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1823. Disproportionate Rates of COVID-19 Among Black Canadian Communities: Lessons from the First Year of the Pandemic

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Background. Black North American communities have been disproportionately affected by COVID-19. These data have been largely based on case counts, hospitalizations and mortality data. Serologic testing enables a more complete determination of infection burden by documenting infection in persons with symptomatic as well as asymptomatic infection. We used serologic testing to determine the extent to which SARS-CoV-2 had penetrated into the Black community. We examined risk factors associated with seropositivity, including the presence of medical comorbidities and the social determinants of health.

Methods. We conducted a cross-sectional survey in a COVID-19 high-prevalence zone in Ontario along with 2 areas that have lower rates of COVID-19 cases. SARS-CoV-2 IgG antibodies were determined using the EUROIMMUN assay. The study samples were collected between August 15, 2020, and December 15, 2020 prior to the deployment of COVID-19 vaccines. Proportions were compared using Fishers Exact test or chi-square; potential risk factors were examined using a multiple logistic regression approach.

Results. Among 387 evaluable subjects, the majority, 274 (70.8%) were enrolled from northwest Greater Toronto Area (GTA) and adjoining suburban areas of Peel, Ontario with a high proportion of Black residents. The seropositivity rates for the lower prevalence areas (Oakville and London, Ontario) were comparable (3.3% (2/60; 95% CI 0.4-11.5) and 3.9% (2/51; 95% CI 0.5-13.5), respectively). The seropositivity rate for the northwest GTA was 12.6% (26/206); RR 3.5, 95% CI 1.3-9.8). Persons under the age of 19 years had the highest seropositivity rate (10/50; 20.0%, 95% CI 10.3-33.7%). Front-line workers were greater than 3 times more likely to be seropositive compared with non-frontline workers (13.0 vs 3.2%; p=.01; RR 3.3 (95% CI 1.3 – 8.3). There was an interaction effect between race and location of residence as this relates to the relative risk of seropositivity.

Conclusion. During the pre-vaccine phase of the COVID-19 pandemic, the seropositivity rate for SARS-CoV-2 within a COVID-19 high-prevalence area was 3-fold greater than lower prevalence areas of Ontario, Canada. The data help to define the burden of COVID-19 within a community with a high proportion of Black residents compared with other communities.

Disclosures. All Authors: No reported disclosures