

Incidence of COVID-19 Infection Among People Experiencing Homelessness In Toronto, Canada^a

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Objective

What we know

- From the start of the pandemic people experiencing homelessness were believed to be at high risk for COVID-19 infection, due to historical disparities in other infectious disease burden.
- A number of seroprevalence estimates are now available for populations experiencing homelessness^{b-p}, which largely confirm excess burden; however, these vary substantially depending on timing of data collection and wider social/policy context.

What we don't know yet

- There aren't any estimates of COVID-19 seroprevalence among people experiencing homelessness since the emergence of the Omicron variants;
- There have not been any longitudinal assessment of COVID-19 incidence among people experiencing homelessness in our region

Our goal

- We report the **period prevalence** of SARS-CoV-2 infection at baseline and the **rate of incident infection** over 6 months among people experiencing homelessness in Toronto, Canada in 2021 and 2022
- We examined characteristics associated with incident infection by 6 months.

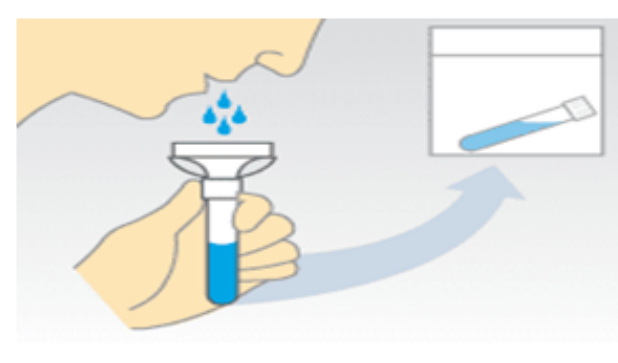
Methods

The *Ku-gaa-gii pimitizi-win* cohort study^q followed participants randomly selected from >60 homeless shelters, physical distancing hotels and encampments across Toronto. Participants completed an interview and provided saliva and blood samples at recruitment, 3, 6, 9 and 12 months.



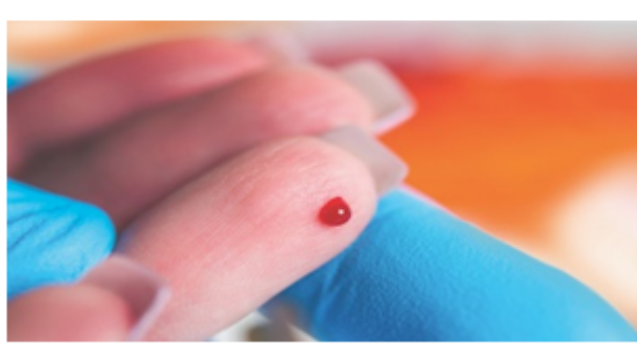
Interview

- Sociodemographics/health
- Housing history
- COVID-19 test results (PCR or Rapid Antigen Test [RAT])
- COVID-19 vaccination history



Saliva

- PCR: Detection of current COVID-19 infection



Finger-Prick Blood

- Serologic assay to detect past infection via spike protein trimer (S), spike receptor-binding domain protein (R), and nucleocapsid protein (N)

This analysis uses data at baseline, 3 and 6 months.

Outcomes

SARS-CoV-2 Infection

Infection identified through any of:

- self-reported positive PCR or RAT
- study-administered PCR test
- at least 2/3 anti SARS-CoV-2 antibodies positive in blood sample

