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SINGAPORE

# Response to Pandemic H1N1 – Singapore's Experience

Ministry of Health  
Singapore

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## Scope

- Current Situation
- Strategy & Approach
- School Measures
- Public Communication
- Recommendations for vaccinations

5 Nov 09

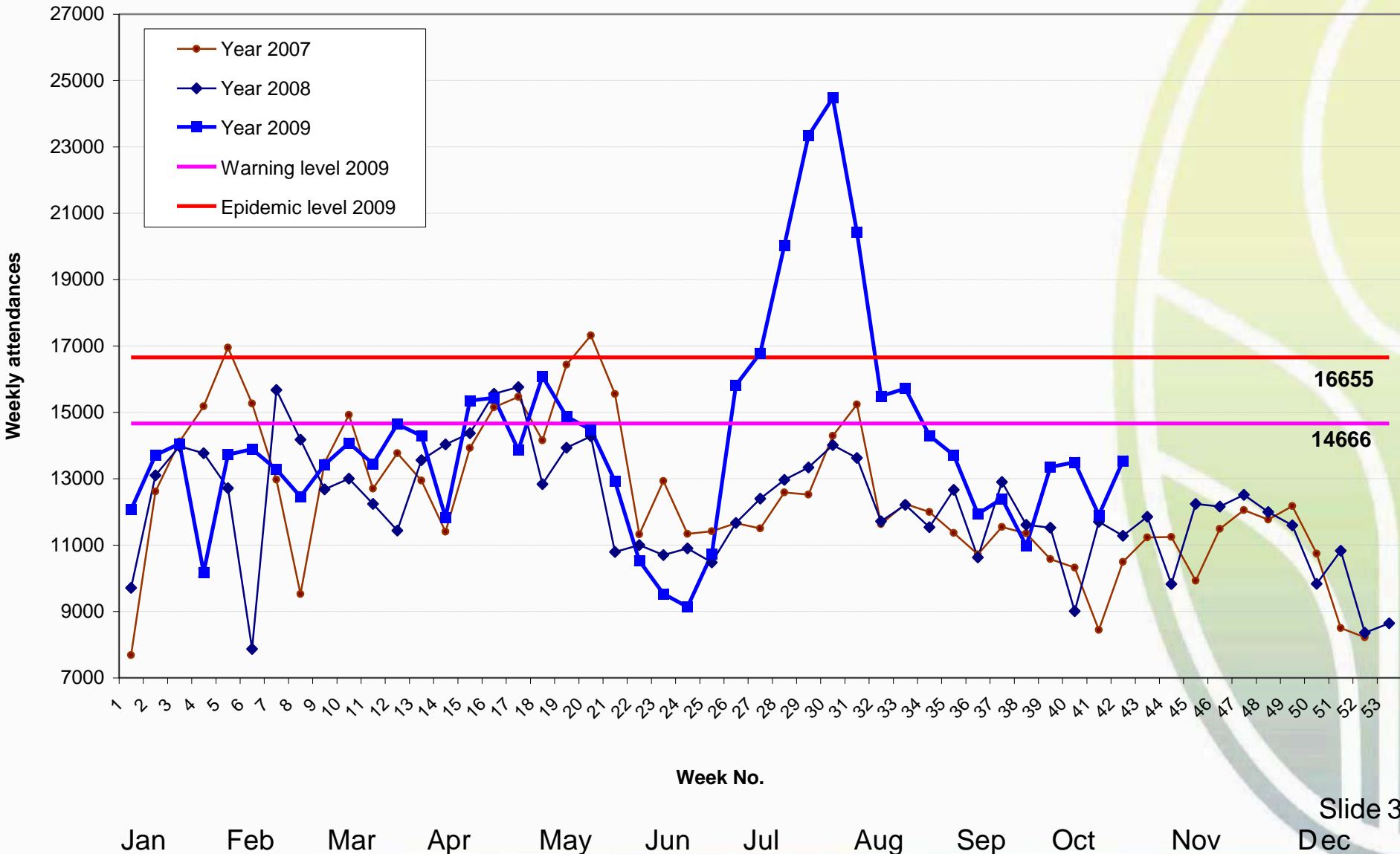


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## **Current Situation**

- **ARI / ILI attendances**
- **Influenza biosurveillance**

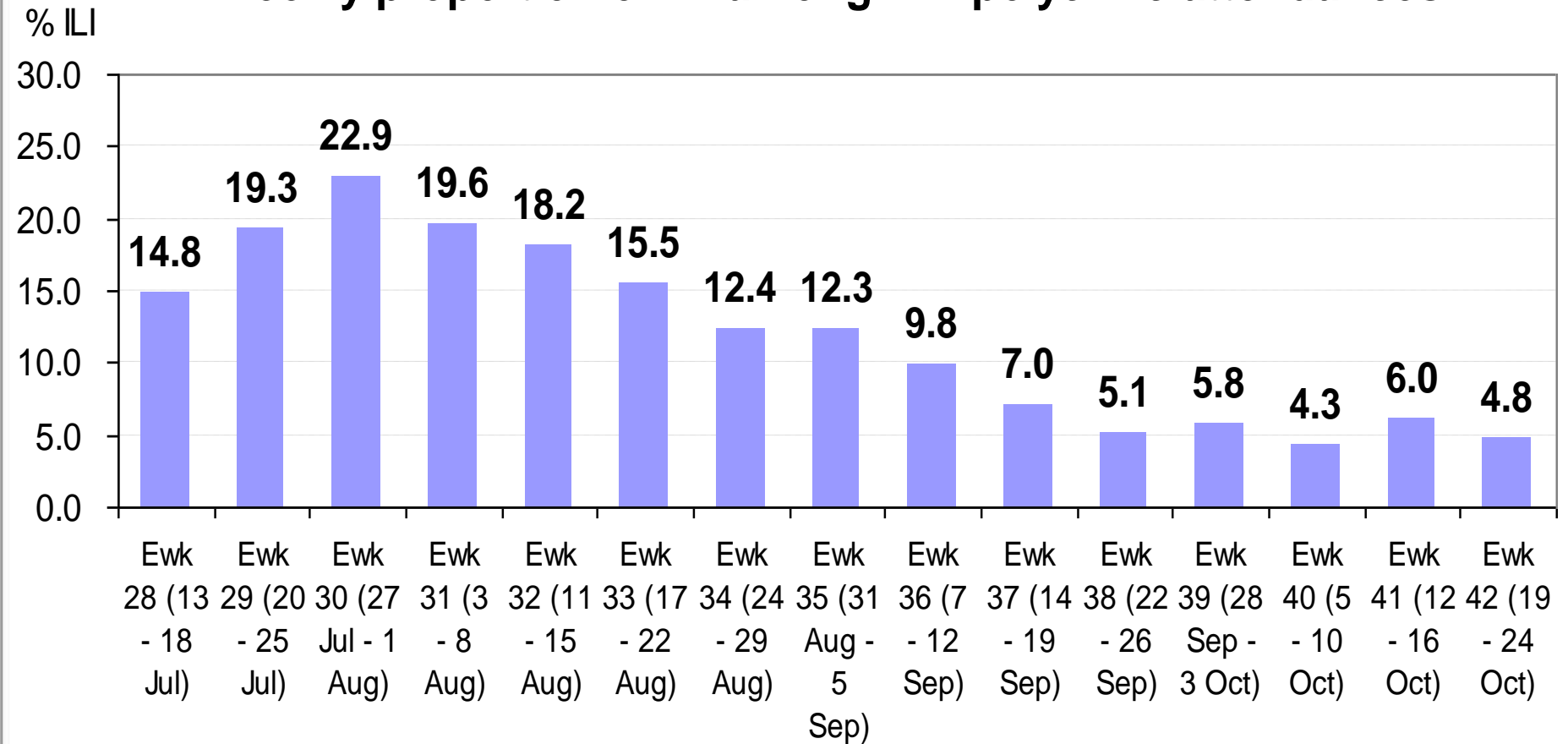
## Weekly Polyclinic Attendances of ARI, Year 2007 to 2009



16655

14666

## Weekly proportion of ILI among ARI polyclinic attendances



# Snapshot as of 26 Oct 2009

- Estimated >280,000 cases
- 1393 cases admitted due to clinical indications since mid-Jul
- 98 severely ill cases
- 18 deaths



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# Strategy & Approach

- **Containment Phase**
- **Mitigation Phase**
- **Lessons Learnt**

# Objectives

- Maintain essential services in Singapore so as to limit social and economic disruptions
- Reduce morbidity and mortality through treatment of influenza cases
- Slow and limit the spread of influenza to reduce the surge on healthcare system
  - Isolation and Quarantine
  - Community-wide measures

# Operation during Containment and Mitigation Phase

## Treatment & Biosurveillance

- Anti-viral : Tamiflu (oseltamivir) or Relenza (zanamivir)
- Biosurveillance of ILI\* patients in the community and hospital ED
  - Polyclinic attendance for ILI

## Containment

### Testing

- Containment
  - Laboratory confirmation for all cases

### Isolation

- Containment
  - Isolation of cases
  - Quarantine of contacts (with prophylaxis)
  - Screening of visitors at border checkpoints
  - Screening and visitation measures in hospitals & clinical areas

## Mitigation

### Testing

- Mitigation
  - No testing necessary in majority of cases.

