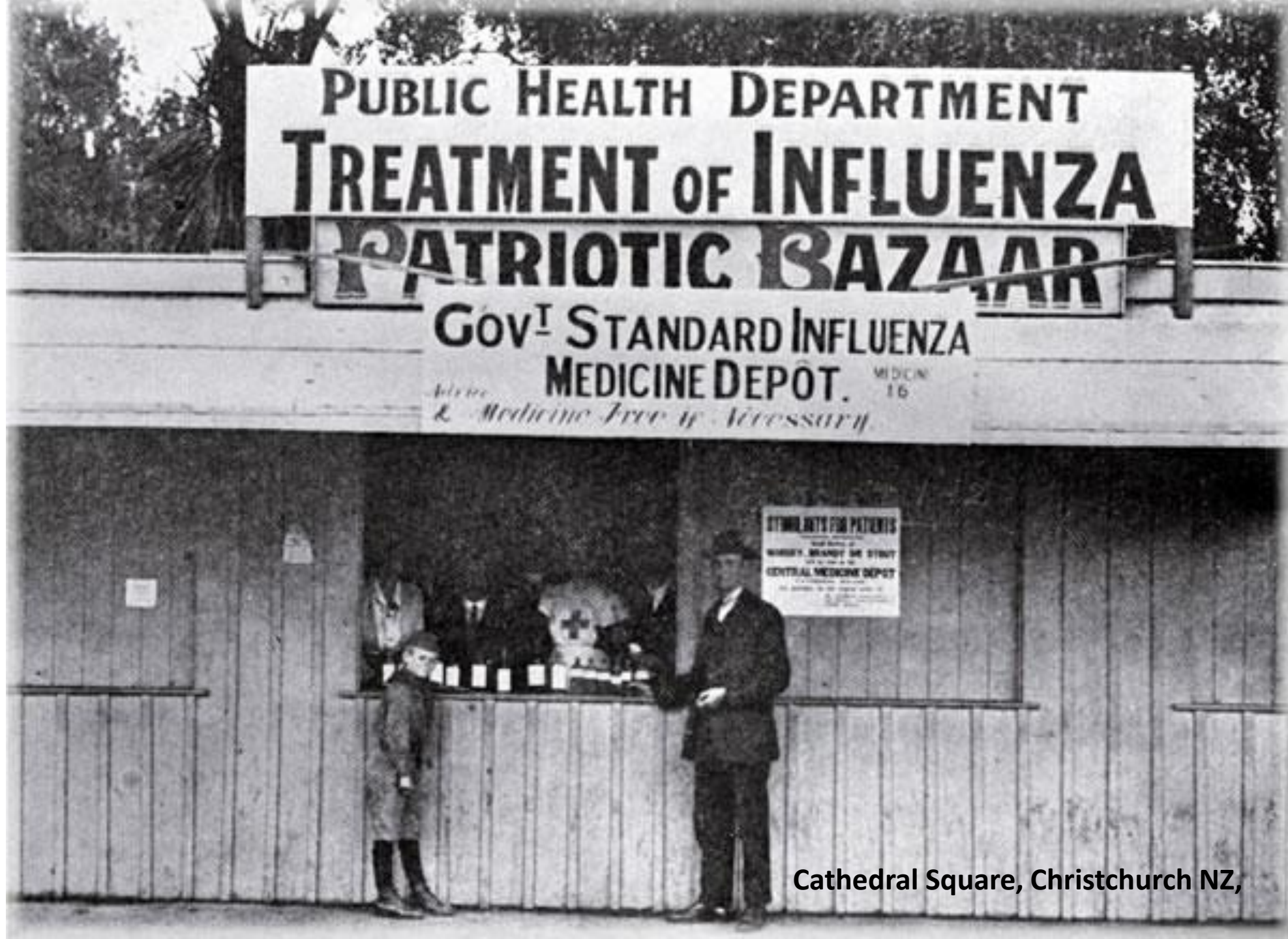


Management and response to Pandemics

Risk NZ Conference 2017 Repositioning Risk Management

Charles Blanch
Director Emergency
Management, Protection
Regulation & Assurance





Cathedral Square, Christchurch NZ,







James Gathany/Centers for Disease Control and Prevention

PENGUIN
SPECIALS

**THE DRUGS
DON'T WORK**

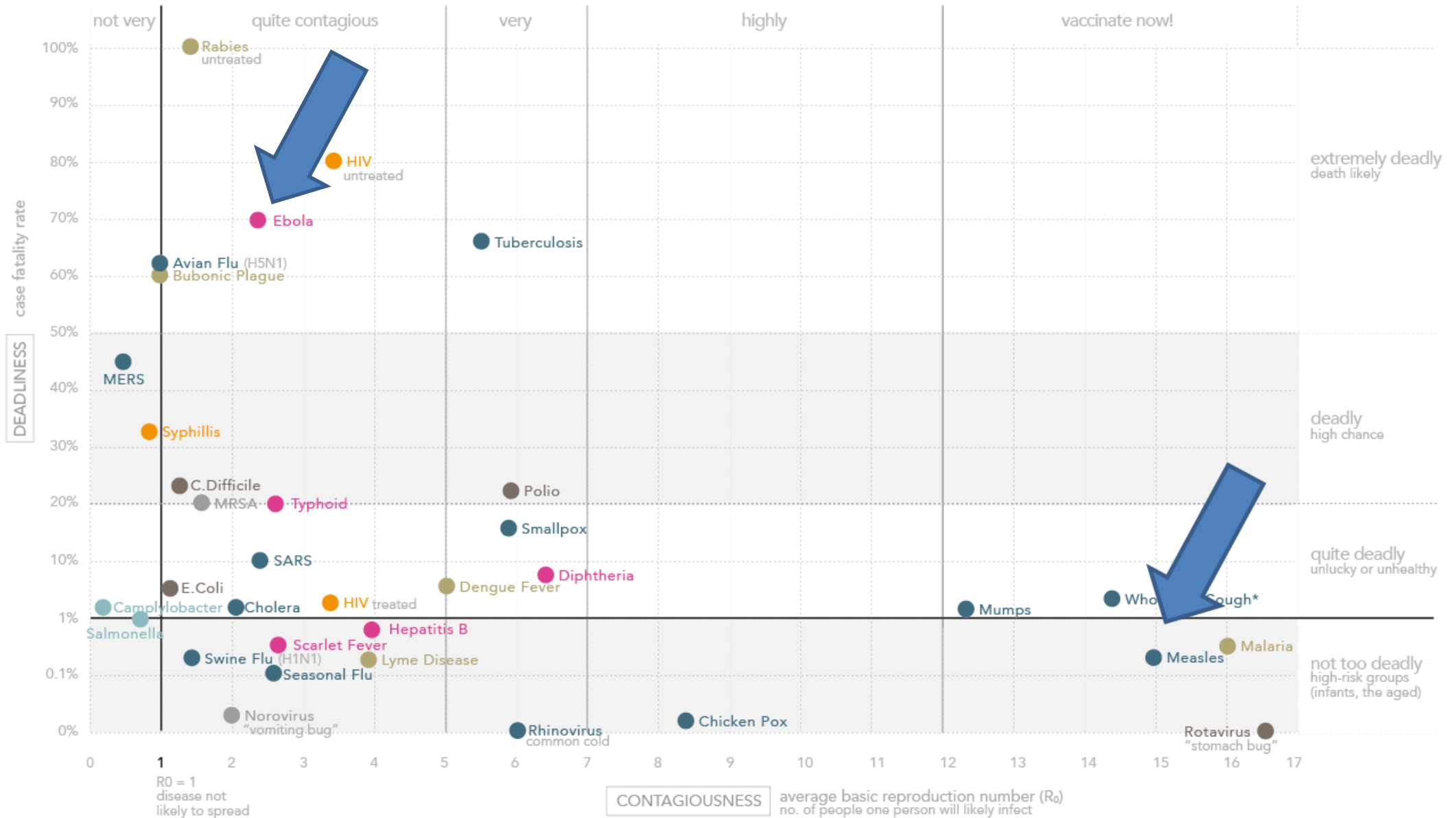
A GLOBAL THREAT

**PROFESSOR DAME
SALLY C. DAVIES**



The Microbe-scope

PRIMARY TRANSMISSION METHOD airborne bites body fluids fecal-oral food sexual contact surfaces



Challenges with communicable disease events

- Risk communication
 - Against an evolving and changing global epidemiological picture
 - Integrating global advice and changing science
 - Need to ensure New Zealand contextualisation of the risk, response and mitigation options
 - All of government resourcing and capability in key areas over a prolonged period
-

Influenza Pandemics 20th and 21st Century



1918

“Spanish Flu”

20 - 40 m deaths

A(H1N1)



1957

“Asian Flu”

1 - 4 m deaths

A(H2N2)



1968

“Hong Kong Flu”

1 - 4 m deaths

A(H3N2)



2009

“Swine Flu”

0.3 m deaths

A(H1N1)

- Cases of disease in excess of what would normally be expected in a defined community, geographical area.

-


- Cases of disease in excess of what would normally be expected in a larger defined community, geographical area.

- # Pandemic:

- An epidemic that becomes very widespread and affects a whole region, a continent or the world.

Pandemic Influenza vs Seasonal Influenza:

- **Not seasonal**
- May impact on **any age group**
- May have a very **high attack rate**
- May have a very **high case fatality rate**
- May come in **several waves** over months or years
- **WILL come one day (maybe soon)**
- No-one has resistance





Influenza.
Don't get it.
Don't give it.

You could come in contact with influenza anywhere at anytime.

Get immunised today – it may even be **FREE!** Speak to your occupational health service today.

