



MUSE

Multisectoral Urban Systems for  
Health and Equity in Canadian Cities

# *MUSE: Multisectoral Urban Systems for health and Equity in Canadian cities*

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November 8<sup>th</sup> 2017

*Financial Support from:*





# Goals of this meeting

- Introduce *MUSE* team members to one another and create interpersonal relationships
- Engage *MUSE* team members into research and knowledge translation activities of the *collaboratory*
- Share results of baseline survey of your needs, wants, and wishes
- Recruit project teams and committee members
- Identify challenges and opportunities for sharing evidence about built environments, multisectoral partnerships, and equity



# When & Where *MUSE* started?

- Environments and Health Signature Initiative at CIHR → A Team **assembled**
- A successful LOI → The Team **gelled**
- An exhausting sprint to July 13 2016 → The Team **rallied**
- Some great news on July 16 2016 (*THEPA*) → The Team **cheered**
- Some even better news on November 30 2016 (*MUSE*) → The Team **got real busy**

# Urban Public Health Network Previous Involvement



## WHAT NEEDS TO GET DONE (HOW):

Exposing populations to built/social environments that equitably offer of:

- ✓ plentiful healthy foods
- ✓ walkability
- ✓ active transportation options
- ✓ sport and leisure facilities
- ✓ parks and nature venues
- ✓ messages supportive of healthy lifestyle
- ✓ ...



# Why Built Environments?



## Urban design, transport, and health 1

City planning and population health: a global challenge

Lancet 2016; 388: 2  
Published

## Urban design, transport, and health 2



Land use, transport, and population health: estimating the health benefits of compact cities

Mark Stevenson, James Thompson, Thirumala Sridhar, David Ewing, Dinah Mahan, Paul McGowan, Len Roberts, Gertjan Tjebk, Billie Giles-Corti, Xiaoduan Sun, Mark Stevenson

Using a health  
land-use and



## Urban design, transport, and health 3

Use of science to guide city planning policy and practice: how to achieve healthy and sustainable future cities

James F Sallis, Fiona Bull, Ricky Burdett, Lawrence D Frank, Peter Griffiths, Billie Giles-Corti, Mark Stevenson

Lancet 2016; 388: 2936-47  
Published Online

Land-use and transport policies contribute to worldwide epidemics of injuries and non-communicable diseases through traffic exposure, noise, air pollution, social isolation, low physical activity, and sedentary behaviours.



J Urban Health (2017) 94:4–19  
DOI 10.1007/s11524-016-0122-1

## Healthy Cities of Tomorrow: the Case for Large Scale Built Environment–Health Studies

Chinmoy Sarkar • Chris Webster

# Why Built Environments?

- BE as spaces for promoting **active living**, **promoting** and **social interaction**
- BE as spaces for preventing socio-spatial **inequality**, **deprivation**, **stress**, **morbidity**, **stress**, and **morbidity**  
**THROUGH**
- **Opportunities** for health eating and physical activity
- Healthy and affordable **housing**



# We know What *Might* Work, **BUT** How to Implement?

- Establishing, nurturing, and promoting *Multisectoral Partnerships* (MP) between public health organizations and municipalities may present the appropriate venue and opportunities for achieving advocacy and stimulating action to transform built environments.

Aro, A. R., Bertram, M., Hämäläinen, R.M., Van De Goor, I., Skovgaard, T., Valente, A., Castellani, T., Chereches, R., & Edwards, N. on behalf of the REPOPA Consortium (2016). Integrating research evidence and physical activity policy making—REPOPA project. Health Promotion International, 31: 430–439.



# Multisectoral Partnerships: What are they?

- ... are social arrangements in which different **organizations assemble** and develop **collaborative practices** to achieve valued goals that are shared...
- Traditionally, they involve **joint action** taken by various sectors (e.g., education, health, transportation) within public administration.
- Since they involve actors with diverse backgrounds, values and missions, and result in the governance of **activities** and **interventions** (horizontal action) as well as advocacy for **policies** (vertical approaches), IP can be thought of as **complex systems**.





