Is it time to reimagine deprescribing research?

Cara Tannenbaum, MD, MSc

Founder, Canadian Deprescribing Network

Scientific Director, Institute of Gender and Health,

Canadian Institutes of Health Research

Professor, Medicine and Pharmacy

Université de Montréal

Canadian Deprescribing Network

CIHR IRSC

Canadian Institutes of Health Research | Instituts de recherche en santé du Canada

TAKE A MOMENT TO REFLECT

“Why are you here and what are you trying to accomplish?”

US Deprescribing Research Network

The network's activities are designed to…catalyze expansion of the quantity, quality and **ultimate impact of deprescribing research**

ARE YOU A GOOD ENOUGH LEADER OR RESEARCHER TO CATALYZE THE ULTIMATE IMPACT OF DEPRESCRIBING RESEARCH?

Self-evaluation – how good a leader or deprescribing researcher are you?

On a scale of 0 to 10, how confident are you about your skills to catalyze the ultimate impact of deprescribing research?

0
Not at all confident

10
Extremely confident

Goals of this talk

Learn	• Learn from past deprescribing researchers what works and what doesn't work
Integrate	• Integrate a wider transdisciplinary perspective on what can be done better
Reimagine	• Reimagine what the future of deprescribing research might look like

Learn from past deprescribing researchers

- Mark H. Beers, geriatrician
- In 1988 was the first to observe and report cognitive side effects from sedatives, antipsychotics and antidepressants among nursing home residents in Boston
- Develops Beers criteria in 1991 – an *explicit* list of drugs to use as a measure in a randomized controlled trial designed to reduce high risk drugs in nursing home patients

1954-2009

Learn from other deprescribing researchers

- Joseph T. Hanlon, pharmacist
- In 1992 developed the Medication Appropriateness Index (MAI), a rigorous *implicit* 10-question measure that imposes structure and process to evaluate the appropriateness of each medication, tested among older adults in outpatient VA, primary care and hospital settings
- Recognizes the limitations of a one-size-fits-all solution, calls on clinical judgment and other considerations like duration and cost (Hanlon & Schmader, Drugs Aging 2013)

Questions for the USDeN Measures Working Group

Are these useful measures for deprescribing?

Do all prescribers use them?

How will a new measure be more useful or widely applied?

Questions for the USDeN High Priority Targets Working Group

Are nursing home residents high priority targets for deprescribing research?

Are Veterans, older outpatients and inpatients high priority targets for deprescribing research?

Do you think changing or simplifying the targets will improve the impact of deprescribing in the real-world?

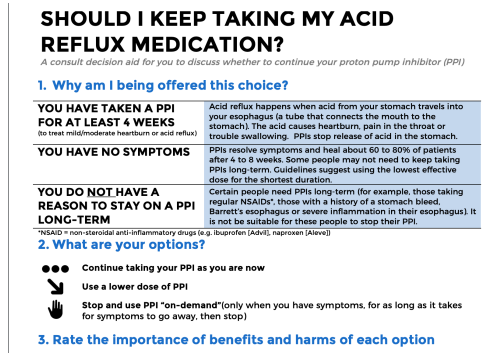
What can we learn from Canadian deprescribing researchers?

Deprescribing.org

- Barbara Farrell, pharmacist
- Deprescribing tools and communication methods

Webinars

Decision aids



SHOULD I KEEP TAKING MY ACID REFLUX MEDICATION?

A consult decision aid for you to discuss whether to continue your proton pump inhibitor (PPI)

1. Why am I being offered this choice?

YOU HAVE TAKEN A PPI FOR AT LEAST 4 WEEKS (to treat mild/moderate heartburn or acid reflux)	Acid reflux happens when acid from your stomach travels into your esophagus (a tube that connects the mouth to the stomach). The acid causes heartburn, pain in the throat or trouble swallowing. PPIs stop release of acid in the stomach.
YOU HAVE NO SYMPTOMS	PPIs resolve symptoms and heal about 60 to 80% of patients after 4 to 8 weeks. Some people may not need to keep taking PPIs long-term. Guidelines suggest using the lowest effective dose for the shortest duration.
YOU DO NOT HAVE A REASON TO STAY ON A PPI LONG-TERM	Certain people need PPIs long-term (for example, those taking regular NSAIDs*, those with a history of a stomach bleed, Barrett's esophagus or severe inflammation in their esophagus). It is not be suitable for these people to stop their PPI.

