

COVID positivity, vaccination, and the socio-behavioural, health and economic impacts among people living with HIV during the COVID-19 pandemic in Ontario, Canada

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Background

The COVID-19 pandemic impacts all aspects of life for people living with HIV. Existing disparities and inequities have been amplified. We examined the broad range of impacts of the COVID-19 pandemic in a cohort of people living with HIV in Ontario, Canada.

What is the Ontario HIV Treatment Network Cohort Study (OCS)?

- Community governed longitudinal cohort study of people living with HIV
- >8,000 participants since 1995
- 15 clinics in Ontario
- Clinical data and questionnaire data
- 1,938 questionnaires collected in 2020
- 2,400 questionnaires collected in 2021

Methods

The OCS is a community-driven longitudinal, clinic-based cohort of over 9,000 PLWH who have received care in Ontario. On March 17, 2020, the province of Ontario declared a public health crisis and introduced physical distancing measures to minimize the spread of COVID-19.

On April 30, 2020, a new 35-item COVID-19-specific module was added to the interviewer-administered questionnaire. Interviews were conducted virtually. We have continued to collect self-reported COVID-19 testing, test positivity, household positivity, and vaccination uptake, with results reported up to October 2021.

Results

From May to December 2020, 1,167 participants responded: median age 53 years, 75% male, 61% white, 63% born in Canada, and Participants reported increases in alcohol (25% overall) and tobacco use (31%, vs 56% among MSM); and among MSM decreases in casual sex (78%); and difficulty paying for basic needs (10%) and HIV medications (5%).

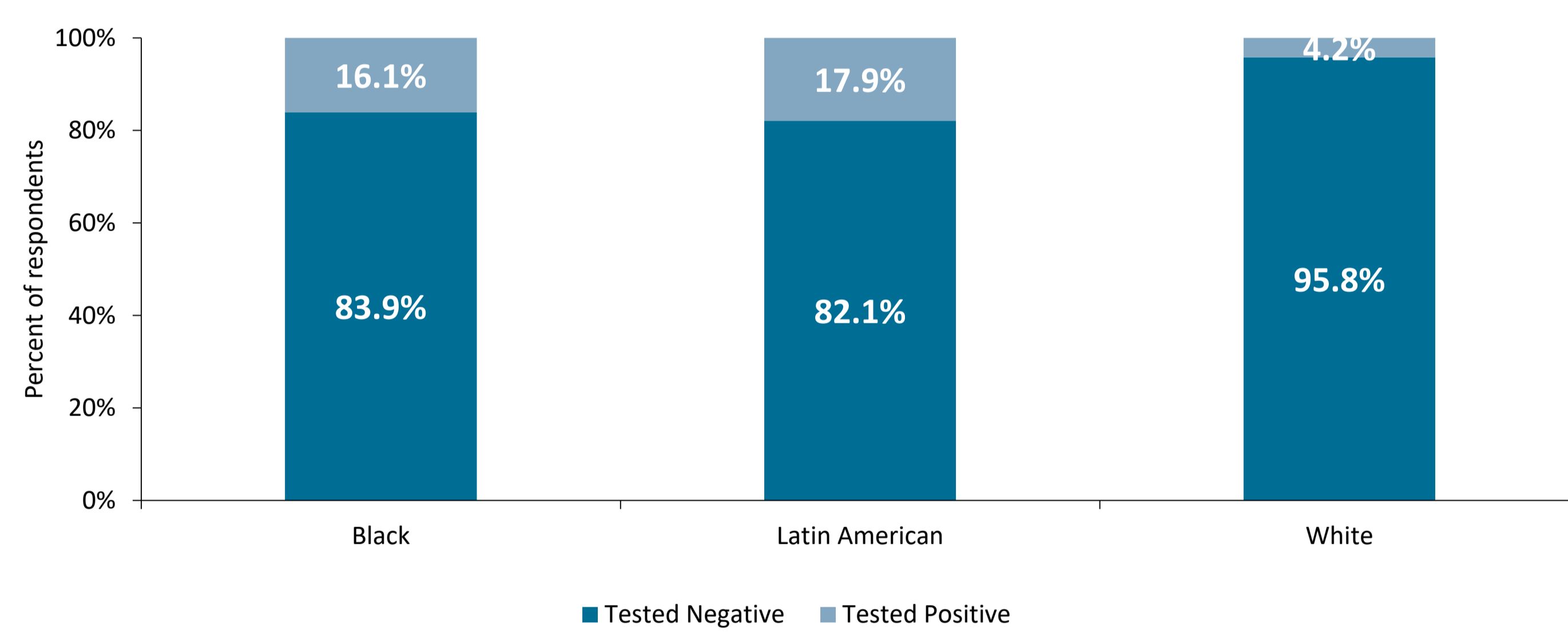
25% of participants reported some economic hardship. Many accessed HIV care virtually (85%), but 18% deferred lab work, 9% HIV care, and 7% STI testing. 32% of people thought care deferral could negatively impact ability to manage HIV. Some expressed fear that HIV increases vulnerability to COVID-19 (44%) and that care might be inequitable for PLWH with COVID-19 (11%). Although some had recurring thoughts due to loss (28%), isolation (13%), and reminders of the AIDS crisis (5%), most reported ability to maintain control (81%) and grow in positive ways (87%) in difficult situations.

