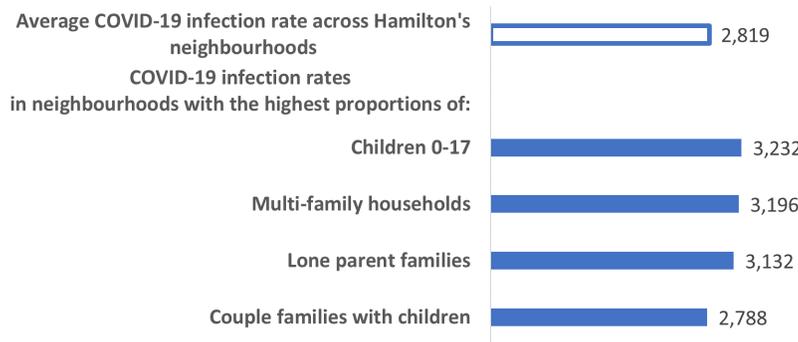


Key findings:

- ◆ COVID-19 infection rates are high in neighbourhoods with high proportion of children 0-17 and neighbourhoods with high rates of child poverty.
- ◆ Severe mental health distress among some children is leading to increased rates of hospitalization.
- ◆ Rates of COVID-19 infections among school children were leading the provincial average in this third wave of Ontario's COVID-19 infections.

Chart 1. COVID-19 infection rates per 100,000 population in neighbourhoods with the highest rates of selected family types, City of Hamilton, cases up to April 19, 2021. (City of Hamilton Public Health and 2016 Census data)



FAMILY TYPES , CHILD POVERTY AND COVID-19

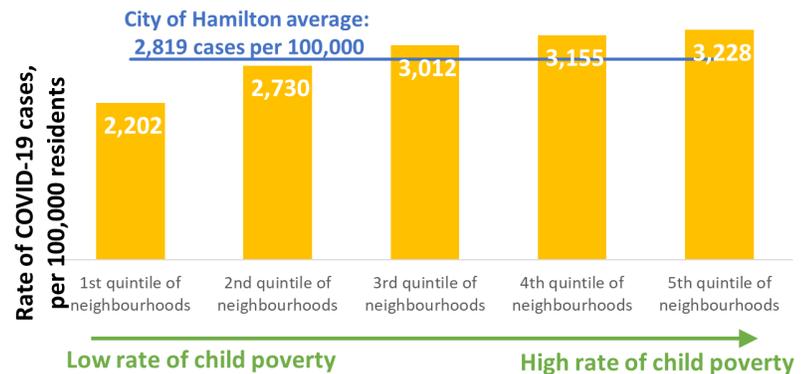
Chart 1 shows that neighbourhoods with the highest proportions of children 0-17 years of age have higher rates of COVID-19 infections than the city-wide average. These data do not demonstrate that the children in these neighbourhoods are the persons infected, nor any specific causal relationship between having high rates of children of a neighbourhood and high rates of COVID-19 infections. Worldwide, the role of children in spreading infection is being studied, and these local data show an association between Hamilton neighbourhoods with high rates of children and COVID-19 infections that is worthy of more attention and investigation.

Chart 1 also shows that both some of the smallest families with children; lone parent led families, and the largest families, households with multiple families; often multi-generational families, have higher rates of COVID-19, than the average across Hamilton's neighbourhoods. Neighbourhoods with the highest proportions of couple families with children have lower than average rates of COVID-19 infection. Large families can be at higher risk in part because of the number of people who come into the household, putting everyone at risk, and also have the highest rates of overcrowding. While lone parent families may be smaller, lone parents often have lower incomes, higher rates of working in health care (SPRC, *Women in Poverty in Hamilton*, 2010) and other intersectional factors that may increase risks of infection.

Many types of families have their own challenges during this pandemic. For newcomer families, in person English language learner classes were put on hold, which added social isolation on top of communication barriers for many. For newcomers who lost jobs due to the pandemic, those newest to Canada were not eligible for unemployment benefits who did not meet the \$5,000 in employment income in 2019 for CERB, nor were they eligible for EI.

For low income families with children, the pandemic brought changes to supports such as student nutrition programs at schools, and added stresses such as not having adequate internet access for remote learning. While service providers and schools have tried to bridge these gaps for low income families, there are countless low income families in Hamilton who have faced more struggles due to the pandemic than higher income families. The pandemic's intensification of inequalities may also be creating a strong gradient in COVID-19 infection rates by neighbourhood child poverty rates (chart 2).

Chart 2. Rate of COVID-19 cases per 100,000 residents, City of Hamilton neighbourhoods grouped by child poverty quintiles, cases as of April 19, 2021. (City of Hamilton Public Health data and 2016 Census data)



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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Chart 2, shows that grouping Hamilton’s neighbourhoods by increasing rates of child poverty, COVID-19 infection rates rise along with child poverty rates. Hamilton’s neighbourhoods with the lowest rates of child poverty, the average COVID-19 infection rate has been 2,202 cases per 100,000 population. The neighbourhoods with the highest poverty rates, by contrast, have an average of 3,228 COVID-19 infections per 100,000 population. As with other similar data in this series, this data only shows an association, not a causation. But this local neighbourhood data supports the worldwide trends that show how COVID-19 has had the harshest effect on society’s most vulnerable and marginalized residents.