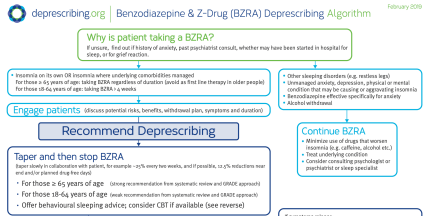
*NSAID = non-steroidal anti-inflammatory drugs (e.g. ibuprofen [Advil], naproxen [Aleve])

2. What are your options?

- **Continue taking your PPI as you are now**
- **Use a lower dose of PPI**
- **Stop and use PPI "on-demand"**(only when you have symptoms, for as long as it takes for symptoms to go away, then stop)

3. Rate the importance of benefits and harms of each option

Algorithms



Evidence-based guidelines

You may be at risk IF

You are taking one of the following sedative-hypnotic medications:

- ☐ Alprazolam (Xanax®)
- ☐ Chlorazepate
- ☐ Chlordiazepoxide
- ☐ Chlordiazepoxide-amitriptyline
- ☐ Clidinium-Chlordiazepoxide
- ☐ Clobazam
- ☐ Clonazepam (Rivotril®, Klonopin®)
- ☐ Diazepam (Valium®)
- ☐ Estazolam
- ☐ Flurazepam
- ☐ Loprazolam
- ☐ Lorazepam (Ativan®)
- ☐ Lormetazepam
- ☐ Nitrazepam
- ☐ Oxazepam (Serax®)
- ☐ Quazepam
- ☐ Temazepam (Restoril®)
- ☐ Triazolam (Halcion®)
- ☐ Eszopiclone (Lunesta®
- ☐ Zaleplon (Sonata®
- ☐ Zolpidem (Am… Intermezzo… Sublinox…
- ☐ Zo…

IRSC CIHR

McGill

Who recognizes this brochure?

Direct-to-consumer EMPOWER brochure

NNT=4 for complete cessation
NNT=3 for cessation or dose reduction

Questions for the USDeN Communications Group

Are these useful tools for communicating about deprescribing?

Have they covered the range of clinical stakeholders and patients?

Do you think changing or simplifying these communication tools will improve the impact of deprescribing in the real-world?

Questions for the USDeN Data Harmonization Group

In the EMPOWER study we defined cessation as a lack of prescription renewal for 3 months, is this reasonable?

In the EMPOWER study we defined dose reduction as a 25% dose reduction from baseline, is this reasonable?

Do you think changing or simplifying these research definitions will improve the impact of deprescribing in the real-world?

You probably see a pattern in my questions

After 30 years of research, have we perhaps created an echo chamber which promotes incremental – rather than transformative - progress in the field?

Building a better mousetrap may be the wrong way to bring about transformative change

Some say that building a better mousetrap actually hurts creativity.

A teacher of mine, Robyn Tamblyn, told us that 90% of grant submissions propose building a better mousetrap. Only 10% strive to create a brand new design. Those 10% are the ones that get funded.

Words of wisdom from the business world: “successful entrepreneurs focus on the problems people have, not the products”.

What can we learn from other disciplines?

