

# **Ku-gaa-gii pimitizi-win**

**The COVID-19 cohort study of people  
experiencing homelessness in  
Toronto, Canada**

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**MAP Centre for Urban Health Solutions, Unity Health Toronto**

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# Land Acknowledgement

*This meeting is taking place on land that has been home to First Nations for thousands of years. Toronto exists on the ancestral territory of the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples, and is home today to a vast diversity of First Nations, Inuit and Métis individuals from across Turtle Island.*

# Participant Acknowledgement

*With gratitude, we acknowledge and thank the participants of the Ku-gaa-gii pimitizi-win study who took part in this project by sharing their lived and living experiences of homelessness during the uncertainty of the COVID-19 pandemic.*

# Ku-gaa-gii pimitizi-win

*To guide our work, a spirit name was given in ceremony by Elder Dylan Courchene from Anishnawbe Health Toronto.*

*Ku-gaa-gii pimitizi-win, which translates in English to 'life is always/forever moving', reflects and honours the movement of homeless individuals across the land, the spirit and growth of the land we are on, and the force that connects us all to the future.*

# Collaborations

- The Ku-gaa-gii pimitizi-win project has been made possible through a number of ongoing, interdisciplinary collaborations and partnerships.
- One of the most significant of these relationships has been our collaboration with Anishnawbe Health Toronto.
- AHT is in possession of and maintaining health data collected from Indigenous participants through this research project.



# March 2020 - An urgent need for data

**We now  
know that  
COVID-19:**

Posed a major threat to overall health

Spread rapidly in shelters; and

Increased risk for poor health  
outcomes

We also know that **people experiencing homelessness continue to** face a **higher-risk** for contracting SARS-CoV-2 **and suffering from severe COVID-19 infection.**

# Current State of Knowledge

**To date, limited studies have described COVID-19 incidence and transmission dynamics among people experiencing homelessness in Toronto using a longitudinal cohort design.**

# Main Study Questions

**What** is the prevalence and incidence of COVID-19 among PEH in Toronto over a 12-month observation period?

**Are** housing history, individual and shelter-level characteristics associated with incident COVID-19 infection among PEH?

**Are** housing, individual and shelter-level characteristics associated with worse health outcomes among PEH diagnosed with COVID-19?

**Can** we build an accurate and iteratively updated transmission model of COVID-19 in the homeless population with data from this cohort study?

PEH: People experiencing homelessness



# Sub-Studies

**Qualitative  
Exploration**

Genomic  
Sequencing

Transmission  
Modelling

# Doing Research During a Pandemic

- Within a year, over 20 co-investigators, 5 collaborators, a research team and many community partners came together to develop and initiate this study.
- Conducting research during times of uncertainty was made possible by dedicated interviewers and relationships that were fostered between the Survey Research Unit, the SSHA and shelter service providers.
- Working closely with recruitment sites including shelters and shelter hotels, and others, we prioritized building rapport with staff and understanding the spaces in which we planned to meet potential participants



# Cohort Study Approach and Design

## Participants

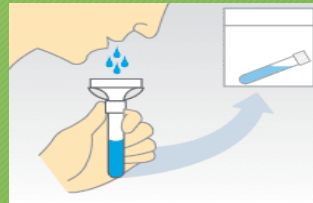
**Sites of Recruitment:** shelters, shelter hotels & 1 encampment