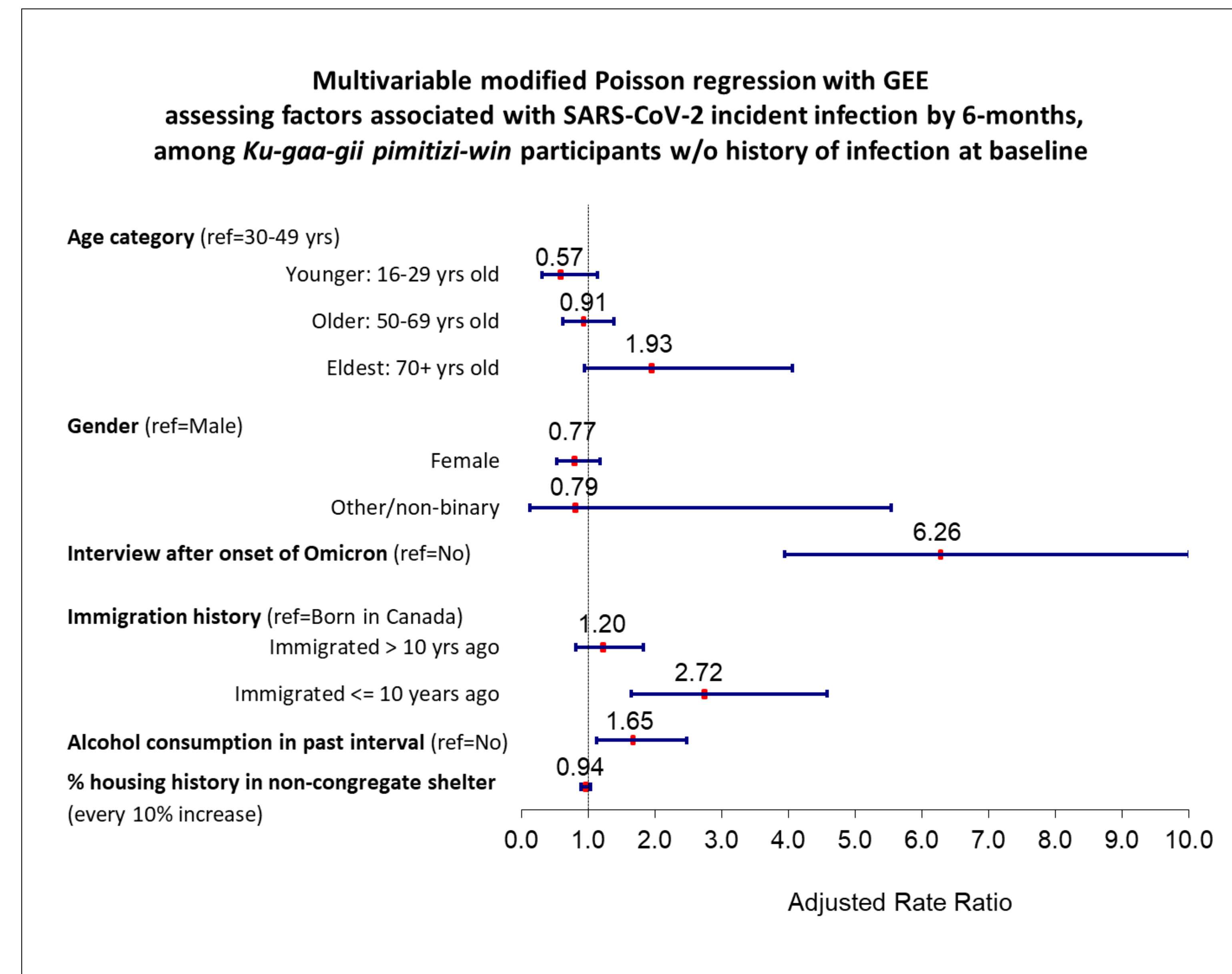
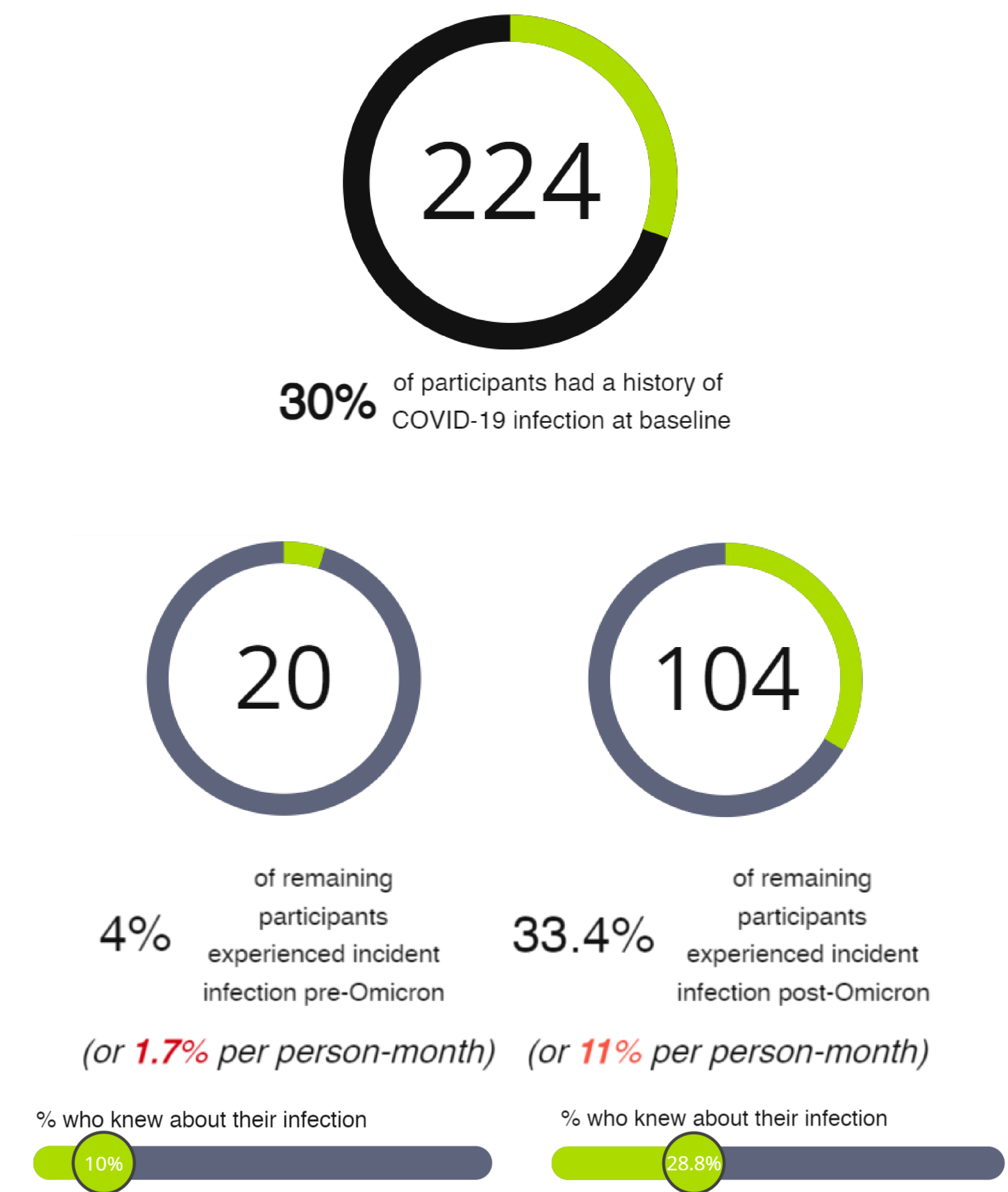
Period prevalence:

participants with history of infection at baseline / # participants overall.

Incident infection :

New evidence of infection after baseline among participants at risk (no history of infection at baseline)

Results



Conclusions

People experiencing homelessness in Toronto in 2021 and 2022 have elevated SARS-CoV-2 incident infection rates, potentially reflecting up-stream structural risks that make unhoused individuals vulnerable to infection compared to housed counterparts.

Among people experiencing homelessness, immigration status and alcohol consumption were associated with higher incident infection by 6 months, suggesting a possible need for modified approaches to infection mitigation efforts in shelters and hotels.

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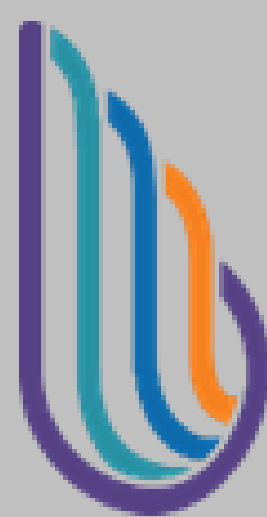
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