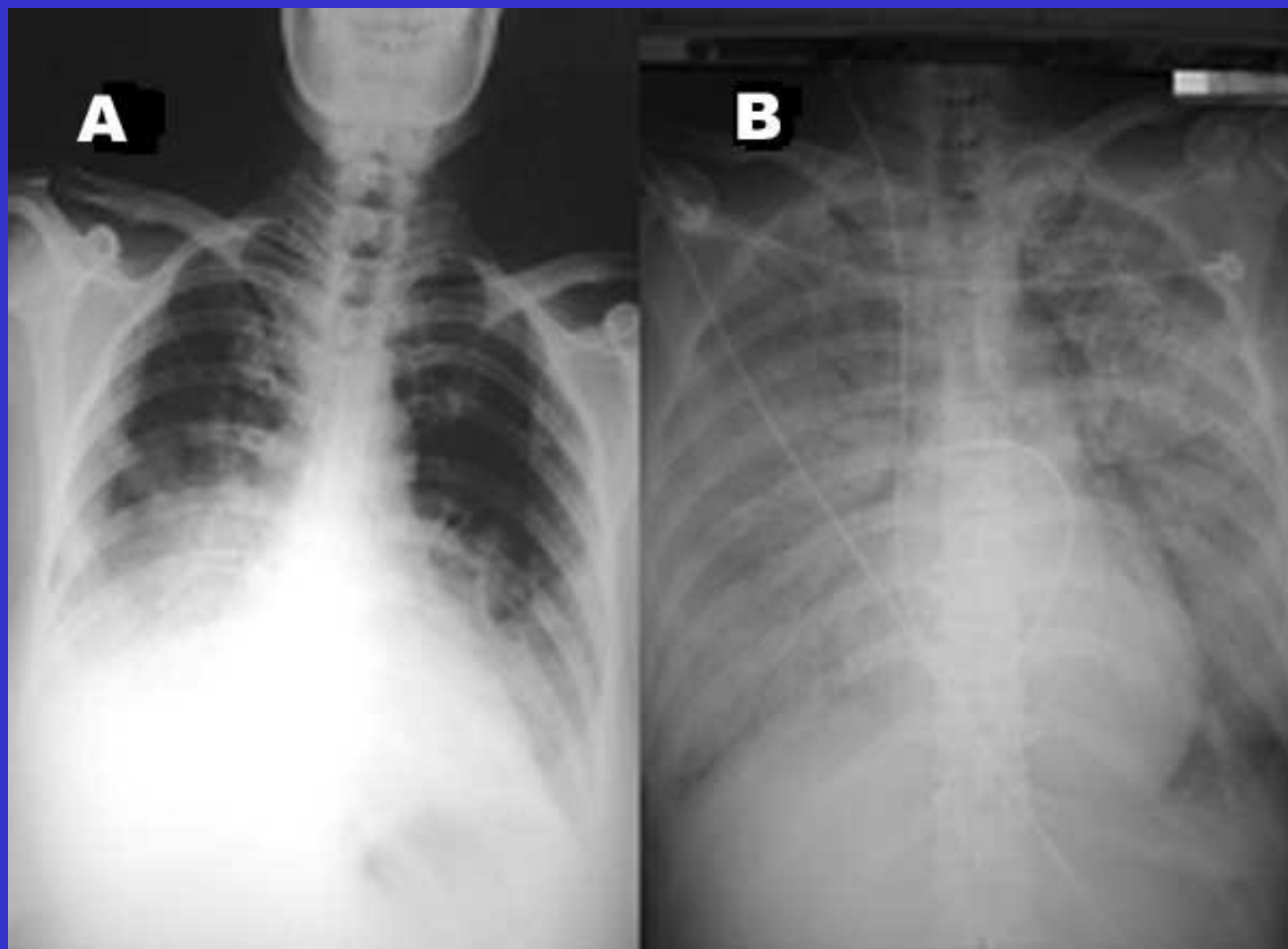
Implications

❖ Novel Virus

- lack of immune “experience”

❖ Human Mortality Rate

- currently(170/285)
- >60% mortality rate



Stages of a Pandemic

The World Health Organization (WHO) has developed a global influenza preparedness plan, which defines the stages of a pandemic, outlines the role of WHO, and makes recommendations for national measures before and during a pandemic. The phases are:

Interpandemic period

Phase 1 : No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

- Antigenic Shift
- Antigenic Drift

Pandemic alert period

Phase 3: Human infection(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Pandemic period

