

Incorporating Chiropractic Care into Interprofessional Teams

Opportunities to Reduce Opioid
Prescribing and Health-Related Costs

Alliance 2025
Conference
June 4-5, 2025



Territorial acknowledgment

We recognize that it is a form of respect, wherever we work or live, to find out whose traditional territory we are on because every part of what is now known as Canada, is someone's Indigenous traditional territory.

We acknowledge that today we are on the traditional and treaty territory of the Mississaugas of the Credit First Nation, the Mississauga and Chippewa Nations of the Williams Treaties, the Haudenosaunee, and the Huron Wendat.

We have much to learn from the First People of this land who assist in the spiritual, emotional, physical and mental well-being of others.

We are grateful for the historic and ongoing care for the land by the Indigenous peoples of this area.

We recognize that we are all treaty people with a responsibility to honour our relations and live with each other in kinship.





Introduction

We are still in the midst of an ongoing **opioid crisis** ...



Public Health Agency of Canada

- **50,928** opioid-related deaths, **46,835** opioid-related hospitalizations, **193,823** ED visits, and **237,809** EMS responses to suspected opioid-related overdoses in Canada between January 2016 and September 2024
- **21** opioid-related deaths per day (January – September, 2024)
- Most apparent among young- to middle-aged adult men (**20 to 59 years**)
- **2-fold increase** in opioid-related deaths compared to before COVID-19



Establishing relative contributions of **prescribed** vs. **illicit** opioids?

RESEARCH



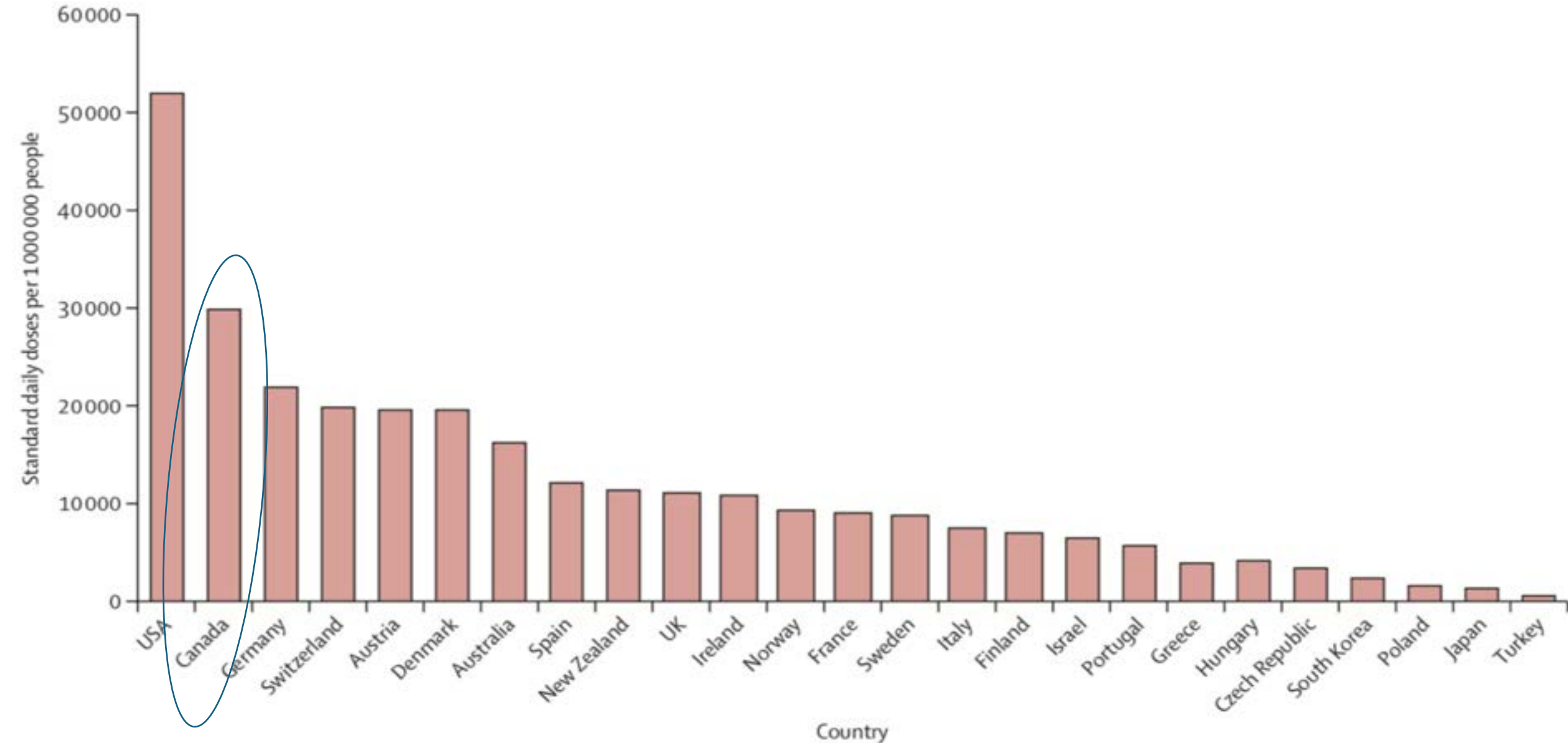
OPEN ACCESS

Contributions of prescribed and non-prescribed opioids to opioid related deaths: population based cohort study in Ontario, Canada

Tara Gomes,¹ Wayne Khuu,² Diana Martins,¹ Mina Tadrous,¹ Muhammad M Mamdani,³
J Michael Paterson,² David N Juurlink⁴

- 2,910 opioid-related deaths in Ontario, in 2016
 - **1/3** had an active opioid prescription
 - **> 75%** had been dispensed an opioid **within 3 years** of death

Rates of prescription opioid use remain high



SESSION OBJECTIVES

At the end of this presentation learners will be able to:

- Demonstrate increased knowledge of an **innovative, team-based** model of care aimed at reducing the use of **prescription opioids** among patients with chronic spine pain
- Convey how **patient partners** shaped the design of this study and its focus on enhancing health care **accessibility** to vulnerable and marginalized populations
- Describe **3 ways** in which this project is supporting institutional and health system **sustainability**



D'YOUVILLE
UNIVERSITY

Dr. Peter C. Emary, DC, PhD



McMaster
University





Impact of
chiropractic care

Observational studies suggest that integrating **chiropractic and medical care** may ...



- Reduce reliance on **opioids** for chronic spine pain
- Decrease institutional and health system **costs**
 1. ↓ GP/NP visits
 2. ↓ Advanced imaging
 3. ↓ Specialist referrals



For example ...

Association of Chiropractic Care With Receiving an Opioid Prescription for Noncancer Spinal Pain Within a Canadian Community Health Center: A Mixed Methods Analysis

Peter C. Emary, DC, MSc, ^{a,b,c} Amy L. Brown, DC, ^c
Lawrence Mbuagbaw, MD, MPH, PhD, ^{a,e,f} Douglas
Jenna DiDonato, HBSc(Kin), ^b and Jason W. Busse, D

Jan. 1, 2014 to Dec. 31, 2020

RESEARCH

Open Access



The association between chiropractic integration in an Ontario community health centre and continued prescription opioid use for chronic non-cancer spinal pain: a sequential explanatory mixed methods study

Peter C. Emary^{1,2,3*}, Amy L. Brown³, Mark Oremus^{1,4}, Lawrence Mbuagbaw^{1,5,6,7}, Douglas F. Cameron³, Jenna DiDonato² and Jason W. Busse^{1,8,9,10}

