Preparing for the next flu pandemic

MINISTRY OF HEALTH
SINGAPORE
20 Jan 2006
Pandemic Planning Assumptions

- Two or more waves in same year or in successive flu seasons
- Second wave may occur 3-9 mths later; may be more serious than first (seen in 1918)
- Each wave lasts about 6 weeks
Estimates of cases in a pandemic

- Attack rate of 25%
- 450,000 do not need care
- 550,000 outpatients
- 11,000 hospitalised
- 1,900 deaths
Singapore’s Pandemic Plan

- Surveillance.
- Response & Impact Mitigation.
- Vaccinate population.
Surveillance

- Detect importation, occurrence as early as possible.
- External surveillance.
- Internal surveillance
  - Community ARIs, viral isolation
  - Atypical pneumonias
  - Unexplained deaths + respiratory illness
  - Lab diagnosis - PCR
Response & Impact Mitigation

Desired Outcomes

- Minimise disruption to economy and society
- Maintain essential services
- Reduce morbidity and mortality through treatment of influenza-like cases
- Slow down and limit the spread of influenza to reduce the surge on healthcare system
Vaccinate Population

- Obtain vaccines as soon as possible.
- Vaccinate entire population.
- Designated vaccination centres.
Pandemic Response Plan

Concept

- Colour-coded Risk Management approach
  - Green – animal disease [WHO 1,2,3]
  - Yellow - inefficient human-to-human transmission, small cluster [WHO 4]
  - Orange – larger cluster, more efficient H to H transmission, but still limited [WHO 5]
  - Red – pandemic; widespread infection [WHO 6]
  - Black - high mortality, morbidity
Pandemic Response Plan

Concept

- **Green/Yellow/Orange** -- Effective surveillance to detect the importation of cases with a novel influenza virus;

- Ring-fence cases through isolation of cases and quarantine of contacts.

- Tamiflu prophylaxis.
Pandemic Response Plan

Yellow-Orange

- High risk of importation of cases
- Border control e.g. temp screening (effectiveness?)
- Infection control in health care system
- Quarantine facilities
- Info management
Pandemic Response Plan

Pandemic – Red: Mitigate consequences of 1st wave

MOH

- Maintain essential services – Tamiflu prophylaxis.
- Treatment of cases with ILI in Flu clinics. Role of other GP clinics – manage other cases.
- Public sector hospitals handle flu cases, augmented by selected community hospitals. All elective work cease.
- Private sector hospitals – manage other cases.
- Tight infection control in healthcare institutions.
Pandemic Response Plan

- **Pandemic – Red**: Mitigate consequences of 1st wave

  **Whole of Govt**

  - Social distancing to be considered e.g. close schools, child care centres, ban public gatherings (e.g. cinemas, concerts), limit travel.
  - Strong public communications.
Pandemic Response Plan

- **Pandemic – BLACK**: Mitigate consequences of 1st wave
  - Public health considerations take precedence.
  - Social distancing measures – ban on public gatherings.
  - Additional health care facilities.
Pandemic Response Plan

Post 1\textsuperscript{st} wave:

- Prepare for next wave.
- Vaccine may not come before next wave.
- Increased resistance to antivirals.
- Health care system remains on alert; maintain infection control measures.
- Use of recovered staff.
- When to relax social distancing measures.
Business Continuity Plan

- **GREEN**: Maintain situation awareness, develop BCP, preparedness training

- **YELLOW/ ORANGE**: Educate staff on good personal hygiene, implement infection control measures, temperature checks, increase cleaning of work areas, limit staff travel to affected areas
Business Continuity Plan

- **Pandemic - RED/BLACK**
  - Implement BCP
  - Update staff about MOH directives, don’t report to work if sick but go to Flu clinics instead
  - Contacts – self-quarantine, monitor for fever
  - Limit social gatherings, increase social space, consider telecommuting, no travel to affected countries
"... The Perfume Filling the Air Could Have Come From Paradise ...

"Kangaroo" - D.H. Lawrence.

Thank You

www.flu.gov.sg
www.moh.gov.sg