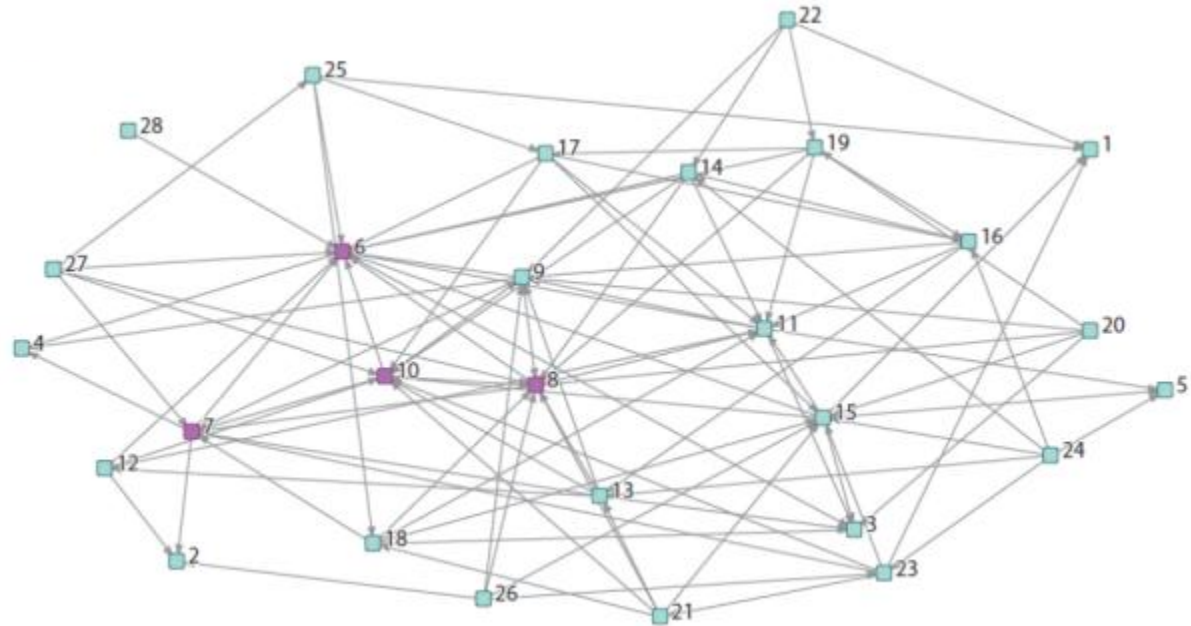
# Multisectoral Partnerships: What do we not know?

- Limited knowledge about the **composition**, **structure**, and **functioning** of MP for pop health
- Limited information about the **activities**, **policies**, and **interventions** emerging and implemented through these MP
- Limited knowledge about **stability** of network arrangements, **action capacity**, and **outcomes**

# Multisectoral Partnerships: How might they be described?

## Using Social Network Analysis

- characterize the **centrality** of public health organizations and municipalities
- **density of direct ties** of MP members to public health organizations and municipalities
- **comparisons** across metropolises



# Multisectoral Partnerships: What might they produce?



**Figure 4: The Intervention Ladder applied to Urban Form related to Built Environments** (adapted from the Nuffield Council on Bioethics, <http://www.nuffieldbioethics.org/public-health>)



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# Multisectoral Partnerships: Public Opinion about Action on BEs?





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... so ... where  
from here ...?

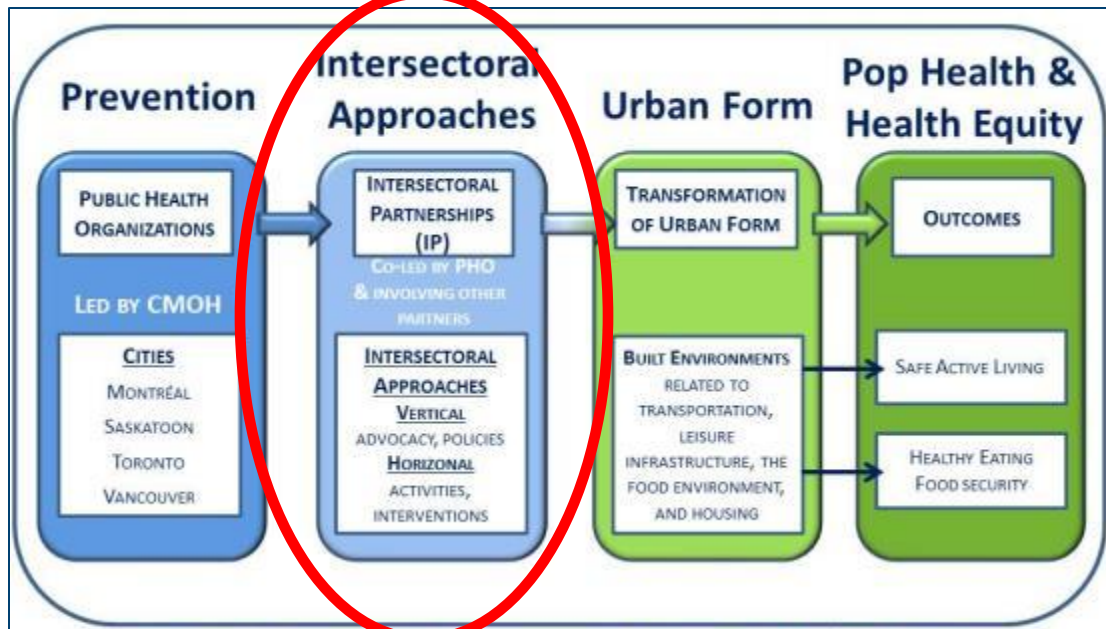




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# What is *MUSE* about?