Risk of initiating prescription opioids

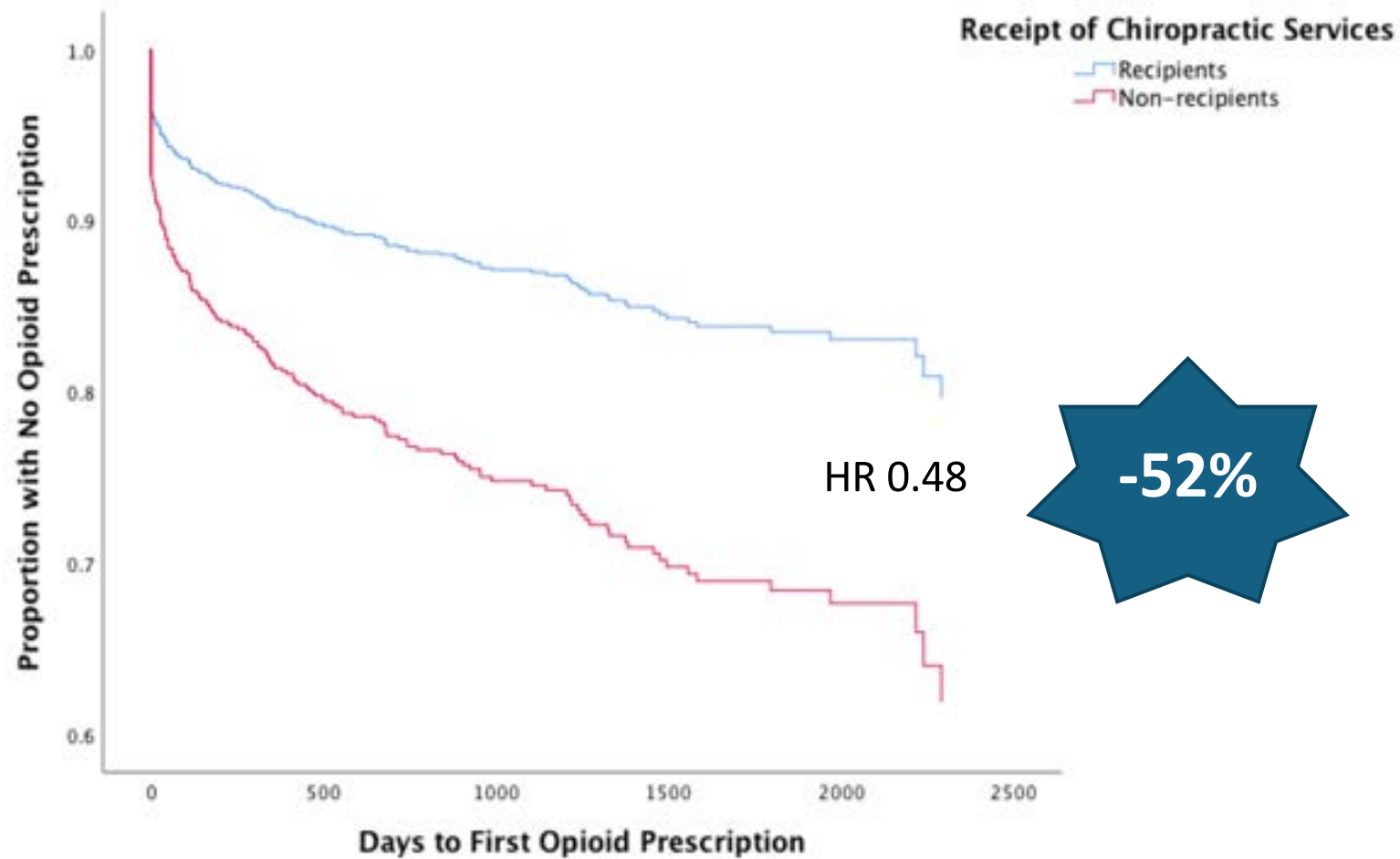


Figure 1. Survival curve of the time to opioid prescription among recipients versus non-recipients of chiropractic services

Risk of initiating prescription opioids (*early* receipt of chiropractic care)

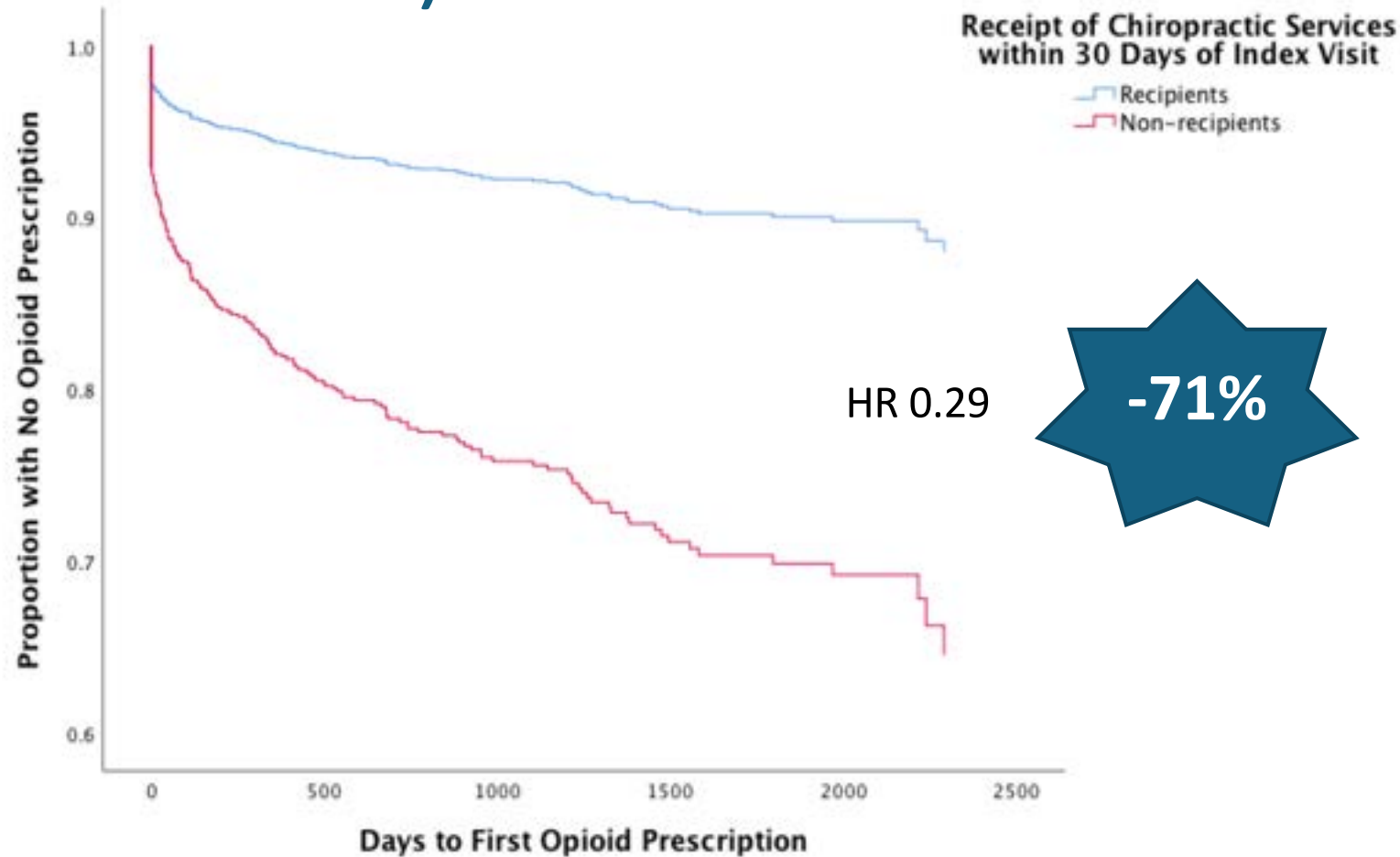


Figure 2. Survival curve of the time to opioid prescription among recipients versus non-recipients of chiropractic services within 30 days of their index visit

Odds of continuing prescription opioid use

Outcome measure	Univariable	P-value	Multivariable ^a	P-value
	<u>DC recipients vs. non-recipients:</u> <ul style="list-style-type: none"> 34% reduction in filling their opioid prescriptions 73% reduction in refilling opioid prescriptions 78% - 86% less likely to receive a higher (> 50 MED) opioid dose 		Effect size (95% CI)	
Opioid fills ^b			0.66 (0.52 to 0.83)	< 0.001
Opioid refills ^c			0.27 (0.17 to 0.42)	< 0.001
Opioid dosages ^d				
• Baseline			0.61 (0.26 to 1.47)	0.270
• 3 months			0.14 (0.04 to 0.47)	0.001
• 6 months			0.14 (0.05 to 0.40)	< 0.001
• 9 months			0.19 (0.07 to 0.57)	0.003
• 12 months			0.22 (0.08 to 0.62)	0.004

^a Adjusted for age, sex, smoking status, obesity, depression, anxiety, fibromyalgia, diabetes, cardiovascular disease, visit frequency, and calendar year

^b Opioid prescription fills over 12-month follow-up

^c Opioid prescription refills (of 30 days or equivalent) over 12-month follow-up

^d Opioid dosage over 12-month follow-up

Physician quote:

" ... having access to any kind of additional modalities in a timely and efficient manner ... would probably reduce the need for opioids in the first place."