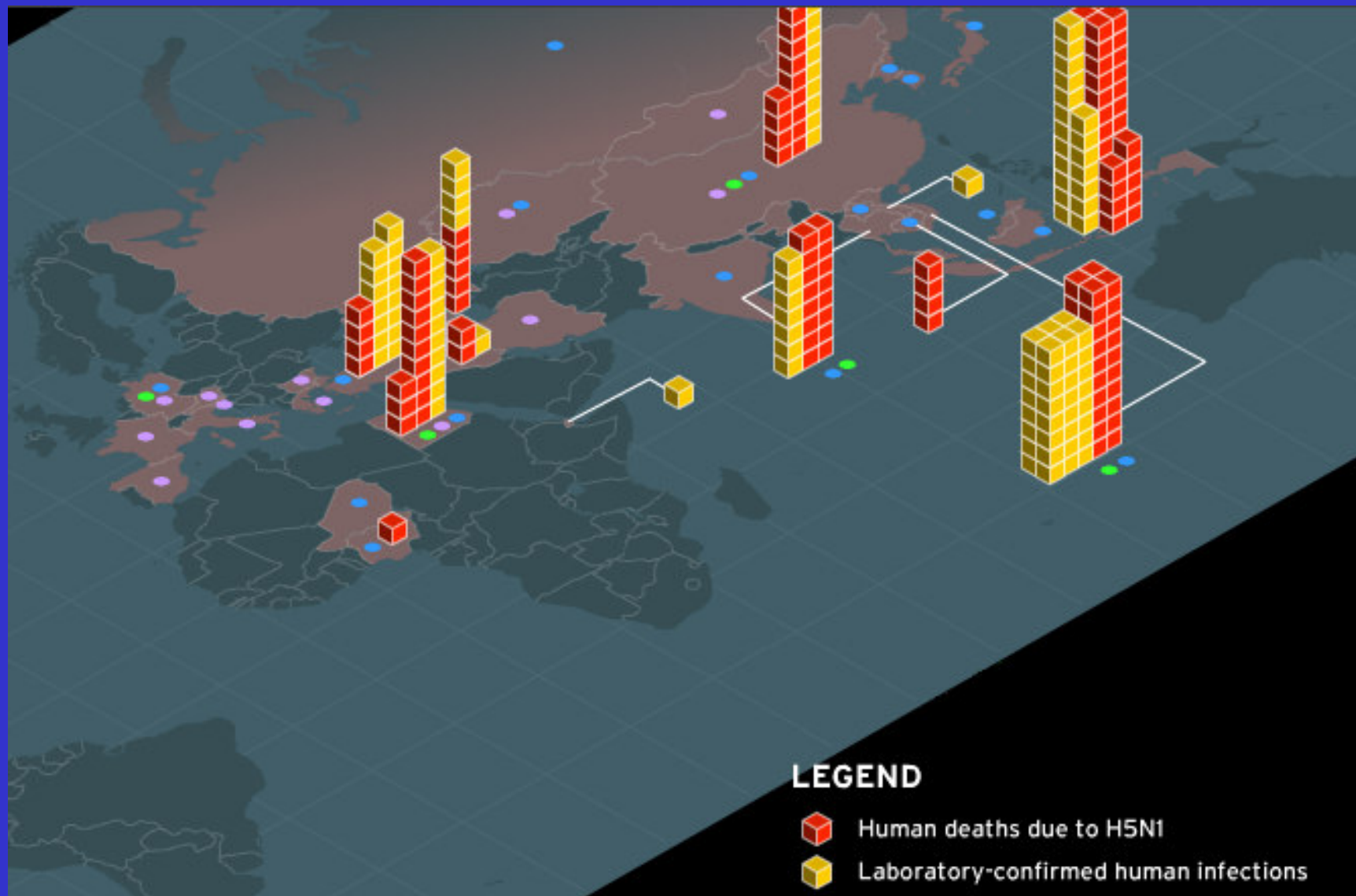
Phase 6: Pandemic: increased and sustained transmission in general population.