COVID-19 positivity among people living with HIV in Ontario has been similar to the general population. Of the 1,157 people who have tested for COVID-19 in the sample, 8.1% have tested positive, with increased positivity among Black people (16%) and people aged 40-49 (14%). Vaccine uptake has been steady and related to availability in the province, with 87% of people interviewed from August-October 2021 having received 2 vaccine doses.

COVID-19 Infection

- 3,186 participants completed the COVID-19 module between May 2020 and October 2021
- 1,157 (36%) tested for COVID-19
 - 94 (8%) reported testing positive

Figure 1. COVID-19 Test Positivity by Race among OCS Participants (May 2020 - October 2021)

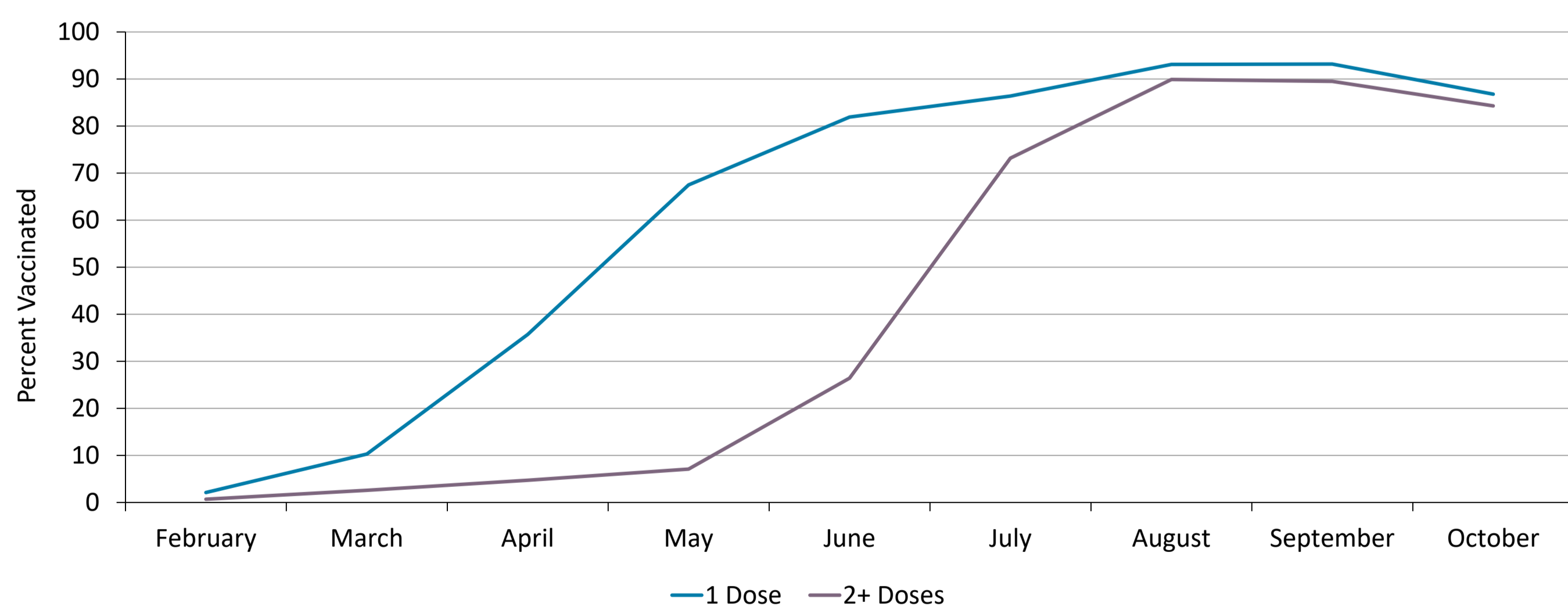


COVID-19 test positivity was highest in Black and Latin American participants compared to White participants. It was also higher in women/trans women (16%) compared to men (6%).

COVID-19 Vaccination Uptake

- 1,876 participants (median age: 55) interviewed between February 2021 and October 2021
- In February 2021 0.7% participants interviewed received at least two vaccine doses
- In October 2021 84.3% participants interviewed received at least two vaccine doses

Figure 2. COVID-19 Vaccine uptake among OCS Participants (Feb 2021-Oct 2021)



COVID-19 vaccine uptake is measured by the monthly responses of OCS participants (~200/month). As of March 2022, 85.5% of Ontarians 5 or older have received 2 doses.

Psycho-social and behavioural impacts of COVID-19

In May 2020, a COVID-19 module was developed in consultation with stakeholders and added to the annual questionnaire, including:

- COVID-19 symptoms, testing, and diagnosis
- Impacts of the pandemic on drug coverage, employment, housing, and finances
- Access to HIV care and deferral of care
- Behavioral change (e.g., substance use, sexual/romantic relationships)

Questionnaires were administered:

- By phone or zoom – 83%
- In-person – 17%

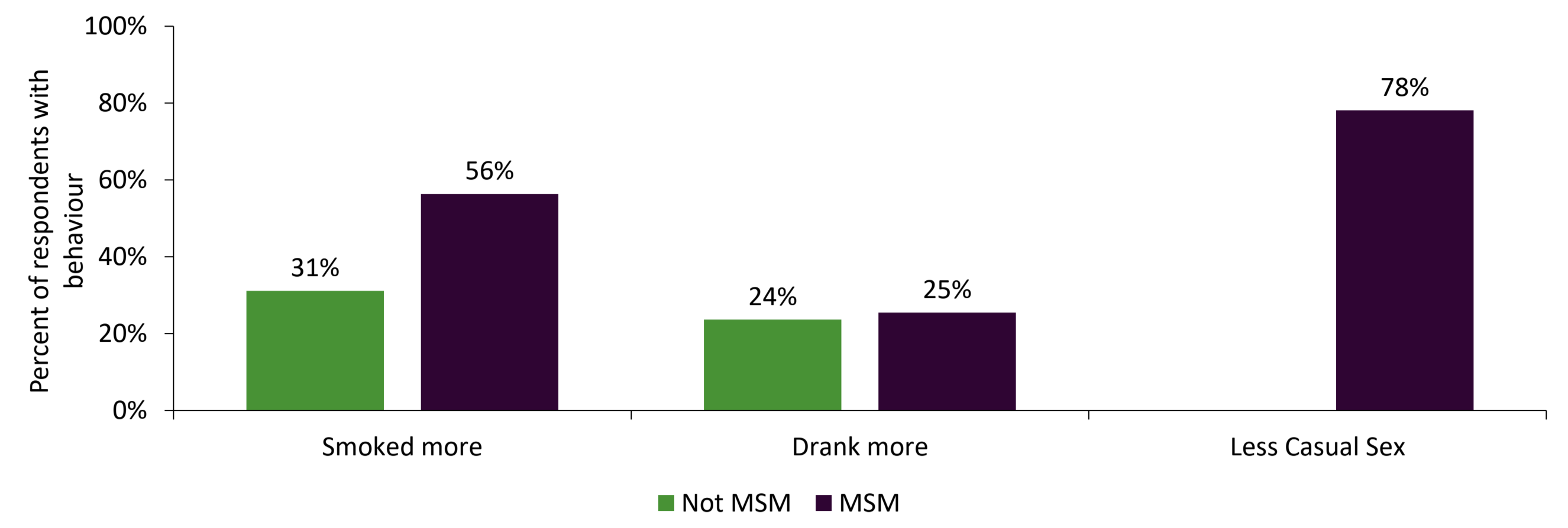
1,167 responses collected May-Dec 2020

- 75% male
- 61% white
- 63% born in Canada
- Median age 53 years old

Acknowledgements

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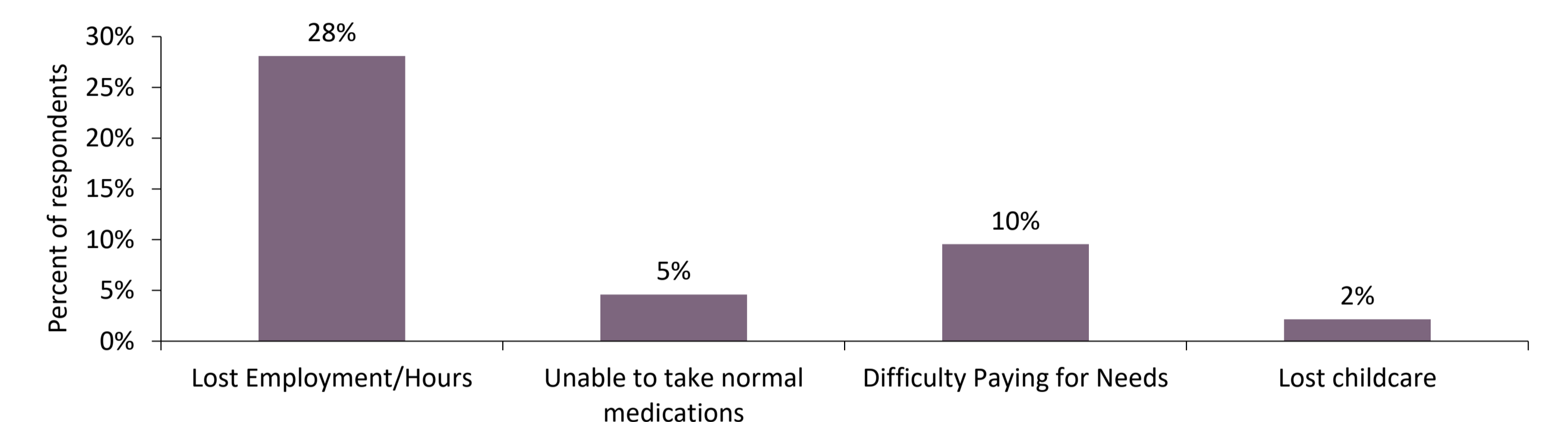
Figure 3. Behavioural changes comparing MSM and non-MSM, May-Dec 2020



Some behavioural changes in the early pandemic were more pronounced among men who have sex with men (MSM) than other populations. Participants were asked if they exhibited a behaviour in the 6 months prior or during the pandemic and if so, had they increased or decreased the behaviour.