Chiropractic integration within a community health centre: a cost description and partial analysis of cost-utility from the perspective of the institution

Peter C Emary, DC, MSc^{1,2}
Amy L Brown, DC¹
Douglas F Cameron, DC¹
Alexander F Pessoa, DC¹

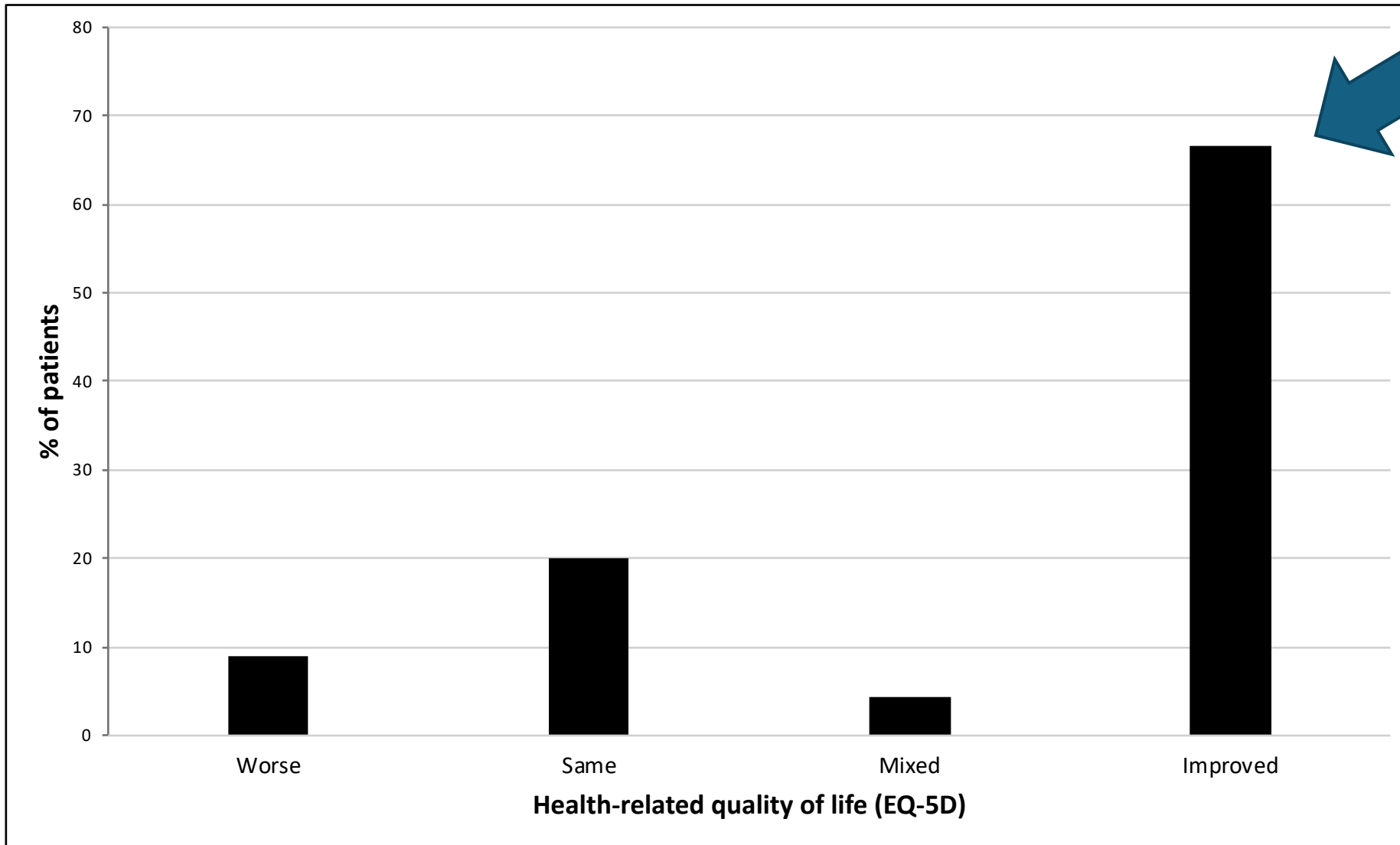
Cost-utility of
chiropractic care

Jan. 1, 2014 – Dec. 31, 2016

Main findings ...

- ↓ back pain and disability
- ↓ GP/NP visits for back pain (77%)
- ↑ patient satisfaction
- 46% on sick leave RTW (avg. 8 visits over 10 weeks)

Post-chiropractic treatment



Reduced pain medication

- At follow-up, **82%** of patients reported either:
 1. not taking any pain medication, or
 2. had managed to significantly ↓ medication usage for their pain

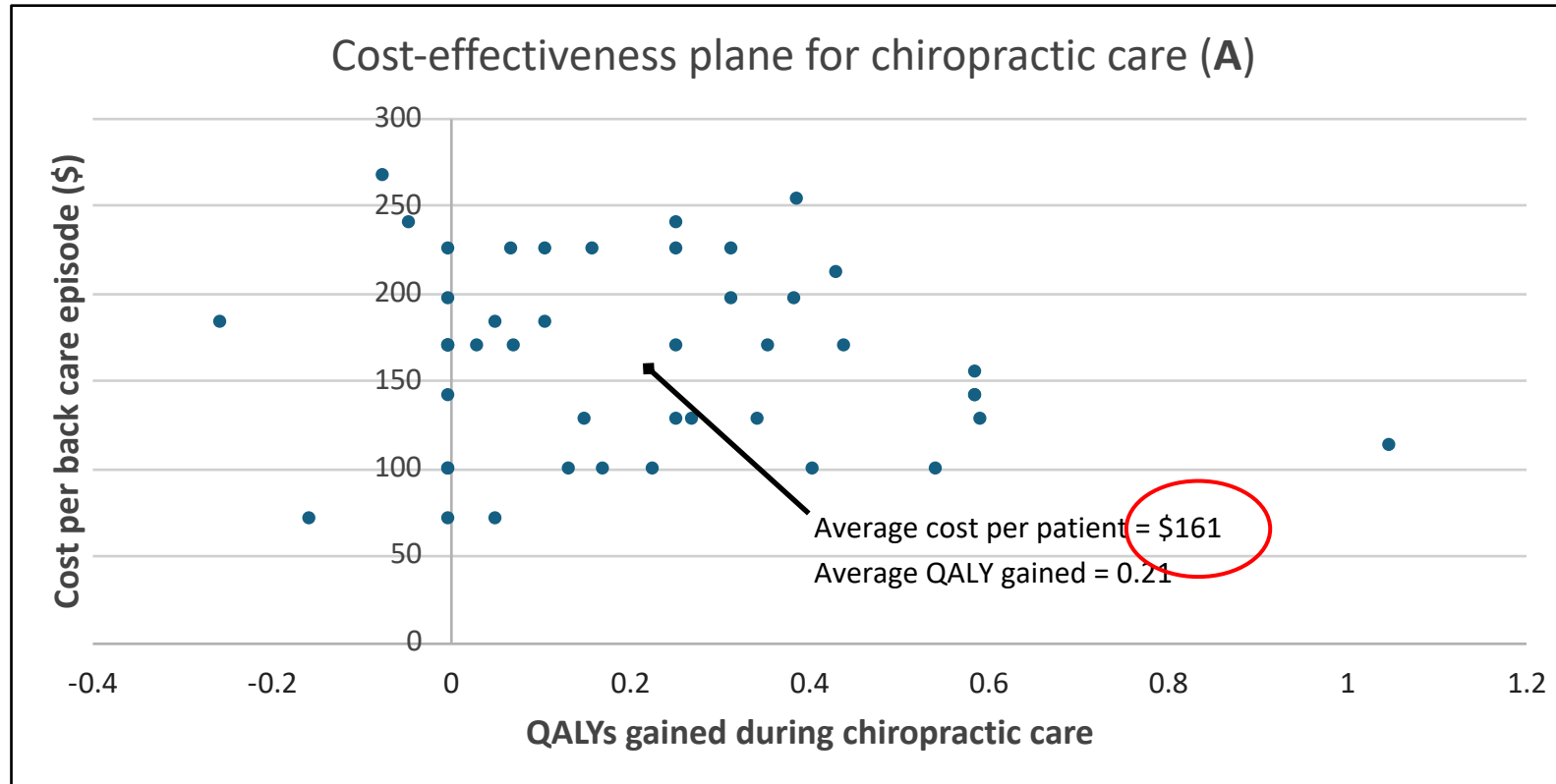


Cost savings?