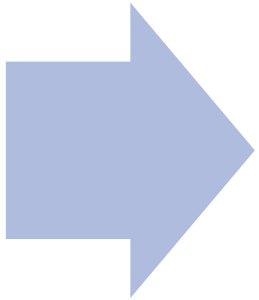
Interdisciplinary echo chamber

Medicine

Pharmacy

Pharmacoepidemiology

Nursing



Transdisciplinary Disruption

Linguistics

Social and behavioral sciences

Economics

Implementation science

Political science

Like-minded people amplify and agree with each other about the proposed approach

Different ways of looking at the world and generating knowledge

Deprescribing

Linguistics

Beers List

Medication Appropriateness Index

Algorithms

Decision Aids

EMPOWER brochures

Randomized trials

deprescribing *verb*

A behavior that leads to the reduction of medication that may no longer be necessary or risks causing harm

Social and behavioral sciences

Behavioral theories

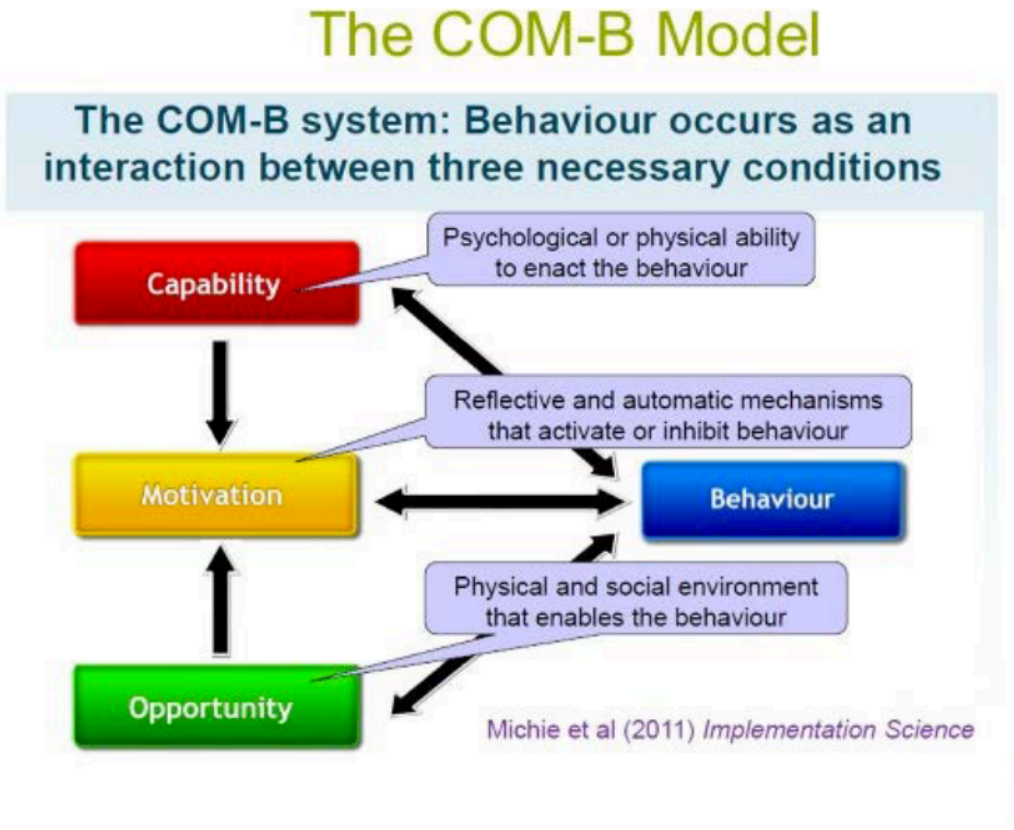
seek to explain human behavior

- Social cognitive theory
- Transtheoretical model
- Health belief model
- Theory of planned behavior
- COM-B (behavioral) model

Capability

Opportunity

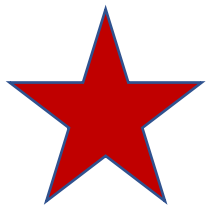
Motivation



Canadian Deprescribing Network

Capability - enabling people to deprescribe, including knowledge, skills and resources

