

CAHS annual forum

BEYOND THE KNOWLEDGE DEFICIT:
TRUST IN SCIENCE IN A
FRAGMENTED INFORMATION
ECOSYSTEM

Eve Dubé



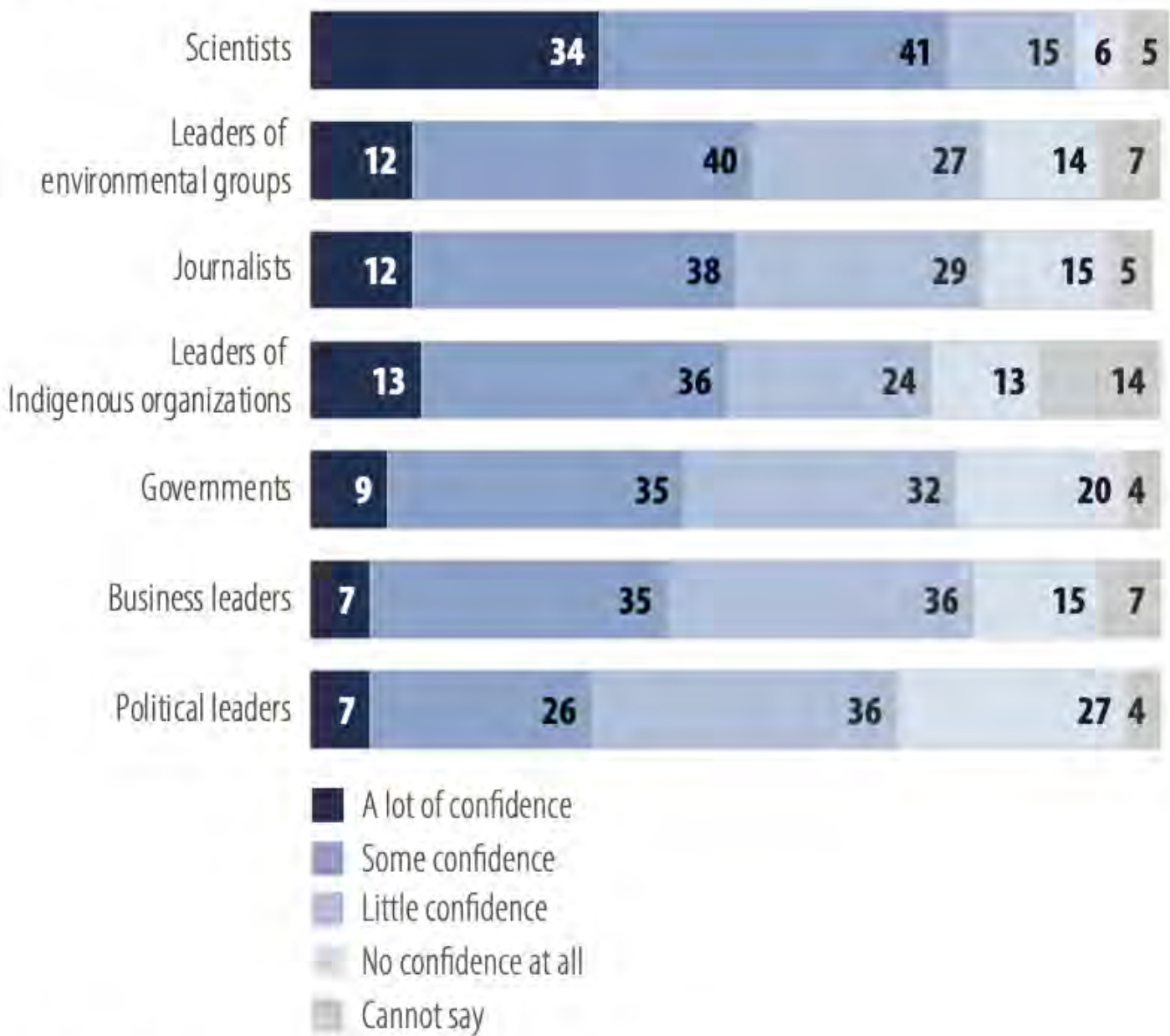
UNIVERSITÉ
LAVAL

CENTRE DE
RECHERCHE



SCIENTISTS REMAIN HIGHLY TRUSTED, BUT ...

Confidence in leaders
2023



Q.CONF1

In general, in Canada today, would you say you have a lot of confidence, some confidence, little confidence or no confidence at all in each of the following?

Since the pandemic, trust in institutions, including **science**, is eroding



SAYS HERE YOU
CAN'T TRUST ANYTHING
ON FACEBOOK!