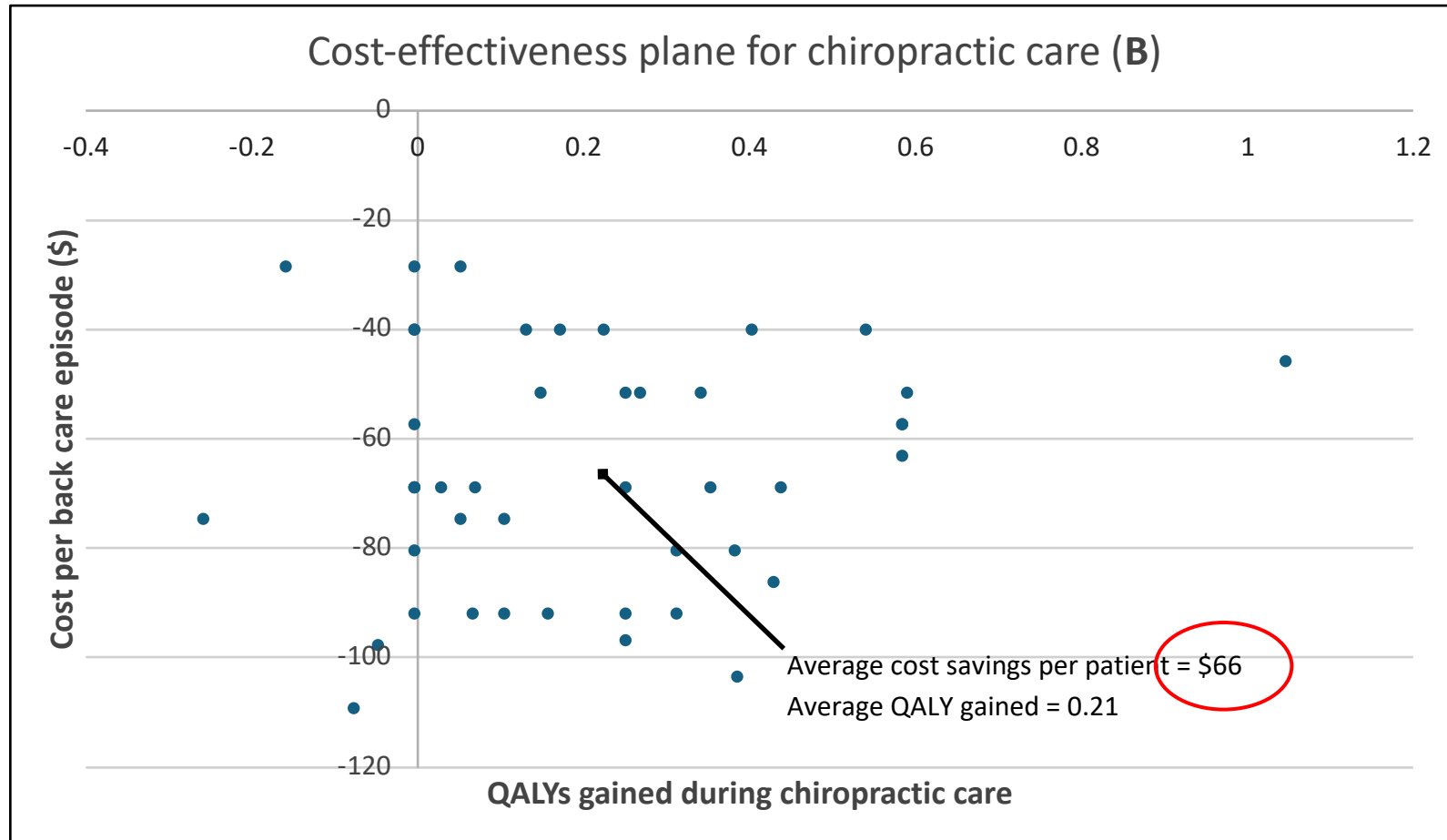
Primary care visits were ↓ by 23.4 to 71 hours over 90 days (cost savings of \$2,022.23 to \$6,135.82)

Cost to fund back pain program: **\$4,942.08**

Worst-case scenario



Best-case scenario



Successful integration of chiropractic at CHCs and other primary care settings in Canada ...

- Garner MJ, Aker P, Balon J, et al. Chiropractic care of musculoskeletal disorders in a unique population within Canadian Community Health Centers. *J Manipulative Physiol Ther* 2007;30:165-70.
- Mior S, Gamble B, Barnsley J, et al. Changes in primary care physician's management of low back pain in a model of interprofessional collaborative care: an uncontrolled before-after study. *Chiropr Man Therap* 2013;21:6.
- Passmore SR, Toth A, Kanovsky J, et al. Initial integration of chiropractic services into a provincially funded inner city community health centre: a program description. *J Can Chiropr Assoc* 2015;59:363-72.
- Emary PC, Brown AL, Cameron DF, et al. Management of back pain-related disorders in a community with limited access to health care services: a description of integration of chiropractors as service providers. *J Manipulative Physiol Ther* 2017;40:635-42.
- Primary Care Low Back Pain Pilot Evaluation. Final Report. Toronto: Centre for Effective Practice; March 31, 2017.
- Manansala C, Passmore S, Pohlman K, et al. Change in young people's spine pain following chiropractic care at a publicly funded healthcare facility in Canada. *Complement Ther Clin Pract* 2019;35:301-7.
- Emary PC, Brown AL, Cameron DF, et al. Chiropractic integration within a community health centre: a cost description and partial analysis of cost-utility from the perspective of the institution. *J Can Chiropr Assoc* 2019;63:64-79.
- Passmore S, Manansala C, Malone Q, et al. Opioid usage patterns, patient characteristics, and the role of chiropractic services in a publicly funded inner city health care facility [abstract]. *Spine J* 2019;19:S78-9

Limitations

- Observational research is susceptible to **selection bias** and **residual confounding**
 - Economic evaluations of chiropractic care added to or compared with usual medical care are **inconclusive**



Emary et al. *Systematic Reviews* (2024) 13:232
<https://doi.org/10.1186/s13643-024-02654-6>

Systematic Reviews

PROTOCOL

Open Access

The impact of chiropractic care on prescription opioid use for non-cancer spine pain: protocol for a systematic review and meta-analysis

Peter C. Emary^{1,2,3*}, Kelsey L. Corcoran^{4,5}, Brian C. Coleman^{5,6,7}, Amy L. Brown³, Carla Ciraco⁸, Jenna DiDonato⁹, Li Wang^{10,11,12}, Rachel J. Couban¹⁰, Abhimanyu Sud^{13,14} and Jason W. Busse^{10,11,12,15}

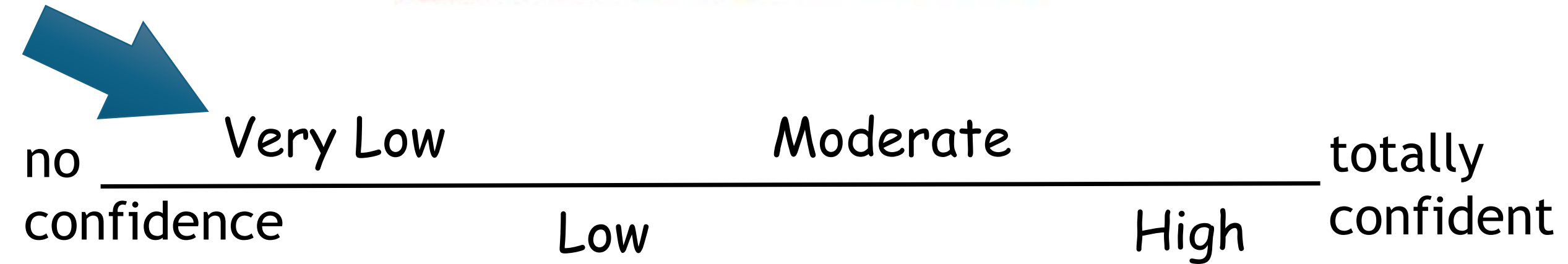
RESEARCH ARTICLE

Effectiveness and Economic Evaluation of Chiropractic Care for the Treatment of Low Back Pain: A Systematic Review of Pragmatic Studies

Marc-André Blanchette^{1*}, Mette Jensen Stochkendahl², Roxane Borges Da Silva³, Jill Borut⁴, Pamela Harrison⁴, André Bussi  res^{4,5,6}

Our **certainty in the evidence** on the impact of chiropractic care on prescription opioid use ...

