

EXECUTIVE SUMMARY

Excess All-Cause Mortality During the COVID-19 Epidemic in Canada

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An RSC Policy Briefing

It is widely assumed that 80 per cent of Canada's deaths due to COVID-19 occurred among older adult residents of long-term care homes, a proportion double the 40-per-cent average of peer countries in the Organisation for Economic Co-operation and Development (OECD). But an in-depth analysis of all deaths that have so far been reported across Canada during the pandemic casts doubt on this estimate. It reveals evidence that at least two thirds of the deaths caused by COVID-19 in communities outside of the long-term care sector may have been missed.

Between February 1 and November 28, 2020, our study finds that the COVID-19 deaths of approximately 6,000 people aged 45 and older living in communities across Canada appear to have gone undetected, unreported or unattributed to COVID-19. This suggests that if Canada has continued to miss these fatalities at the same rate since last November, the pandemic mortality burden may be two times higher than reported.

Our conclusion is based on an examination of the best available reports of excess deaths across Canada, the pattern of COVID-19 fatalities during the pandemic, cremation data showing a significant spike in at-home versus hospital deaths in 2020 and antibody surveillance testing that collectively unmasked the likely broad scope of undetected COVID-19 infections.

The extent of likely missed COVID-19 fatalities in communities varies by province, and was, for example, less of an issue in Québec, where the virus accounted for all excess deaths. Yet when factored into the national equation, the number of possible missed deaths in the country's communities suggests that COVID-19 fatalities in long-term care actually account for 45 per cent of Canada's total COVID-19 death toll, a figure more in line with the OECD average. While this is roughly half the proportion assumed, it stands to reason: If Canada indeed had twice as many COVID-19 long-term care deaths as other OECD countries, the mortality and case fatality rates in Canada's long-term care sector should also have been as twice as high as the OECD average—but they were not.

In essence, our work presents a very different picture as to how the pandemic has unfolded in Canada. It strongly suggests that while the novel coronavirus was devastating the long-term care sector in two successive waves in 2020, it was also devastating communities outside long-term care. In fact, our analysis suggests that through the first year of the pandemic, COVID-19 was associated with many deaths that were not classified as such, most likely in low-income, high-density, racialized neighbourhoods of essential workers and recent immigrants where most COVID-19 cases were concentrated. Among these communities it is likely that many cases were never identified, and the resulting deaths were never counted.

In fact, we find that most of Canada's cases prior to November 28, 2020 were not reported until after excess deaths began rising rapidly, a trend that continued until the third wave. This

disturbing pattern demonstrates that through much of 2020, the growing number of COVID-19 fatalities—not reported cases—was the earliest indicator of the epidemic’s trajectory.

It may be that the public focus on the tragedy in nursing homes made it difficult to see the unusually high number of clinically frail older adults dying of COVID-19 in their own homes, where many had likely been residents of racialized communities. But 25 per cent of likely missed deaths also occurred in people between the ages of 45 and 64, likely frontline and essential workers, recent immigrants and people living in multigenerational households. The failure to recognize the heightened COVID-19 risk faced by community-dwelling elders and economically precarious, racialized workers likely delayed the implementation of public health interventions that may well have saved lives.

As a result, our study—based as it is on the preliminary data currently available—demands urgent and further investigation to properly understand the true scope and nature of the COVID-19 death toll in Canada. It also warrants substantial and immediate improvement to the slow, patchwork system of reporting deaths, provincially and nationally, to enable relevant public policy planning and the rapid introduction of effective public health measures, and to ensure Canada has a workable, timely death-reporting system for the next epidemic. Finally, though not least, it merits deeper scrutiny to understand how the untimely loss of so many lives went unnoticed for so long.

Recommendations arising from this report:

- 1. Mandate weekly preliminary reporting of numbers of deaths due to all causes, in all provinces and territories**, to Statistics Canada, similar to other countries.
- 2. Perform COVID-19 testing on all people who die in any setting**, including hospitals, congregate living, shelters and private homes, and report by setting, neighbourhood of residence, race, and occupation.
- 3. Immediately adopt U.S. CDC excess mortality methods for estimating Canadian excess mortality during the COVID-19 epidemic.**
- 4. Establish a national COVID-19 Mortality task force** with provincial and territorial partners and independent advisors to investigate the reasons why so many Canadian COVID-19 cases and deaths have been missed/unreported to date, to examine the occupational and demographic characteristics of those who have died of COVID-19, and to set up immediate plans to prevent more epidemic waves and ensure COVID-19 cases and deaths are no longer undetected. The preliminary report of this task force should be released by November 30, 2021.

Recommendations from other advisory groups supported by evidence from this study:

Our evidence gives further support for the need to enact recommendations from other Canadian advisory bodies¹ concerning:

- Paid sick leave
- Isolation support
- Testing and vaccination accessibility and prioritization

1 (Chief Public Health Officer of Canada, 2020; Santé Montréal, 2020; Comité sur l’immunisation du Québec, 2021; Mashford-Pringle *et al.*, 2021; Mishra *et al.*, 2021; Ontario COVID-19 Science Advisory Table, 2021; Stall, Brown, *et al.*, 2021; Stall, Nakamishi, *et al.*, 2021; Thompson *et al.*, 2021; Turnbull *et al.*, 2021; Waldner *et al.*, 2021)

- Allocation of resources and authority to create culturally safe COVID-19 prevention and support programs

Where prioritization is needed, the **highest priority people and populations** for interventions to prevent COVID-19 deaths are:

People living with **clinical frailty**, their household members and neighbours in congregate living settings, and formal and informal caregivers who enter the homes of frail individuals to give support.

People living in high priority neighbourhoods bearing the largest burden of COVID-19 exposure and death due to structural economic, social, and racial inequities. These include **low-income and racialized essential frontline workers, recent immigrants, people living in high density housing and multigenerational households.**