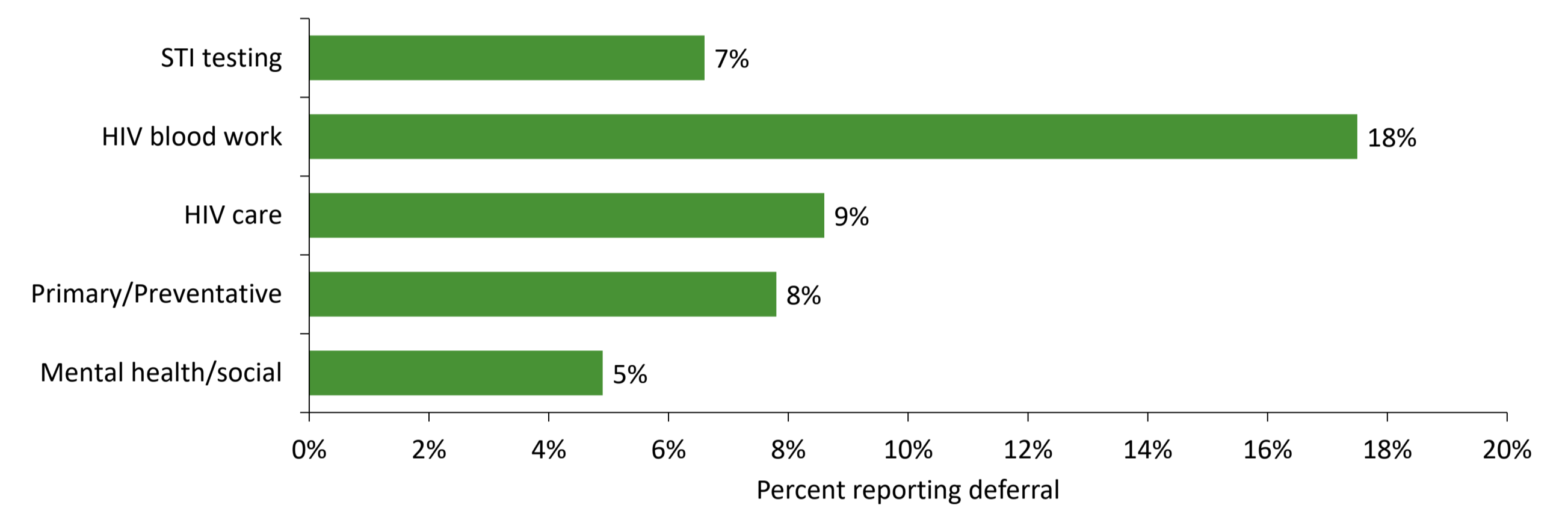
A greater percentage of participants who smoked reported smoking more, with a greater increase among MSM. Both MSM and non-MSM exhibited increased drinking. Non-MSM reported very little casual sex, so a trend could not be measured, but most MSM who practiced casual sex decreased during the pandemic.

