


# Urban Disaster Risk & the Covid-19 Pandemic

*Addressing Vulnerability, Strengthening Resilience*



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# Biography



## McMaster University (2013-2017)

Geography & Political Science

## University of Toronto (2018-2020)

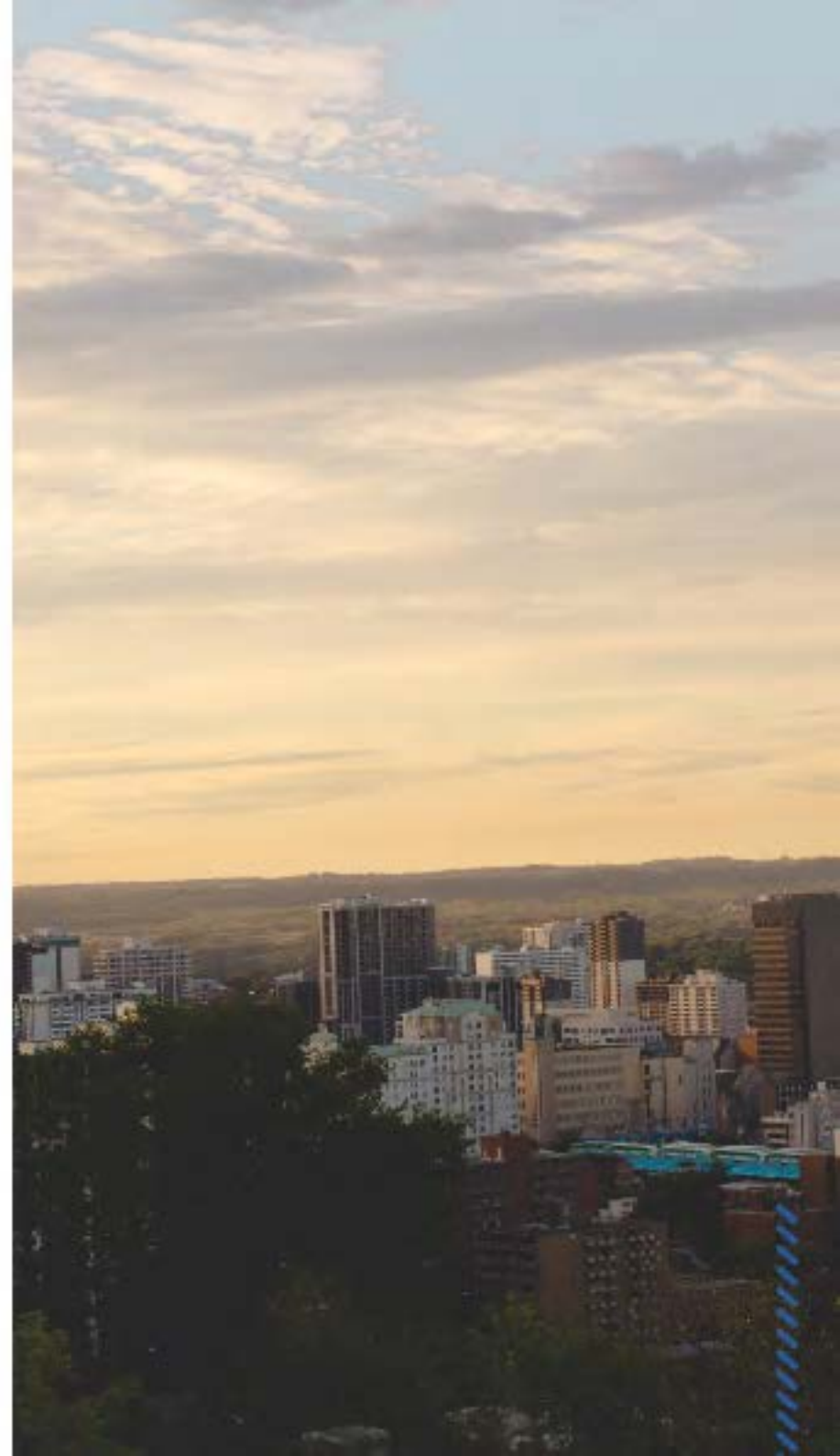
Munk School of Global Affairs and Public  
Policy

## Reach Project (2019)

Fab Lab, Guadalajara, Mexico

## Urban Policy Lab (2019-2020)

Munk School of Global Affairs and Public  
Policy



# Research Plan



## Problem

High concentration of population, economic activities and interconnectivity make cities Covid-19 hotspots.


## Challenge/ Opportunity

Underlying vulnerabilities and disproportionate experiences.

Unprecedented opportunity to study how cities react to pandemics and how they adapt.

## Objective

Examine urban experiences with Covid-19 to better understand how we can build more resilient cities.





