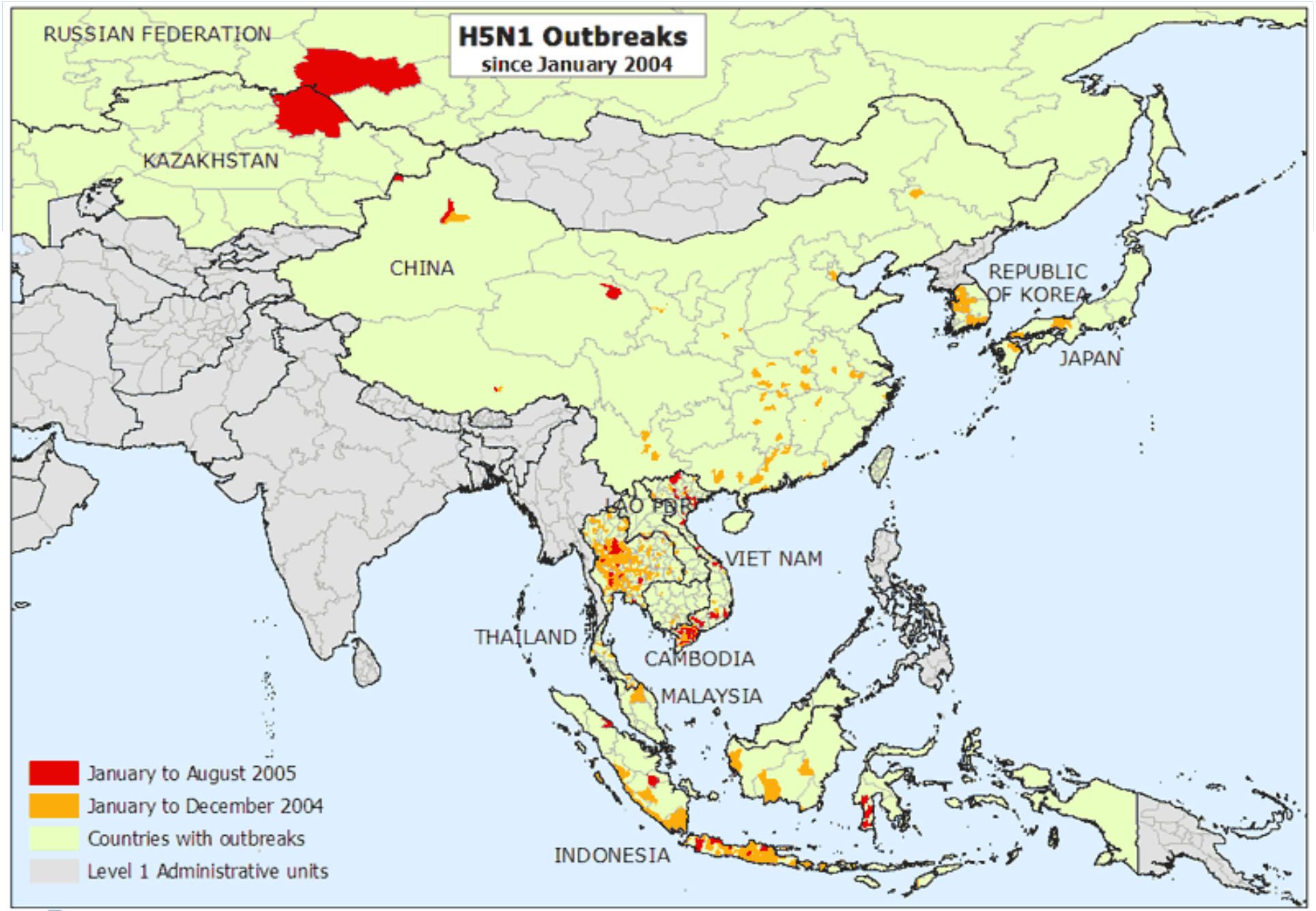
Workshop
The role of GPs in preparing for an influenza pandemic

Thursday November 10 2005

Royal Australian College of Surgeons

Dr John Carnie
Director Disease Control and Research
and Deputy Chief Health Officer



This map represents the districts or provinces that experienced outbreaks of H5N1 type of Avian Influenza since January 2004 (map updated to 18 August 2005). The original data have been collected and aggregated at the most detailed administrative level and for the units available for each country.

