Responding to COVID-19 in an Uninsured Hispanic/Latino Community: Testing, Education and Telehealth at a Free Clinic in Providence

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ABSTRACT

The COVID-19 pandemic has exacerbated the effects of existing health disparities throughout the United States. While Hispanic/Latino individuals account for only 16% of the Rhode Island (RI) population, Rhode Island Department of Health (RIDOH) data show that 45% of COVID-19 cases and 36% of individuals who have been hospitalized identify as Hispanic/Latino. Clínica Esperanza/Hope Clinic (CEHC) mobilized a comprehensive effort to offer telehealth visits, health education and accessible, walk-up COVID-19 testing for low-income, uninsured and Spanish-speaking individuals living in Rhode Island. With support from CEHC volunteers, the City of Providence, the State of Rhode Island, and local foundations, CEHC has administered 1,649 individual COVID-19 tests as of October 2020. The overall COVID-19 test positivity rate at CEHC was 23%, peaking in April at 48%. Additionally, CEHC has distributed more than 1,600 meal boxes to patients experiencing food insecurity, provided emergency financial resources, while rapidly scaling up healthcare services for the increasing numbers of uninsured individuals in RI.

KEYWORDS: COVID-19, free clinics, immigrant health, Hispanic/Latino Community

INTRODUCTION

Clínica Esperanza/Hope Clinic (CEHC) is a free healthcare clinic that was established on the West Side of Providence in 2010 to provide healthcare to uninsured Rhode Island (RI) residents. Over the past decade, CEHC has provided walk-in healthcare, primary care clinics and specialty healthcare services, health education programs, and community outreach screenings to the local community. CEHC and its staff, which is comprised of 30 active volunteer providers, several nurses, and 10 medical assistants (MAs) and healthcare workers, all of whom have become a trusted source of care for a vulnerable population of largely low-income, Spanish-speaking immigrants from Central and South American countries. The number of patients seen at CEHC has grown significantly, mostly by word of mouth, from approximately 500 patients in 2010 to its current size, serving more than 3,000 patients in 5,000 visits per year. Most CEHC patients are uninsured because they are ineligible for subsidized or public medical insurance because of their immigration status or because they do not earn sufficient income to pay for employer-based or private insurance.

Healthcare workers at Clínica Esperanza/Hope Clinic (CEHC) COVID-19 testing site.

Due to many disparities in access to care, health literacy and chronic disease rates, CEHC's patients belong to a community that is especially vulnerable to COVID-19.[1] According to RIDOH, Hispanic/Latino adults have the highest rates of uninsurance (41.2%), of reporting not having seen a doctor in the past year (29.3%) and of experiencing financial barriers to healthcare (31.3%) when compared to all other racial and ethnic groups in RI.[2] Due to this lack of access to regular healthcare services, many individuals in this population do not engage in regular preventive health screenings and therefore suffer from undiagnosed and/or unmanaged chronic diseases. These healthcare disparities are even more pronounced among CEHC's uninsured patient population. About 30% of patients seen at CEHC are diagnosed with pre-diabetes or diabetes; 48% have hypertension and 76% are overweight or obese. Nearly three-quarters of patients report a household income of less than $15K per year, and 80% are Spanish-speaking.

The health disparities experienced by CEHC's patient populations are highlighted in COVID-19 prevalence and incidence data collected by RIDOH. The ZIP codes that CEHC primarily serves (02909, 02908, 02907) have seen the highest number of cases in RI. In the city of Providence, as of early June 2020, the rate of positive tests has been as high as 20%, which was much higher than the average rate of about 10% in the state as a whole. Hispanic/Latino individuals account for only 16% of the RI population (2018 ACS one-year) but 45% of COVID-19 cases and 36% of individuals who have been hospitalized to date are Hispanic.[3,4]

This article provides a brief synopsis of CEHC's efforts to expand access to COVID-19-related public health information, testing and other healthcare access during the first six months of the pandemic. In addition, data from six months of offering testing at CEHC's site are presented here, with a discussion of the major risk factors and structural determinants of health that have led to the disproportionate impact of COVID-19 on the CEHC patient population.

METHODS

CEHC's Early Response

Beginning in early March, a few days after the first COVID-19 case was identified in RI, CEHC implemented screening procedures of all patients entering the clinic, including temperature checks, symptom screenings and travel-related questions. CEHC also employed a SMS text messaging system (CareMessage) and called patients who had scheduled visits to inform them of screening procedures and that ill patients were requested to call from their homes to discuss their symptoms prior to coming to the clinic. As additional risk factors for COVID-19 were identified, the clinic visit screening procedures were revised and updated.

COVID-19 Testing

Healthcare workers at CEHC perform a COVID-19 test.

Beginning in mid-March, the medical advisory board began collaborating with RIDOH to establish a COVID-19 testing on-site at CEHC to promote access for patients who were unlikely (or unwilling) to gain access to the federally funded testing sites. Walk-up/drive-up testing for COVID-19 at CEHC began on April 13, 2020 and is ongoing as of the time of this publication. On average, 20 testing appointments are available per day, typically during designated times (Monday–Friday from 4–9 PM and Saturday from 2–6 PM).

Early on, testing was limited to individuals who had risk factors for COVID-19, such as close contact with someone positive for COVID-19. With funding from the City of Providence, CEHC was able to expand capacity to test anyone who requested one in May. Testing is currently available to all who request it at CEHC, regardless of whether they are an established CEHC patient.