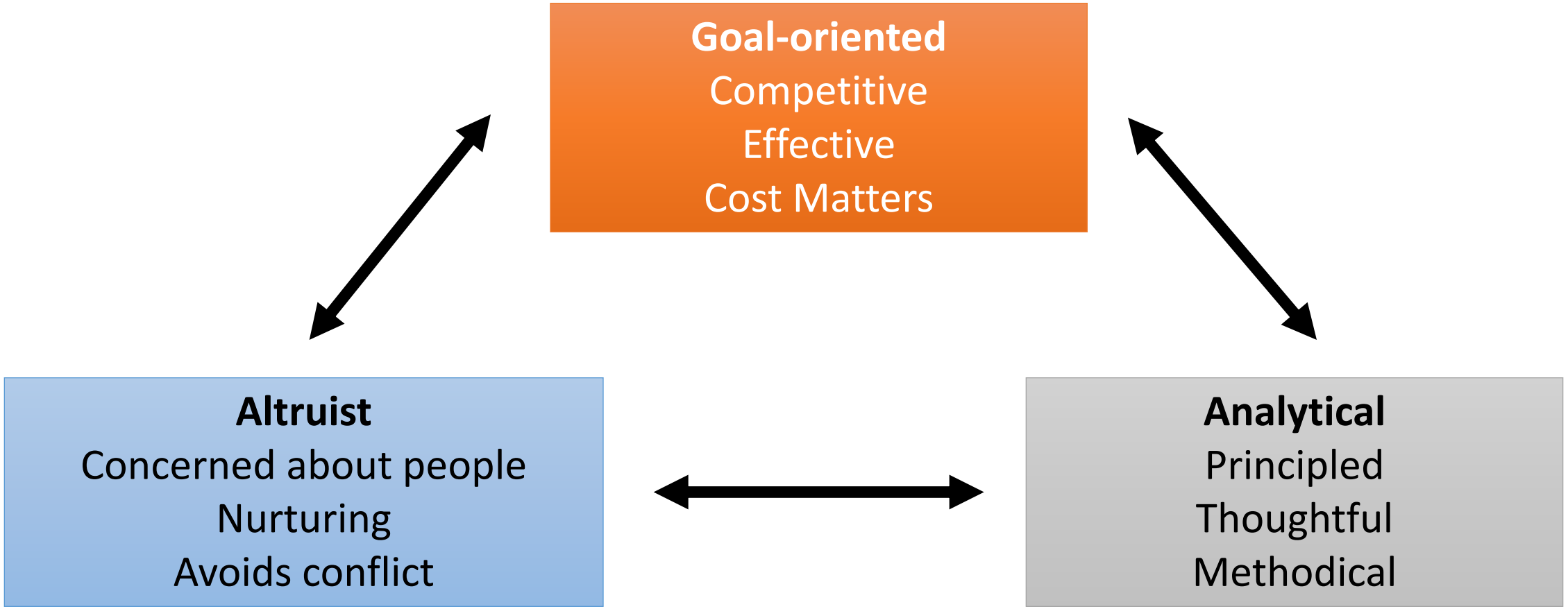
Opportunity – increasing opportunities to promote deprescribing through external or environmental factors



Motivation – increasing people's desire to deprescribe

https://www.deprescribingnetwork.ca/

What motivates you?



The science of motivation – What can we learn from COVID- 19 and masks/testing in young people?

- Acknowledge in-group variation in **feelings** towards masks/testing and tailor messaging accordingly– empathize and validate concerns, and be ready to provide support.
- Highlight the personal and collective benefits but **do not overpromise**.
- Do not use **fear or shame**: may elicit strong resistance and negatively impact the promotion and maintenance of trust in the messenger.
- Appeal to **social identity** and shared values

Appealing to your inner identity as a deprescribing hero may or may not work

- https://www.deprescribingnetwork.ca/deprescribing-intro-video

Prescriber and patient motivations also change depending on the drug class

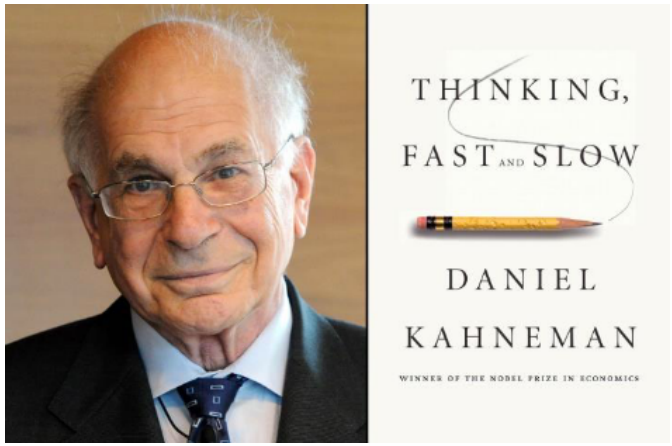
58% discontinuation in the D-PRESCRIBE trial