Data source: OIE, FAO and Government sources

Current Epidemiology – confirmed avian influenza in humans since Dec 2003 (as of 7 November 2005)

Country	Total cases	Total deaths
Cambodia	4	4
Thailand	20	13
Vietnam	91	41
Indonesia	9	9
Total	124	63

Conditions for a Pandemic

- Emergence of new subtype
- Pathogenic for humans
- Ability to spread easily from person to person

WHO Phases

- **Interpandemic period**

  Phases 0 – 2 — Animal Infection only ± risk of human disease

- **Pandemic alert period**

  Phase 3 – 5 — Human infection overseas or in Australia, moving from single cases to small clusters to large clusters

- **Pandemic period**

  Phase 6 — Pandemic infection overseas or in Australia

Has a pandemic started?

- NO: Currently – "PANDEMIC ALERT" NOT "PANDEMIC" PHASE
- current phase is Overseas Phase 3
  - "human infection overseas with a new sub-type of influenza but no human to human spread or at most rare instances of spread to a close contact"
- the H5N1 virus does not yet appear to easily transmit between humans

International and National Planning

- WHO — Responding to the avian influenza pandemic threat
  –recommended strategic actions
- Australia — Management Plan for Pandemic Influenza, June 2005
  Governance Plan for Pandemic Influenza, August 2005
- US, UK, Canada etc

National planning and preparedness

- Interlocking arrangements
  - Communicable Diseases Network of Australia (CDNA)
  - National Influenza Pandemic Action Committee (NIPAC)
  - Australian Health Disaster Management Policy Committee

National Influenza Pandemic Action Committee

- Core Group
- Expert Group

- Working Groups
  - Infection Control
  - Clinical Care
  - Vaccines and Antivirals
  - Surveillance
  - Research
  - Communications

Quarantine, Isolation, and Disease Control

Dr Graham Tallis

Manager, Communicable Disease and Chief Quarantine Officer

Department of Human Services

Victoria
The Place To Be

What is Quarantine?

- Not explicitly defined in the Quarantine Act 1908
- Measures that include exclusion, detention, observation, segregation, isolation, protection, treatment and having as their object the prevention of the introduction, establishment or spread of disease.

What is Quarantine?

Measures that prevent the introduction of agents & vectors of communicable disease that pose a threat to the public health in Australia.

Quarantinable Diseases

- Viral haemorrhagic fevers
- Yellow fever
- Cholera
- Plague
- Rabies
- Severe acute respiratory syndrome
- Small pox
- Highly Pathogenic Avian Influenza in Humans

Quarantine Act 1908 – roles and responsibilities

- Federal legislation
- Broad powers to Minister for Health and Governor General for human health
- Some powers delegated to Director of Human Quarantine (DHQ), who is the Commonwealth Chief Medical Officer
- Further delegation of powers to State Chief Quarantine Officer (CQO)
- Australian Quarantine and Inspection Service (AQIS) administers border controls

Quarantine Act 1908 – powers

- Emergency Powers for disease control in Australia
  - GG can declare a danger of epidemic in a part of Australia
  - Upon declaration, may undertake any quarantine measure to remove the danger
  - May subject everyone in area to quarantine

Quarantine Powers at the Border

- All international ships and aircraft are subject to quarantine on arrival
- Passengers and crew may disembark if QO satisfied there is no disease
- In theory, GG may by proclamation designate an aircraft arrival as an offence under the Act, or direct arrivals from certain countries to certain ports

Powers of a Quarantine Officer

May require a person to:

- submit to medical examination
- remain in particular place (quarantine station or home)
- restrict movement
- a person may be released under quarantine surveillance
  - must report to specified person at such times and place as directed

State Powers – Health Act 1958

- Section 121 – may restrict movement or behaviour, or isolate, person who has an infectious disease or exposed person
- Must meet stringent legal test
  - serious risk to public health
  - likely to transmit
  - counselling about behaviour has not worked
- Section 123 - the Governor in Council has the power to proclaim an emergency for the purpose of stopping, limiting or preventing the spread of an infectious disease.

Other legislation

- The *Health (Infectious Diseases) Regulations 2001* gives DHS powers to act, if an outbreak of infectious disease may or has occurred.
- The Chief Health Officer may take any action necessary to prevent or limit the spread of infectious disease.