YOU
DELETING
YOUR
ACCOUNT?

NO, I'M POSTING
IT ON FACEBOOK...

The digital information ecosystem
has radically altered how knowledge
is **produced, shared, and contested**

DIGITAL INFORMATION ECOSYSTEM

Algorithms = Engagement > accuracy

Chatbots as **trusted** sources of information

Search engines as **answer** engines



A screenshot of a Google search for "Vaccine safety". The search bar at the top contains the text "Vaccine safety". Below the search bar, there are tabs for "Mode IA", "Tout", "Actualités", "Images", "Vidéos", "Shopping", "Vidéos courtes", "Plus", and "Outils". The "Tout" tab is selected. Below the tabs, there is a section titled "Aperçu généré par IA" (AI-generated overview). This section contains a paragraph of text about vaccine safety, stating that vaccines are ensured through extensive testing before approval and continuous monitoring after release. To the right of the text is a small graphic with the heading "VACCINES ARE SAFE" and some text in French. Below the AI-generated overview, there is a search result from "immunizecanada" dated "23 août 2024". The result title is "Vaccine safety | immunizecanada" and the snippet says "Vaccines used in Canada are safe and effective. They are developed to mee...". To the right of the snippet is a small circular icon with a yellow border and a green background, showing a family of four.

THIS ALSO IMPACT SCIENCE

Our current system prioritizes
QUANTITY over **QUALITY** and **HYPE**
over **ACCURACY**

- Increasing number of scientific publications
- Predatory journals
- AI in peer reviews
- Preprints, ...



SCIENCE ‘HYPE’

The Guardian

Journalism from \$2 a month

**The
Guardian**

Opinion

Sport

Culture

Lifestyle

More ▾

Americas Asia Australia Middle East Africa Inequality Global development

🕒 This article is more than 2 years old

Hopes rise for end of pandemic as Pfizer says vaccine has 90% efficacy

Global stocks surge and experts optimistic as Covid vaccine exceeds expectations

SCIENCE 'HYPE'



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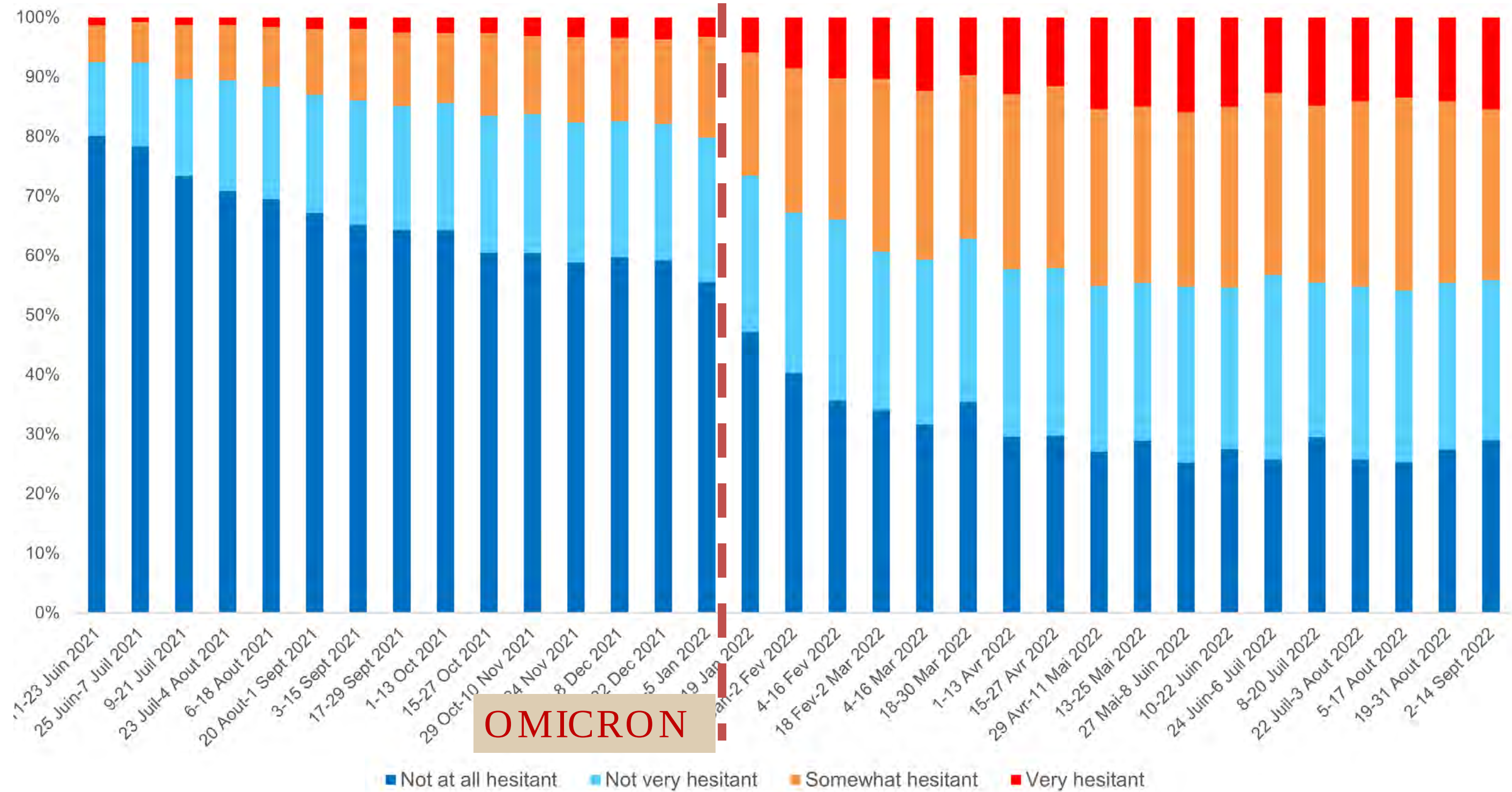
Against original strains



