

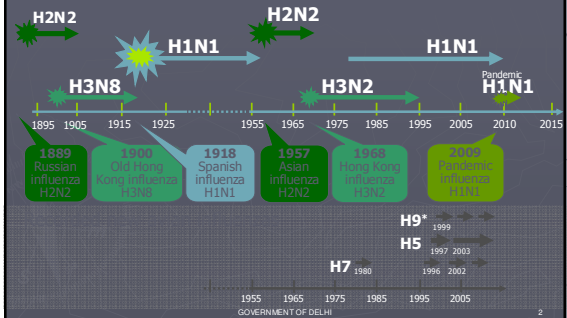
PUBLIC HEALTH ISSUES IN PANDEMICS

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Pandemics of influenza



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Some basic facts about the flu pandemic

- Near certainty
- Major unpredictability
- Great vulnerability
- Enormous potential impact
 - Personal
 - Economic
 - Professional

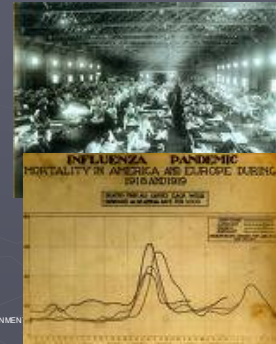


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What is expected in pandemic ?

- ▶ All are susceptible
- ▶ Illness widely dispersed geographically
- ▶ Illness occurring in waves lasting for variable periods



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What is expected...?

- ▶ Workforce absenteeism may cause:
 - a. disruption of essential services
 - b. discontinuity of business operations

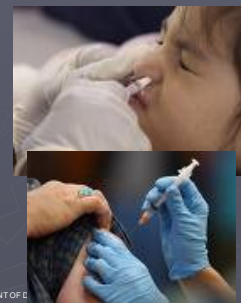


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What is expected...?

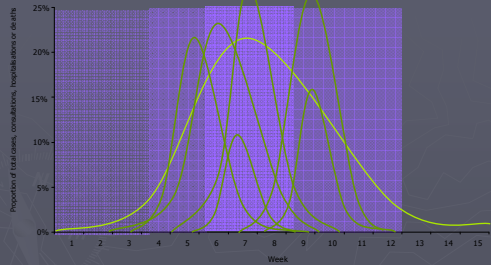
- ▶ Pandemic vaccine available during first wave
- ▶ Health system coping capacity affected by:
 - a. rate of absenteeism of health personnel
 - b. number of ill persons seeking care
 - c. inter-dependencies on support services
 - d. in adequacy of drugs, supplies & equipments



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larger countries like India can experience a series of shorter but steeper local epidemics.



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Lessons learnt H1N1 pandemic- 1

- Virus spread quickly, but caused mainly mild illness
 - countries/states had difficult times deciding on public health measures (closing schools, cancelling mass gatherings etc)
- Containment was not successful; many countries/states have difficulty shifting from containment to mitigation
- Investments in pandemic planning and stockpiling of anti viral paid off BUT response plans must be adaptable and science-driven
- Even with a mild to moderate pandemic, health care delivery systems can be overwhelmed
- Providing clear, straightforward information to the public is essential for allaying fears and building trust

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Lessons learnt - 2

- Pandemic planning and phase definitions did not anticipate and may not be appropriate for comparatively mild infectious diseases
- Surveillance protocols and indicators are not standard across countries, complicating efforts at international monitoring and limiting cross-country comparisons
- Legal frameworks must be adapted to clarify reporting obligations under multiple state, national and international agreements (e.g. IHR, Early Warning Response System)
- Better mechanisms must be developed to assure equity in access to vaccines for low- and middle-income countries
- WHO guidance on critical issues must be clearly and consistently communicated

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Ongoing challenges

- ▶ Need to be prepared for different possible future scenarios
 - Past pandemics lasted 1–2 years
 - Future course of pandemic is uncertain
 - Different level of transmission in different countries
- ▶ Need to update information, guidance and communications. The situation remains unpredictable and can evolve
 - Change in the virus (resistance to antiviral, re assortment or mutation)
 - Severity can vary in states, cities, countries and during the outbreak
 - Lack of resources in some settings (PPEs, laboratory reagents, antiviral, vaccine etc)
 - need to develop ad hoc alternative appropriate public health strategies
- ▶ And at global level: resource mobilization and global solidarity

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Pandemic Mitigation Tools

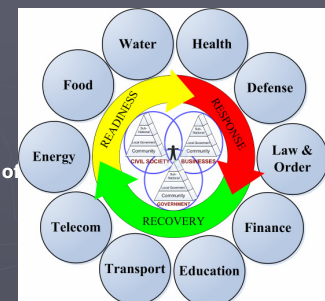
1. Vaccination
 2. Targeted antiviral treatment and prophylaxis
 3. Non pharmaceutical interventions
 - Hand hygiene, respiratory etiquette
 - Isolation and quarantine
 - Social distancing (school dismissal, cancellation of large gatherings, tele working, etc.)
- ▶ Mitigation strategies guided by severity of illness

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Pandemic preparedness based on

1. Whole of Society Approach
2. Preparedness at All Levels
3. Identifying & Addressing Critical Inter-dependencies of Essential Services
4. Scenario-based Response
5. Respect for Ethical Norms



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Potential Strategies to Decrease the Impact of a Pandemic

- ▶ Prevent or delay introduction, slow spread
- ▶ Decrease illness and death
 - Vaccine when available
 - Antiviral treatment and isolation for people with illness
 - Non-pharmaceutical interventions

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CURRENT EPIDEMIOLOGICAL SITUATION

- ▶ Short incubation period, usually 1 -4 days
- ▶ Spread by respiratory droplets
- ▶ Transmission –sufficiently easily from person-to-person to sustained institutional and community outbreaks and spread regionally
- ▶ Most cases mild & self-limited; do not require admission
- ▶ Seasonal flu –morbidity & mortality highest in ≥ 65 years
- ▶ Novel H1N1 flu –morbidity & mortality in young and previously healthy adults; adults with underlying medical; pregnant women have higher risk of complications

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