**Figure 1:** Conceptual Framework for the *MUSE* Team's Program of Research and IKT \*

\* Although we define the IP of interest as networks in which public health organizations and municipalities negotiate shared objectives and coordinate joint activities, perform advocacy for policies and lead interventions in the pursuit of shared goals with various organizations from various sectors, for visual comfort the multiple feedback loops and bidirectional links are not illustrated but are implied.

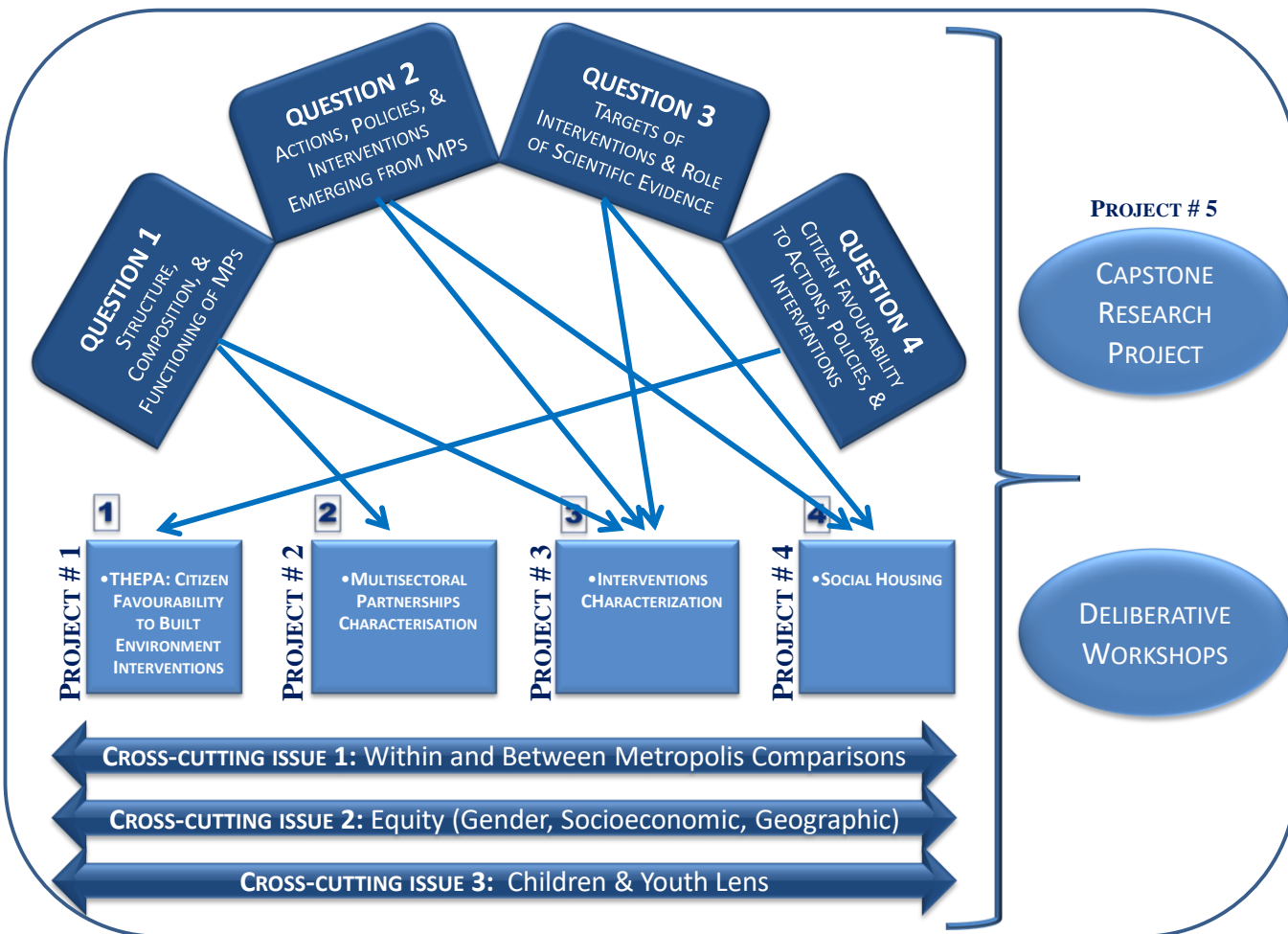


# What is *MUSE* about?

## 4 main questions

- **QUESTION 1** STRUCTURE, COMPOSITION, & FUNCTIONING OF MP
- **QUESTION 2** ACTIONS, POLICIES, & INTERVENTIONS EMERGING FROM MP
- **QUESTION 3** TARGETS OF ACTIONS, POLICIES, & INTERVENTIONS &  
ROLE OF SCIENTIFIC EVIDENCE
- **QUESTION 4** CITIZEN FAVOURABILITY TO ACTIONS, POLICIES, & INTERVENTIONS

**Cross-cutting issues: Equity (gender, socioeconomic status),  
Childhood and youth lens.**



Mapping of *MUSE* Research Projects vis-à-vis Questions





# What is *MUSE* about?

## 4 projects (in the proposal)

- **PROJECT # 1: THEPA & THEPA 2**
- **PROJECT # 2: MP CHARACTERIZATION**
- **PROJECT # 3: INTERVENTION CHARACTERIZATION**
- **PROJECT # 4: SOCIAL HOUSING**
- **PROJECT # 5: CAPSTONE PROJECT**



# Research Project #1

## THEPA (TARGETING HEALTH EEATING & PHYSICAL ACTIVITY)

LEAD: LISE GAUVIN

- ***Acceptability of Interventions for Built Environments:*** Describe and compare the extent of *favourability* of citizens of 21 UPHN cities towards *activities, policies, and interventions* emerging through MPs to improve built environment.
- **Anticipated design:**
  - **Delphi:** Identification of a relevant set of interventions to investigate at a population level;
  - **Online survey:** Measurement of (1) health status; (2) favourability to built environment transformations; and (3) socioeconomic, demographic, and geographic characteristics.