Against death and hospitalisation

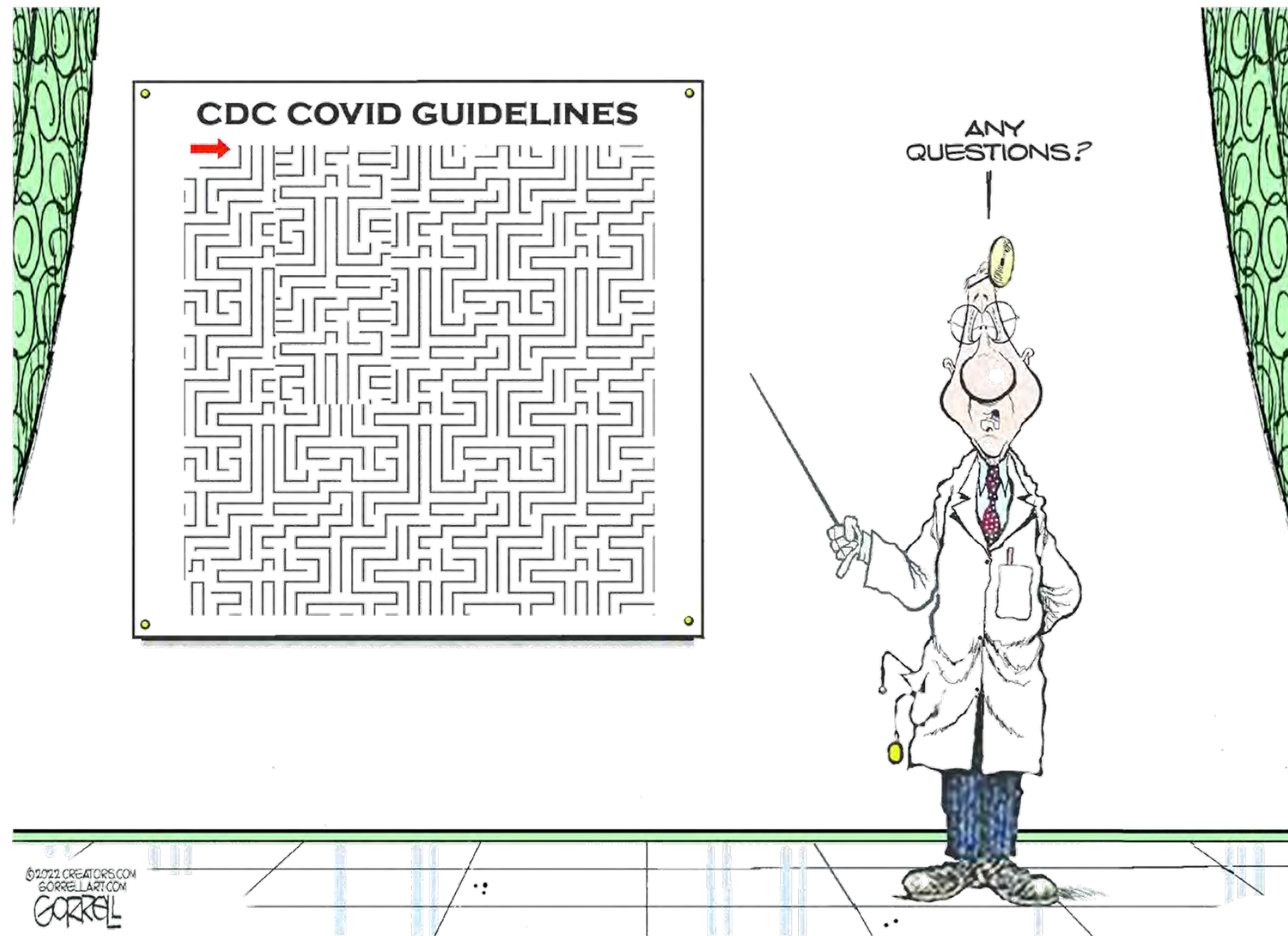
Short duration of protection, booster doses are needed