**Sampling:** Random selection of 20% of residents at each site

## Data and Sample Collection



Interview



Saliva



Finger-Prick Blood



Database Linkages

**Follow-up: 12 Months**

## Timeline



# Recruitment and Data Collection

● **Interviewing began June 16, 2021, and ended Sept 9, 2022**

● **736 participants were recruited in total**

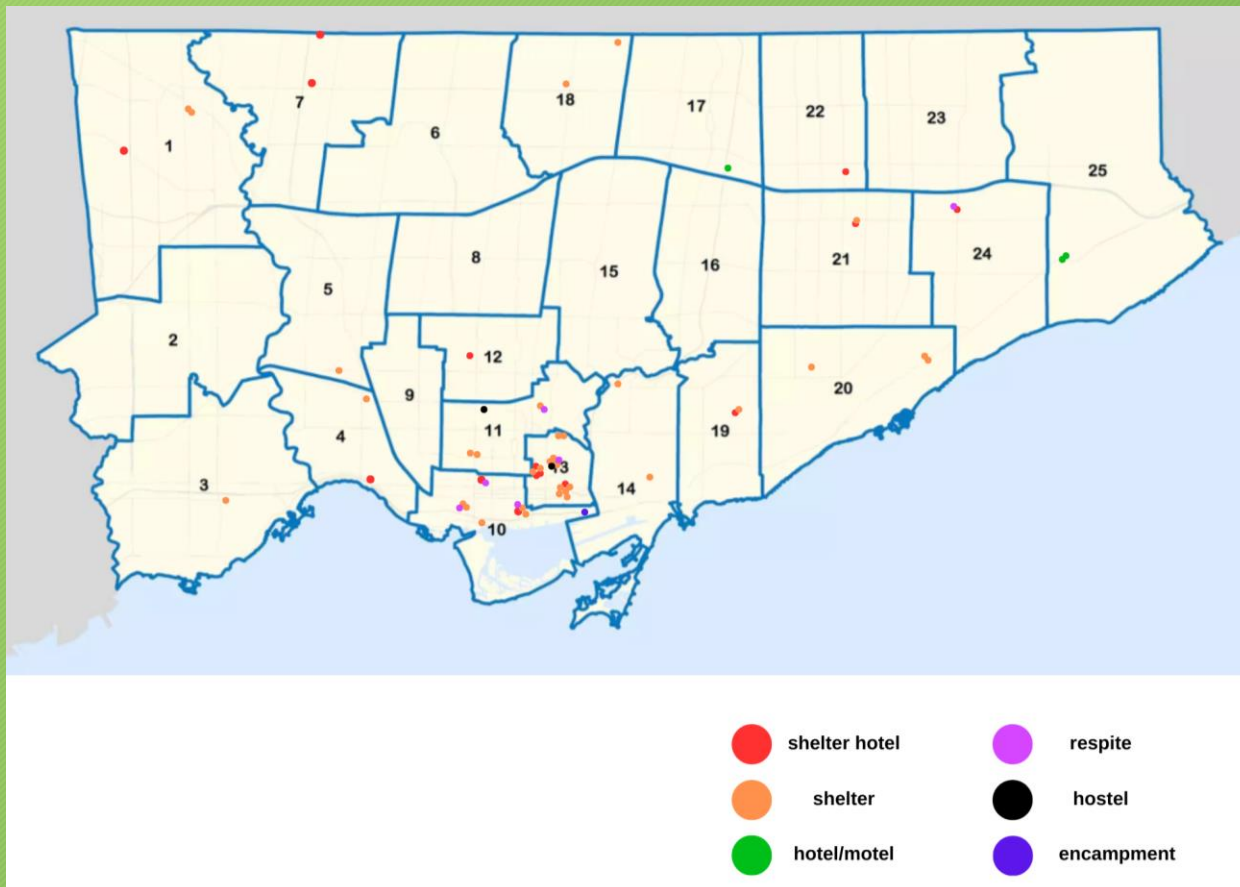


**Of 736 participants 640 were successfully linked to ICES using OHIP numbers**

**A total of 61 shelter sites participated in the study**

**28 sites declined or could not be engaged**

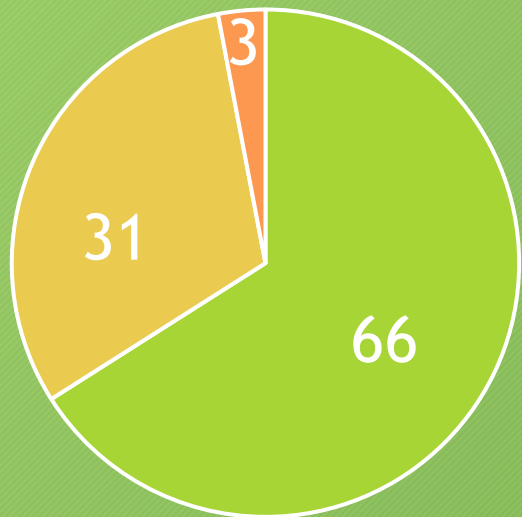
# Where were participants recruited from?



	Recruitment Sites	
	# of sites	total recruitment
shelter hotels	16	286
shelter	34	333
respite	7	53
hotel/motel	2	50
hostel	2	12
encampment	1	2

