



Waikato Engineering Lifelines Group: Preparing for a Pandemic



The situation

Flu epidemic (H5N1) in birds:

- Avian influenza viruses
- Natural hosts are waterfowl
- Spread faecal orally
- Spreading in domestic poultry
- Managed by culling
- Highly pathogenic

Slowing in the Northern Hemisphere

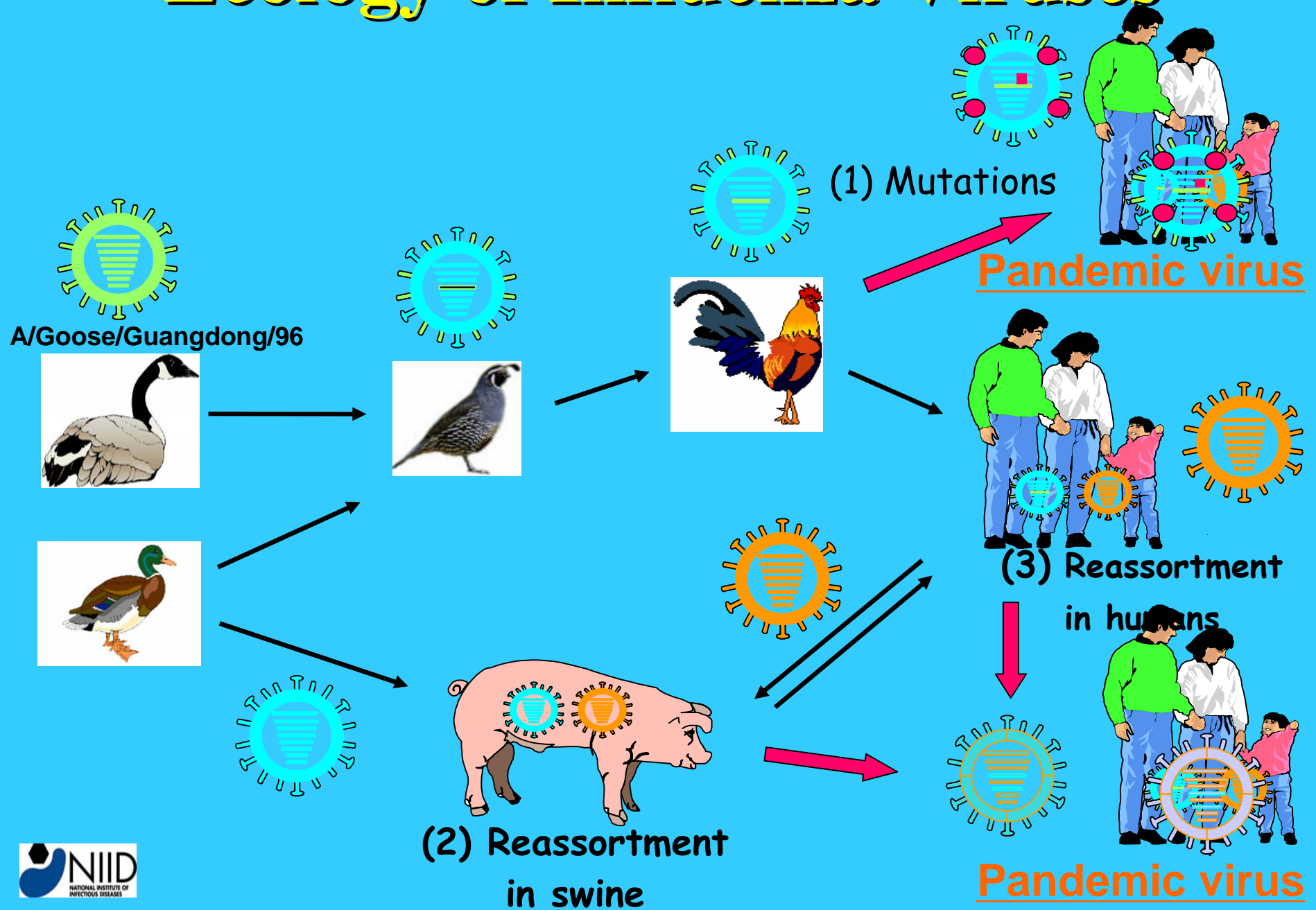
Avian influenza cases/deaths

Humans can catch it but this is rare.

Confirmed cases and deaths notified by WHO each week.

All cases have been in what we would consider to be less developed countries.

Ecology of Influenza Viruses



Influenza Pandemics 20th Century

1918:
'Spanish
Flu'

40-50
million
deaths

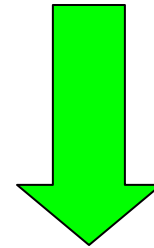




1957: 'Asian Flu'
1-4 million deaths

1968: 'Hong Kong
Flu'

1-4 million deaths



What could happen here?

Based on **1918** model, during an 8-week period:

- 145,800 people would become ill in Waikato
- 4,371 would die

Based on **1957** model, during an 8-week period:

- 59,843 people would become ill in Waikato
- 282 would die

What could happen here?

- Clinical staff (general practice and hospitals) affected by the influenza themselves + families
- Hospitals aiming to run emergency services (~200 beds in Waikato)
- Averaged influenza cases per week: 18,250

What does this mean to our community?

- 10% of people with influenza will require hospital level care
- 30% will need some form of assistance in the community
- 60% will get better by themselves at home.