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BIRD FLU

Day-by-day: 2003 - today



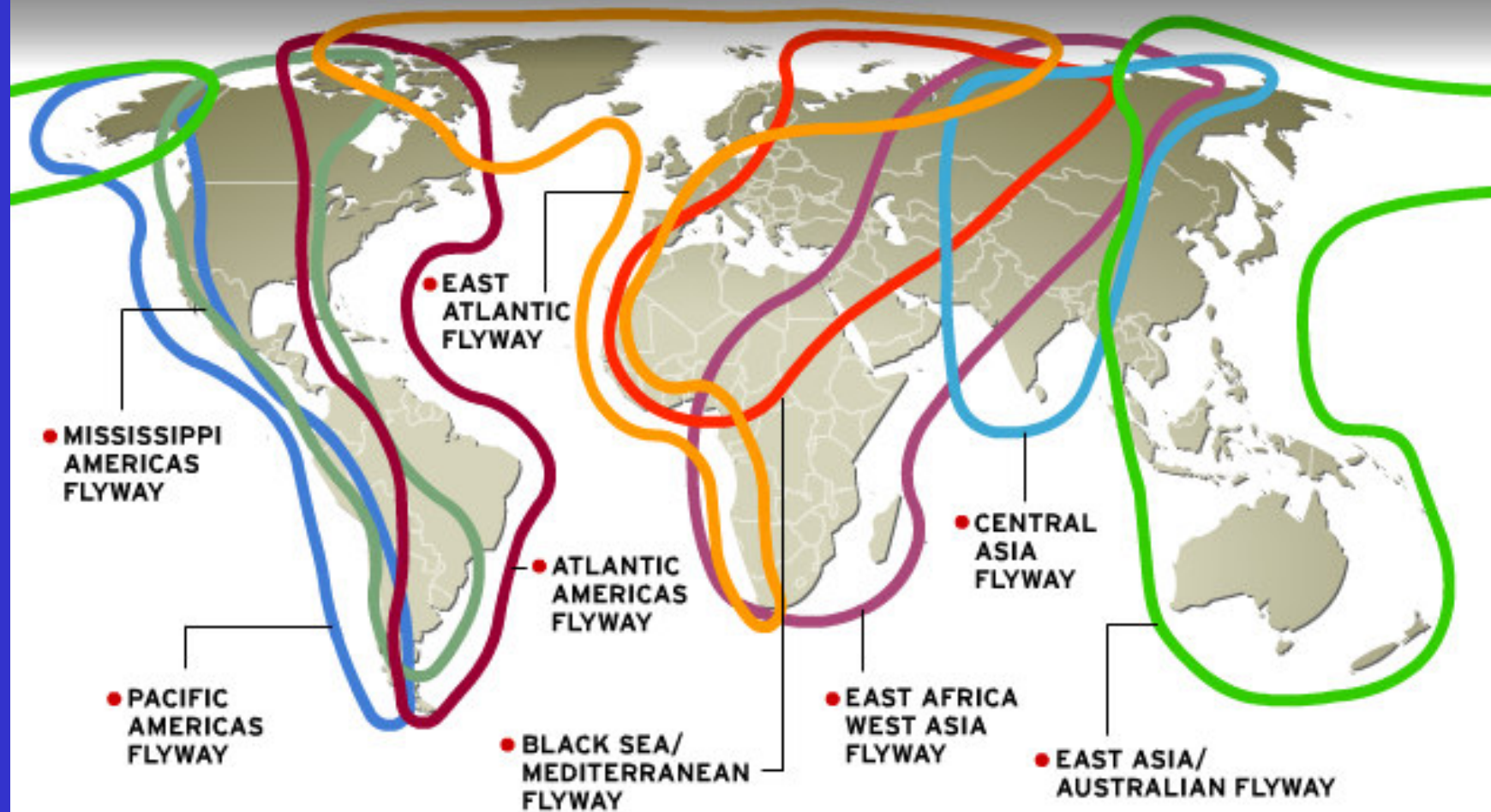


BIRD FLU

MIGRATORY ROUTES

As the deadly bird flu virus spreads around the globe, the seasonal migration of wild birds has become a major concern for health authorities.

Roll your cursor over a flyway for a clearer look at the routes birds use to reach their summering and wintering grounds.