Isolation of cases

- May be home or hospital
- Mandatory school exclusion
- May be voluntary or mandatory
  - Quarantine Act if detected at border
  - Health Act if detected in community
- Accompanied with education and counselling
- May require personal support

Quarantine of contacts

- Voluntary home quarantine
- Voluntary school exclusion
- Rarely, mandatory quarantine under Health Act or Quarantine Act
  - Mass quarantine
  - Must meet legal test of Health Act
- Accompanied with education and counselling
- May require personal support

Other Issues

- Heightened border controls
  - discourage travel
  - passenger declarations
  - thermal imaging
- Mass quarantine
  - planes, boats and tour groups
  - other groups eg work places, military barracks
- Anti-virals: treatment vs prophylaxis
- Surveillance – active or passive
- Defining contacts

Influenza Pandemic Planning
Victorian Planning

Elizabeth Birbilis
Senior Policy and Planning Officer
Communicable Diseases Section

Victorian Planning and Preparedness

- The Department of Human Services has developed an influenza pandemic plan for the state
  - It aims to ensure the rapid implementation of a well-defined set of strategies to minimise the health and socio-economic consequences of an influenza pandemic

Victorian Planning and Preparedness

- The plan dovetails with
  - Victorian emergency arrangements
  - National arrangements
- Victorian plan sets out strategies at each phase of pandemic (consistent with National phases)
- Developed with input from wide variety of stakeholders (including GPDV, Australasian College of Emergency Medicine, Royal College of Pathologists, Private and Public hospital reps, RDNS)

Victorian Plan – Management Structure

- Steering Committee – Chair Dr John Carnie
- Sub committees
  - Health Services Working Group – Chair Diane Barbis
  - Community Sector - Chair Rodney Moran
  - Surveillance – Chair Assoc Prof Heath Kelly
  - Vaccines and Pharmaceuticals – Chair Dr Rosemary Lester
  - Planning, Operations, Communications and Recovery – Chair Rodney Moran

Victorian Pandemic Modelling

- Upper limit estimates (30% attack rate)
  - 24,000 excess hospitalizations
  - 10,000 excess deaths
  - 710,000 excess outpatient visits
- Figures based on 6-8 week period
- Victoria's current healthcare system would be under enormous stress

Victorian Plan

- Surveillance
  - Sentinel general practitioner network
  - Notifiable disease (laboratory confirmed cases)
  - Surveillance through AQIS at airports
  - Testing at VIDRL and WHO Reference Laboratory
- Public health
  - Contact tracing
  - Isolation
  - Quarantine

Victorian Plan

- Hospitals, GP's, ambulance
  - Clinical care
- Vaccine/antiviral policy and distribution
- Communication
- Recovery arrangements
- Laboratory – diagnostic testing
- Business continuity

Current activities

- Clinical Care
  - patient flow being formulated
- Community Care
  - Community support model being formulated
- Vaccine/antiviral policy and distribution plan being formulated

Influenza pandemic planning

Vaccines and antivirals

Dr Rosemary Lester
Manager, Prevention & Perinatal Health

Antivirals – current phase

- On confirmation of case, CDS would provide antivirals to contacts of cases from state stockpile
- Usual contact tracing exercise conducted by PH staff; may utilise GP's, hospitals etc in rural Victoria to distribute
- If in metropolitan Victoria, staff may visit and distribute directly
- Contacts would include HCW's in contact with case – recommended for 7 days after last contact

Antivirals – future phases

- Phase of maintaining essential services
  - Antivirals for HCW's
  - Some proportion (?how much) used for treatment
- Antivirals to be sourced from National Medical Stockpile
- Distributed via contracted provider

Pandemic vaccine

- Current trial of H5N1 formulation vaccine for immunogenicity
  - monovalent, multi-dose containers
- Will lead to shortening of TGA approval time when pandemic strain known and given to companies
- CSL Ltd and Sanofi are contracted to supply pandemic vaccine to Australia (condition of the national contracts for interpandemic influenza vaccines)
- Likely to be 3-6 months before first doses available
- Priority groups to be immunised first
- When sufficient vaccine available, further staged vaccination will occur
- Likely that 2 doses will be required