43% discontinuation in the D-PRESCRIBE trial

*11% discontinuation in the TAPERING trial

*non-significant

Focus moves quickly from risk to alternatives during conversations



Economics

Dual cognitive processes guide thinking and behavior:

Fast (automatic, intuitive) and slow (effortful, analytical)

What works for whom, in which contexts, and why?

Implementation Science

Journal of Evaluation in Clinical Practice
International Journal of Public Health Policy and Health Services Research

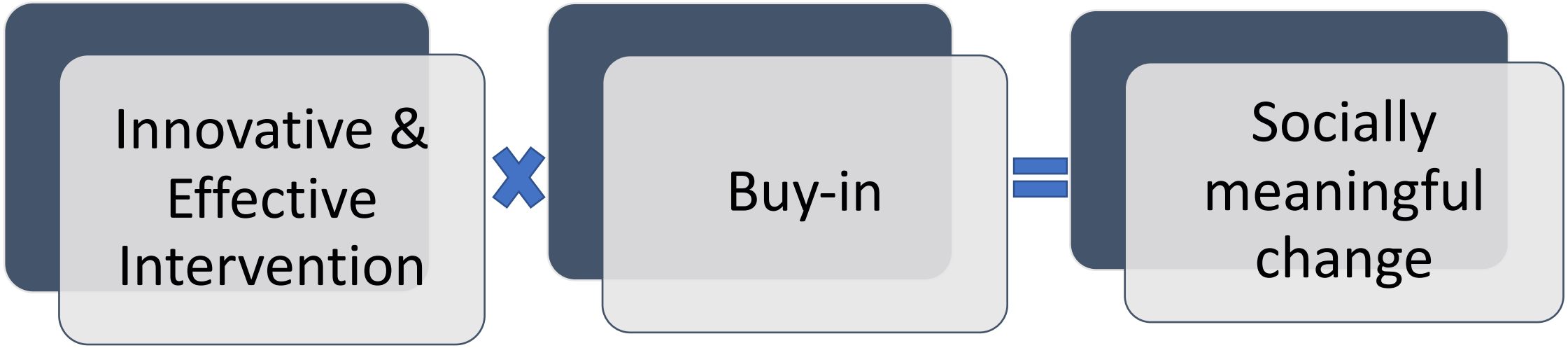
ORIGINAL ARTICLE | Open Access

How the dual process model of human cognition can inform efforts to de-implement ineffective and harmful clinical practices: A preliminary model of unlearning and substitution

Christian D. Helfrich MPH, PhD, Adam J. Rose MD, MSc, Christine W. Hartmann PhD, Leti van Bodegom-Vos PhD, Ian D. Graham PhD, Suzanne J. Wood PhD, Barbara R. Majerczyk MPH, Chester B. Good MD, MPH, Leonard M. Pogach MD, MBA, Sherry L. Ball PhD, David H. Au MD, MS, David C. Aron MD, MS ... See fewer authors

First published: 05 January 2018 | https://doi.org/10.1111/jep.12855 | Citations: 26