### Isolation

- Mitigation
  - Voluntary isolation of cases
  - Screening and visitation measures in hospitals & clinical areas



# Lessons Learnt

- Objective of containment measures was to delay community spread to enable the healthcare system to be fully prepared to manage large numbers of cases
- Containment was gradually replaced by mitigation as community cases increased in week of 23 Jun
- Important to prepare the public that community spread cannot be prevented indefinitely. Move to mitigation can then be accepted by the public

# Border Control Measures





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# **Containment measures in schools**

- **Reopening of schools**
- **Triggers for Class Closure**

# Schools Reopening

- Schools were reopened on 29<sup>th</sup> June as scheduled after a 4-week vacation.
- 7 days Leave of Absence (LOA) were given to students and teachers whom had just returned from affected countries after 22<sup>nd</sup> June.
- Close monitoring - twice daily temperature taking

# School Triggers for Class Closures

## Pre-Schools

- Class closure (7days) when 2 known confirmed cases or 3 cases with 7-day MC in a class within a 3-day period

## Schools

Class closure (7 days) when 3 known confirmed cases or 5 cases of 7-day MC in a class within a 5-day period

Measures ceased on week of 24 Aug 09





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# Public Communication

- **Good Hygiene & Social Responsibility**
- **Pandemic Preparedness Clinics**

# Good Hygiene & Social Responsibility



## FLU

GUARD ITS SPREAD.  
TAKE COVER!

- PRACTISE GOOD PERSONAL HYGIENE**
- Wear a surgical mask if you are unwell.
  - Cover your mouth and nose with a tissue when coughing or sneezing.
  - Never spit in public places.

For more information on how you can stay flu free, visit [www.hpb.gov.sg](http://www.hpb.gov.sg) or call HealthLine at 1800 223 1313.



HPB 7-010-030



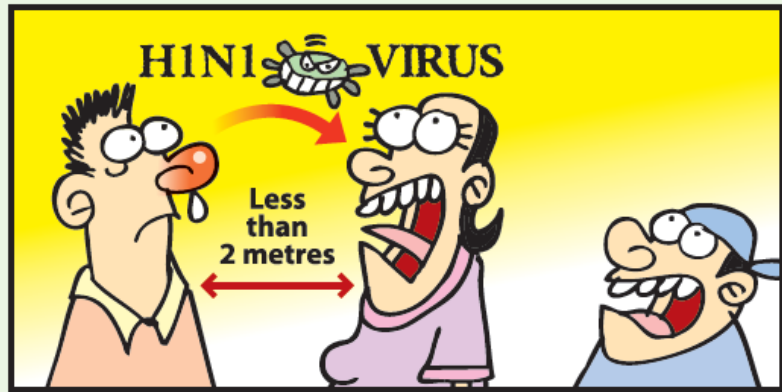
## PREVENT THE FLU FROM SPREADING

- 1 PRACTISE GOOD PERSONAL HYGIENE**
  - Wash your hands thoroughly and often with soap and water.
  - Cover your mouth and nose with a tissue when coughing or sneezing.
- 2 BE RESPONSIBLE**
  - Wear a mask when you have the flu or common cold.
  - Never spit in public places.
  - When sharing food at mealtimes, use a serving spoon.
- 3 LEAD A HEALTHY LIFESTYLE**
  - Eat a balanced diet with plenty of fruit and vegetables.
  - Do 30 minutes of physical activity at least 5 days a week.
  - Keep stress levels low.
  - Do not smoke.

For more information, visit [www.hpb.gov.sg](http://www.hpb.gov.sg) or call HealthLine at 1800 223 1313.



# Good Hygiene & Social Responsibility



Washywishyclean song



WHAT ADDITIONAL PRECAUTIONS SHOULD HOUSEHOLD CONTACTS TAKE?



Observe good personal hygiene. Clean your hands with soap and water (or use an alcohol-based hand rub) frequently, including after every contact with the infected person.



Use paper towels for drying hands after hand washing or have a dedicated cloth towel for each person in the household.



# Pandemic Preparedness Clinics (PPCs)



## Designated flu clinics to manage H1N1

- Decal to be put in front of clinic for public identification
- 450+ GP clinics
- SMS “clinic” to locate PPC

- **Public advised to go to PPC or polyclinics during mitigation**

- Can still visit your own family doctor
- Exception for 3 very high risk categories (dialysis, active cancer treatment, pregnant) – see your specialist

- **Equipped**

- Trained at flu pandemic workshop organised by SMA/MOH – infection control measures etc
- Equipped with PPE and Tamiflu from national stockpiles



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# Recommendations for Vaccination

# Recommendations for Vaccination

- Estimating vaccine need
  - 1 million doses of Influenza (H1N1) vaccine, sufficient to meet the needs of Singaporeans
- Establishing vaccine priority groups
  - Persons in the high-risk group
    - pregnant women; and
    - people with chronic medical conditions\*
    - young children from 6 months to under 5 years of age
  - Healthcare workers
  - Other Essential Service Personnel
- Rolling out our pandemic vaccination

\* Lung disorders, heart diseases, diabetes, kidney failure, neuromuscular disorders, immunosuppressed



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**Thank You**