GRADE






Well-designed
RCTs are needed!

We have initiated the “**ACCESS-DC**” trial

- **Cluster-randomized, 2-arm, data analyst-blinded** feasibility RCT of chiropractic care added to usual medical care, vs. usual medical care alone, for adult patients prescribed opioid therapy for chronic non-cancer spinal pain at **four Ontario CHCs**

CHCs provide services to:

- 
- Priority populations who experience barriers to access (e.g., language, culture, physical disabilities, homelessness, poverty)
 - Isolated seniors
 - Members of the 2SLGBTQIA+ communities
 - Individuals with mental health or addiction issues

Underserved communities are **under-represented** in RCT research

RESEARCH

Open Access



How well do participants in clinical trials represent the U.S. population with chronic neck or back pain?

Brent D. Leininger^{1*}, Pamela Jo Johnson², Gert Bronfort¹, Karen M. Kuntz³, Eva Enns³, James S. Hodges⁴ and Roni Evans¹

- RCTs had **lower %'s** of:
 - Racial and ethnic minority groups
 - Less educated
 - Unemployed adults
 - Worse health outcomes

CHC clients **lack access** to chiropractic care

- Only **2.7%** (2 of 75) CHCs in Ontario employ a chiropractor
- Volunteer chiropractic **back pain program** (Jan. '14 – Mar. '20)



Patient characteristics (n = 95)
Average age = 49 years
66% unemployed
81% chronic/recurrent pain
2/3 daily analgesic use

Accessibility of **non-pharmacological services** at CHCs

*“We’re told there’s a triangle of care, you know, the psychosocial, and the physical modalities, and meds, [which] are only a small part of it. **But the only thing you have access to is the meds.**”*

*“... It’s just ironic. **The people who need [non-pharmacological] services the least, have the best access. ... But the people who are most vulnerable to [chronic pain] are the people that have the least access.**”*

Langs Physician

Plan for the remainder of our presentation ...

- CHC perspective
- Study design
- Patient perspective
- Next steps



Debbie Hollahan, RN, BHScN, CDE,
CEO



About Langs

- Located in Cambridge, Ontario
- 6 sites across Cambridge and North Dumfries
- Main site is a community hub:
 - CHC
 - Community Centre
 - Diabetes Education Program
 - Youth Wellness Hub Ontario – Cambridge site
 - > 25 Partners
- 150 employees
- Activity:
 - Active PC client: ~ 9,000/year
 - Total clients: > 15,000/year



Partners at the Hub



From the CHC perspective ...

- This program offers an innovative approach to:
 - Expanding inter-professional primary care services by considering other professions
 - Offering value added services to patients
 - Aligning with the Model of Health and Wellbeing and the Ontario Quintuple Aim of Health Care

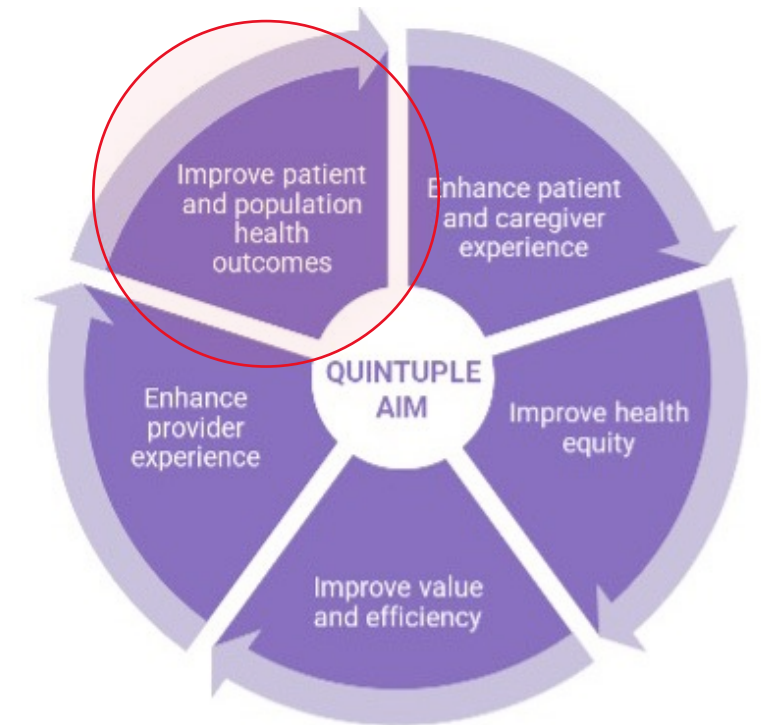


Why it is important...

1. Improve patient and population health outcomes:

- High prevalence of chronic pain
- High prevalence of opioid and other pharmacology use
- Leading reason for WSIB claims

Ontario Quintuple Aim of Health Care



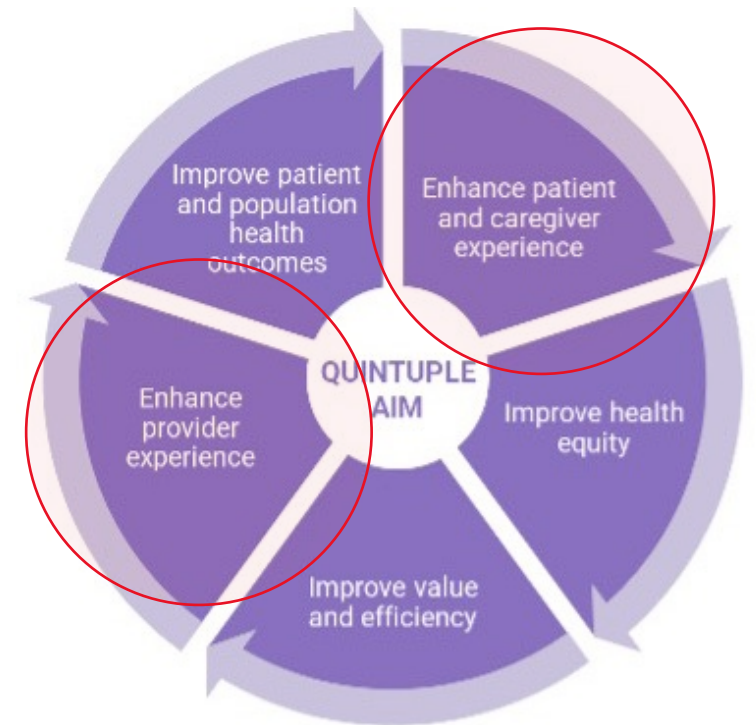
Why it is important...

2. Enhance patient and caregiver experience:

3. Enhance provider experience:

- One-stop care
- Close collaboration between chiropractor and primary care team
- Improved communication, care coordination and treatment plan

Ontario Quintuple Aim of Health Care

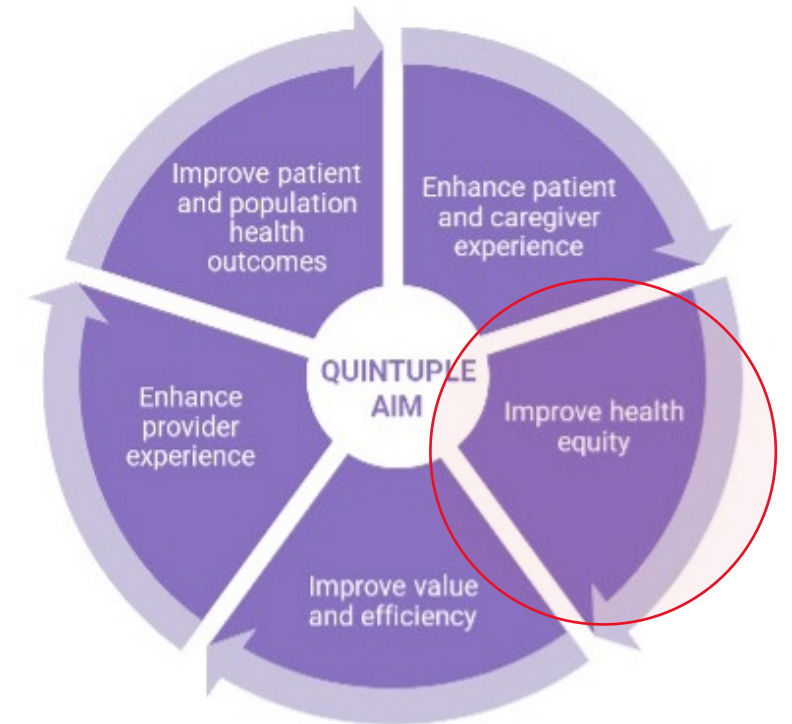


Why it is important...