FOR MORE INFORMATION:
FIGHTFLU.CO.NZ
0800 466 863

 The Immunisation
Advisory Centre

 MINISTRY OF
HEALTH
MANATŪ HAUORA

Go to fightflu.co.nz to find out more. The influenza vaccine is a prescription medicine. Talk to your doctor or nurse about the benefits and possible risks or call 0800 IMMUNE. TAPS PP9132, IMAC1727.

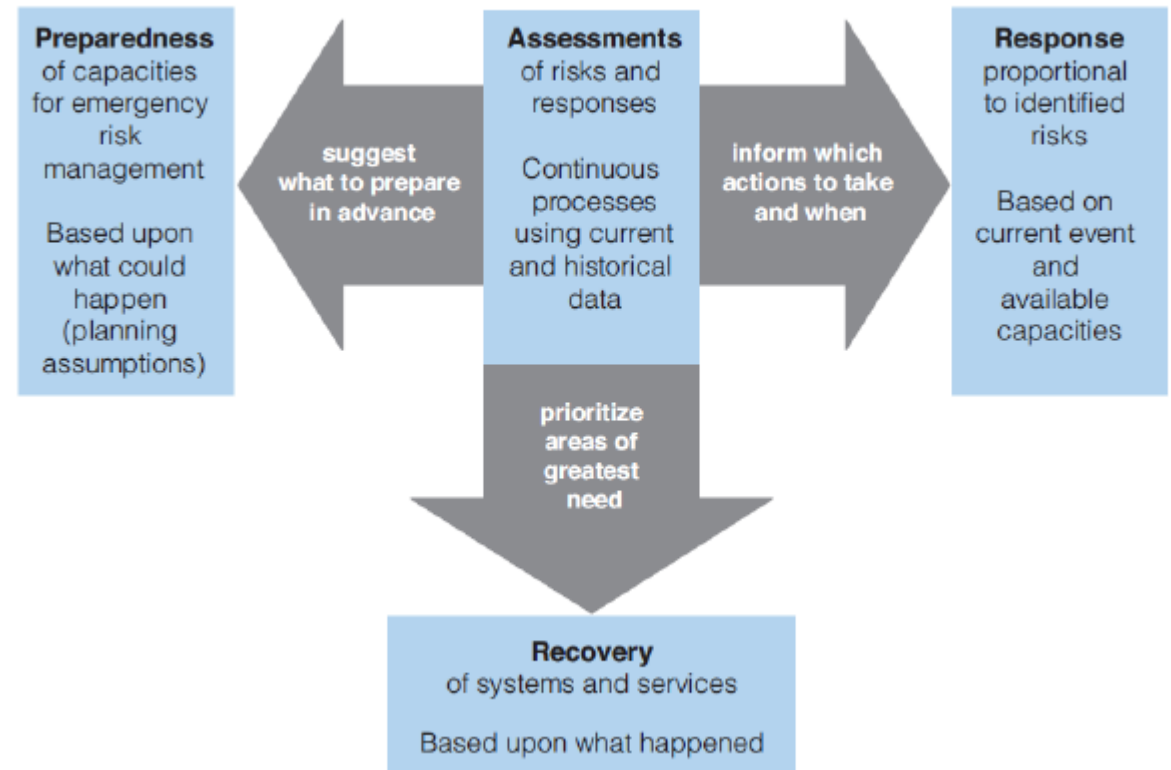
Global and regional work

16Jun2017 WHO Risk assessment: The overall public health risk from currently known influenza viruses at the human-animal interface has not changed, and the likelihood of sustained human-to-human transmission of these viruses remains low. Further human infections with viruses of animal origin are expected.

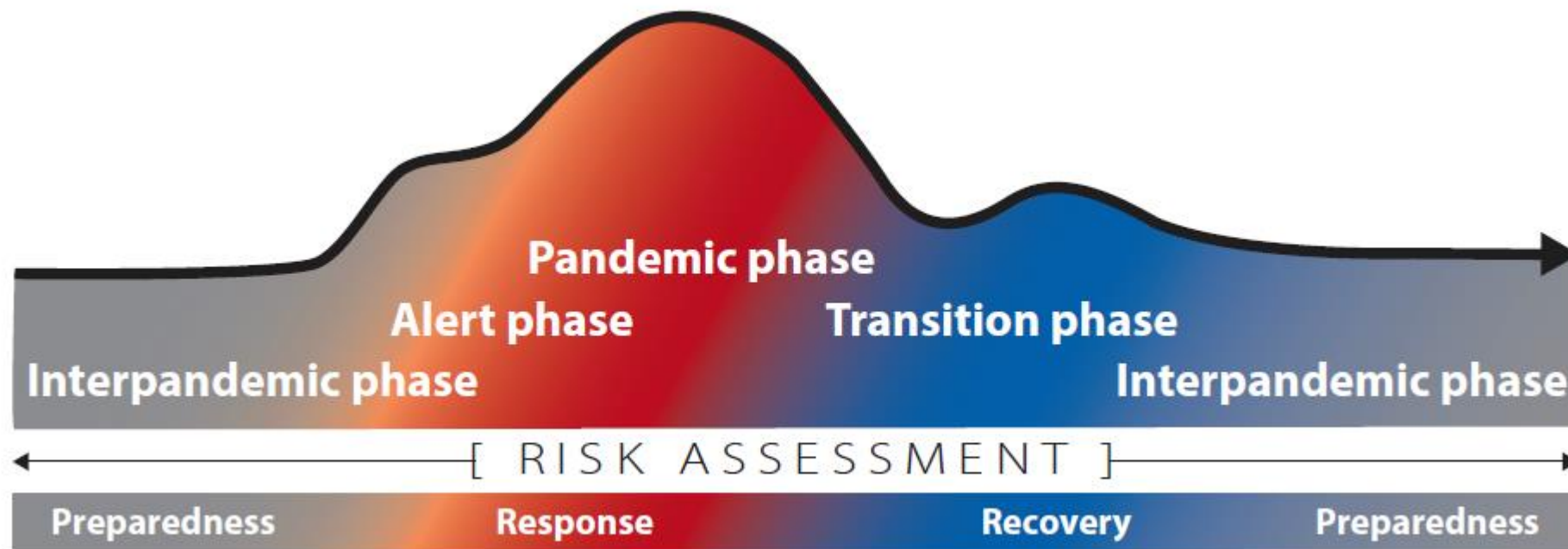
http://www.who.int/influenza/human_animal_interface/Influenza_Summary_IR_A_HA_interface_07_25_2017.pdf?ua=1