Figure 4. Economic impacts and hardship, May-Dec 2020



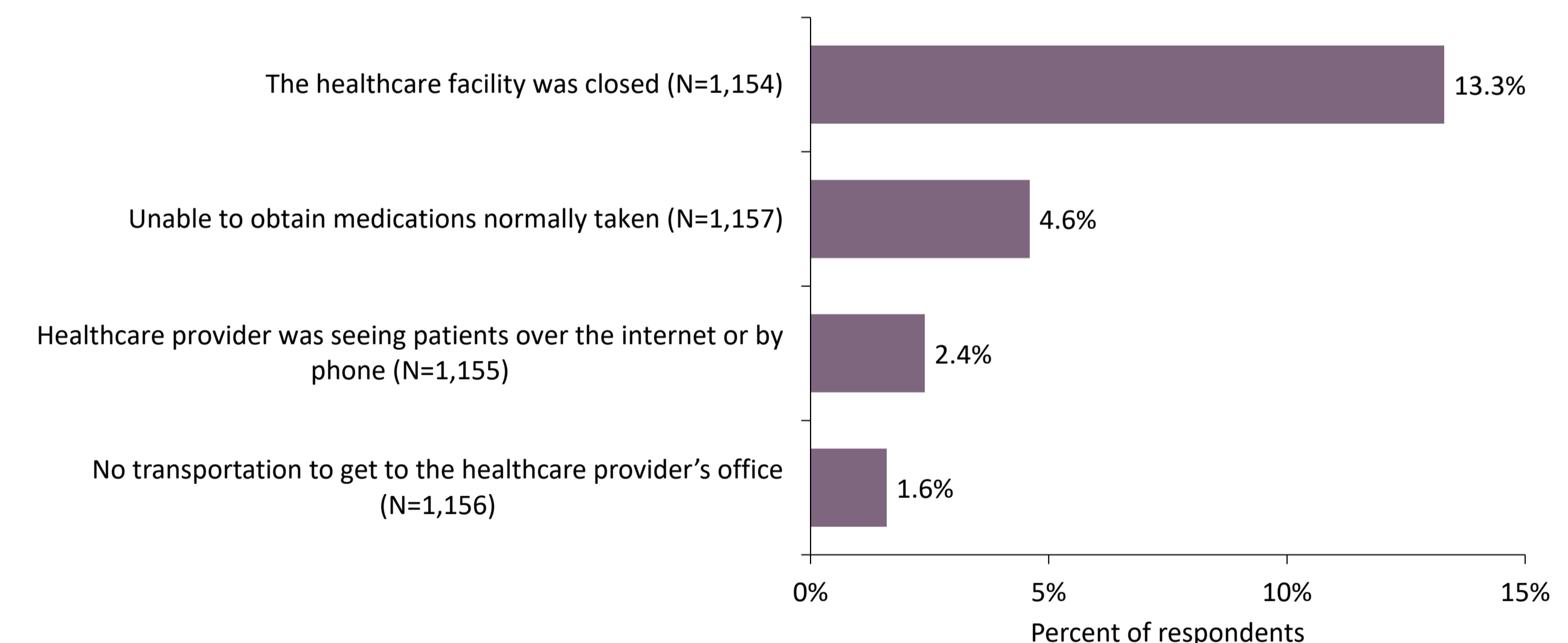
One in four (25%) participants experienced some form of increased economic hardship due to the COVID-19 pandemic. These experiences were greater among women compared to men (31% vs 23%), younger people (46% among aged 20-29), and immigrants (30%).

