Prevention of Human Swine Influenza - International perspectives

TW TSI N
HKI OEH Open Seminar

9th July 2009
A Pandemic Is Declared

• On June 11, 2009, the World Health Organization (WHO) raised the worldwide pandemic alert level to Phase 6 in response to the ongoing global spread of the novel influenza A (H1N1) virus.

• Indicating a pandemic is underway globally

• Overall severity of the influenza pandemic to be moderate.
More than 70 countries are now reporting cases of human infection with novel H1N1 flu.

- 89921 global cumulative total on 3.7.2009
- 12720 new cases in the last week
- 953 cumulative total in Hong Kong upto 5.7.2009
- 26 new cases on 4.7.2009
- First report by USA on 23.4.2009
Situation in America:
6185 new cases & 33902 cumulative cases
Awareness in Public
The development

• News on 23 April 2009
  – Human cases of swine influenza A (H1N1) virus infection have been identified in San Diego County and Imperial County, California as well as in San Antonio, Texas.
Initial report from 26 April 2009

The statistics

• USA – 20 cases
• Mexico – 18 cases
As at 3 June 2009

- 10053 total cases in USA
- 1078 new cases in the last week

- 1530 total cases in Canada
- 194 new cases in the last week

- 19273 total case globally
- 1863 new cases in the last week
Current situation

USA: 6185 new cases & 33902 cumulative cases;

Canada: 0 new cases & 7983 cumulative cases;

Mexico: 1582 new cases; 10262 cumulative cases

http://gamapserver.who.int/h1n1/atlas.html
The strategy in America

• Observation as at 3 June:
  – 0.1% to 0.8% fatality – comparable to usual viral infection.

• General practice:
  cover the mouth and nose when coughing or sneezing
  – good hand hygiene practice recommended
  – Precautions on 1 to 2 meters rule for droplet transmission
  – take rest when caught the flu
  – have PPE get ready and stock pile sufficient for the winter
Special precautions

• Emergency response procedure for pandemic
  – Work plan for critical actions
  – large organizations and healthcare sectors should make drills for the incident
  – Off site/ satellite offices to maintain normal work
General comment

- **Most people recover** from infection without the need for hospitalization or medical care.
- Overall, national levels of severe illness from influenza A(H1N1) appear **similar to** levels seen during **local seasonal influenza** periods, although high levels of disease have occurred in some local areas and institutions.
- Overall, hospitals and health care systems in most countries have been **able to cope with** the numbers of people seeking care, although some facilities and systems have been stressed in some localities.
Hong Kong situation

Highlights 重點

1. The WHO Director-General has raised the level of influenza pandemic alert from phase 5 to phase 6 on 11 June.
   世衛組織總幹事已於 6 月 11 日將流感大流行級別從第 5 級提高到第 6 級。

2. The Emergency Response Level under the Government's Preparedness Plan for Influenza Pandemic is activated.
   政府「流感大流行應變計劃」下的緊急應變級別現正啓動。

3. There have been 953 confirmed cases of human swine influenza (Influenza A/H1N1) in Hong Kong since the first case was diagnosed on 1 May 2009. For Mainland China &, Taiwan * and Macao SAR ##, there have been a total of 1002, 72 and 54 confirmed human swine influenza cases respectively.
   自從五月一日香港確診第一宗人類豬型流感個案，本港共有 953 宗人類豬型流感(甲型流感H1N1)確診個案。中國大陸 & 累計共有 1002 宗個案，中國台灣 * 有 72 宗人類豬型流感(甲型流感H1N1)個案，澳門特別行政區 ## 有 54 宗人類豬型流感(甲型流感H1N1)個案。

4. According to WHO, 125 countries/territories/areas have officially reported 89,921 cases of influenza A/H1N1 (last updated on 3 July).
   根據世衛組織，125個國家/領域/地區正式報告了89,921宗甲型H1N1流感感染病例 (截至7月3日的更新)。
The scenarios

• First press release on 26.4.2009
  – From alert level to serious level
• Second upgrading of alarm level
  – From serious to emergency response level on 11.6.2009 after WHO
• 953 cumulative total in Hong Kong up to 5.7.2009
• Control strategy
  – At source, transmission and individual
• Problems
  – Densely populated, limited resources (e.g. healthcare service)….
What shall we do in the next step?

• The new strain of type A H1N1?

• Preventive measures in facility
  • Preventive measures in organisations
  • Preventive measures in person

• Control measures in healthcare facility
Personal issues

• avoid touching your mouth and nose;
• clean hands thoroughly with soap and water, or cleanse them with an alcohol-based hand rub on a regular basis (especially if touching the mouth and nose, or surfaces that are potentially contaminated);
• avoid close contact with people who might be ill;
• reduce the time spent in crowded settings if possible;
• improve airflow in your living space by opening windows;
• practise good health habits including adequate sleep, eating nutritious food, and keeping physically active.
Work place issues

• Warning: have influenza A(H1N1) or a seasonal influenza, you should stay home and away from work through the duration of your symptoms; practicable?

• Precautionary measures – cleansing programme, protective equipment?

• Satellite offices?

• Drills?
The end???
Phases of pandemic alert

1. **Phases 1-3**: Predominantly animal infections; few human infections.
2. **Phase 4**: Sustained human to human transmission.
3. **Phases 5-6 / Pandemic**: Widespread human infection.
4. **Post Peak**: Possibility of recurrent events.
5. **Post Pandemic**: Disease activity at seasonal levels.
# WHO Pandemic Phase Descriptions and Main Actions by Phase

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<thead>
<tr>
<th>PHASE</th>
<th>DESCRIPTION</th>
<th>MAIN ACTIONS</th>
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<tbody>
<tr>
<td><strong>PHASE 1</strong></td>
<td>No animal influenza virus circulating among animals have been reported to cause infection in humans.</td>
<td><strong>PLANNING AND COORDINATION</strong></td>
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<td><strong>PHASE 2</strong></td>
<td>An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential pandemic threat.</td>
<td>Develop, exercise, and periodically revise national influenza pandemic preparedness and response plans.</td>
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<td><strong>PHASE 3</strong></td>
<td>An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.</td>
<td><strong>PHASE 4</strong></td>
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<td><strong>PHASE 5</strong></td>
<td>The same identified virus has caused sustained community-level outbreaks in two or more countries in one WHO region.</td>
<td><strong>PHASE 6</strong></td>
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<td><strong>POST PEAK PERIOD</strong></td>
<td>Levels of pandemic influenza in most countries have dropped below peak levels.</td>
<td><strong>POST PANDEMIC PERIOD</strong></td>
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The novel A H1N1 (HSI)

Influenza A virus subtypes in the human population

H1N1
Spanish flu
US outbreak

H1N1
1918
Year
1976

H2N2
1918

H3N2
1918
Worry on re-assortment

- A matter of when?
- The scale?
- The strategy?