- **Anticipated data analyses:**
  - Quantitative analyses;
  - Linkage with geographic data;
  - Comparisons across cities.
- **Anticipated timeline:**
  - Round 1: Winter 2018 → Spring 2019
  - Round 2: Winter 2021 → Fall 2021



# Research Project #2

## MULTISECTORAL PARTNERSHIP CHARACTERIZATION

**LEAD: NAZEEM MUHAJARINE**

- ***The Structure, Composition, and Functioning of MPs focussing on Built Environments:*** Describe and compare the size and composition of the MPs, the functioning, and the frequency/types of contacts across MP members.
- **Anticipated design:**
  - Identification of flagship MPs involving built environment transformations in each municipality;
  - Interviews with MP members from public health organization, municipalities, and partnered organizations about the functioning of the MPs, contacts between members. resources and information used and shared.
- **Anticipated data analyses:**
  - In depth description of MPs in each municipality;
  - Social network analysis;
  - Specific focus on child and equity (social, gender and geographic);
  - Comparisons across metropolises.
- **Anticipated timeline:**
  - Summer 2018 → Fall 2019



# Research Project #3

## INTERVENTIONS CHARACTERIZATION

LEADS: LISE GAUVIN & LOUISE POTVIN

- ***Actions, Policies, and Interventions for Built Environment emerging from MPs:*** Describe, analyse, and compare (1) the intervention targets of the *activities, policies, and interventions* emerging from the MPs and (2) the stability, action capacity, and intermediate results of selected initiatives emerging from the MPs.
- **Anticipated design:**
  - Quantitative analyses of data collected from MP members;
  - Multiple, nested case study through interviews with MPs and interventions leaders;
  - Assessment of targets of both MPs and their initiatives;
  - Assessment of initiatives' chain of events.