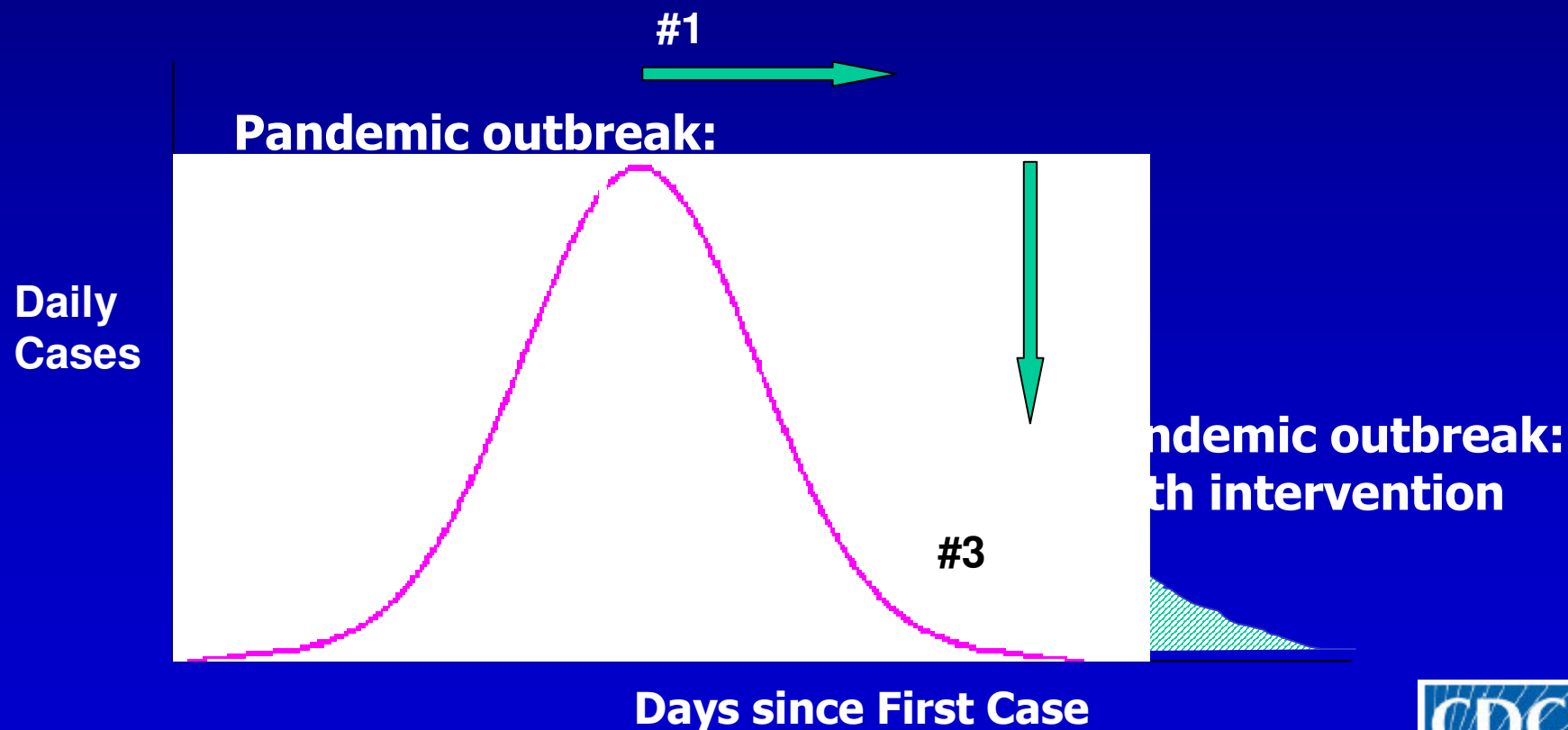




Use of Antivirals to Blunt a Pandemic

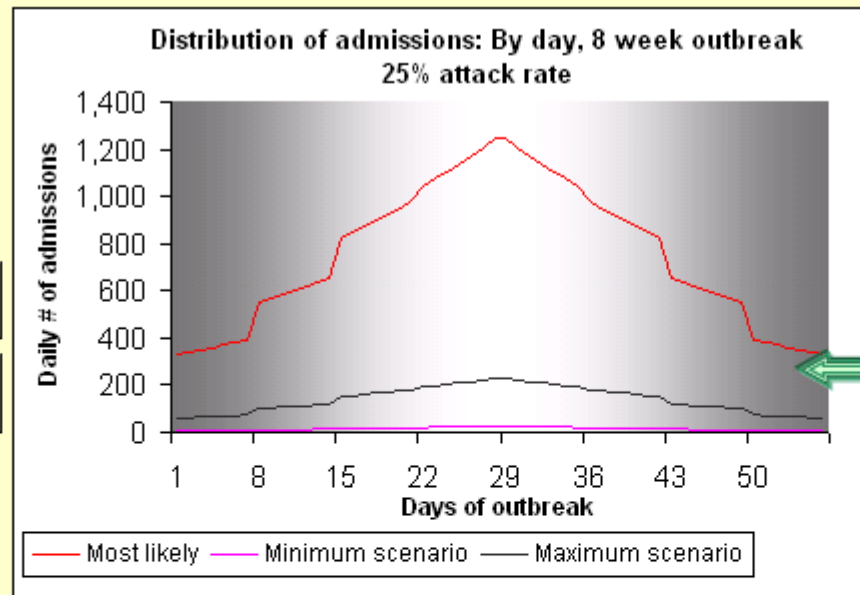
1. Delay disease transmission and outbreak peak
2. Decompress peak burden on healthcare infrastructure
3. Diminish overall cases and health impacts