# Who are the participants?

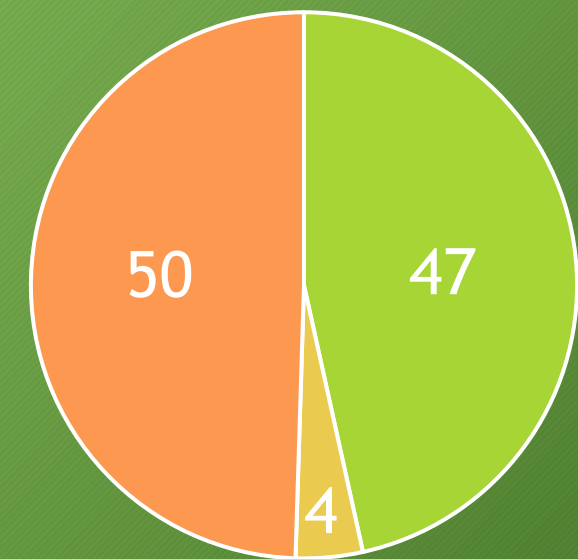
Gender



Male Female Other

Age	%
16-19	2%
20-29	13%
30-39	23%
40-49	22%
50-59	22%
60-69	13%
70+	6%

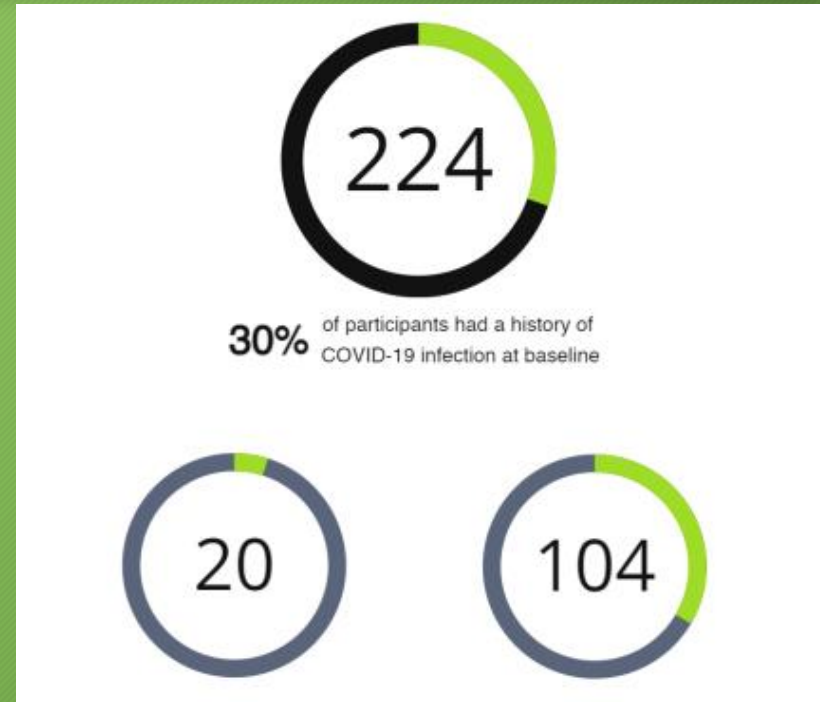
Race



White Indigenous Other racialized