Tool for Influenza Pandemic Risk Assessment

<http://apps.who.int/iris/bitstream/10665/250130/1/WHO-OHE-PED-GIP-2016.2-eng.pdf?ua=1>



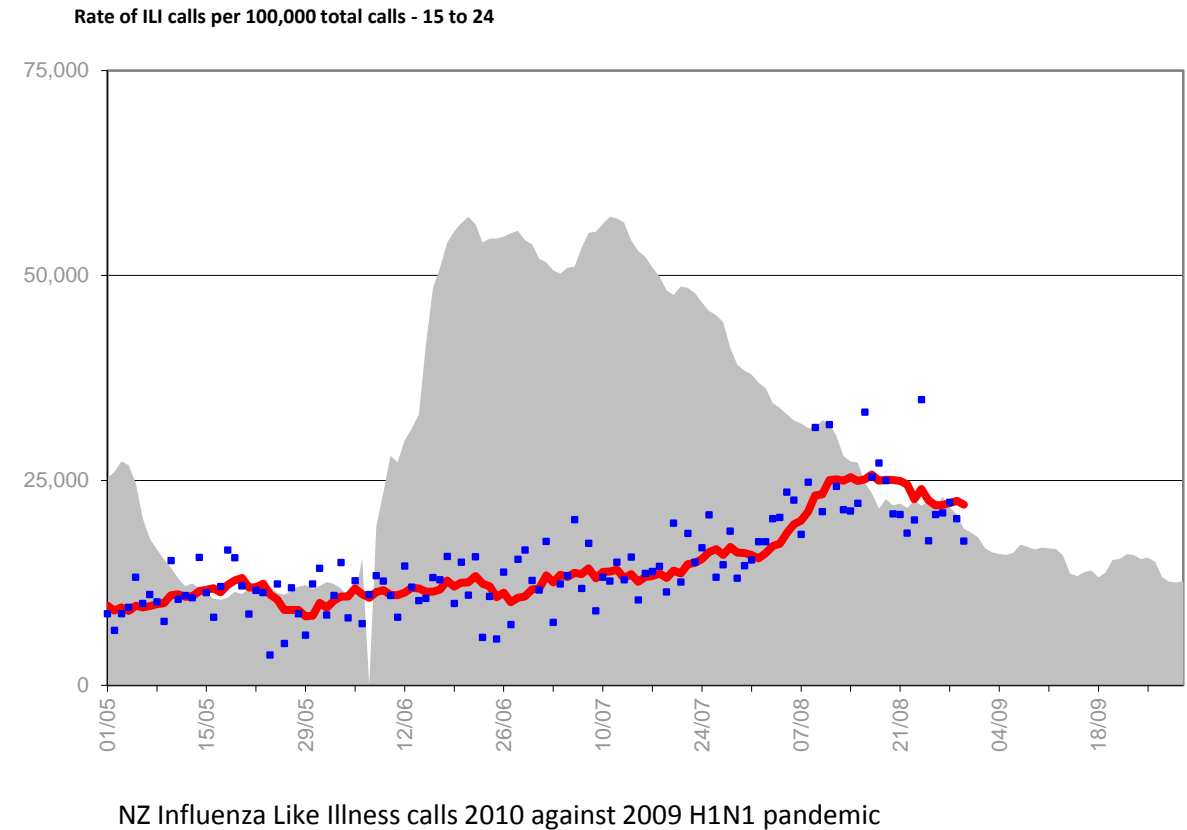
WHO Phases



http://www.who.int/influenza/preparedness/pandemic/influenza_risk_management/en/

Potential impact of a pandemic in 2017

- Very high **morbidity and mortality**
- **No living memory**
- Immense impact on **society and economy**:
 - Staff and student absences, **absenteeism** from work
 - Impact on **public transport**
 - Impact on **essential services**
- **Health services under extreme pressure**
- Full community mobilisation needed (as in 1918)
- **Whole of society response**



