Canadian Small Jurisdiction modelling initiative

Lisa Kanary & Michael Li

Public Health Risk Science, NML, PHAC

Introduction - Lisa

- We are interested in an important topic that, as far as we can tell, is undermined—modelling to support small jurisdictions.
- Aim to build a community of practice where we can exchange ideas, have some mutual learning and capacity development.
- Small jurisdiction research questions different than larger jurisdiction question: While modellers from smaller jurisdictions were invited to participate in the external modelling meetings, majority of the issues discussed were generic, and the discussions were dominated by regions with a substantial number of cases and outbreaks, typically occurring in larger jurisdictions

Objectives - Michael

- We, at PHAC, would like to hear about the challenges and experiences so that we can better understand the needs of smaller jurisdictions and prepare more effectively for the future. Additionally, we see this as an opportunity to bridge knowledge gaps.
- Other initiatives with similar formats has a different result – GLTO
- We are interested in documenting this experience, with the goal of writing a paper on these insights and experiences.
- For our academic partners, we at PHAC are happy to work with you to determine how to develop capacity, making your assistance valuable when supporting your own jurisdictions. We are also interested in jointly collaborating or leading a manuscript for publication on lessons learned and challenges for smaller jurisdictions.
- This is also a good opportunity to establish a working group/team for future funding opportunities.

Small Jurisdiction Participants - Lisa

Round table: introduce yourself, one or two sentences about what you hope to gain from this group

Name	Organization
Amy Hurford	MUN
Brian Gaas	YG
Erin Rees	PHAC
James Watmough	UNB
Julien Arino	UManitoba
Lisa Kanary	PHAC
Michael Li	PHAC
Nate Osgood	USask
Rania Wasfi	PHAC
Shokoofeh Nourbakhsh	PHAC
Steve Guillouzic	DRDC
Valerie Hongoh	PHAC
Steve Walker	McMaster University
Renny	

Anyone else to invite or add to the group?

Subtopics of interest - Michael

- Tailored Models for Small Jurisdictions:
  - Develop specialized models that are specifically designed to address the unique characteristics and challenges of smaller jurisdictions.
  - Consider factors such as population density, healthcare infrastructure, and socio-economic conditions that may differ from larger regions.
- Collaborative Approach:
  - Foster collaboration between modelers from larger and smaller jurisdictions to share knowledge and insights.
  - Encourage the exchange of ideas and experiences to enhance the understanding of the specific challenges faced by smaller communities.
- Data Collection and Analysis:
  - Emphasize the importance of accurate and timely data collection in smaller jurisdictions to inform modeling efforts.
  - Develop strategies to improve data availability and quality in these areas.
- Localized Response Strategies:
  - Tailor response strategies based on the specific needs and capacities of smaller jurisdictions.
  - Recognize that one-size-fits-all approaches may not be suitable for diverse regions, and adapt strategies accordingly.
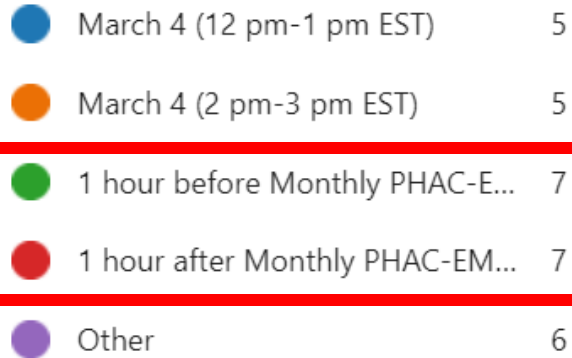
Subtopics of interest (cont'd) - Michael

- Capacity Building:
  - Invest in building the modeling and analytical capacity of professionals in smaller jurisdictions.
  - Provide training, resources, and support to enhance their ability to contribute meaningfully to discussions and decision-making processes.
- Inclusive Participation:
  - Actively involve modelers from smaller jurisdictions in the planning and execution of external modeling meetings.
  - Ensure that their perspectives are considered, and their expertise is utilized in a way that addresses the unique challenges they face.
- Research Funding and Support:
  - Allocate research funding and support specifically for studies and projects focused on modeling and preparedness in smaller jurisdictions.
  - Encourage researchers to explore innovative solutions tailored to the context of smaller communities.
- Communication and Awareness:
  - Improve communication channels to ensure that relevant information and best practices are shared with modelers and decision-makers in smaller jurisdictions.
  - Increase awareness about the importance of including diverse perspectives in pandemic modeling efforts.