Figure 5. Self-reported healthcare deferral, May-Dec 2020



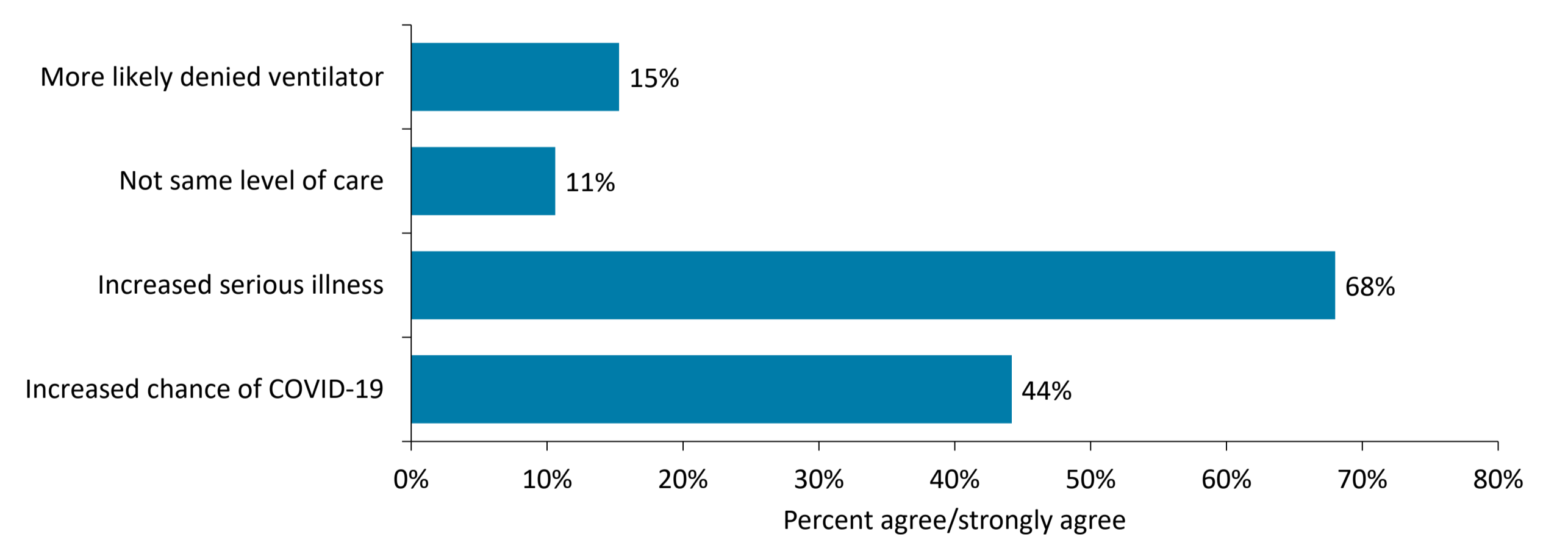
Many participants delayed care during the pandemic. Decreases in self reported delayed blood work are confirmed by a provincial estimate of a 25% decrease in viral load testing over this period. Almost a third of participants (32.2%) expressed some level of concern that limited HIV care access would negatively impact managing their HIV.