# Early Learnings about Infection

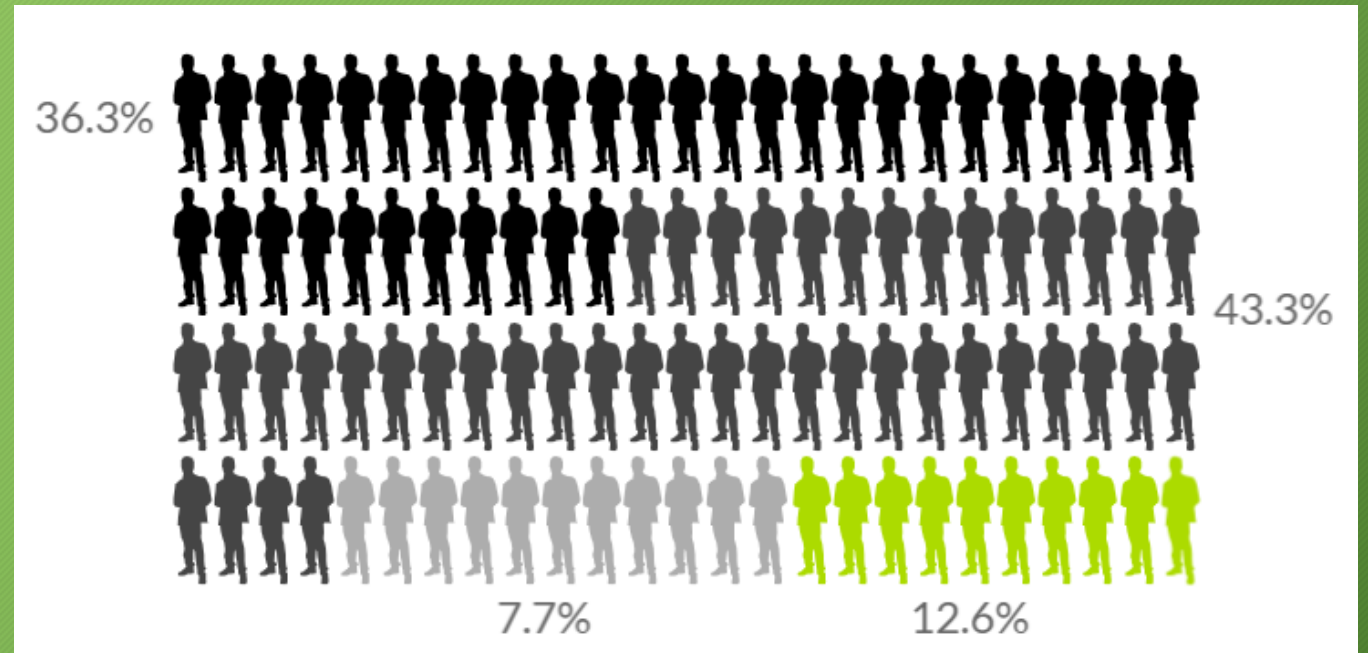
- 30% of participants had a history of SARS-CoV-2 infection at baseline.
- Another 16% participants experienced their first infection by 6 months, most after Omicron became the dominant strain.
- Most did not have a positive PCR test.