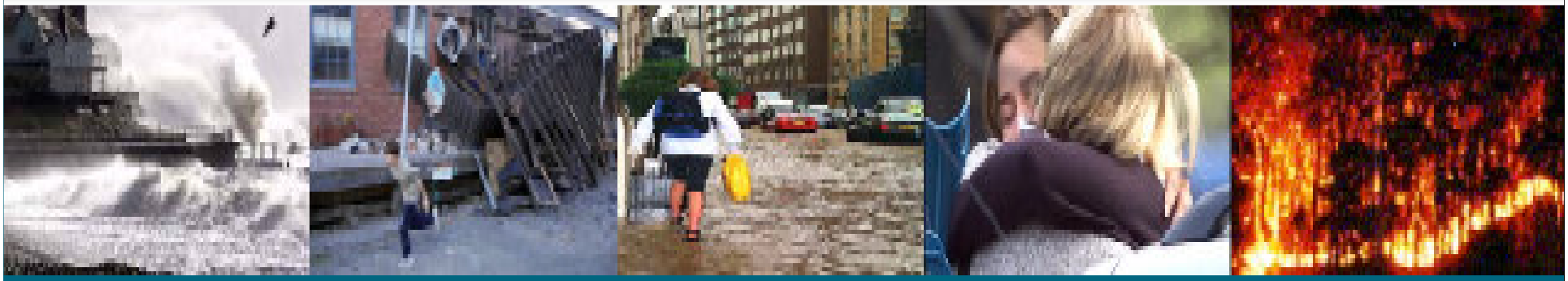
Pandemic vaccine - issues

- Local government primary vaccination teams; switch to GP "mop up" at some stage
- GP's likely to be overwhelmed with consultations
- Local government immunisation workforce has capacity to scale up – recent school based men C program etc.
- Multi-dose format more suited to mass sessions
- Need for separation of ill people from well people waiting to be vaccinated
- Need for clearly determined, consistently applied eligibility criteria (?Medicare card ?electoral roll)
- Need for simple line listing data collection
  - Identify those for second dose
  - Identify age specific coverage rates
- Adverse events reporting – likely to be usual ADRAC process

Pandemic vaccine - issues

- Priority groups
  - Health care workers
  - Essential services workers
  - Groups most at risk of transmitting virus ie children
  - Groups most at risk of severe outcome (likely to be elderly – based on epidemiology of pandemic)
- Don’t forget!
  - Immunisation with pneumococcal vaccine will prevent a major complication ie pneumococcal pneumonia
  - Important to attain high inter-pandemic coverage with conjugate vaccine (for children) and polysaccharide vaccine(for older persons and those at medical risk)

Influenza Pandemic- Hospital Patient Management Models



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Victoria
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Designated Hospital Model

- Patients will telephone or present to GPs or emergency departments
- In the pandemic alert period, suspected cases may be transferred to the emergency departments at metropolitan or regional hospitals with negative pressure rooms
- Hospitals will be designated based on
  - Location
  - Isolation facilities (e.g. negative pressure rooms)
  - Infectious diseases expertise

Designated Hospital Model

- When a pandemic has been declared, fever clinics will be established at
  - designated hospitals
  - other sites (e.g. community centres)

- Fever clinics are intended to reduce the load of suspected cases in GP waiting rooms and hospital emergency departments

Designated Hospital Model

Fever clinics will assess and triage patients:

- Home
- Hospital (isolation room or ward)
- To another facility (when hospital-level care not required but patient is unfit to return home) eg Medi-Hotels
- Provide medication or other treatment and advice as appropriate