4. Improve health equity :

- Improved access to care for underserved patient populations
 - Offers free service for those with:
 - Limited 3rd party coverage
 - Limited ability to pay
- Improved access by offering one-stop location
- Know the space is accessible (AODA)

Ontario Quintuple Aim of Health Care

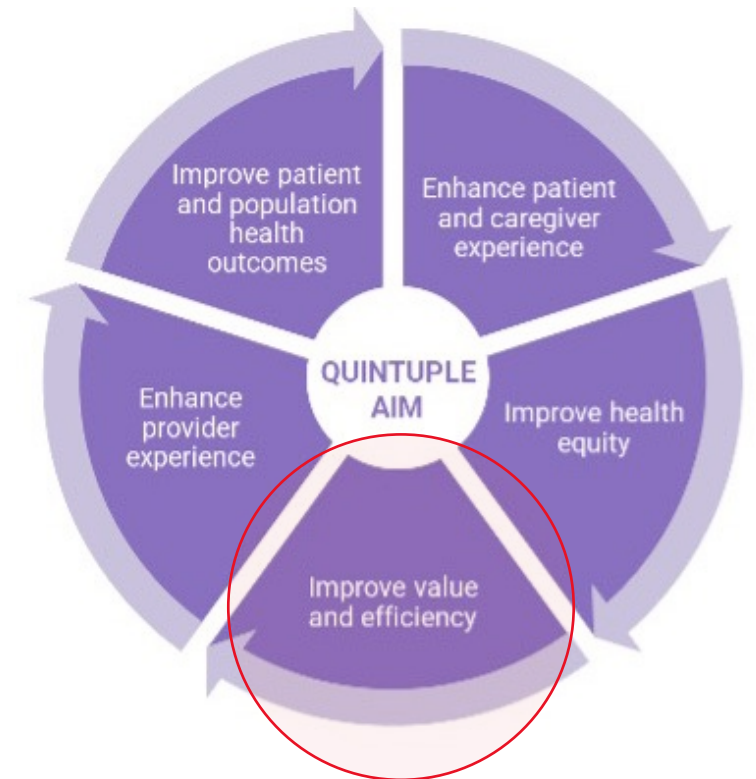


Why it is important...

5. Improve value and efficiency:

- Improve quality and delivery of back pain services
- Improve efficiency

Ontario Quintuple Aim of Health Care



Decision-making process



PRESENTED TO LANGS
PROFESSIONAL PRACTICE
COMMITTEE



IDENTIFIED PRIMARY CARE LEAD
PHYSICIAN



PRESENTED AT ALL STAFF MEETING

Implications:

- Help in developing a novel research model that can be implemented in CHCs and other primary care settings
- Help bring clinical trial research and innovative interventions to CHC clients
- Participation in research will be low burden
 - comparing usual care to integrated chiropractic and usual care
 - there will be no cost to CHCs
 - McMaster University will coordinate the trial
 - available space will be required



Study design

Clinical sites

(1) Cambridge



(2) Guelph



(3) Kitchener-Waterloo



(4) ...



Plan to enroll:

- **25 patients** to assess trial feasibility

Eligibility criteria

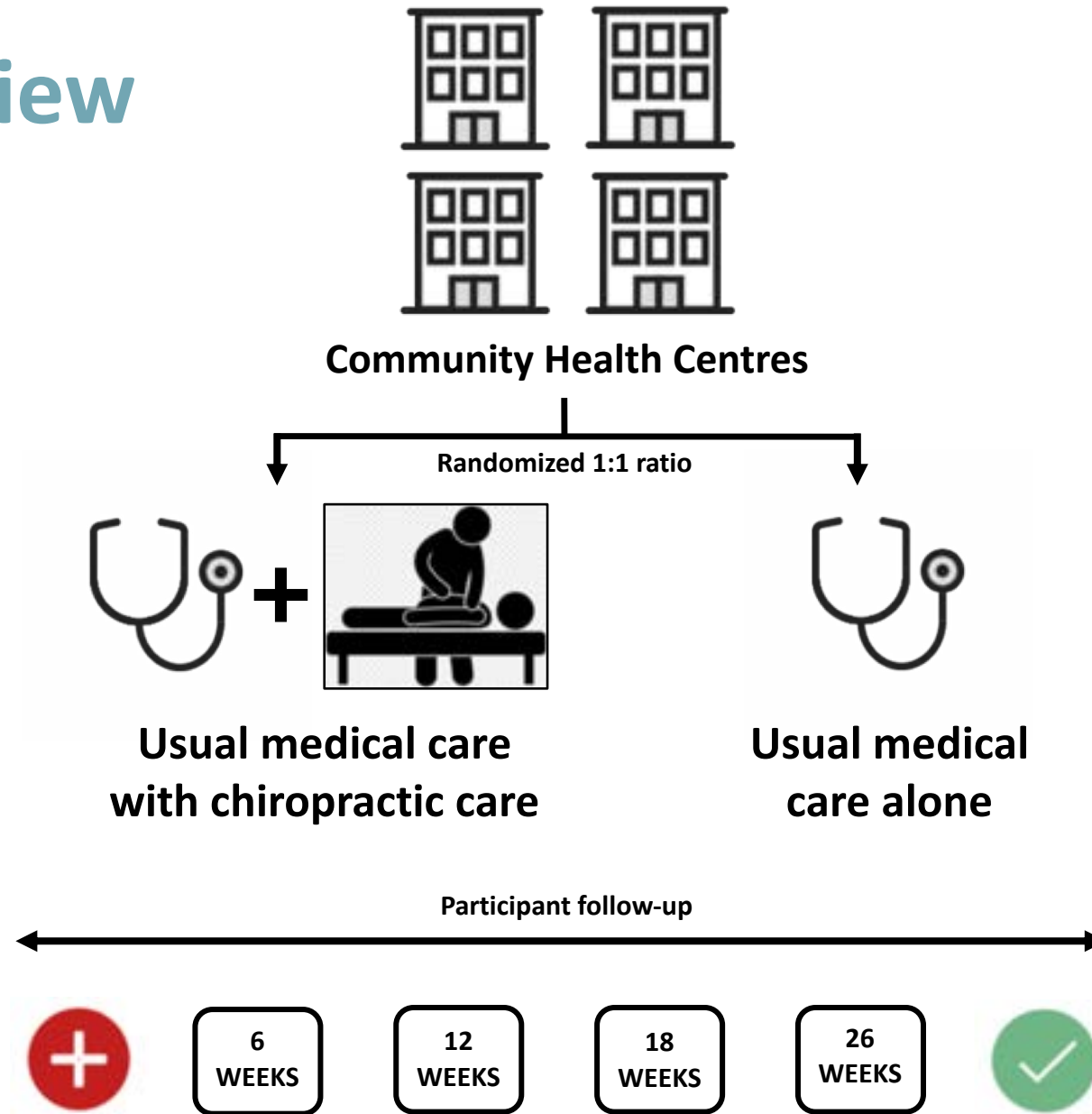
Inclusion:

1. ✓ Patients **18 years of age or older**
2. ✓ Diagnosed with **chronic non-cancer spinal pain** (i.e., back or neck pain of ≥ 12 weeks' duration, not associated with cancer)
3. ✓ Actively **receiving one or more opioid prescriptions** totaling ≥ 50 mg MED, dispensed over a period of at least 3 consecutive months
- ✓ **Interested** in reducing their opioid dose

Exclusion:

- ✗ Currently receiving **chiropractic care**
- ✗ Receiving treatment for **opioid use disorder** (e.g., methadone, naloxone)
- ✗ Spinal neoplasms or other '**red flag**' diagnoses (e.g., fractures, infections, inflammatory arthritis, or cauda equina syndrome)

Trial overview



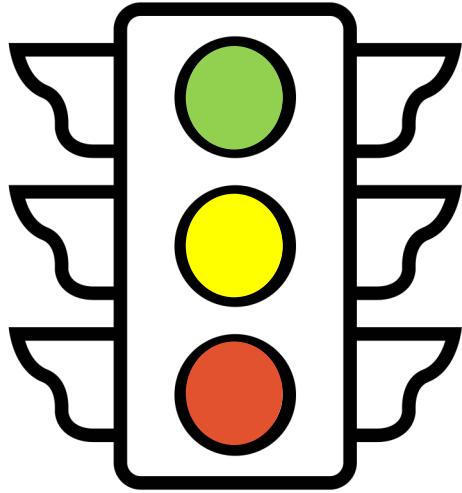
Feasibility outcomes

1. **Recruitment rates** at the individual centres
2. Completeness of **outcome data**
3. Successful **follow-up** of participants



Feasibility objectives

- The overarching objective of the pilot study is to inform the design and feasibility of a definitive RCT
- Each objective will be interpreted via a “**traffic light approach**”



Green: proceed with RCT

Yellow: proceed with changes

Red: do not proceed

Why do a pilot study?