Pandemic influenza – NZ Standard Planning Model

- Severe initial pandemic wave -40% of the New Zealand population become ill over an 8 week period.
 - **Case fatality 2% - 38,000 deaths** in an 8 week period.
 - **Peak incidence weeks 3-5** with about 1/3 of the population ill, convalescing or just recovered.
 - Serious short term effects on the economy and on most individual businesses.
 - **Annual estimated likelihood of a pandemic in the next five years 10-20%**
-

Managing a pandemic in New Zealand

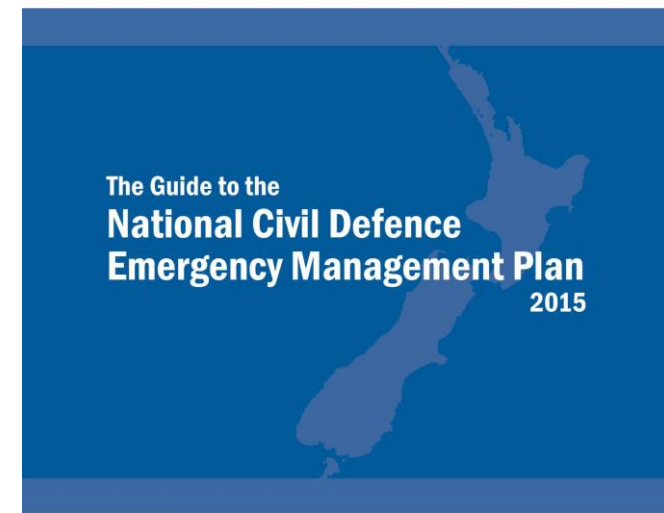
4 R's

Risk reduction

Readiness (to respond)

Response

Recovery

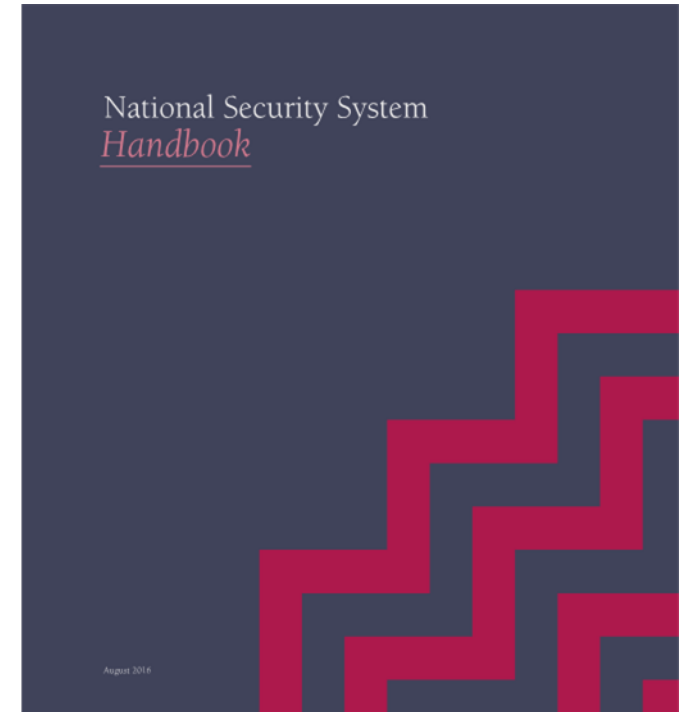


National Security System

“National security is the condition which permits the citizens of a state to go about their daily business confidently free from fear and able to make the most of opportunities to advance their way of life. It encompasses the preparedness, protection and preservation of people, and of property and information, both tangible and intangible.”

All hazards – all risks approach

Source: National Security System Handbook. Department of Prime Minister and Cabinet. August 2016. Available at:
<https://www.dPMC.govt.nz/sites/all/files/dPMC-nss-handbook-aug-2016.pdf>



