

High Prevalence of SARS-CoV-2 Infection Among the Uninsured Hispanic/Latino Population: a Retrospective Cohort Study



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INTRODUCTION

The coronavirus disease 2019 (COVID-19), caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), has caused significant morbidity and mortality worldwide. Access to healthcare and testing are a key component of addressing COVID-19 in the United States (US). Lack of insurance may hinder access to healthcare and testing, and disproportionately impact underserved communities including the Hispanic/Latino population.¹ Over 95% of individuals in the state of Rhode Island are insured due to Medicaid expansion.² Uninsured individuals are more likely to be undocumented, or have other barriers to navigating the healthcare system.

METHODS

To determine the prevalence of COVID-19 in this at-risk population, we reviewed the data from a major federally qualified health center (FQHC) in Providence, RI, which consisted of 10 neighborhood clinics and approximately 60,000 patients, predominantly Hispanic/Latino. Ninety-percent of households are under 200% federal poverty level (FPL) and a significant proportion of our uninsured patients are undocumented immigrants. We characterized patients by demographics and insurance status. We reported numbers (percentages) for binary/categorical variables and medians (interquartile ranges, IQR) for continuous variables. Chi-square tests and Wilcoxon rank-sum tests were applied to compare the statistical significances. A 2-sided significance threshold was set at $P < 0.05$. The Providence Community Health Centers Review Committee approved the project. All analyses were run using STATA 13.1 (StataCorp, College Station, TX).

RESULTS

A total of 7226 symptomatic patients were tested through May 22, 2020; 66.3% were female. Of these, insurance information was unavailable for 147 patients and these were excluded from the analysis. Of the 7079 patients, for which insurance info was available, 5703 had insurance (Medicare, Medicaid, private insurances, or other) and 1376 (19.4%) were uninsured. Among the uninsured, 68.1% were Hispanic/Latino. A total of 1548 (27.1%) were positive for SARS-CoV-2 among those insured, and 510 (37.1%) among the uninsured patients ($P < 0.001$). Among the Hispanic/Latino population, 46.7% of the uninsured tested positive for SARS-CoV-2 compared with 31.1% of the insured ($P < 0.001$). No significant prevalence differences between the non-Hispanic Black and White populations (Table 1). During this time period in Rhode Island, a total of 132,922 persons were tested for SARS-CoV-2 and 13,968 (10.5%) were positive.³ The US positivity rate through the week of May 17, 2020, was 13.1% (8,762,465 tested and 1,145,733 were positive).⁴

DISCUSSION

Compared with those who were insured, those who were uninsured were 36.5% (95% CI 1.259–1.481, $P < 0.001$) more likely to test positive for SARS-CoV-2. Among Hispanic/Latino population, the uninsured were 50.3% (95% CI 1.384–1.632, $P < 0.001$) more likely to test positive compared with the insured. The SARS-CoV-2 prevalence rate was almost three times higher than the state and national averages for those who were uninsured. Most patients at our FQHC do not have insurance due to financial cost and legal status. However, since the study cohort was based on our FQHC population, the results may not represent the whole state or the US.

Our results indicate high SARS-CoV-2 prevalence among this at-risk population. Importantly, the lack of insurance makes it extremely challenging for this population to access healthcare in general. Improved access and payment structures for SARS-CoV-2 is needed in this particular population to reduce the impact of COVID-19.

Chien-Hsiang Weng, M.D., M.P.H.^{1,2}
Andrew Saal, M.D., M.P.H.²
Philip A. Chan, M.D., M.S.³

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Table 1 Characteristics and Results of SARS-CoV-2 Testing by Insurance Status

| | Insured (n = 5703) | Uninsured (n = 1376) | P value |
|--|--------------------|----------------------|---------|
| Median age (IQR) (year) | 38.7 (26.0–51.0) | 37.1 (28.0–46.0) | |
| Sex, no. (%) | | | |
| Female | 3868 (67.8) | 828 (60.2) | |
| SARS-CoV-2 test positive, no. (%) | | | |
| All race/ethnicity | 1548 (27.1) | 510 (37.1) | < 0.001 |
| Hispanic/Latino (any race) | 1228 (31.1) | 438 (46.7) | < 0.001 |
| Black (non-Hispanic or ethnicity unknown) | 108 (21.0) | 14 (18.7) | 0.761 |
| White (non-Hispanic or ethnicity unknown) | 40 (10.7) | 5 (13.9) | 0.575 |
| Other race (non-Hispanic or ethnicity unknown) | 24 (25.0) | 1 (12.5) | 0.676 |
| Multiple races (non-Hispanic or ethnicity unknown) | 13 (18.1) | 2 (25.0) | 0.640 |
| Unknown or declined | 135 (19.4) | 33 (27.1) | 0.068 |

¹Department of Family Medicine, Brown University
Warren Alpert Medical School,
Providence, RI, USA

²Providence Community Health Centers,
Providence, RI, USA

³Department of Medicine, Brown University Warren
Alpert Medical School,
Providence, RI, USA

Corresponding Author: Chien-Hsiang Weng, M.D., M.P.H.; Department of Family Medicine, Brown University Warren Alpert Medical School, Providence, RI, USA (e-mail: chien-hsiang_weng@brown.edu).

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Concept and design: Weng, Saal, Chan.

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Compliance with Ethical Standards:

The Providence Community Health Centers Review Committee approved the project.

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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