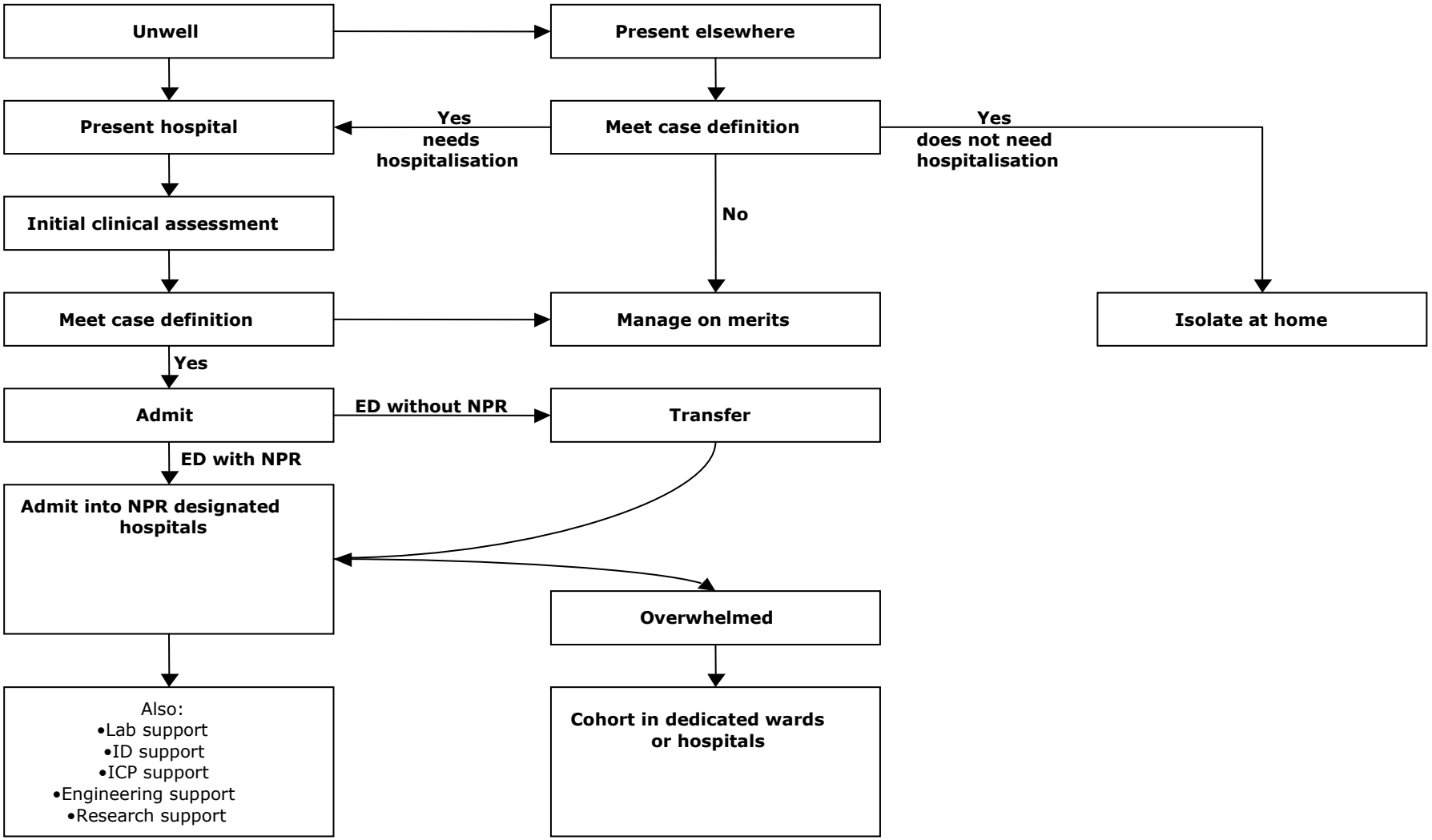
Increasing patient numbers…

1. Admit patients to isolation rooms
2. Cohort patients in influenza wards
3. Identify specific hospital/s that can be closed and used solely for influenza patients
4. Consider use of non hospital facilities

Implementing the Designated Hospital Model

- Hospitals' capacity to respond to an influenza pandemic is being enhanced:
  - increasing the number of negative pressure rooms and other isolation facilities
  - developing fever clinic facilities
  - stockpiling personal protective equipment and other resources

Proposed Hospital Care Model




QUESTIONS?
www.dhs.vic.gov.au/emergency

Influenza Pandemic Planning - GP Forum Scenario

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Scenario based on current situation

Scenario based on current situation

On the afternoon of 10 November, Dr Brown is reviewing a patient in his clinic in Clayton who has presented with fever (37.9°), chills, rigors, cough and lethargy. The waiting room is full of patients and the patient had been waiting for around 10 minutes. The patient is a 25-year-old male, who has recently arrived back from a ten-day trip in Indonesia

Scenario based on current situation

- Question to GPs – What would you do?

Dr Brown contacts DHS and speaks to a member of the General Surveillance and Control team for advice. The patient has had poultry contact

- Question to DHS – What would you do?

Scenario based on current situation

Six hours after the swabs were taken the results of testing come back positive for influenza

- Question to DHS – What would you do now?