Survey Results – When to meet and how often? - Lisa

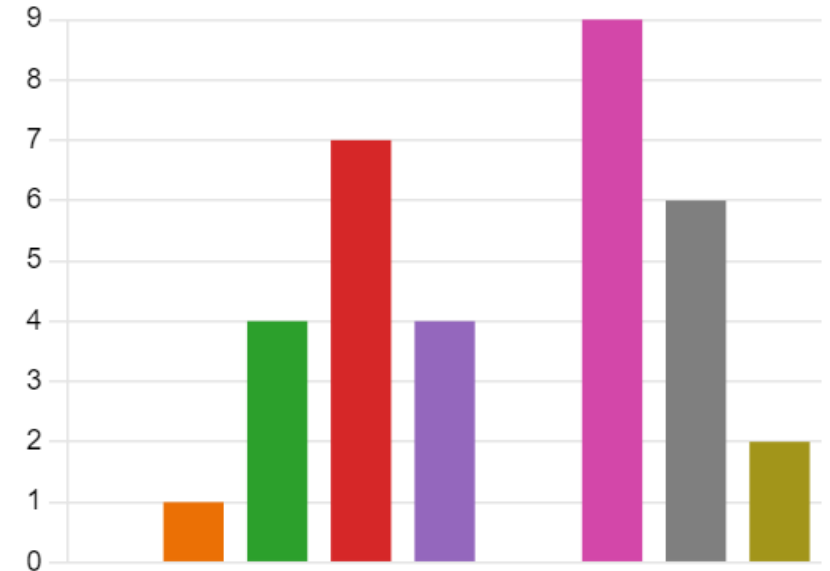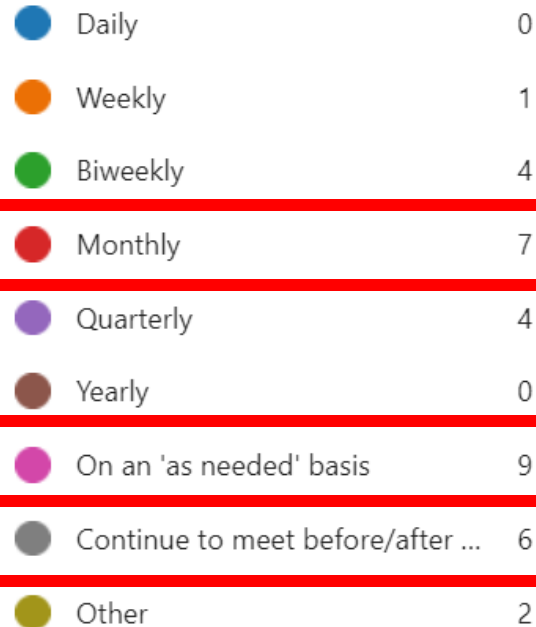1. When are you available for the first meeting? Select all that apply.