Research

Original Investigation

Prevalence, Characteristics, and Publication of Discontinued Randomized Trials

Benjamin Kasenda, MD; Erik von Elm, MD, MSc; John You, MD, MSc; Anette Blümle, PhD; Yuki Tomonaga, MSc; Ramon Saccilotto, MD, MSc; Alain Amstutz, BSc; Theresa Bengough, BSc; Joerg J. Meerpohl, MD; Mihaela Stegert, MD; Kari A. O. Tikkinen, MD, PhD; Ignacio Neumann, MD, MSc; Alonso Carrasco-Labra, MD, MSc; Markus Faulhaber, MD, MSc; Sohail M. Mulla, BSc; Dominik Mertz, MD, MSc; Elie A. Akl, MD, PhD, MPH; Dirk Bassler, MD, MSc; Jason W. Busse, DC, PhD; Ignacio Ferreira-González, MD, PhD; François Lamontagne, MD, MSc; Alain Nordmann, MD, MSc; Viktoria Gloy, PhD; Heike Raatz, MD, MSc; Lorenzo Moja, MD, MSc; Rachel Rosenthal, MD, MSc; Shanil Ebrahim, PhD; Stefan Schandelmaier, MD; Sun Xin, PhD; Per O. Vandvik, MD, PhD; Bradley C. Johnston, PhD; Martin A. Walter, MD; Bernard Burnand, MD, MSc; Matthias Schwenglenks, PhD; Lars G. Hemkens, MD; Heiner C. Bucher, MD, MPH; Gordon H. Guyatt, MD, MSc; Matthias Briel, MD, MSc

- **25% of RCTs** are prematurely discontinued, often for futility (typically slow recruitment)
- Discontinuation of clinical trials is a strong risk factor for non-publication (**OR = 3.19**; 95% CI, 2.29 to 4.43)
 - Underscores the need for a successful feasibility study
- To **secure funding** (e.g., CIHR) for a definitive trial, demonstration of feasibility will be essential

Preliminary data

Outcomes planned for definitive RCT



Definitive trial outcomes	Secondary cost-utility analysis
• Opioid use	• Health care utilization
• Pain and disability	• Work status
• Bothersomeness	• Quality of life
• Satisfaction	
• Adverse events	

Secondary and tertiary objectives

- Is the addition of chiropractic to usual medical care (UMC) **more effective** than UMC alone in **reducing opioid use** among patients with spinal pain in Ontario CHCs?
- Is the addition of chiropractic to UMC in Ontario CHCs **more cost-effective** than UMC alone from the **perspective of the institution**?

Interventions

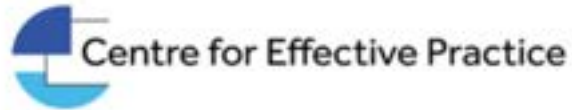
Usual medical care

Opioid-tapering strategy	
<input type="checkbox"/>	Actively engage patients in a discussion about the merits of gradual dose reduction (e.g., potential for better pain control and quality of life).
<input type="checkbox"/>	Prepare patients for tapering by optimizing non-opioid strategies for pain management (e.g., continuation of usual medical care services [control clusters] or referral for onsite chiropractic services with continuation of usual medical care services [intervention clusters]); provide patients with the Michael G. DeGroote National Pain Centre’s ‘Patient Information Sheet for Tapering’ (see Appendix 1).
<input type="checkbox"/>	Set realistic functional goals, optimize psychosocial support, and create schedule of dose reductions and follow-up visits (e.g., gradually reduce 5% of MED dose every 4 weeks, with scheduling dose reductions; and, in the intervention arm, referral to onsite chiropractic clinicians).
<input type="checkbox"/>	Have a plan in place to manage patient withdrawal symptoms if withdrawal symptoms are preventing tapering, prescription of 0.1 mg of clonidine is recommended.
<input type="checkbox"/>	In patients struggling with the tapering plan (e.g., distress, loss of function which persists longer than 4 weeks), pause taper and re-evaluate the patient’s pain/clinical status/coping mechanisms and the approach to tapering, or abandon tapering.
<input type="checkbox"/>	In patients with the emergence of significant mental health symptoms and/or ambiguous drug-related behaviours, consultation with local experts is advised.
<input type="checkbox"/>	Encourage patients to taper to the lowest opioid dose achievable without a loss of previously achieved pain relief and functional capacity.

GPs will have the option of **accelerating** tapering schedule with patients in the intervention arm of the study in the presence of **improved** pain management with chiropractic care

Appendix 1

Patient information sheet for tapering



Opioid Tapering Template

This tool is to support primary care providers in discussing the value of opioid tapering with all adult patients currently prescribed an opioid and to support their patients in reducing opioid dosages in a safe and effective way.

Section A: Important considerations for opioid tapering

- Clinicians should engage patients in shared decision-making, including consideration of the patient's values, goals, concerns and preferences prior to tapering.^{1,2}
- When possible, an interdisciplinary team approach should be used during the tapering process to support complementary non-pharmacological and pharmacological management.^{1,2}
- For patients starting or continuing an opioid trial, discuss and document patients' goals on a regular basis. (**SMART goals: Specific, Measurable, Agreed-upon, Realistic, Time-based**).
- Consider the potential opioid harms and safety concerns.

CAUTION:

- Pregnancy - spontaneous abortion and premature labour have been associated with opioid withdrawal during pregnancy.
- When you have concerns about tapers destabilizing mental illnesses, destabilizing or unmasking substance use disorders including opioid use disorders or medically unstable conditions (e.g. severe hypertension, unstable CAD) consider seeking out additional consultation or supports.

Naloxone

- Naloxone is a medication that can reverse the effects of an opioid overdose. It is recommended to keep naloxone on hand in case of an accidental overdose. This is particularly important for patients on doses of >50 morphine equivalent dose (MED)/day, those with a history of overdose or concurrent benzodiazepine use.
- Ontarians with a health card are eligible for a free take-home naloxone kit. You can receive these kits and training on their use from pharmacies, community organizations and provincial correctional facilities.

For more information on where, how and when to use these kits visit: <https://www.ontario.ca/page/get-naloxone-kits-free#section-5>

Reasons to consider opioid tapering, reduction or discontinuation

☐ Patient requests dosage reduction

Opioid use disorder criteria⁴

- ☐ Opioids are often taken in larger amounts or over a longer period than was intended



Talking Points

Provide information about why a taper might be needed:

Opioid and Pain Reduction Collaborative

Pain Reduction Tool - Low Back Pain



Introduction

This resource is a quick guide of how your chiropractor can help you. This tool can be shared with your primary care practitioner and will help coordinate care in your health care circle. Best clinical practices by the Centre for Effective Practice, suggest that treatment for MSK pain should begin with patient education and exercise. For low back pain, current clinical practice guidelines also recommend various manual therapies. Below is an overview of education materials I have included as well as your assessment and treatment plan.

- The nature of your symptoms
- Your treatment plan
- A step-by-step plan for return to work and daily activities as your ability increases
- The importance of the patient's active engagement in care, including self-monitoring of symptoms, identifying causes of pain exacerbation, relaxation techniques and modification of negative self-talk
- The dilieration between hurt and harm

Chiropractor Name:
Contact Number:
Fax Number:

Pain Reduction Tool - Neck Pain



Introduction

This resource is a quick guide of how your chiropractor can help you. This tool can be shared with your primary care practitioner and will help coordinate care in your health care circle. Best clinical practices by the Centre for Effective Practice, suggest that treatment for MSK pain should begin with patient education and exercise. For neck pain, current clinical practice guidelines also recommend various manual therapies. Below is an overview of education materials I have included as well as your assessment and treatment plan.