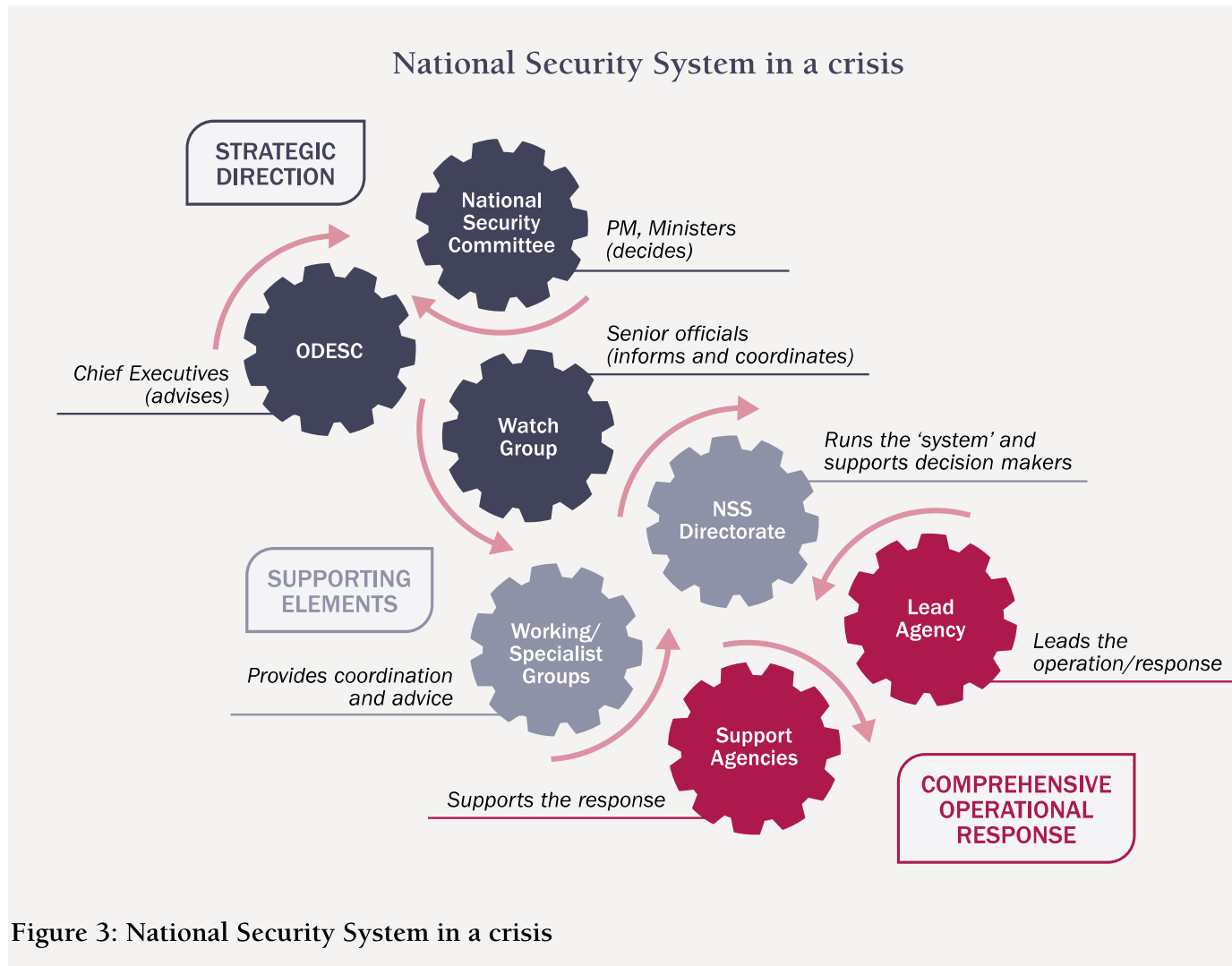
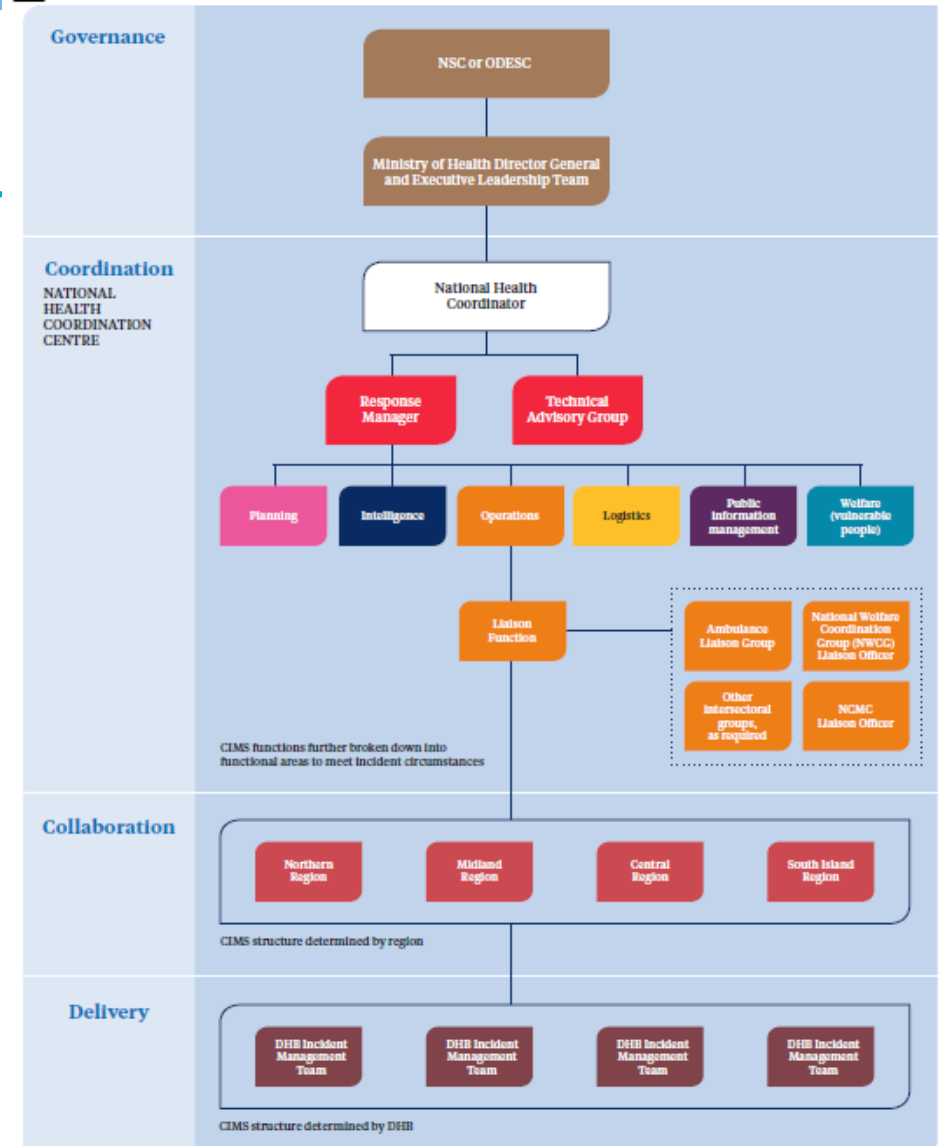
