



Public Health Summer School

The Science of Influenza Surveillance and Control

Translating Influenza Research into Policy

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Introduction

Translating Influenza Research into Policy

- *Using term “research” in fairly broad way, and interested in it as generating “information for action”.*
- *Perspective is as person who will either have to make various “calls” around influenza responses, or will be advising government on calls they need to make. Particularly important and complex in context of pandemic preparedness and response.*
- *Interested in very wide range of influenza-related research questions. To illustrate, some examples of different questions which are important to us at different points in pandemic cycle are listed below, along with examples of why they are important. Many questions will be relevant at multiple points.*
- *Nature of information needed, timeframe needed in, and hence appropriate research methods, will vary greatly at different stages in cycle.*

“Interpandemic” period

| Question | Why is this information useful? |
|--|--|
| What seasonal strains are circulating? | <ul style="list-style-type: none">• Decisions on seasonal vaccine |
| What is happening with known strains with pandemic potential? | <ul style="list-style-type: none">• Decisions on whether we need to escalate surveillance and preparedness• Decisions on adjustments to national stockpiles- eg antivirals, vaccine, PPE (what, how much) |
| What new strains with pandemic potential are being identified? | <ul style="list-style-type: none">• Decisions on whether we need to escalate surveillance and preparedness• Decisions on adjustments to national stockpiles |

“Interpandemic” period

| Question | Why is this information useful? |
|---|--|
| What lessons can be learned from earlier pandemics? | <ul style="list-style-type: none">• Strengthen planning/preparedness |
| Have these lessons been appropriately reflected in current plans? | <ul style="list-style-type: none">• Are our current plans fit for purpose?• Can they be strengthened? |
| What is happening with circulating animal strains? | <ul style="list-style-type: none">• Decisions on whether we need to escalate surveillance and preparedness• Decisions on adjustments to national stockpiles |

“Interpandemic” period

| Question | Why is this information useful? |
|---|---|
| Any new developments re resistance to antivirals? | <ul style="list-style-type: none"> • Decisions on whether we need to escalate surveillance and preparedness • Decisions on adjustments to national stockpiles |
| Any new vaccine developments? | <ul style="list-style-type: none"> • Decisions on seasonal vaccine • Decisions on adjustments to national stockpiles |
| How prepared is the health sector? | <ul style="list-style-type: none"> • Decisions on whether we need to strengthen planning/preparedness • Advocacy for improved preparedness |
| How prepared are other sectors? | <ul style="list-style-type: none"> • Decisions on whether we need to strengthen planning/preparedness • Advocacy for improved preparedness |

“Prepandemic” period

| Question | Why is this information useful? |
|---|---|
| How likely is the new strain to produce a pandemic? | <ul style="list-style-type: none"> • Decisions on whether we need to escalate surveillance and preparedness • Decisions on adjustments to national stockpiles |
| How infectious is the virus? | <ul style="list-style-type: none"> • Decisions on whether we need to escalate surveillance and preparedness • Decisions on adjustments to national stockpiles • Decisions on appropriate non-pharmaceutical interventions |
| What is its CFR? | <ul style="list-style-type: none"> • Decisions on whether we need to escalate surveillance and preparedness • Decisions on adjustments to national stockpiles • Decisions on usage of national stockpiles • Decisions on appropriate non-pharmaceutical interventions |

“Prepandemic” period

| Question | Why is this information useful? |
|--------------------------------------|--|
| How widespread is it? | <ul style="list-style-type: none">• Decisions on whether we need to escalate surveillance and preparedness• Decisions on whether containment is practical |
| Is it already in NZ? | <ul style="list-style-type: none">• Decisions on whether containment is practical• Decisions on appropriate non-pharmaceutical interventions |
| What are the routes of transmission? | <ul style="list-style-type: none">• Decisions on whether containment is practical• Decisions on appropriate non-pharmaceutical interventions• Determine key public messaging |

During the First Wave

| Question | Why is this information useful? |
|---|---|
| Has sustained local transmission in NZ begun? | <ul style="list-style-type: none"> • Decisions on when to cease containment |
| How severe is the first wave? | <ul style="list-style-type: none"> • Decisions on appropriate non-pharmaceutical interventions • Decisions on use of emergency powers and Epidemic Preparedness Act • Inform public messaging |
| How far through the first wave are we? | <ul style="list-style-type: none"> • Inform public messaging • Decisions on usage of national stockpiles • Decisions on appropriate non-pharmaceutical interventions • Decisions on use of emergency powers and Epidemic Preparedness Act • Decisions on when to start switch to “BAU” |

During the First Wave

| Question | Why is this information useful? |
|--|--|
| Are particular groups or geographic areas disproportionately affected? | <ul style="list-style-type: none"> • Inform public messaging • Decisions on usage of national stockpiles • Decisions on appropriate non-pharmaceutical interventions |
| How are key parts of the health system coping? | <ul style="list-style-type: none"> • Decisions on when to cease containment • Decisions on prioritisation- eg whether to stop elective services |
| How are other essential services coping? | <ul style="list-style-type: none"> • Decisions on prioritisation • Decisions on usage of national stockpiles • Decisions on use of emergency powers and Epidemic Preparedness Act |

During the First Wave

| Question | Why is this information useful? |
|---|---|
| How is the NZ experience comparing to overseas? | <ul style="list-style-type: none">• Inform public messaging• Decisions on usage of national stockpiles |
| Is the pandemic virus changing? | <ul style="list-style-type: none">• Decisions on adjustments to national stockpiles• Decisions on usage of national stockpiles• Decisions on appropriate non-pharmaceutical interventions• Inform public messaging |

After the First Wave

| Question | Why is this information useful? |
|--|---|
| Were health services disrupted significantly? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) |
| What is the backlog in health service delivery, and how long to “catch up” | <ul style="list-style-type: none"> • Minimising “non-flu” health implications of first wave • Decisions on priorities to recommence wider health services |
| How effective were the responses? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) |
| What proportion of the population is now immune? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) • Decisions on national stockpiles |

After the First Wave

| Question | Why is this information useful? |
|---|--|
| Are there particular groups more vulnerable to a future wave? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) • Decisions on usage of national stockpiles |
| Can we expect another wave and how big could it be? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) • Decisions on national stockpiles • Inform public messaging |
| What is happening overseas? | <ul style="list-style-type: none"> • Strengthen preparedness for future wave(s) |
| Is a second wave starting? | <ul style="list-style-type: none"> • Decisions on usage of national stockpiles • Decisions on appropriate non-pharmaceutical interventions • Decisions on public messaging, etc etc |

Recovery Period

| Question | Why is this information useful? |
|--|---|
| What are the lessons we need to incorporate into updated planning? | <ul style="list-style-type: none">• Informing updated plans |
| What key capacities do we need to strengthen? | <ul style="list-style-type: none">• Decisions on priorities for strengthening |
| What restocking is needed for national stockpiles? | <ul style="list-style-type: none">• Decisions on investing in further items, or additional volumes of current items |



For many of these questions, the need is for rapid information.

We need the best information we can get in the time period available, to enable us to use it to make better decisions and so better respond.