Figure 6. Self-reported problems accessing medical care, May-Dec 2020



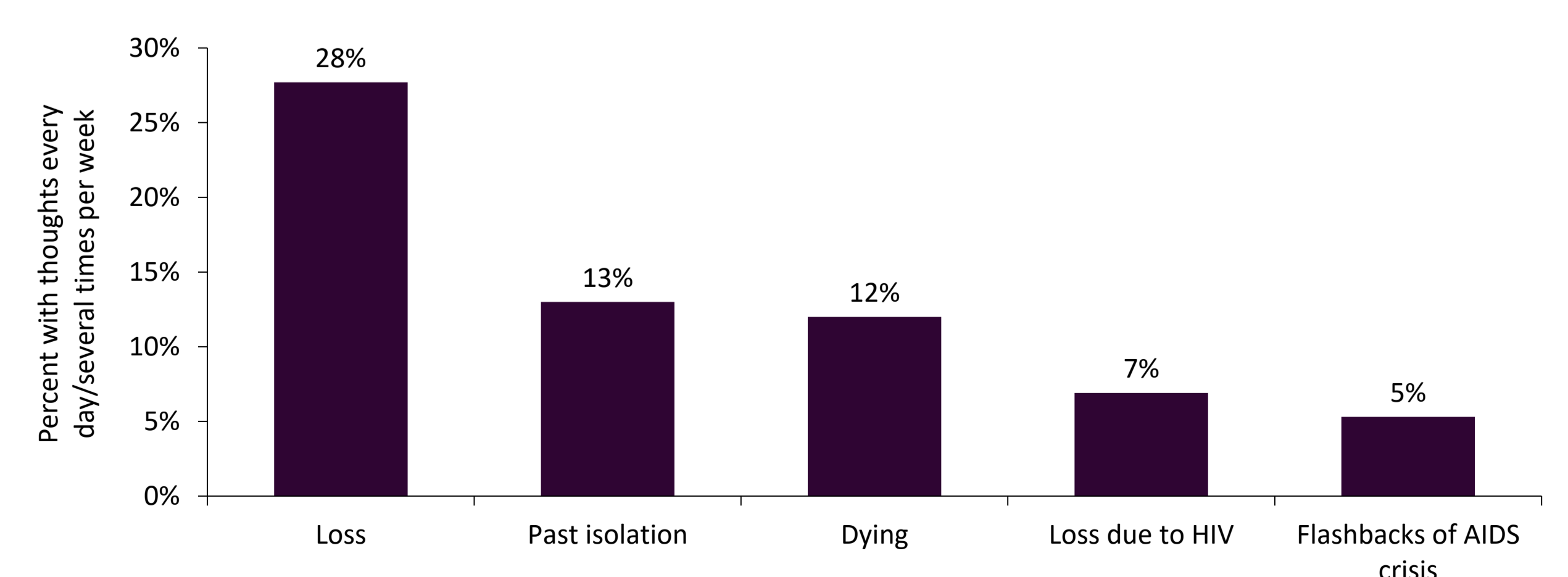
Many participants reported barriers in accessing healthcare, primarily due to closures of facilities. During this time, 44% of participants did not access HIV care, and 39% accessed it virtually. Of those who reported they were unable to take medication, 4% reported it was their HIV medication.

Figure 7. Fear of stigma and vulnerability, May-Dec 2020



People living with HIV have experienced greater stigma in the health care system. Some participants feared this stigma could impact their care if they were to get sick with COVID-19. Many participants feared that they were more vulnerable to COVID-19 or could experience increased serious illness due to their HIV status.

Figure 8. Experiences of post-traumatic stress, May-Dec 2020



People living with HIV have already experienced the trauma of a global pandemic. We examined whether the COVID-19 pandemic triggered symptoms of PTSD by asking them about reoccurring and intrusive thoughts. Many participants experienced intrusive thoughts every day or several times a week.

Discussion

Health inequities may exacerbate disproportionate burden due to isolation, economic hardship, and limited healthcare accessibility during the coronavirus pandemic among people living with HIV. Despite a broad range of experienced and anticipated negative impacts, people living with HIV demonstrate resilience. COVID-19 test positivity in the cohort in the province reflects general trends, and COVID-19 vaccination uptake is high.