# Research Project #3

## Cont'd

### INTERVENTIONS CHARACTERIZATION

**LEADS: LISE GAUVIN & LOUISE POTVIN**

- **Anticipated data analyses:**
  - For each selected MP, characterize the number, diversity, and foci of activities, policies, and interventions that emerge from MPs;
  - For each selected intervention, retrospectively construct the timeline of activities and map out the chain of intermediary results until observable transformation in the built environment ;
  - Specific focus on child and equity (social, gender and geographic);
  - Comparisons across metropolises.
- **Anticipated timeline:**
  - Winter 2019 → Spring 2020



# Research Project #4

## SOCIAL HOUSING

LEAD: MARIE-FRANCE RAYNAULT

- ***Building of Social Housing through Financial Investments by the Canada Mortgage & Housing Corporation.*** As an exemplar of MP analysis, we propose to develop a multiple case study to describe, analyse, and compare social housing initiatives in the four cities and the role of MPs in modulating these initiatives.
- **Anticipated design:**
  - Document analysis and interviews to assess social housing construction and renovation planning in the 4 metropolises before and after funds entrusted to the Canada Mortgage and Housing Corporation in the 2016 Federal Budget.
- **Anticipated data analyses:**
  - Assessment of each initiative: contours, priorities, governance, leadership, type of evidence used, and outcomes;
  - Specific focus on child and equity;
  - Comparisons across metropolises.
- **Anticipated timeline:**
  - Winter 2018 → Winter 2019



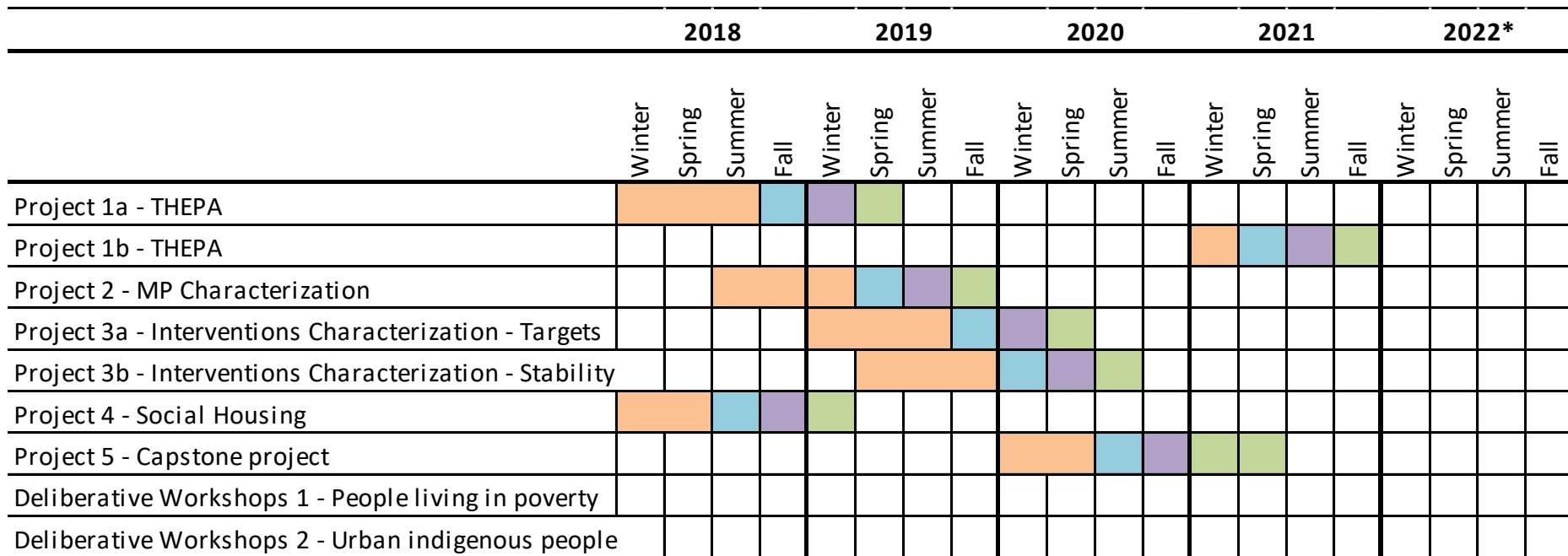
# Research Project #5

## CAPSTONE RESEARCH PROJECT

LEADS: TBA

- ***How Spatial Distribution of Built Environments Play Out Across Cities and extent to which MPs target those Most in Need:*** Collate data collected and results obtained in RESEARCH PROJECTS #1 through #4 and describe, analyse, compare, and map the spatial distribution of *initiatives* emerging from MPs vis-à-vis built environment characteristics, citizen favourability, and health outcomes. This will allow us to determine the extent to which *interventions* emerging from MPs are tailored towards those most in need.
- **Anticipated timeline:**
  - Winter 2020 → Spring 2021

# Preliminary GANTT Chart



\* The final year will mainly serve for dissemination

Legend:

Data Collection

Data Analysis

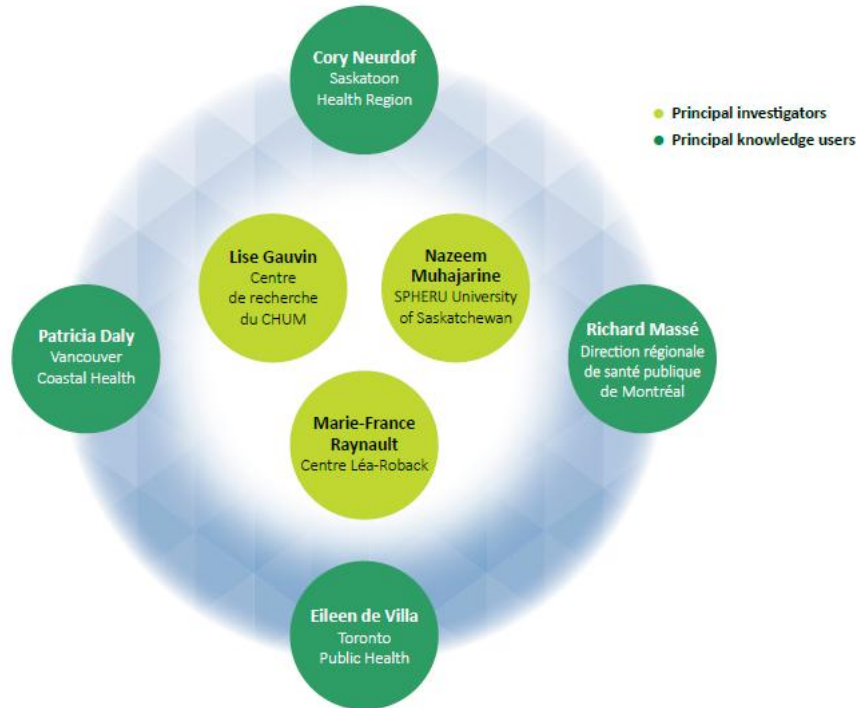
Results Synthesis & Dissemination - Description per city

Results Synthesis & Dissemination - Comparisons between cities



# Who is part of *MUSE*?

## MUSE Collaboratory Leadership



- 3 PIs
- 4 PKUs
- 15 Co-Is
- 11 KUs
- 23 Collaborators



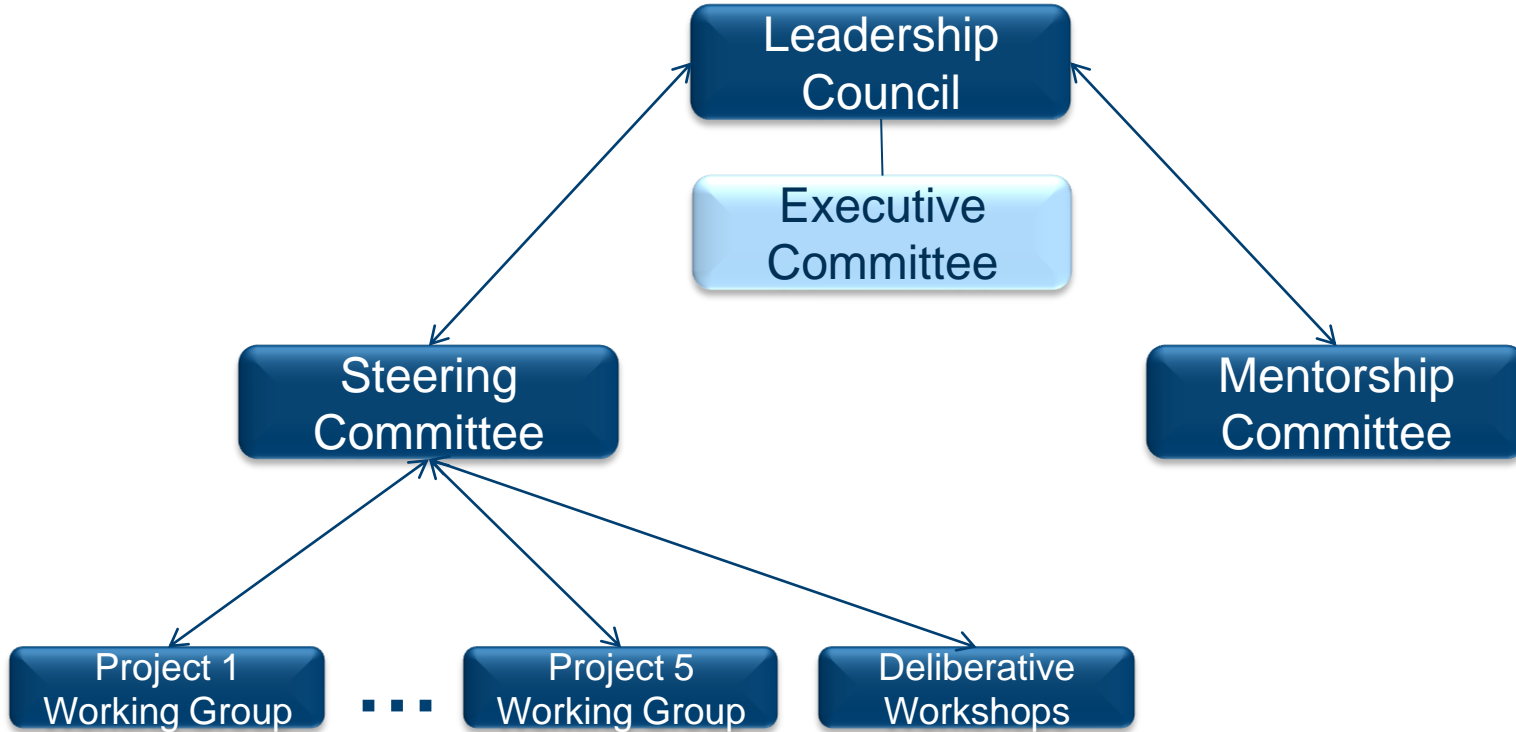
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# Leadership Council