Potential community impact

Workplaces, schools, hospitals/health services affected (all parts of our community could be affected because of the number of people staying away from work)

People will need to look after themselves and their families and friends – *community resilience*

National planning

- Driven by DPMC with MoH as 'Lead Agency'
- NZ Influenza Pandemic Action Plan (www.moh.govt.nz)
- National Intersectoral Pandemic Group

NZ Influenza Pandemic Action Plan

	NZ Strategy	Alert code
STAGE 1.	PLAN FOR IT <ul style="list-style-type: none"> Plan to reduce health, social and economic impacts Full engagement of whole of government Consultation 	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; margin-bottom: 5px;"> WHITE Information /Advisory </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px;"> YELLOW Standby </div>
STAGE 2.	KEEP IT OUT <ul style="list-style-type: none"> Border management include closing NZ border to all non-nationals and quarantining all returning NZ citizens Internal disease surveillance and notification Investigate and follow up suspect cases 	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; background-color: red; color: white; text-align: center;"> RED Activation </div>
STAGE 3.	STAMP IT OUT <ul style="list-style-type: none"> Control and/or eliminate clusters Isolate and treat patients/households Contact tracing and treatment Restrict movement Close schools and other places where people gather 	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; background-color: red; color: white; text-align: center;"> RED Activation </div>
STAGE 4.	MANAGE IT <ul style="list-style-type: none"> Reduce the impact Reconfigure health services to support community response Social distancing Support for people at home 	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; background-color: red; color: white; text-align: center;"> RED Activation </div>
STAGE 5.	RECOVER FROM IT <p>This phase starts when the population is protected by vaccination or the pandemic abates</p>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; background-color: green; color: white; text-align: center;"> GREEN Activation </div>

National Intersectoral Pandemic Group Work Programme:

- Border
- Education
- External
- Law and Order/ES
- Welfare
- Local Government
- Economy
- Infrastructure
- Workplaces
- Coordination
- Communication
- Legislation

Law Reform (Epidemic Preparedness) Bill 2006

Proposing amendments to the following Acts;
to be enacted in the case of a pandemic:

- Health Act 1956
- Resource Management Act 1991
- Income Tax Act 2004
- Births Deaths and Marriages Registration Act 1995
- Holidays Act 2003
- Parole Act 2002
- Summary Proceedings Act 1957
- Sentencing Act 2002
- Social Security Act 1964
- Student Loan Act 1992
- Immigration Act 1987

Waikato Pandemic Response

Joint agency planning to provide a regional 'joined-up' approach and to reflect the national workplan at local level.

- WDHB (Chair)
- Emergency Services
- Regional Council (EW)
- Lifelines
- Thames Valley (Thames Coromandel, Hauraki, Matamata Piako)
- Waikato Valley (Waipa, Hamilton, Waikato, Otorohanga, Waitomo)
- South Waikato (SW and Taupo)
- MSD

DHB Planning and Communication

- Ports, Prisons, Education, Care of the Dead, TLAs, Industry (eg Fonterra), MoH
- Hospitals and Health services, private hospitals
- GPs, Resthomes, Iwi Providers, Pharmacies, Disability Services
- Liaison with: other DHBs, MoH, Civil Defence groups/Local Government, Emergency Services, NGOs, Institute of Rural Health, media organisations, etc.
- Community-Based Assessment Centres

Community-based assessment centres (CBACs)

Aims:

- To separate, as much as possible, patients who might have the flu from those who don't
- To allow specialisation in 'flu management

To avoid this.....



Community-based assessment centres: functions

To provide

- information
- clinical assessment (and identify risk of secondary infection)
- simple medications, particularly antibiotics
- manage antivirals (MoH protocol)

Waikato challenges

- Highly dispersed rural community
- Large geographical area
- Potential influx of bach owners
 - Coromandel 25K annual residents + ~27K non-resident homes
 - National Park 234 usually resident + 333 non-resident houses

Waikato proposed arrangements

- Virtual CBAC (0800 number)
- Physical CBACs - options:
 - ▷ Fixed - particularly Hamilton and smaller centres
 - ▷ Mobile - eg. the Coromandel
 - ▷ Community first responders eg. South Ruapehu

Planning continues.

Local Government planning and support activity

The New Zealand Local Authority and CDEM Group Pandemic Planning Guide provides advice to LG around planning for:

- Local Authorities and CDEM Groups
- Communities

LG essential services continuity planning

Planning to maintain operations and service delivery (eg water and waste water, solid waste, cemetery etc) with:

- reduced staffing,
- reduced support/supply from external organisations.

Civil Defence and Emergency Management

Core CD welfare processes providing for coordination of:

- food and its distribution
- registration and enquiry services
- social well-being
- government support
- medical and health support
- animal welfare

Family and home emergency planning

Self reliance for up to seven days:

- food
- drinking water
- essential medicines
- emergency lighting and spare batteries
- transistor radio and spare batteries
- first aid kit (extra paracetamol)
- supplies for babies and small children
- supplies for elderly and those with disabilities
- pet supplies

Summary

Based on historical patterns, the world will experience another pandemic in the foreseeable future.

We can't predict when this will occur.

The effects of pandemic could completely change the face of our society for a period of months.

However...

Summary

... we have time to prepare by:

- ▷ Building relationships
- ▷ Continuity planning across all businesses/organisations
- ▷ Building community resilience

The first line of defence is still simple messages about personal hygiene and 'respiratory etiquette'.