

# Vaccine Misinformation: Costs and Solutions

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# 1

## The Cost of Misinformation

- Misinformation frequently affects people's behaviour
- Exposure to misinformation, as opposed to factual information, reduces intent to get vaccinated by more than 6% (Loomba et al., 2021)
- Canadian Council of Academies released report (*Fault Lines*) in early 2023 that models cost of misinformation



# The Expert Panel on the Socioeconomic Impacts of Science and Health Misinformation



Alex Himelfarb  
(Chair)



Andreas  
Boecker



Marie-Ève  
Carignan



Timothy  
Caulfield



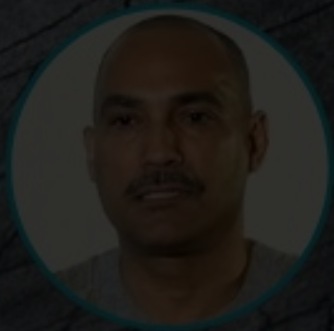
Jean-François  
Cliche



Jaigris  
Hodson



Ojistoh Horn



Akwatu  
Khenti



Stephan  
Lewandowsky



Noni  
MacDonald



Philip Mai



Sachiko  
Ozawa



Joanna  
Sterling

# Overview of Model

- Agent-based model of behaviour of Canadians (12+)
  - weekly from 1 March – 10 November 2021
  - agents reflected characteristics of the observed Canadian population
- Prevalence of misinformation estimated from survey data
- Agents either accepted or refused vaccine in proportion to misinformation
- Agents faced some probability of being infected
  - health outcomes were modelled based on observations and epidemiological knowledge

# Headline Results: Cost Estimates

	Vaccinated	Cases	Hospitalizations	ICU Admissions	Deaths	Years of Life Lost
<b>Baseline Number</b>	<b>29,157,000</b>	915,000	46,000	11,000	7,900	133,000
<b>Total Number</b>	<b>Increase (%)</b> ↑	<b>Decrease (%)</b> ↓				
<b>No Hoax</b>	<b>2,350,000 (8%)</b>	198,000 (22%)	13,000 (28%)	3,500 (30%)	2,800 (35%)	45,000 (34%)
<b>No Cover-Up</b>	<b>3,233,000 (11%)</b>	230,000 (25%)	16,000 (35%)	4,300 (38%)	2,900 (37%)	50,000 (38%)
<b>Full Vaccine Acceptance</b>	<b>4,328,000 (15%)</b>	263,000 (29%)	18,000 (39%)	4,800 (42%)	3,000 (38%)	53,000 (40%)


# 2

## Health Care Professionals

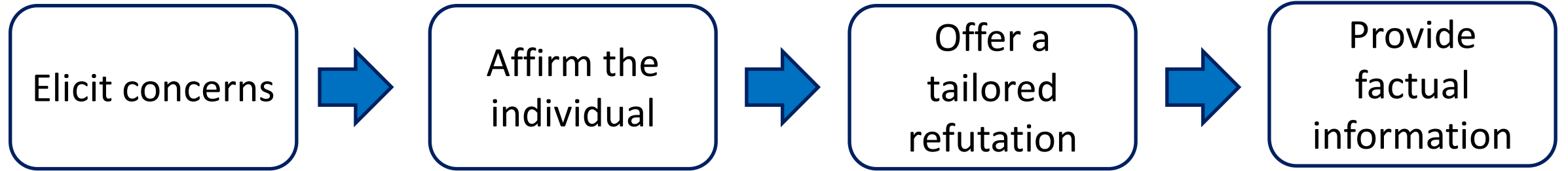
- Health care professionals are the most trusted sources of health information, including vaccination, for most people
- But health care professionals frequently express uncertainty about how best to communicate with vaccine hesitant patients

# 3

## Empathetic Refutational Interview

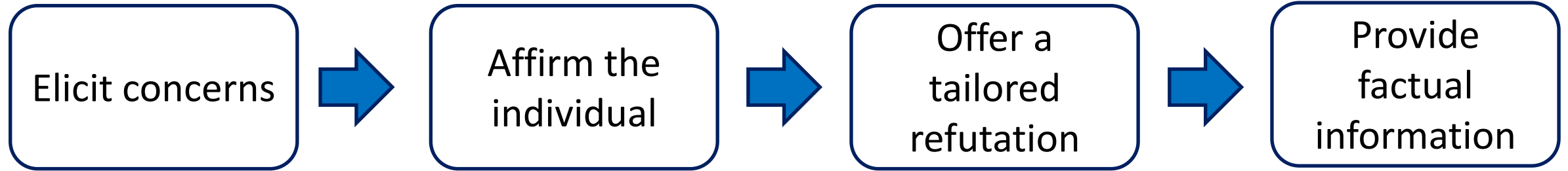
- Developed by  Jitsu VAX
- Basic idea is to identify the deep underlying “attitude roots” that govern the expression of surface arguments against vaccination
- By affirming those roots and thus demonstrating empathy, a space is created for a conversation to take place
- Refutation of misconceptions and provision of facts then becomes possible

# The Empathetic Refutational Interview (ERI)





# The Empathetic Refutational Interview (ERI)



- Necessary to understand attitude root
- Not enough on its own

- Generates the most support for what you say

- Tailoring is more compelling

- Important component to shift attitudes

[sks.to/db2020](https://sks.to/db2020)

Available in 16  
languages

*The*  
**Debunking  
Handbook**  
2020 ...

**The COVID-19 Vaccine  
COMMUNICATION  
HANDBOOK**

A practical guide for improving vaccine  
communication and fighting misinformation

Available in 14  
languages

[sks.to/c19vax](https://sks.to/c19vax)

# Resources