- The nature of your symptoms
- Your treatment plan
- A step-by-step plan for return to work and daily activities as your ability increases
- The importance of the patient's active engagement in care, including self-monitoring of symptoms, identifying causes of pain exacerbation, relaxation techniques and modification of negative self-talk
- The dilieration between hurt and harm

Chiropractor Name:
Contact Number:
Fax Number:

Assessment

Important Findings:

Current Pain Scale: 1 2 3 4 5 6 7 8 9 10

Red/Yellow Flags (if any):

☐ None at this time

Conditions:

Additional notes:

Treatment Plan

Estimated length of treatment:

Goal Pain Scale: 1 2 3 4 5 6 7 8 9 10

Additional notes:

Physician Collaboration

Frequency of update from Chiropractor:

Recommended further testing and imaging (if any):

Recommended Referrals (if any):

Physician Name:

Contact Number:

Fax Number:

For more information on best clinical practices as suggested by the Centre for Effective Practice, please visit <https://cep.health/clinical-products/manual-therapy/>.

Assessment

Important Findings:

Red/Yellow Flags (if any):

☐ None at this time

Conditions:

Additional notes:

Treatment Plan

Estimated length of treatment:

Goal Pain Scale: 1 2 3 4 5 6 7 8 9 10

Additional notes:

Physician Collaboration

Frequency of update from Chiropractor:

Recommended further testing and imaging (if any):

Recommended Referrals (if any):

☐ None at this time

Physician Name:

Contact Number:

Fax Number:

For more information on best clinical practices as suggested by the Centre for Effective Practice, please visit <https://cep.health/clinical-products/manual-therapy/>.

PCP Leads at each CHC will be engaged to support and monitor

Trial funding

- This trial is funded by the Canadian Institutes of Health Research (**CIHR**), with seed funding from the Michael G. DeGroote Institute for Pain Research and Care (**IPRC**) and the Canadian Chiropractic Research Foundation (**CCRF**)



Methods Centre

McMaster University

- Responsible for:
 - Daily **conduct of the trial**
 - REB **coordination**
 - Clinical site **management**
 - Randomization
 - Data management
 - Monitoring
 - Data analysis



Schedule of events

Activity/assessment	STUDY PERIOD					
	Enrollment	Active care			Follow-up	
	Enrollment Visit (Day 0)	Initial Treatment Session	6-Week Follow-up 4-8 weeks post-enrollment (28-56 days)	12-Week Follow-up 10-14 weeks post-enrollment (70-98 days)	18-Week Follow-up 16-20 weeks post-enrollment (112-140 days)	26-Week Follow-up 26-29 weeks post-enrollment (182-203 days)
ENROLLMENT:						
Assess participant eligibility	X					
Informed consent	X					
INTERVENTIONS:						
Usual medical care						
Chiropractic care						
ASSESSMENTS:						
Sociodemographic data	X					
Opioid use	X		X	<div>Up to 18 chiropractic treatment sessions (max.) will be provided to participants in the intervention clusters (0-12 weeks), then as needed (e.g., 1 visit, every 2-4 weeks).</div>		
BQ questionnaire	X		X			
Bothersomeness questionnaire	X		X			
EQ-5D-5L measure	X		X			
Patient satisfaction			X			
Health care utilization	X		X	X	X	X
Serious adverse events			X	X	X	X

Up to **18** chiropractic treatment sessions (max.) will be provided to participants in the intervention clusters (0-12 weeks), then **as needed** (e.g., 1 visit, every 2-4 weeks).

Research team

- Peter C. Emary, DC, PhD^{1,2,3}
- Amy L. Brown, DC^{3,4}
- Sheila Sprague, PhD⁵
- Kent J. Stuber, DC, PhD⁶
- Andrea Darzi, MD, MPH, PhD^{7,8}
- Li Wang, PhD^{7,8}
- Gordon H. Guyatt, MD, MSc^{7,9}
- Michelle Vink, Patient Partner¹⁰
- Laurie Baker, Patient Partner¹⁰
- Debbie Hollahan, RN, BHScN, CDE, CEO¹⁰
- Norm Buckley, BA, MD, FRCPC^{1,8,9,11}
- Jason W. Busse, DC, PhD^{7,8,11,12}





Patient Partners:

Laurie Baker

Michelle Vink



Let's review!

(1) We are planning to implement an innovative, team-based model of care aimed at reducing the use of _____ among patients with chronic spine pain:

- A. Muscle relaxants
- B. NSAIDs
- C. Anti-depressants
- D. Prescription opioids

(2) Patient partners have helped shape the design of our study and its focus on enhancing health care accessibility to vulnerable and marginalized populations.

- True or False?

- Bonus Question:

- How have patient partners shaped the design of our study?

- A. Informed our research questions and intervention

- B. Reviewed study documents (e.g., consent forms, plain language summaries)

- C. Informed our study recruitment and data collection procedures, outcome measures, and dissemination plans

- D. All of the above

(3) Describe 3 ways in which this project is supporting institutional and health system sustainability:

- A. ↑ access to care for socioeconomically disadvantaged patients
- B. ↑ inter-professional collaboration
- C. ↓ health costs (e.g., PCP visits, specialist referrals, prescription opioids)
- D. A and B only
- E. A, B, and C



Next steps

Collaborators and participating CHCs





Hypothesis

- A **definitive cluster RCT** on the impact of chiropractic care on prescription opioid use among patients with chronic non-cancer spinal pain **will be feasible** within Ontario CHC context
 - Our aim is to **develop** a novel clinical research model for conducting **future multi-site RCTs** on various chiropractic and other health-related topics
 - Underserved patient populations are **seriously under-represented** in clinical trial research
 - Management of **spine pain** in **primary care** has traditionally been **inefficient** and **costly**

Interested in getting involved?

- We are still looking for **one CHC** for our pilot RCT
 - Expressions of interest for our **larger, definitive RCT**
 - CHCs, NPLCs, FHTs, AHACs



Will trial participation cost you? **No**

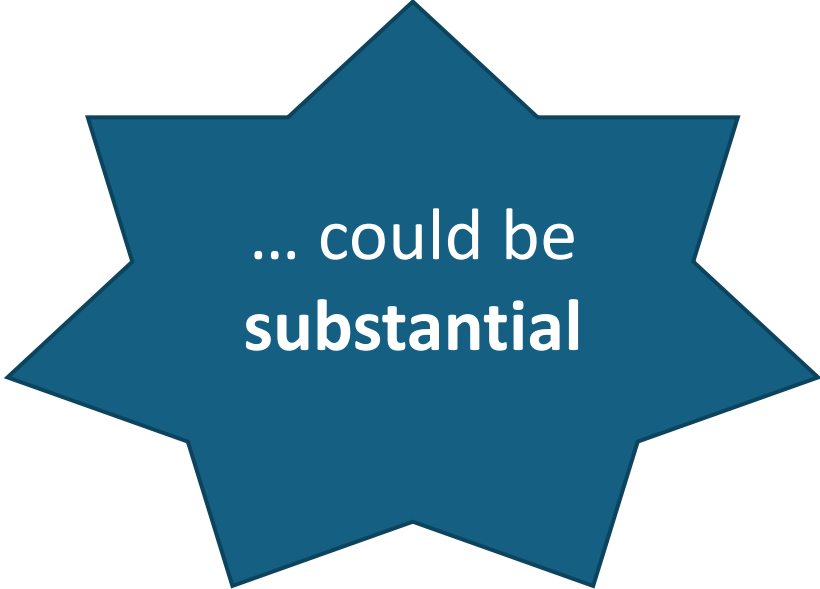


We will
provide:

- **Trial coordination** (i.e., participant recruitment, consent, data collection, follow-up)
- Chiropractic **services** and **equipment**
- Minimum of **\$3,000** to each centre
- All we need is:
 1. Part-time access to a **small examination room** (but we can arrange for offsite chiropractic services at a community-based clinic, if needed)
 2. Lead **GP/NP team** to oversee patient care decisions and report any AEs to trial team
 3. Centres to register with **Clinical Trials Ontario (CTO)** (no cost)
 - CTO will provide ethics approval and oversight

Conclusion

- If a definitive RCT at centres across Ontario were to show ...
 - ↓ **opioid use** and **health-related costs** among patients with chronic non-cancer spinal pain
 - Potential benefits for the **opioid crisis** ...
 - Including how these patients are managed in CHCs and other primary care settings



... could be
substantial



Put People at the Centre

Advancing Accessible and Sustainable
Primary Health Care in Ontario

Mettre la personne au centre

de l'avancement de l'accessibilité et de la
pérennité des soins de santé primaires en Ontario

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