Learnings from Behavioural Science
Risk Perception and Vaccine Confidence

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Presenter Disclosure

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• This presentation does not discuss current or future policies and programs of the Province of British Columbia.
We, the BC BIG team, acknowledge the ancestral connection to specific territories of Indigenous Peoples in B.C.

We respect the importance of the diverse cultures, languages and practices attached to each of those territories for thousands of years.
JUST FOOD

AT
NO PACKAGING

, WE’RE JUST FOOD.
AND NO FUNNY INGREDIENTS YOU CAN’T PRONOUNCE.

MADE WITH INGREDIENTS YOU CAN PRONOUNCE.
UNLESS YOUR MOUTH IS FULL.
If it’s difficult to pronounce, it must be risky
Song and Schwartz (2009)
System 1: Thinking Fast
Automatic, intuitive, emotional, relying on instincts and mental shortcuts, effortless

System 2: Thinking Slow
Rational, relying on logic, analytic, effortful, self-aware, evaluative/reflective

We often assume that people are operating in System 2 all the time (absorbing all information, carefully weighing options, producing an optimal decision)

System 1 is actually responsible for a lot of day-to-day choices, in health and for parenting.

This introduces predictable mental short-cuts (>100 biases and heuristics), which present opportunities to design better policies and programs.
Risk Perception and Vaccine Confidence

- System 1: Unfamiliar, new, less known, difficult to understand.*
- Unclear benefits, unequitable, delayed effects.*

* Slovic (1987), Fischhoff et al. (1984), Lowenstein et al. (2001), Skagerlund et al. (2020)
** Denise Chow, NBC News, Nov. 17, 2020
Risk Perception and Vaccine Confidence

If it’s morally objectionable, it must be risky

Thomas, Stanford, and Samecka (2016)
Pharmaceutical Companies Reaping Immoral Profits From COVID Vaccines Yet Paying Low Tax Rates

September 14, 2021

Moderna, BioNTech and Pfizer cashing in thanks to taxpayer investments, monopolies, and low taxes while leaving millions unprotected

Moderna, BioNTech, and Pfizer are reaping astronomical and unconscionable profits due to their monopolies of mRNA COVID vaccines — upwards of 69 per cent profit margins in the case of Moderna and BioNTech — while Moderna and Pfizer are also paying little in taxes, campaigners from the People’s Vaccine Alliance said today.
Risk Attitudes and Vaccine Hesitancy

**Omission bias**: preferring harm caused by inaction over equal or lesser harm caused by action

*Ritov and Baron (1990)*

Photo by Kevin Turcios on Unsplash
Risk Attitudes and Vaccine Hesitancy

This photograph illustrates the main feature of how parents make decisions about their children’s health:

• More risk averse when it comes to their children (Dore et al. 2014; Creighton et al. 2015; Ishikawa et al. 2022)
• Insensitive to degrees of risk (Dore et al. 2014)
• Social norms (Dore et al. 2014; Creighton et al. 2015)
Cumulative percent of people who have received at least one dose of a COVID-19 Vaccine in Canada, by age group

https://health-infobase.canada.ca/covid-19/vaccination-coverage/#a5 (Feb 18, 2022)
Learnings from Behavioural Insights

• Conflicts between experts and lay people regarding acceptability of a technology (e.g., vaccines) are often about differences in risk perception, not about differences in what risk is acceptable. (Slovic & Weber 2002)

• Perceived risk of vaccines may be shaped by factors unrelated to the science or evidence (fluency, fairness).

• LIMITATIONS: Any intervention based on these general principles of risk perception and risk preferences must be tested (e.g., randomized control trials).
Thank You

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