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# Vaccine program decision making: science and politics collide

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# Disclosure Statement

- I have no affiliation (financial or otherwise) with a pharmaceutical, medical device or communications organization.
- In my role I do provide advice to government on immunization programs in BC

# How Decisions are Made in Public Health

- One part science
- One part art (how the science is communicated)
- Several parts influence of public opinion
- Large dose of immediate impact (the tyranny of the immediate)

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# Issues in KT to Decision Makers

- Many types of data and research evidence are needed to:
  - Define the problem
  - Assess potential policy/program options
  - Identify implementation considerations
- These different types of data are complex and difficult to translate

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‘Experts often possess more data  
than judgement’

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Colin Powell

# Defining the Problem

- Identifying indicators and making comparisons
  - Data, observational studies and reviews of observational studies (such as administrative database studies, community surveys) (e.g., how serious is this year's influenza and who's most at risk?)
- Highlighting alternative framings of the problem to assist with mobilizing support among different groups
  - Qualitative studies that examine stakeholders' views about and experiences with the problem (e.g., weak primary healthcare systems for responding to influenza)

# Assessing potential policy & program options

- Identifying several feasible policy and program options that could affect the problem (e.g., PH measures, school closures)
- Describing the positive effects (benefits) of the options
  - Effectiveness studies (e.g., randomized controlled trials, interrupted time series, CBAs)
- Describing the negative effects (harms) of the options
  - Effectiveness or observational studies

# Assessing potential policy & program options

- Describing the cost-effectiveness of options
  - Economic evaluations
- Describing the key elements of complex options
  - Qualitative studies that examine how or why interventions work (i.e., process evaluations)
- Describing stakeholders' views about and experiences with the options
  - Qualitative studies that examine stakeholders' views about and experiences with particular options



# Identifying implementation considerations

- Identifying potential barriers to implementation at the level of patients / consumers, health workers, organizations and systems
  - Observational studies and/or qualitative studies
- Describing the effects of appropriately targeted implementation strategies
  - Effectiveness studies

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# Issues with Research Evidence

1. Research evidence competes with many other factors in the policymaking process

John N. Lavis, MD, PhD  
Professor and Director,  
McMaster University

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# Issues with Research Evidence

2. Research evidence isn't valued as an information input

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# Issues with Research Evidence

## 3. Research evidence isn't relevant

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# Issues with Research Evidence

## 4. Research evidence isn't easy to use

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# Modeling as Evidence

- Unfamiliar with types of modeling
  - Strengths and weaknesses of different approaches
- Think of it as a prediction tool
- ‘Black box’ effect
- Disagreement over assumptions
- Uncomfortable with uncertainties; the more complex the model the greater the uncertainties

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‘You can tell whether a man is clever by his answers. You can tell whether a man is wise by his questions’

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Naquib Mahfous (1911-2006)  
Egyptian writer/Nobel laureate

# What is the Right Question?

- This is the crux of the issue
- Policy makers don't know what questions we can provide 'answers' to
- We don't know what type of evidence are best suited to different questions
- Fulsome scientific debate between experts makes them think that some approaches are 'wrong'



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# How do we address this divide?

- Integrating evidence into day-to-day work
  - Co-locating policy makers and public health
- Using the language regularly
- Being able to translate uncertainty in a way that is not to scary
- Building trust over time

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‘In the realm of ideas, everything depends on enthusiasm. In the real world, all rests on perseverance.’

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Goethe (1749-1832)

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Thank you.  
Questions?

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