EVOLUTION OF VACCINE ATTITUDES , QUEBEC ADULTS, 2021 -22



For more information: <https://www.inspq.qc.ca/covid-19/sondages-attitudes-comportements-quebecois>

TRADITIONAL APPROACH



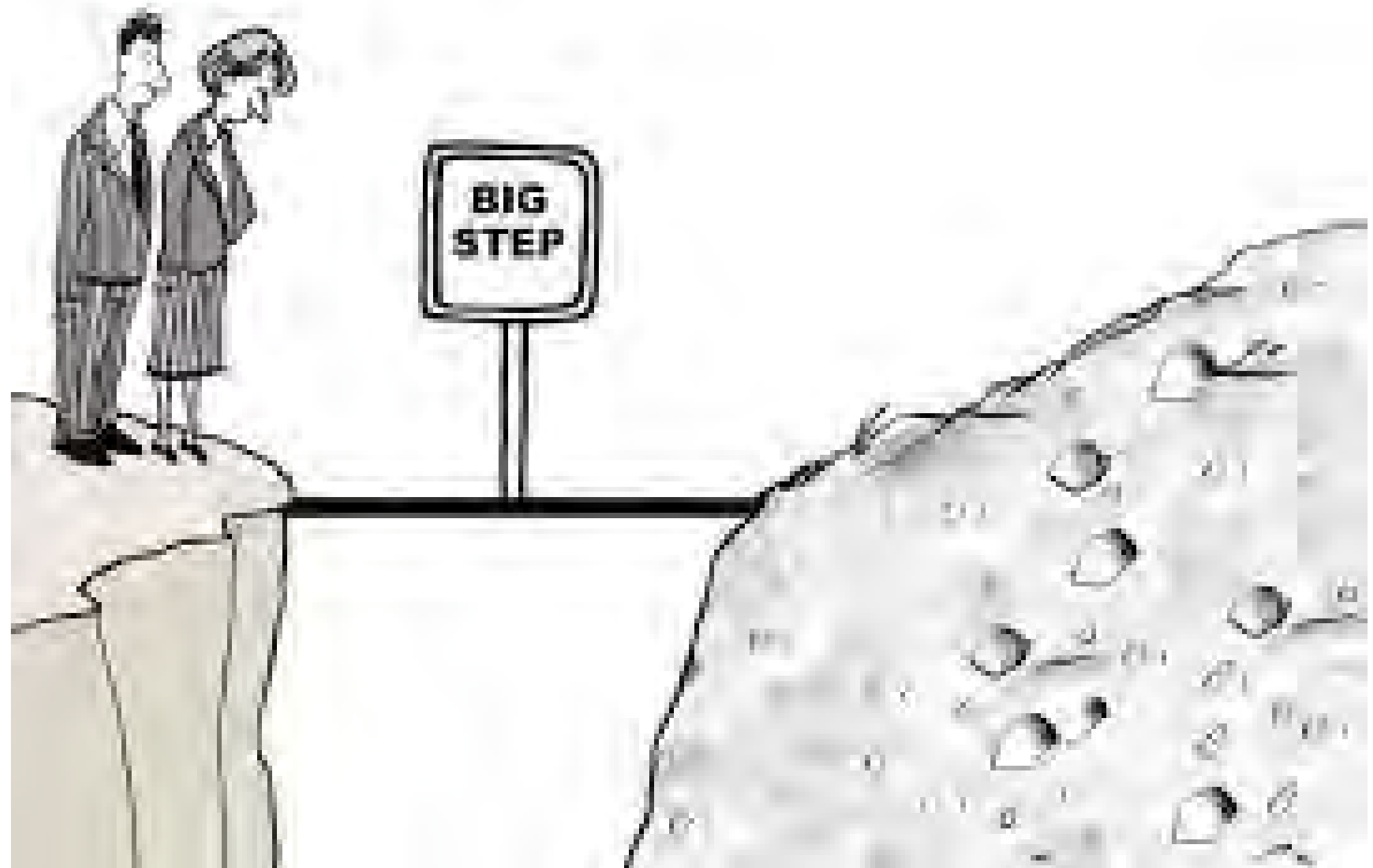
- Give more **facts** about vaccines
- Give more **facts** about vaccine-preventable diseases
- Use **prescriptive language**
- Use **fear-based tactics**