# Early Learnings about Vaccination

By 6-months (Between November 2021 and April 2022):

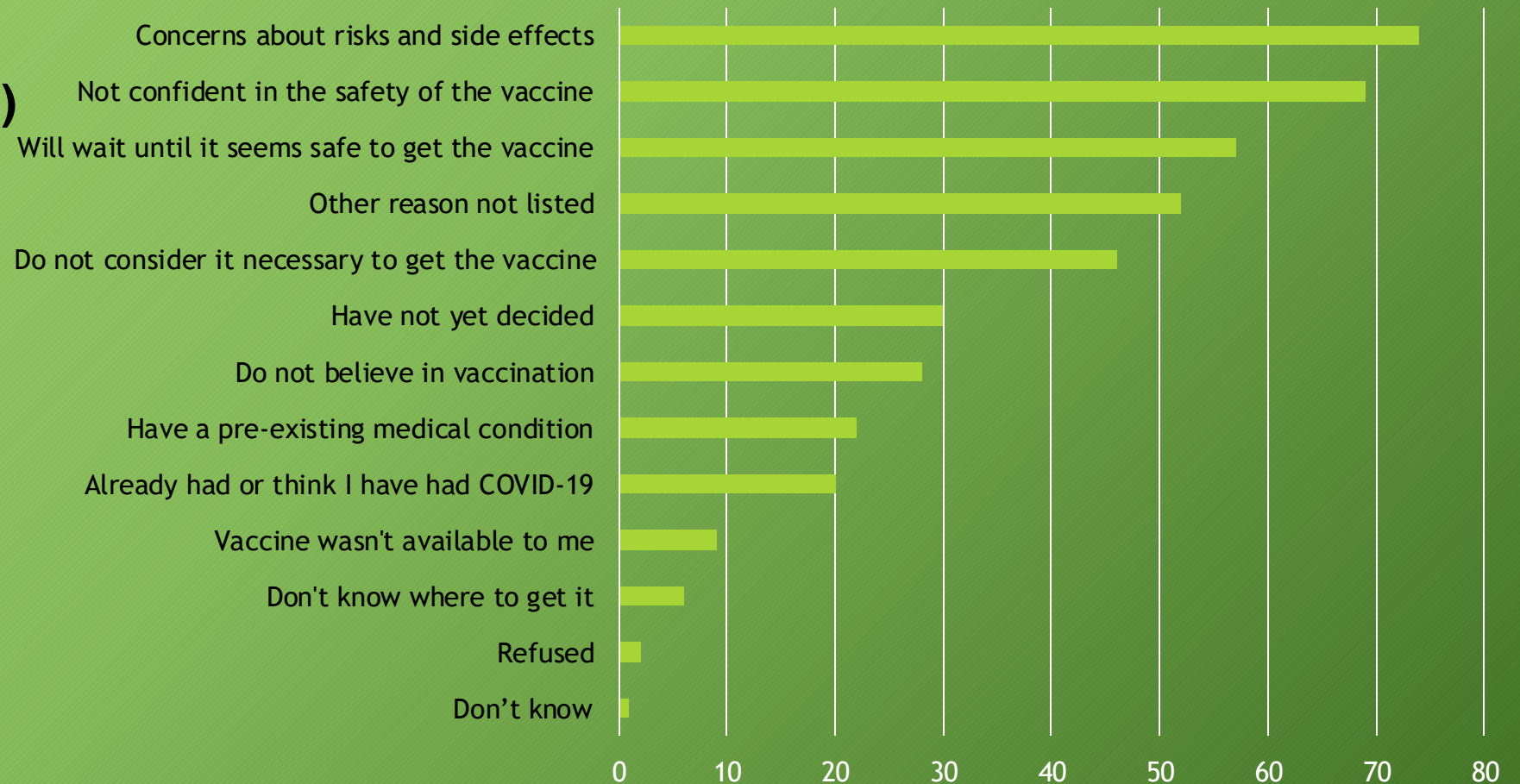
- 36.3% of participants received at least 3 COVID-19 vaccine doses
- 43.3% of participants had 2 doses
- 7.7% of participants had 1 dose
- 12.6% of participants remain unvaccinated