- Question to GP's – given the patient was in the waiting room coughing for 10 minutes and DHS advises that immediate contacts should be provided with antivirals, how would you go about establishing who the contacts are and then contacting them? Who should do the contact tracing?

Scenario based on current situation

- Question to DHS – who is responsible for providing the antivirals to the contacts? Three of the waiting patients were young children (under 7). Does this affect the use of antivirals? If so what would be prescribed?

- Question to DHS – where do you get the antivirals needed from?

Scenario based on current situation

The contacts, including two receptionists are provided with antivirals and asked to self-isolate for 7 days. One person who is a childcare worker doesn't want to miss work and lose pay

- Question to GP's - Given you have a full book of patients over the next 5 days, how do you manage without your two receptionists?

- Question to DHS – what power do you have to ensure the worker remains isolated? How would you exercise this power?

Scenario based on current situation

It is agreed that information needs to go out to the public, including GP's regarding the current situation

- Question to DHS – what information do you send, who to and how?
- Question to GPDV/GP's – does this information sound sufficient?

Scenario based on current situation

- Question to GP's – given influenza could be spread by droplet, airborne or contact, what infection control processes do you establish in your clinic for both the previously seen case and possible future cases presenting?

Scenario based on Pandemic Influenza

Scenario based on Pandemic Influenza

On the afternoon of 17 November an Infectious Diseases Physician from a metropolitan hospital calls DHS to notify that he has 5 cases of influenza like illness, who are seriously ill, he advises that they have not had any recent overseas travel. In the next two hours other Emergency Departments of metropolitan hospitals begin calling DHS with similar stories. By the end of the day there are 40 unconfirmed cases. Some have presented at hospitals but a number have attended their local GP

Scenario based on Pandemic Influenza

- Question to DHS – What actions do you take?

DHS sends an alert out to all hospitals and GP's via the Divisions advising to consider HPAI in patients presenting with flu like symptoms

Scenario based on Pandemic Influenza

•Question to GPDV – What type of information do you think the alert needs to contain? How do you distribute this material to ensure wide coverage?

•Questions to GP's – what precautionary arrangements do you set up in your practice to protect staff (including yourself) and other patients?

Scenario based on Pandemic Influenza

Cases continue to be reported and by 29 November there are 55 suspected cases. Results are back from the laboratory and of the 40 cases, 25 are confirmed as H5N1. 15 are not influenza. Of the 25 cases, contact tracing has revealed that 15 patients have association with a factory that the initial patient seen by Dr Brown last week worked at. Of these 15 patients, 5 are children under the age of 7. The factory is a small manufacturing plant with 100 employees?

Scenario based on Pandemic Influenza

The factory contacts CDS and seeks advice on what to do as there are major employee concerns

•Question to DHS – What advice do you give and action do you take?

•Question to GP's – Your two reception staff who had been isolated at home are concerned about returning to work. What do you tell them? What PPE do you offer them? Do you have stocks of relevant PPE?

Scenario based on Pandemic Influenza

Cases continue to rise and the state establishes fever clinics attached to various designated hospitals to help ease the strain on hospitals and GP's

- Question to DHS (EMB rep) – what advice do you send to GP's about establishing these clinics? How do you distribute these advisories?

- Question to GP's – a number of your patients do not require hospitalisation but do need home clinical care? How do you engage this home support?

Scenario based on Pandemic Influenza

A pandemic is declared and cases continue to be reported. A number of general practitioners have also been affected and are not able to work

- Question to GPDV – do you have a role in trying to keep clinics open, particularly in rural areas. Who would you approach to try and obtain workforce assistance?

- Question for DHS (EMB) – what is the role of the Health Service Support Centre?

Scenario based on Pandemic Influenza

Two months after the pandemic was declared a vaccine becomes available. 1 million vaccines are available initially

- Question to DHS – are there priority groups for receiving vaccination first? How do we get the vaccine to these groups?

- Question to GP's – what role do you see GP's playing in vaccinating people?

Scenario based on Pandemic Influenza

Due to mass panic to get vaccination security is needed at venues, including some general practices

- Question to DHS and GP's - How do you arrange for security?

Scenario based on Pandemic Influenza

The vaccine requires two doses (a Month apart)

- Question to DHS – how do you promote the need for follow up vaccination?
- Question to DHS – What paper work will be expected as a record of vaccination? Who will want these for collation?

The pandemic is declared over.