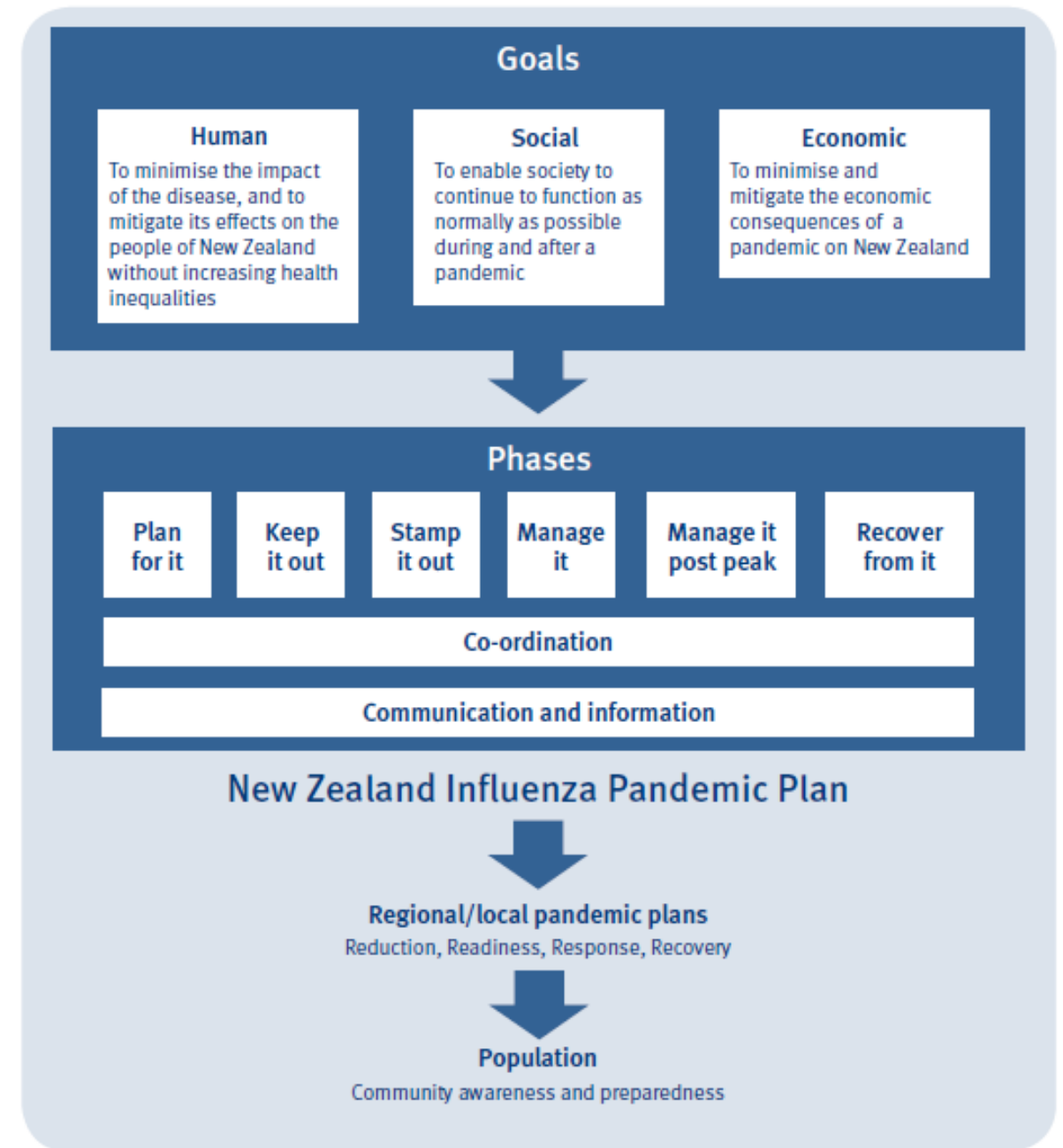