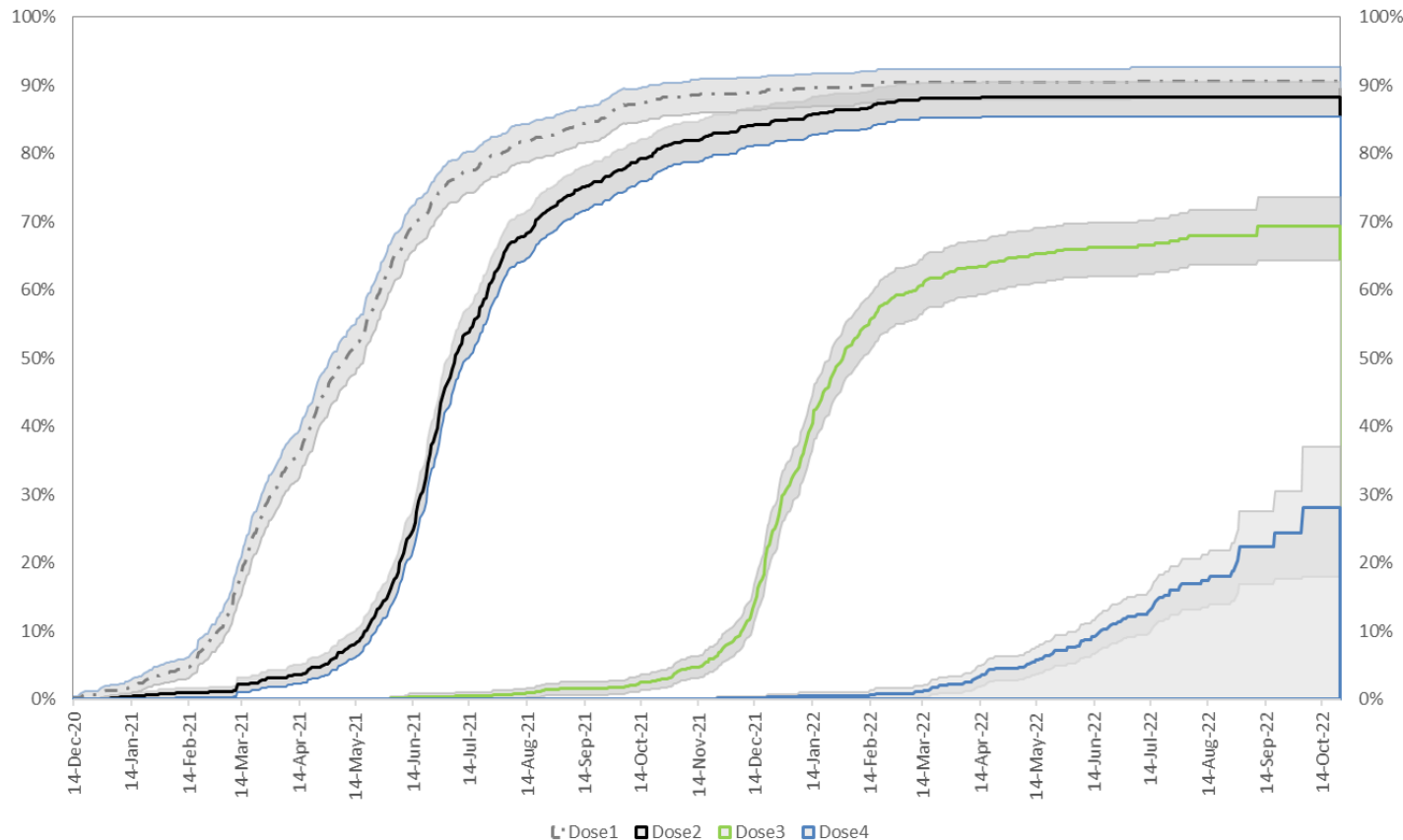
# Reasons for not Getting Vaccinated

## Reasons reported for not getting vaccinated (n=145)



# Vaccine Doses

Self-reported COVID-19 vaccine uptake  
among Ku-gaa-gii pimitizi-win study participants, by dose number