More Details

Folks can get home for kiddos

● March 4 (12 pm-1 pm EST)	5
● March 4 (2 pm-3 pm EST)	5
● 1 hour before Monthly PHAC-E...	7
● 1 hour after Monthly PHAC-EM...	7
● Other	6

2. How often would you be available or willing to meet after the first meeting? Select all that apply.

More Details

● Daily	0
● Weekly	1
● Biweekly	4
● Monthly	7
● Quarterly	4
● Yearly	0
● On an 'as needed' basis	9
● Continue to meet before/after ...	6
● Other	2

Survey Results – Important themes? - Lisa

Legend: ■ Extremely Interested   ■ Moderately Interested   ■ Not at all Interested

- Tailored models for small jurisdictions
- Collaboration between modelers
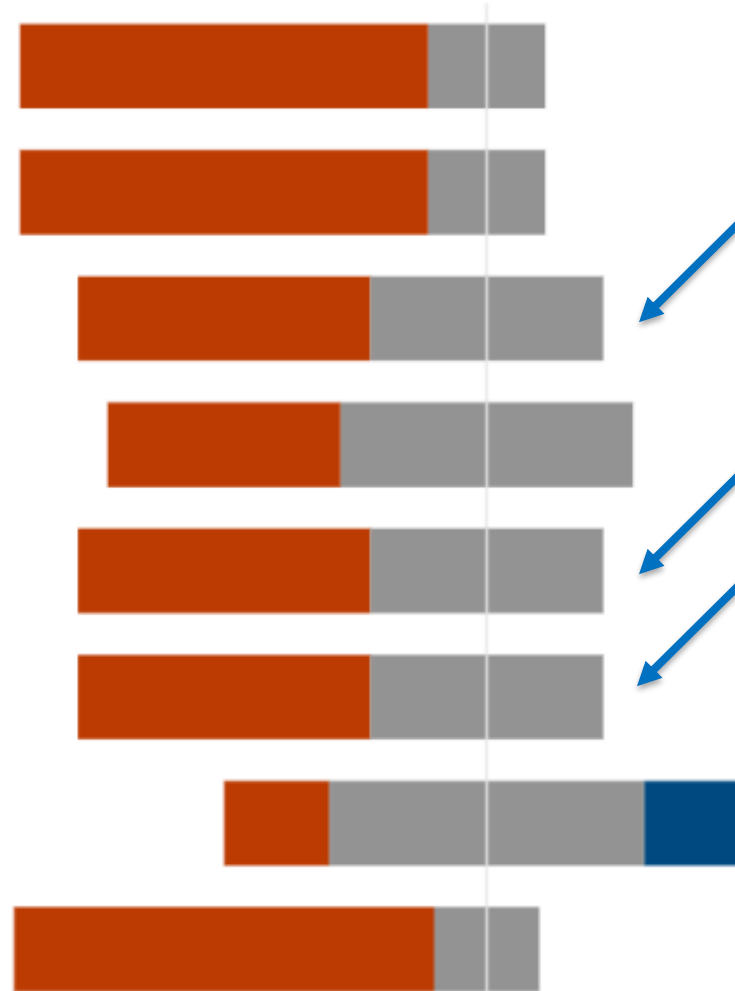- Accurate and timely data collection in smaller jurisdictions
- Localized Response Strategies
- Increase modelling and analytical capacity of professionals in smaller jurisdictions
- Involve modelers from smaller jurisdictions in the planning and execution of external modeling...
- Allocation of research funding and support specifically for small jurisdiction modelling
- Improve communication and awareness of small jurisdiction modelling needs

