

Key findings:

- ◆ **Hamilton neighbourhoods with higher concentrations of people living on low incomes and people who identify with a racialized group have higher rates of COVID-19.**
- ◆ **These discrepancies reflect similar patterns in Ontario and beyond and are due in part due to higher risks of exposure due to working and housing conditions.**

By the start of August 2020, almost 1,000 residents in Hamilton had been infected with coronavirus and developed COVID-19. COVID-19 cases in all parts of the city have been reported, and this bulletin provides a deeper analysis examining trends by neighbourhood income and proportions of racialized persons to understand the impacts of these characteristics on COVID-19 rates. (For an explanation of racialization, please refer to Bulletin 16, “Visible Minorities in Hamilton.”)

City of Hamilton COVID-19 data at the neighbourhood level was combined with neighbourhood census data on material deprivation and racialized persons from the Ontario Marginalization Index, published by Public Health Ontario. This same analysis was done at the provincial level by a group of academic and health industry researchers on their website: https://howsmyleftening.ca/#/analysis/socioeconomic_analysis

In Charts 1A and 1B, the blue line depicts the City of Hamilton’s neighbourhood average of 136 cases per 100,000 people. Each coloured bar represents neighbourhoods sorted into quintiles of rates of material deprivation (difficulty affording basic resources due to low income) (Chart 1A) or proportion of racialized persons (Chart 1B).

Chart 1A shows that neighbourhoods in the 1st quintile—with the lowest rates of material deprivation—have the lowest rate at 99 COVID-19 cases per 100,000 people. In contrast, neighbourhoods in the 5th quintile with the highest rates of material deprivation have the highest rate, at 179 cases of COVID-19 per 100,000 people, almost double the rate of the neighbourhoods with low material deprivation. The 2nd, 3rd, and 4th quintile range from 137-151 cases per 100,000 persons, with a “social gradient” generalized trend where case rates rise with increased material deprivation.

Chart 1B shows a similar, and even starker trend for racialization. Neighbourhoods in the 1st quintile, which have the lowest concentration of racialized persons, have the lowest rate at 81 cases of COVID-19 per 100,000 people. Neighbourhoods in the 5th quintile, with the highest proportions of racialized persons have the high rate of COVID-19 at 196 cases per 100,000 people, which is more than double the rate in the lowest quintile of neighbourhoods. The 2nd, 3rd, and 4th quintile range from 128-142 cases per 100,000 persons, with the similar social gradient trend seen in Chart 1A.

While these trends were analyzed at the neighbourhood level, these trends are not about specific geographic areas of the city. Rather they reflect the aggregate demographic and income characteristics of neighbourhoods across Hamilton.

Chart 1. Rate of COVID cases per 100,000 residents, City of Hamilton, by neighbourhoods grouped by ON-Marg index quintiles, cases as of August 5, 2020, City of Hamilton and Public Health Ontario data (see data notes on next page)

Chart 1A. Neighbourhoods grouped by ON-Marg Material Deprivation index

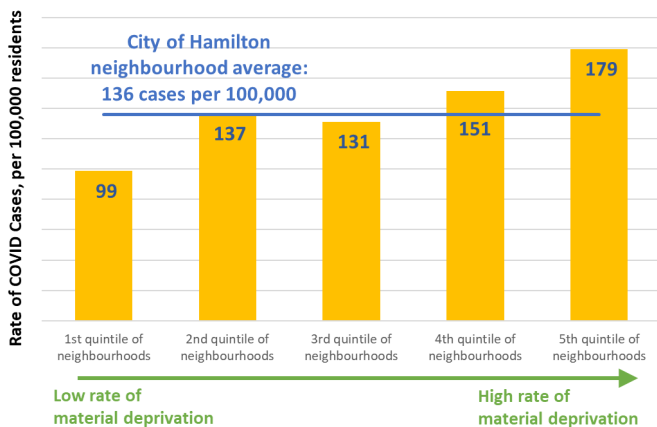
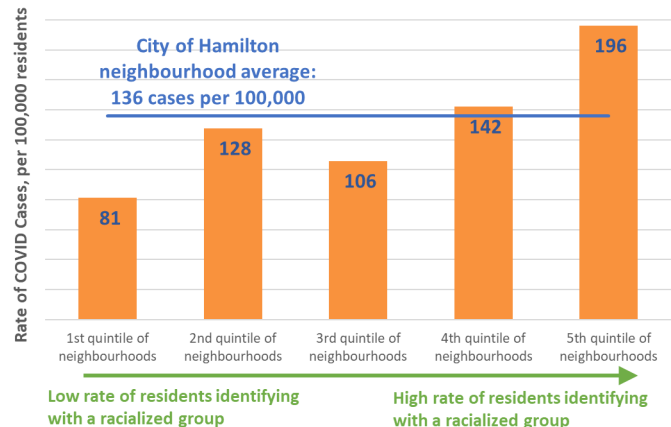


Chart 1B. Neighbourhoods grouped by ON-Marg Ethnic Concentration/Racialization index



This series of bulletins focussing on issues highlighted in the *Hamilton's Social Landscape* report and bringing attention to more recent trends. These bulletins are published by the Social Planning and Research Council of Hamilton and funded in part by the United Way Halton Hamilton and the City of Hamilton Enrichment Fund.