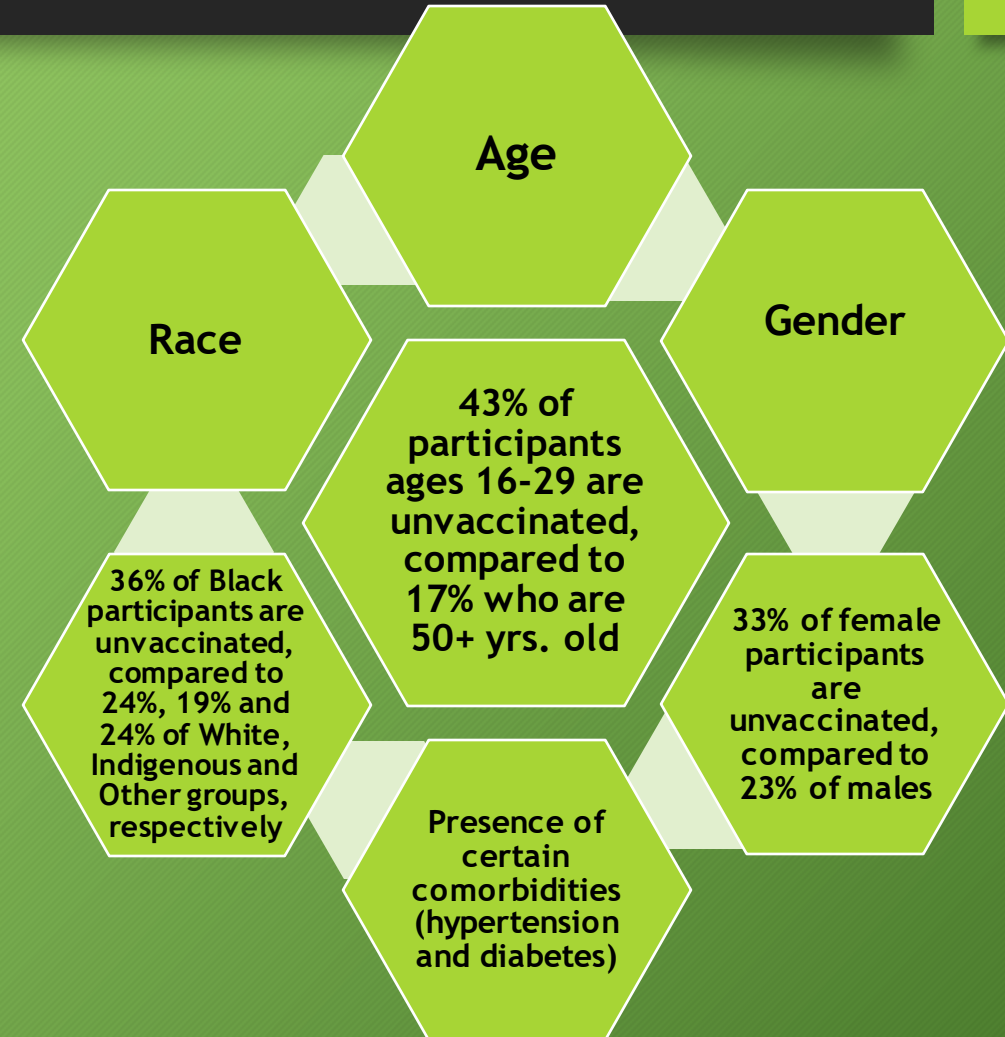


## By the end of the study:

- **90.6%** of participants had 1+ vaccine dose;
- **88.3%** had 2+ doses;
- **69.3%** had 3+ doses;
- **28.1%** had 4+ doses

# Factors Associated with Being Unvaccinated at 6-months

	White	Black	Indigenous	Other
Male	12.3	12.8%	12.5%	13.6%
Female	12.8%	<b>34.0%</b>	8.0%	14.0%



Qualitative Sub-Study: Exploring the impact of the  
COVID-19 pandemic on people experiencing  
homelessness in Toronto, Canada

Led by Dr. Jesse Jenkinson Ph.D

# We set out to better understand...

- The impact the pandemic and government responses were having on people living within the City of Toronto's shelter system.
- 42 individuals participated in qualitative interviews.