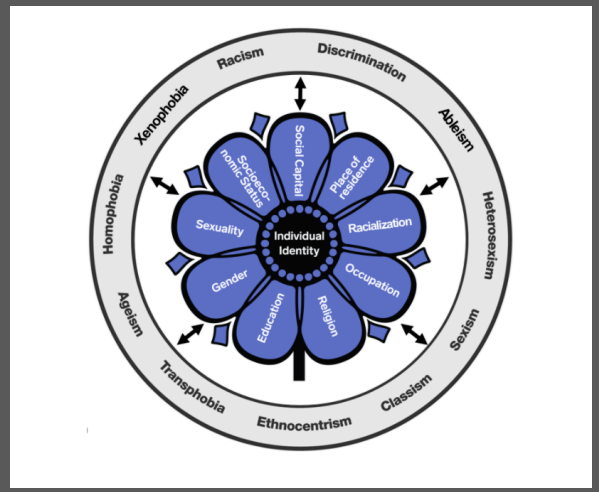
Implementation science reinforces the notion of "buy-in" among stakeholders, to scale up and spread interventions according to context



“Buy-in” through an intersectional lens

https://www.fnha.ca/WellnessSite/WellnessDocuments/Coyotes-Food-Medicines.pdf

Intersectionality



Gender
Racism
Age
Occupation
Veteran lens

Ability
Culture
Immigrant
Language
Geography

Reflection Worksheet

Where am I situated?

- ☐ What intersecting categories make up your identity?[1]
- ☐ Reflecting on your response to the question above, how do your intersecting categories impact your place in society?[1]
- ☐ How do your identities relate to the project's topic area? How might your place in society impact your work on this project?[1]

Who is on the implementation team?

- ☐ What does an inclusive approach mean to you?[1]
- ☐ What inclusive approaches have been used on your team, in your organization, or in other organizations? What is good or bad about these approaches? Note that not all teams or organizations take an inclusive approach.[1]
- ☐ Who is the patient, healthcare provider, and community population affected by the project topic area? What would they want to get out of the project topic area? How do you plan to get them involved?[2]
- ☐ What are the real and perceived power differences on the team?[2,3]
- ☐ Reflect on whether everyone who could be on the team has been asked if and how they would like to be involved. Think about how different perspectives that represent a range of intersecting categories have been examined.
- ☐ Does your team reflect the makeup of the patient, community, and health care providers that experiences the project topic?[2]

Identifying the Problem

- ☐ Whose point of view is reflected when defining the problem? For example, is it the Chief Executive Officer or the nurse who has prioritized a specific problem as the focus of the KT project?
- ☐ What are the information gaps in the problem area? How can these gaps be filled? Information gaps are areas where you do not have complete knowledge.

Defining the Evidence-to-Practice Gap

- ☐ Who decides which evidence-to-practice gaps is prioritized?

Selecting the Practice Change

- ☐ Of the practice changes under consideration, who is expected to change their behaviour and "do" the practice changes? This "who" could be a health professional the patient, the community, and/or another group.
- ☐ Think about the group expected to change their behaviour (e.g., nurses). What intersecting categories of group members can we reflect on? Think about the group affected by the practice change (e.g., patients). What intersecting categories of group members can we reflect on?

Appraising Evidence

- ☐ What information do I have? What information do I wish I had? Who might have this information? Who should I talk to about this?
- ☐ Critically assess the data