Done in combination with non-drug interventions



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Total Hospital Admissions (most likely)	42,043
Total Deaths (most likely)	8,759

Pandemic Influenza Impact / Weeks		1	2	3	4	5	6	7	8	9	10
Hospital Admission	Weekly admissions	2,523	4,204	6,306	7,988	7,988	6,306	4,204	2,523		
	Peak admissions/day				1,245	1,245					
Hospital Capacity	# of influenza patients in hospital	1,854	3,090	4,636	5,872	6,080	5,344	4,098	2,689		
	% of hospital capacity needed	34%	57%	86%	109%	113%	99%	76%	50%		
ICU Capacity	# of influenza patients in ICU	1,261	2,675	4,108	5,426	5,872	5,712	4,539	3,134		
	% of ICU capacity needed	205%	435%	668%	882%	955%	929%	738%	510%		
Ventilator Capacity	# of influenza patients on ventilators	378	802	1,232	1,628	1,762	1,714	1,362	940		
	% usage of ventilator	50%	107%	164%	217%	235%	228%	182%	125%		
Deaths	# of deaths from influenza			526	876	1,314	1,664	1,664	1,314	876	526
	# of influenza deaths in hospital			368	613	920	1,165	1,165	920	613	368

Current Programs in Development

- ❖ **Surveillance**
- ❖ **Response/Activation/Mitigation**
 - **Surge**
 - **Triage**
 - **Alternate Care Sites**
 - **Antiviral Distribution**
 - **Vaccine Development**
 - **Non Pharmaceutical Intervention**
 1. **Cough Etiquette**
 2. **Hand Washing**
 3. **Social Distancing**
 4. **Shelter in Place**
- ❖ **Legal**
- ❖ **Ethical**
- ❖ **Recovery**
- ❖ **Restoration**



Shelter in Place

- ❖ Food
- ❖ Water
- ❖ Flashlight
- ❖ Battery/Crank Powered Radio
- ❖ Cooking Utensil
- ❖ Sterno Powered Fondue Pot
- ❖ Cell Phone
- ❖ Written Contact List
- ❖ Prescriptions

COOP

1. Carefully assess how your company functions, both internally and externally, to determine which staff, materials, procedures and equipment are absolutely necessary to keep the business operating

- o Review your **business process flow chart** if one exists.
- o Identify **operations critical to survival** and recovery.
- o Include **emergency payroll, expedited financial decision-making and accounting systems** to track and document costs in the event of a disaster.
- o Establish procedures for **succession of management**. Include at least one person who is not at the company headquarters, if applicable.

Establish procedures for **succession of management**. Include at least one

2. Plan for payroll continuity.

3. Identify your suppliers, shippers, resources and other businesses you must interact with on a daily basis.

- o Develop professional relationships with more than one company to use in case your primary contractor cannot service your needs. A disaster that shuts down a key supplier can be devastating to your business.
- o Create a contact list for existing critical business contractors and others you plan to use in an emergency. Keep this list with other important documents on file, in your emergency supply kit and at an off-site location.

4. Plan what you will do if your building, plant or store is not accessible. This type of planning is often referred to as a continuity of operations plan, or COOP, and includes all facets of your business

- o Consider if you can run the business from a different location or from your home.
- o Develop relationships with other companies to use their facilities in case a disaster makes your location unusable.

5. Define crisis management procedures and individual responsibilities in advance

- o Make sure those involved know what they are supposed to do.
- o Train others in case you need back-up help

6. Coordinate with others.

- o Meet with other businesses in your building or industrial complex.
- o Talk with first responders, emergency managers, community organizations and utility providers.
- o Plan with your suppliers, shippers and others you regularly do business with.
- o Share your plans and encourage other businesses to set in motion their own continuity planning and offer to help others

7. Review your emergency plans annually.

Just as your business changes over time, so do your preparedness needs. When you hire new employees or when there are changes in how your company functions, you should update your plans and inform your people.

Questions?

Comments!