# Understanding Disasters

**Types:** Atmospheric (hurricane), geological (earthquake), biological (pandemic), etc.

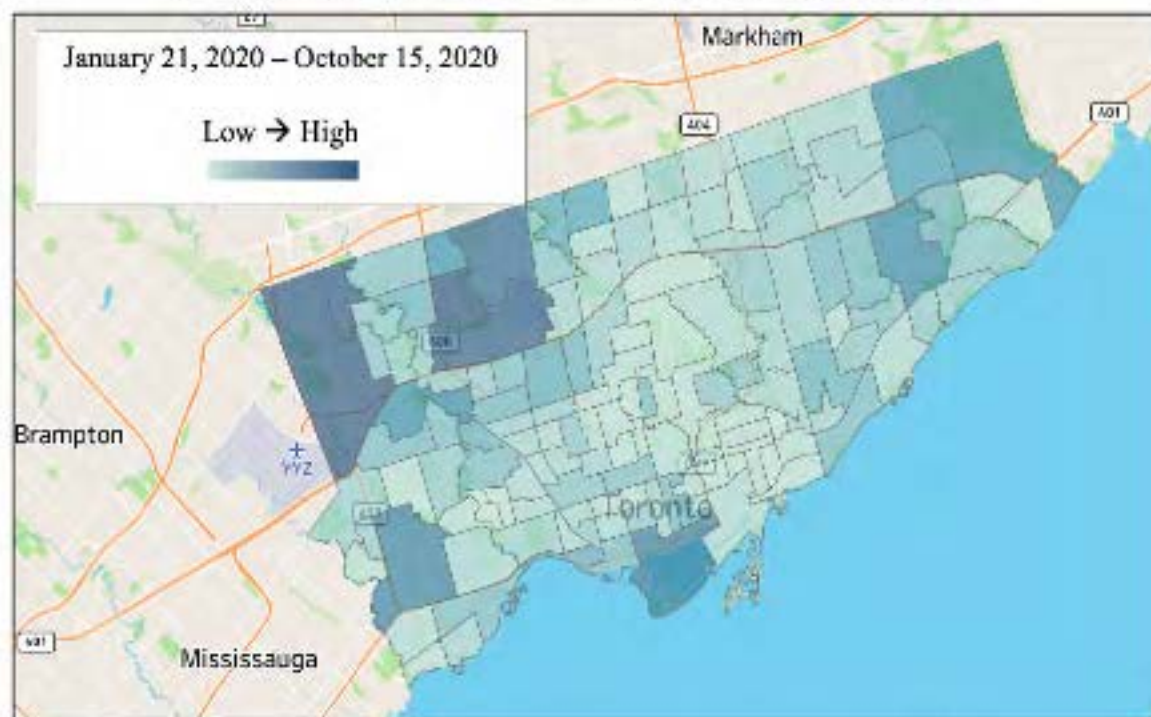
**Vulnerability & Resilience:** Embedded risks often exacerbated by disasters  
Capacity of a system to adapt, preserve and 'bounce back'

**Disaster Risk Drivers:** Climate Change, uneven economic development, poverty, poorly planned urban development, weak governance, shifting demographics, etc.

# Urban Experiences with Covid-19



Cumulative Covid-19 Cases by Neighbourhood



City of Toronto. (2020). COVID-19: Status of Cases in Toronto, Neighbourhood Maps.

## Toronto Public Health Study

Lowest income groups = highest rate of confirmed Covid-19 cases (504 cases per 100,000 people) compared to the rate in the highest income group (162 cases per 100,000 people).

## Determinants of Health in Cities

1. Discrimination
2. Health Care Access
3. Occupation
4. Housing
5. Transportation Network
6. Income
7. Access to green spaces



# Response Challenges



## Compounded Risk

- Possibility of multi-hazard events (mitigating risks while upholding pandemic response)
- Second wave
- Economic crisis, rising unemployment
- Strained local budgets
- Quarantine fatigue



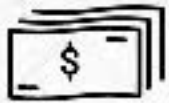
## Compounded Vulnerability

- Address vulnerabilities borne out of structural inequalities
- Linked to factors including, but not limited to: geography, housing, gender, age, ethnicity, job sector, income, health, mobility, and education

# Policy Guidance



Strong and strategic integration of health-related emergency risks into DRR policy at all levels of government.



Develop better understandings of Covid-19 economic implications to develop and enhance resilience.



Augment strategic plans for inclusion of multi-hazard event preparedness during pandemic planning.



Address underlying community-level vulnerabilities before they are exacerbated by hazardous events.



Early implementation, widespread information sharing, and enforcement of social-distancing practices.



Regulate and repurpose the use and operation of public facilities and land.

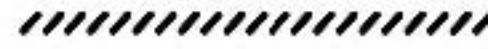


Investigate urban characteristics, plans, and policies that have worked against Covid-19 control measures.



# WHAT HAPPENS NEXT?



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- Must better understand the underlying patterns and dynamics of pandemics, their effects on cities, and the necessary emergency preparedness measures to enhance resilience.
  - The policy guidance brought forward in this report can be utilised as a starting point for such changes.
  - With critical changes to how we think of and prepare for pandemics, future outbreaks may cause minimal shocks and stresses to cities- and then we would never have to repeat 2020 ever again.

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**Thank  
you!**