Information is
essential for
informed-decision

But lack of knowledge is
NOT the main driver of
vaccine hesitancy

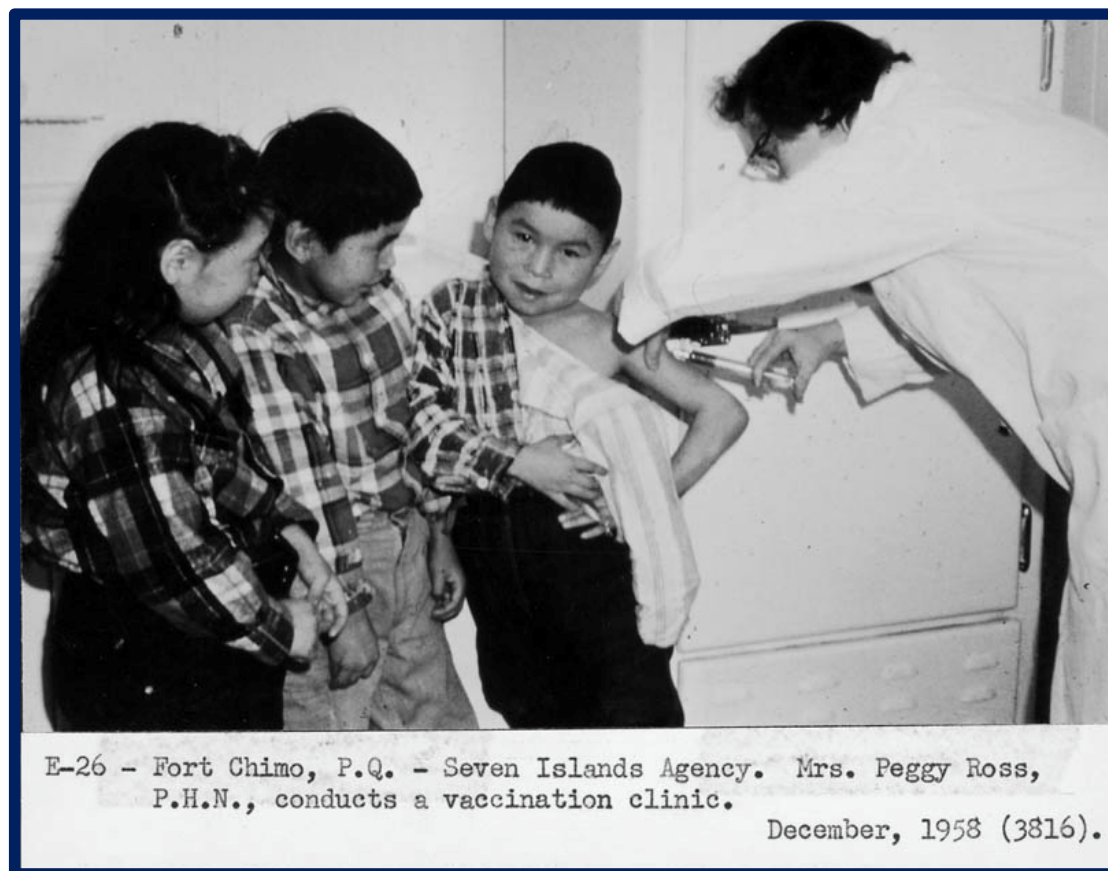
Dubé et al. *Vaccine* 33.34 (2015)

THE **KNOWLEDGE DEFICIT** GAP



LIVED EXPERIENCES ARE IMPORTANT

- Forced evacuation of Inuit with tuberculosis to sanatoriums
- Sterilisation of women without informed consent
- Infectious diseases brought by travelers from the south



Priority group
for COVID-19
vaccination but
no cases



The residential schools, they were the ones to be tested with new vaccines. They were trying to finish Cree people, Inuit people in residential schools, but they didn't succeed. Are they still trying to do that? (Inuk, man)

CONCLUDING REMARKS

‘FIXING’ FACTS WILL NOT FIX TRUST

How knowledge is produced, shared and contested in today’s **digital environment** are often ignored

Interventions to (re)build trust in science still largely operate on **knowledge deficit** approach

Lack of **equity** in how benefits (and harms) of vaccine/science are distributed