Figure 3: National Security System in a crisis

<https://www.dpmc.govt.nz/sites/all/files/dpmc-nss-handbook-aug-2016.pdf>



<http://www.health.govt.nz/our-work/emergency-management/national-health-emergency-plan>



Agency Roles and Responsibilities

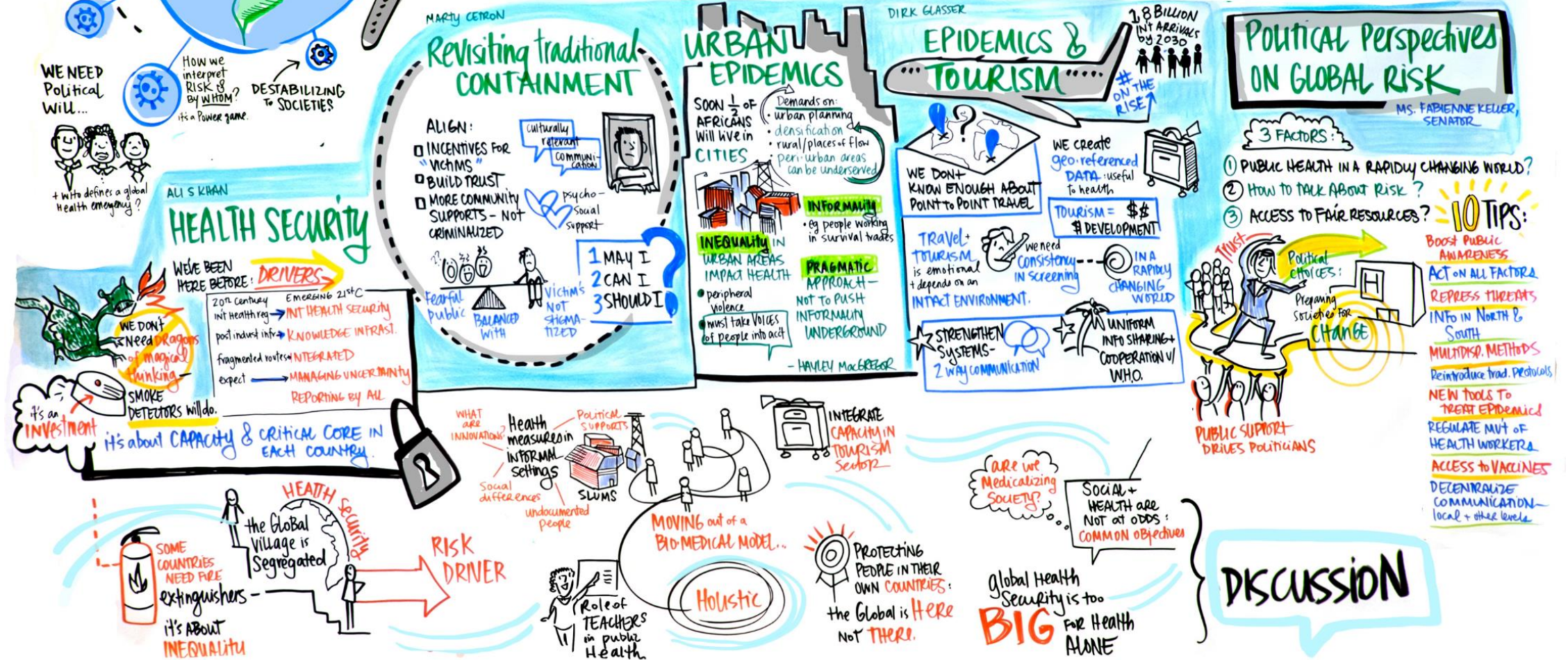


National Reserve Supplies Composition

- Advance Purchase Agreement for pandemic specific vaccine
- Vaccination supplies (syringes and sharps bins)
- Antiviral medication (Tamiflu and Relenza)
- Respiratory PPE (Masks)
- Body bags
- Antibiotics
- DHB stored PPE
- Disposable linen



PREVENTING THE SPREAD OF INFECTIOUS DISEASES IN A GLOBAL VILLAGE



Conclusions

A severe pandemic, like 1918, will impact:

- Family
- Colleagues
- Domestic and international business partners and suppliers
- Your operational delivery, workforce, supply chain

Impact depends on:

- Case Fatality Rate, attack rate, R_0 , vulnerable populations and effectiveness of interventions

Many thanks

Charles Blanch

<https://www.linkedin.com/in/charles-blanch/>