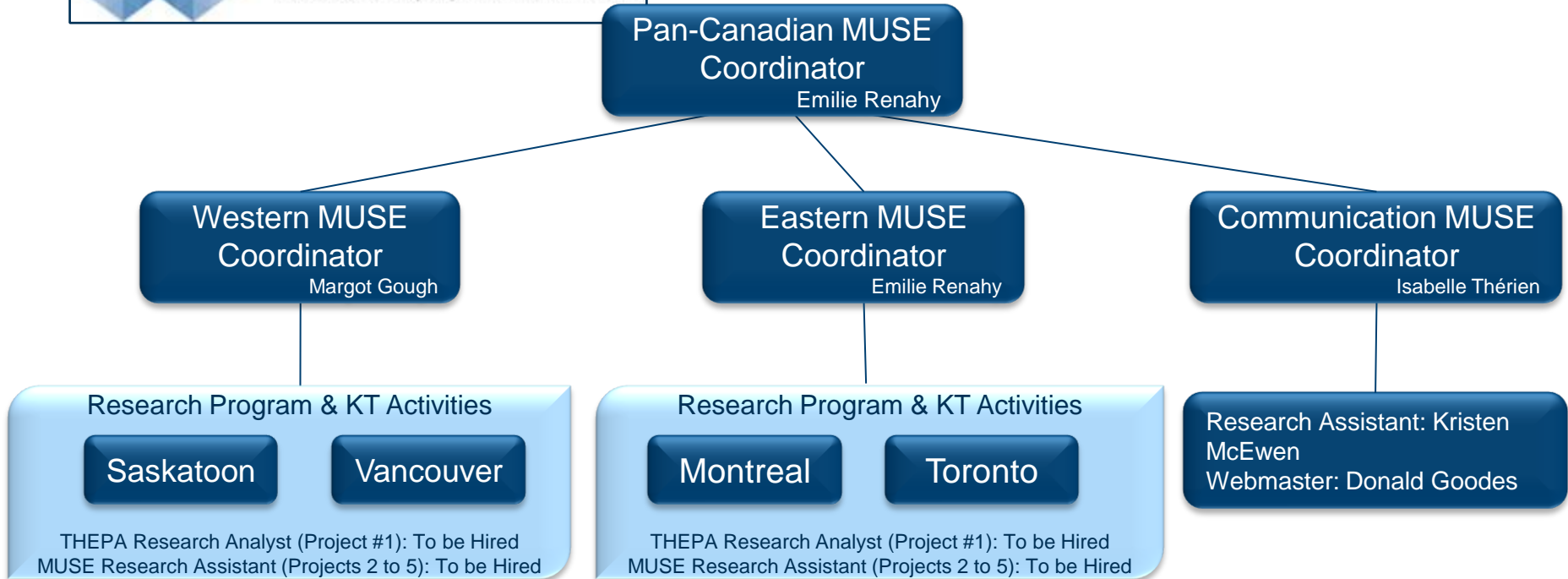


# Governance Structure





# Organizational Structure



[admin@musecollaboratory.ca](mailto:admin@musecollaboratory.ca)



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... Yikes! ... How  
do we bring  
this group  
together ...?