- Very important for this group to exist for connection, collaboration, brainstorming, discussions, capacity building, etc
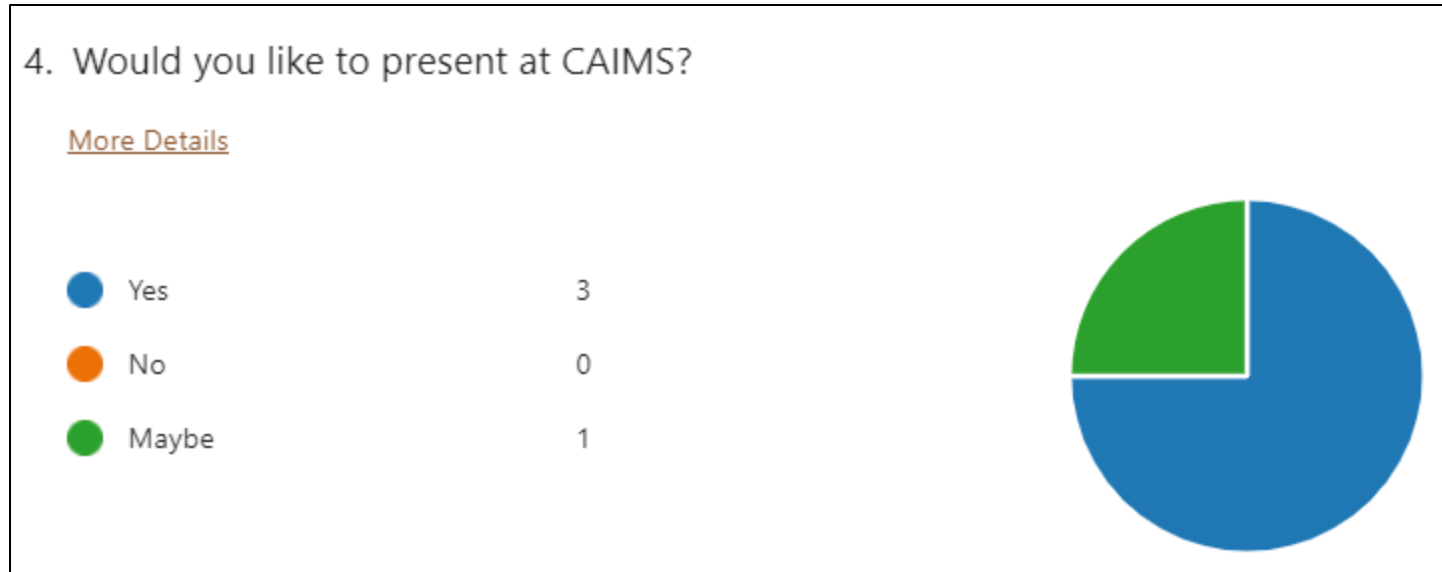
- The particulars are important but maybe a byproduct of the meetings and connections

Survey Results – More important themes? - Lisa

Here are some other goals mentioned:

- Address data gaps or finding alternate information sources (e.g. EO data as applicable to some study systems).
- Building a network/relationship with northern and First Nations communities and creating specific models for their needs.
- Collaboration, discussion, capacity building and a group to call on for small jurisdiction modelling needs.
- Cross-validation of models.
- Explore access to northern and First Nations data on respiratory illnesses - which requires a relationship with both Inuit communities and their local public health.
- Explore novel modelling needs during the pandemic, and decision-makers should be supported even though academic capacity is lower.
- Fun to model and look critically at the details of small jurisdiction modelling.
- Gain a better understanding of which regional differences affect policy recommendations (i.e., things correlated with being a small jurisdiction).
- Have continuous discussions with northern and First Nations local public health on the intervention scenarios they wish to explore with models for respiratory illnesses.
- Improve our engagement with small communities - leaders and regular people - so that we build trust to better work together for serving their needs.
- Gain a better understanding of the needs and complexities re: modelling in small jurisdictions
- Serve small and remote communities because they often have different health challenges and socio-demographic profiles that do not work well under the 'national average' lens.
- Small jurisdictions, in particular isolated ones, are "perfect" places in which to consider the initial stochastic phase of outbreaks, which are very interesting.

Things to do at CAIMS - Lisa

4. Would you like to present at CAIMS?

More Details

● Yes		3
● No		0
● Maybe		1

- Focus on building relationship with northern communities
- Determine:
  - ➢ What questions do people want to know they don't have answers for;
  - ➢ projects to acquire data that don't exist now (e.g., behavioral information),
- Instructional time of "here is my code and how it works" for answering specific kinds of questions
- At least one informal discussion during a lunch or break or evening.
- At least 1 brainstorming session (well-planned) should be sufficient, with a paper to follow

Last Minute Thoughts or Ideas?