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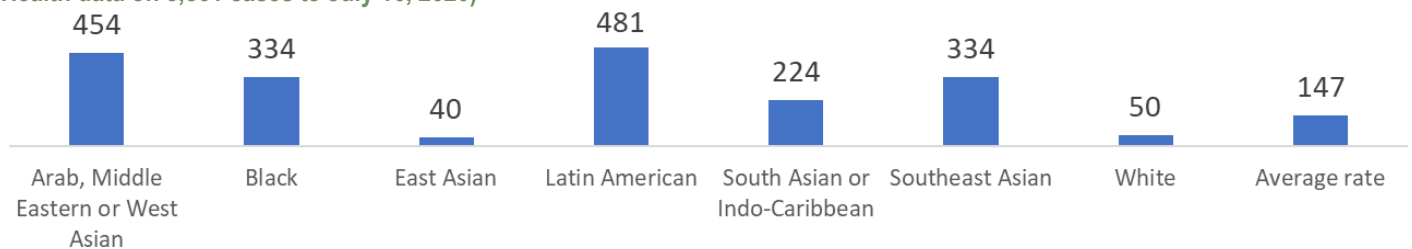
Hamilton

Comparisons to Ontario

These disparities in COVID rates are not unique to Hamilton. Ontario-wide data show the same trends, namely that low income and racialization status are associated with higher rates of COVID-19 cases, hospitalizations, ICU admissions, and mortality rates. Public Health Ontario data shows that for people living in neighbourhoods experiencing the highest level of material deprivation, hospitalization rates were 69% higher and ICU admission rates were almost two times higher than people living in neighbourhoods experiencing the lowest level of material deprivation. For neighbourhoods with the highest percentage of racialized residents, hospitalization rates and ICU admission rates were four times higher than neighbourhoods with the lowest percentage of racialized residents.

The City of Toronto has started to directly collect data about income and racialized status of patients with COVID-19 (instead of relying on neighbourhood data to make assumptions about individuals). This data allows a clearer picture to emerge about the specific communities most at risk of COVID-19. Chart 2 shows that Latin American, Arab Middle Eastern or West Asian residents have the highest rates (almost triple the city average), Black, Southeast Asian, and South Asian or Indo-Caribbean residents have rates higher than the city average, and White and East Asian groups are at the lowest risk (about one third the average city rate).

Chart 2, Rate of COVID cases per 100,000 residents, City of Toronto, by self-identified racialized group (City of Toronto Public Health data on 3,861 cases to July 16, 2020)



Why are these trends occurring?

People living on lower incomes or racialized residents experience structural inequalities such as higher rates of low wage, precarious employment, and housing and job discrimination. When residents are more likely to have low-paying frontline jobs where they can't work from home, or not have paid sick leave, leading to greater exposure, they are at higher risk of infection. As Professor Rebecca K. Timothy at the Dalla Lana School of Public Health, University of Toronto explains, racialized and marginalized communities "encounter racist health systems that impact their physical, mental, financial and spiritual well-being. To add to this, low-income communities' ability to protect themselves from COVID-19 is severely restricted, as money is needed to support social distancing, pay bills, buy food supplies and hand sanitizer."¹ Residents might have to take public transit more often or live in overcrowded housing, making it harder to physically distance. People in these communities might also have underlying health conditions or have less access to health care, increasing the potential severity of COVID-19. Issue 19 in this series gives a roadmap to how Hamilton can build an equitable recovery strategy that will help those who have been most affected.

¹Timothy, R.K. (2020) *Coronavirus is not the great equalizer — race matters*. Available at: <https://theconversation.com/coronavirus-is-not-the-great-equalizer-race-matters-133867>

Data notes

Five neighbourhood/census tracts with cases more than three times higher than the average number of cases, to reduce the influence of outbreaks in long-term care and other facilities on this analysis. A total of 137 neighbourhoods were retained.

The Ontario Marginalization Index data used in this analysis is provided by Public Health Ontario and combines a range of Statistics Canada Census demographic indicators into dimensions of marginalization at the neighbourhood level to allow for socio-demographic analysis of trends when individual data is not available. <https://www.publichealthontario.ca/en/data-and-analysis/health-equity/ontario-marginalization-index>.

ON-Marg data was combined with City of Hamilton neighbourhood data in this report as a proxy to understand socio-demographic trends, rather than individual-level data, because individual data on income and racialization status of persons with COVID-19 is not yet available. These findings refer only to aggregate neighbourhood trends, rather than individuals' personal risk. This means while neighbourhoods with higher rates of material deprivation and residents identifying with a visible minority have higher rates of COVID-19 cases, not everyone living in those neighbourhoods is at higher risk.