... a  
*collaboratory*  
... ?

# What is a Collaboratory?

- "collaboratory" .. a blend of the words **collabo**ration and la**boratory** ...
- "... a center without walls, in which ... researchers can perform their research without regard to physical location interacting with colleagues, accessing instrumentation, sharing data and computational resources, [and] accessing information in digital libraries"

Wulf, W.A. (1993). The Collaboratory Opportunity. Science, 261(5123, Aug. 13): 854-855.



# Why a Collaboratory?

- To allow for ongoing engagement and **collaboration** between *MUSE* Team members
- To stimulate **ideas** and new **projects** on BE, health, and equity
- To observe how the real-life **laboratories** - Canadian cities - are going about promoting change to BE through MP
- To **experiment** with different methods of sharing evidence to allow for analysis, action, and advocacy



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# What might a collaboratory look like?



Stay Tuned.  
Coming Soon!



**... and now about  
your wants, needs,  
and hopes ... !**



# Wishes for the *MUSE* project

Find opportunities for  
linkages with other  
complementary projects

Collegial  
collaboration

Targeted  
participation in  
intersectoral  
collaborations

Ability to use  
findings to shape  
public policy

Learn more

To contribute  
to advances in  
Health Equity

# Wants, needs, and hopes: survey results

Interest in working on various parts of projects:

**Steering  
Committee**



■ Yes ■ No ■ Possibly

**Mentorship  
Committee**



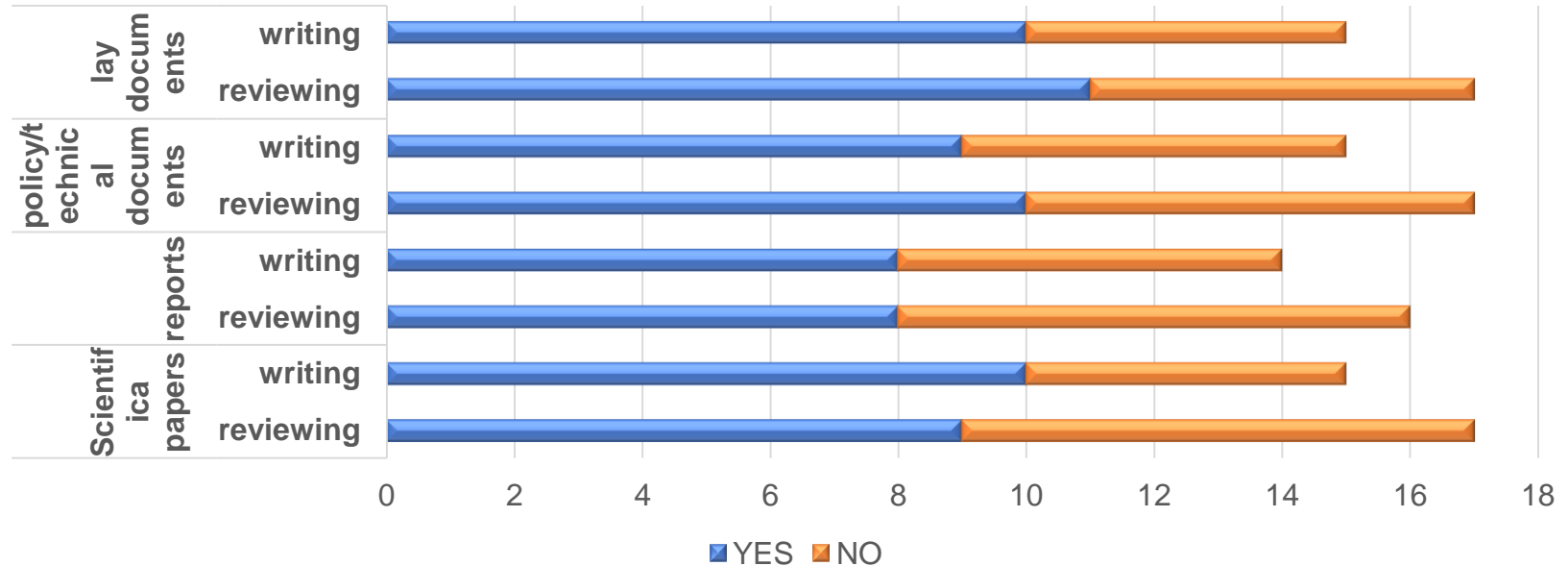
■ Yes ■ No ■ Possibly

**Project Working  
Group**



■ Yes ■ No ■ Possibly

# Interest in participating in writing or reviewing various knowledge products





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# Let's talk!



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