https://knowledgetranslation.net/portfolios/intersectionality-and-kt/

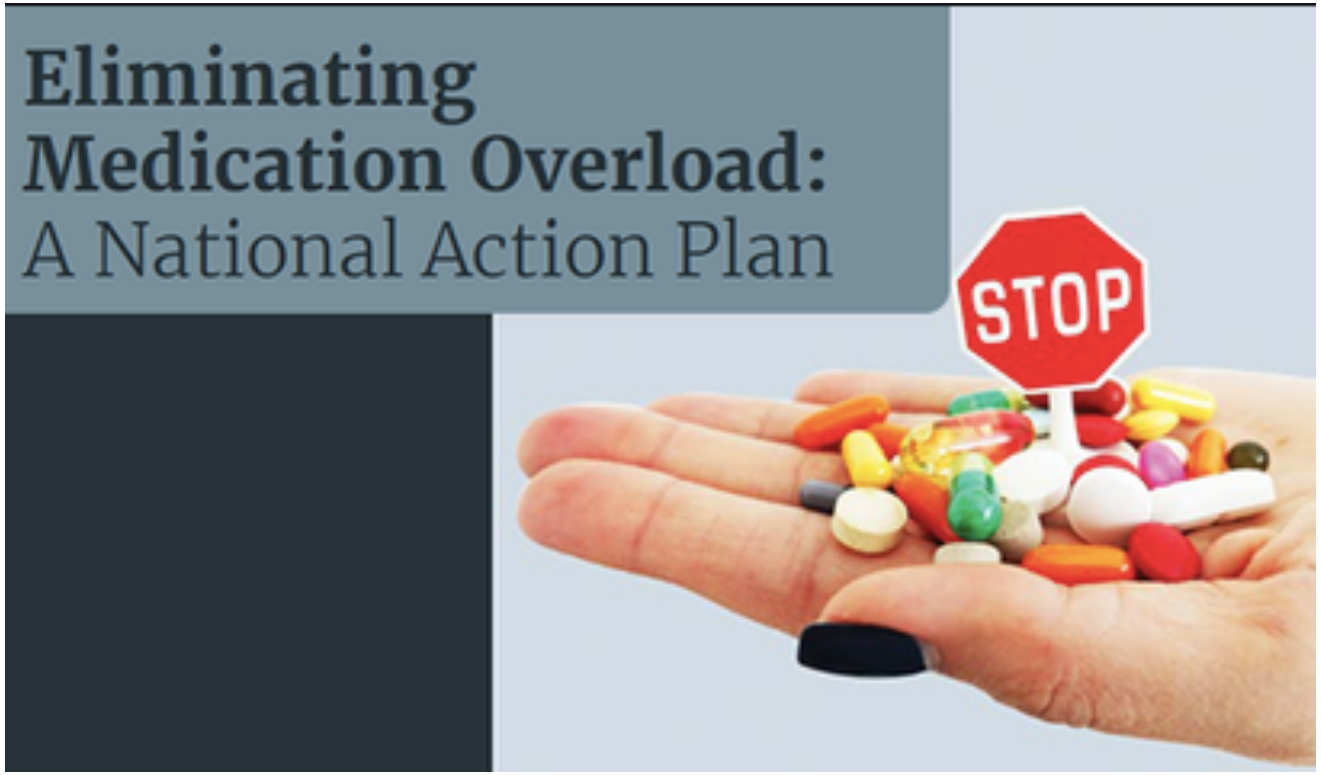
What can we learn about influence from political science?

Influence is about relationships.

How and with whom can we build trusting relationships in the field of deprescribing research?

What's the secret to making partnerships win-win?

January 2020: The Lown Institute launches a *U.S. National Action Plan to Eliminate Medication Overload*



How can you build critical relationships to influence/work with and evaluate implementation of the action plan?

Working Group on Medication Overload. Brookline, MA: The Lown Institute, 2020

Reimagining deprescribing research to achieve ultimate impact

Take what we learned from the past and bring it to the next level:

- Transdisciplinary team science
- Theory-driven
- Focus on different motivations to deprescribe
- Be inclusive of all stakeholder voices, be sensitive to culture and power imbalances
- Build trusting, ongoing relationships with change agents

This may sound daunting and unreasonable – embrace it!

Be unreasonable!

"The reasonable man (woman) adapts him/herself to the world; the unreasonable one persists in trying to adapt the world to him/herself. Therefore, all progress depends on the unreasonable man (woman)."

George Bernard Shaw

(1903)

“I feel a lot better since I ran out of those pills you gave me.”

Patients will thank you
and you *will* make a difference
on the ultimate impact
of deprescribing research

Thank you

Justin Turner, Director, Canadian Deprescribing Network

Camille Gagnon, Assistant Director, Canadian Deprescribing Network

Canadian Institutes of Health Research

Université de Montréal, Faculté de Pharmacie

All of you for launching and making USDeN a success!

Time for Discussion!

Canadian Deprescribing Network

CIHR IRSC
Canadian Institutes of Health Research
Instituts de recherche en santé du Canada