Remote learning and mental health

For many children and families, the change to a socially-distanced lifestyle due to the pandemic has been especially challenging. A recent [Sick Kids Hospital study](#) found that children’s mental health is “mostly worse, occasionally better” since before the pandemic began. For some kids with social anxiety and learning disorders, mental health has improved during the pandemic, due to being away from school environments that can exacerbate these issues. But for other children, severe mental health issues have risen dramatically. When looking at [mental health indicators](#) from McMaster’s Children’s Hospital (MCH), published by the Hamilton Spectator (chart 3).

the number of admissions for suicide attempts by children in the four month period from October 2020 to January 2021 was 26 children, more than 4 times the number from October 2019-January 2020 at MCH. During this same period overall emergency visits by children declined. This data mirrors similar findings published in [Toronto Star](#) from Sick Kids Hospital in Toronto, and Ottawa Children’s Hospital Eastern Ontario, that children’s mental health visits to hospitals are increasing since September 2020. The MCH Eating Disorders Program has also had large spikes in referrals and admissions comparing the September-December period in 2019 compared to [the same period in 2020](#) (chart 3).

In January 2021, Sick Kids Hospital [updated its recommendations](#) to schools and public health agencies for pandemic control strategies, citing evidence on unequal mental health impacts means that school closures should be a last resort, and avoided or time-limited as much as possible. But the report also emphasized that “the specific role children may play in transmission of novel emerging SARS-CoV-2 variants with increased transmissibility, such as the D614G and B.1.1.7 variants, requires further study.”

Chart 3. Selected pediatric mental health indicators, before and during pandemic time periods, McMaster Children’s Hospital/Hamilton Health Sciences, as reported in the Hamilton Spectator, March 16, 2021

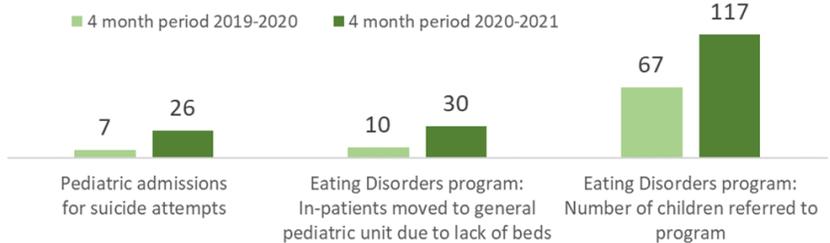
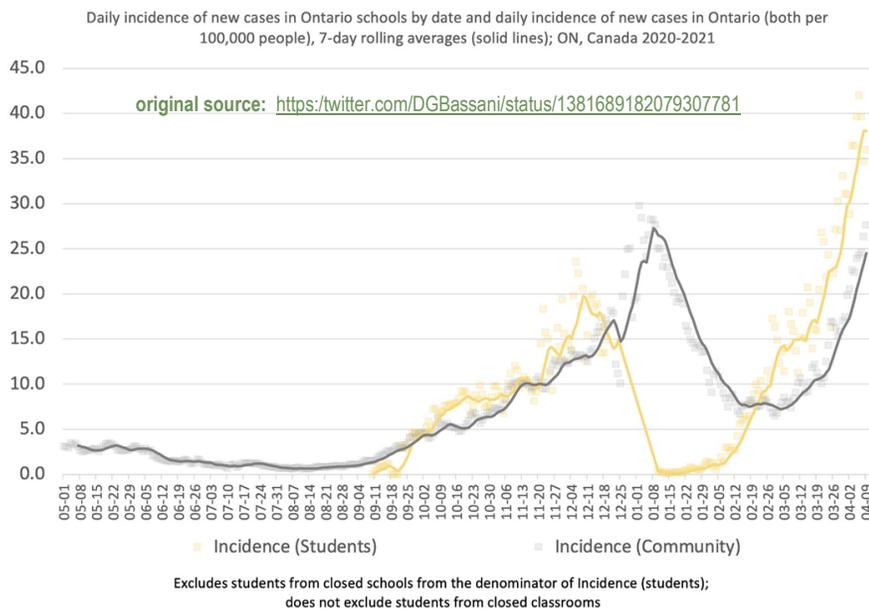


Chart 4. Data visualization from Dr. Diego Bassani, Sick Kids Hospital: provincial average of daily new COVID-19 new rate of cases (blue) and rate of cases among students in Ontario’s schools (yellow), May 1, 2020– April 9, 2021



More recent data released by Sick Kids Hospital Senior Scientist and Associate Professor of Medicine at University of Toronto, Diego Bassani (chart 4), shows the rate of student cases in Ontario’s schools were recently leading the provincial rate of new cases of COVID-19. This spike in student cases is part of what led the current closure of schools and shift back to remote learning, despite the hardships that it creates for many families across the province. This devastating third wave in cases has led to the unprecedented situation where children’s hospitals across Ontario, including [McMaster Children’s Hospital](#) are starting to admit adults into their intensive care units (ICU) for the first time in their history, to try to save the lives of more than 700 COVID-19 patients in ICU across Ontario currently (May 12 [provincial hospitalization data](#)).