## We asked people about their:

- Experiences during the COVID-19 pandemic.
- Opinions toward the COVID-19 vaccine.
- Enablers and barriers to vaccine uptake.
- Strategies to improve vaccine uptake. Sources of support, feeling safe and cared for.



# Early Qualitative learnings...

**Experiences:** Agency over one's body and choice (for both choosing to get the vaccine and choosing not to)

- At first, it was like a choice and now it's like you feel like you have to, so it just feels like it's like got an agenda that's being like pushed you know. (ID\_3933, NV\_F\_R)

**Opinions:** Trust in science, not the government:

- I trust the science. They're the guys that are looking into this and they really know. Governments is politics and I feel like their own self-interest in a lot of times get in the way of what needs to be done. (ID\_0161, V\_F\_W)

**Opinions:** Confidence in the vaccine

- As soon as they said it was safe and as soon as they said you get it on your health card for nothing, I was like at the door knocking at the door. [Laugh] (ID\_0498, V\_M\_W).

# Early Qualitative learnings...

## Strategies:

- Information from a trusted source (peer, family doctor, etc.)
- Information outreach prior to vaccination outreach
- Lay vaccinators
- Financial incentives
- Holistic approach (beyond just the vaccine) including access to healthy food, shelter, etc.

# A snapshot of what's yet to come for **Ku-gaa-gii pimitizi-win** ...

- Investigation of excess mortality amongst PEH during the pandemic.
- Long-COVID following SARS-CoV-2 infection and associated increases in healthcare utilization
- Investigate comorbidities, COVID-19 testing results, health outcomes, and health care utilization using ICES databases





# Emerging Learnings and Key Messages

- Infection burden among people experiencing homelessness in Toronto is very high
- Vaccination rates are also very high, much higher than in most other reported settings
- Targeted vaccination campaign efforts were effective, but need to target certain groups better.
- Congregate, crowded housing types are significantly associated with infection; the use of shelter hotels decreased risk for thousands of PEH in Toronto

# Visit our Website to Stay Connected!

Here you will find :

- All academic publications
- The qualitative Community Report
- Newspaper features
- Scientist Bios & much more!



The screenshot shows the website for the MAP Centre for Urban Health Solutions. The header includes the logo and navigation links for 'Who We Are', 'Our Scientists', 'What We Do', 'Research Projects', 'Events', 'News', and 'Podcasts'. There are also links for 'Français' and 'Contact Us'. The main content area features a news article titled 'Ku-gaa-gii pimitizi-win COVID-19 Cohort Study', which is noted as 'formerly known as "The COVENANT Study: COVID-19 Cohort Study of People Experiencing Homelessness in Toronto"'. The article is categorized as 'IN PROGRESS' and is related to 'COVID-19' and 'Homelessness and Housing'. On the right side, there are icons for printing and sharing, and a 'Resources' section listing 'CAEH 2022 Presentation' and 'CAHSPR Presentation Poster'.

Please visit our website for more information:

<https://maphealth.ca/ku-gaa-gii-pimitizi-win/>

# Contact Information

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# Acknowledgements

- The Survey Research Unit team
- Participating shelter, encampment and COVID-19 distancing hotel staff
- The Waakebiness-Bryce Institute for Indigenous Health
- Anishnawbe Health Toronto
- MAP's Community Expert Group
- City of Toronto SSHA Division
- Gingras Lab
- Microbiology Lab
- Gommerman Lab

# Questions