Patients in need of testing are required to contact CEHC staff ahead of time to schedule an appointment for testing, but same-day testing is often available. Screening for COVID-19 risk factors and health provider information is documented prior to the visit by CEHC volunteers (Brown University medical students). PPE and COVID-19 testing materials are provided by RIDOH. COVID-19 testing is performed outdoors under a tent in front of the clinic door, where nurses and community health workers (CHW) wearing full personal protective equipment (PPE) approach each car (or individuals who have walked up to the door for their appoint ment) to collect a nasopharyngeal specimen for testing.

COVID-19 Health Education and Outreach

CEHC also began conducting Spanish-language education and outreach to patients and the surrounding community members. CEHC posted signs in Spanish and sent out text messages to patients about COVID-19 in Spanish, while providing links to informative websites for patients on topics like social distancing guidelines, common COVID-19 signs and symptoms and preventive measures to reduce the risk of contracting COVID-19. In addition, CEHC volunteers, staff, and the Chairman of CEHC's Board of Directors advocated with the Governor of Rhode Island and RIDOH for making RI-specific information about COVID-19 resources available to Spanish-speaking individuals.

Educational pamphlets on COVID-19 infection and self-quarantine are also provided to patients when they arrive at the clinic for drive-up testing. These pamphlets provide patients with information about how and when to self-quarantine, the practice of social distancing, and the importance of wearing masks and hand washing.

When test results become available, bilingual and bicultural CHWs (Navegantes) call each patient and advise them based on the test result. If they test positive, patients are advised to follow RIDOH and CDC guidelines related to self-isolation and quarantine. If the test comes back negative, they are advised to continue monitoring themselves for symptoms and counseled on how to take appropriate safety measures.

Telehealth

Beginning in mid-March, efforts were underway to implement telemedicine at the clinic, and by April, the majority of visits were being carried out by telemedicine in order to best protect the health of staff, volunteers, and patients at CEHC. Communicating with patients virtually presents a particular challenge in this population, where low-income families may not have reliable access to the Internet or the appropriate level of literacy to use certain services. CEHC providers use video platforms such as Zoom, Skype, or FaceTime, and confirm before they begin that each patient feels comfortable with the visit occurring virtually. Navegantes are available to assist clinicians with the telemedicine visit; introductions are made at the beginning of the visit to notify the patient that an interpreter, nurse, or other staff member is present during the visit.

While not ideal in some ways, telehealth visits enable CEHC providers to safely follow up with COVID-19 positive patients more regularly (approximately every three days), without placing clinic staff and patients at risk. During telehealth visits, CEHC providers were also able to educate patients about the importance of participating in the Census, and to understand their needs relating to food and rental assistance. Between April and September, 441 patients have been seen in 643 telehealth visits.

Food Insecurity

Food insecurity is a growing issue among low-income families in the midst of the closure of schools and the economic recession caused by the pandemic.[5] CEHC partnered with the City of Providence, The Elisha Project (a Providence-based community organization) and the RI Food Bank to provide food for patients that screened positive for food insecurity during the intake process for COVID-19 testing. Food donations are able to be picked up at the clinic or delivered to patients' homes. Brown University medical students worked with the clinic Navegantes to deliver food to quarantined patients. As of mid-September, 1,638 meal boxes have been given out since the beginning of the COVID-19 pandemic; this includes 233 boxes delivered to homes, 650 boxes given at outreach events, and 760 boxes handed out at the clinic.

RESULTS

Through October 1, 2020, 1,649 individual COVID-19 tests had been conducted at CEHC. Some of these corresponded to patients who had multiple tests in that time period, and only the responses from the first testing encounter were included for analysis. Data reported below include the 1,029 tests for which a valid result (positive or negative) had been received by September 18, 2020.

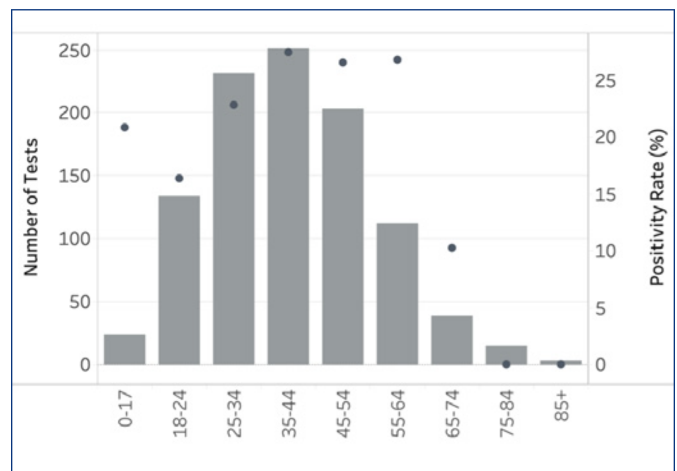
Demographics

As seen in **Figure 1**, of the individuals whose valid test results had been reported to CEHC at the time of analysis, 47% were female and 53% were male. Over 80% of individuals tested self-identified as Hispanic/Latino, which is similar to the demographic composition of the CEHC patient population and the surrounding community. Ages were widely varied (range = 15-92), with the majority of patients reporting an age between 25 and 54 years. Positive test rates for each age group can be seen in **Figure 2**.

Figure 1. Demographics

N=1,029	n	Percent
Gender (n=1,026)		
Male	544	53.0%
Female	482	47.0%
Ethnicity (n=987)		
Hispanic/Latino	797	80.7%
Not Hispanic/Latino	190	19.3%
Insurance Status (n=722)		
Insured	319	44.2%
Uninsured	403	55.8%
Patient Status		
Current CEHC Patient	100	9.7%
Has External PCP	285	27.7%
Potential New Patient	644	62.6%
Food Security (n=703)		
Insecure	71	10.1%
Not Insecure	632	89.9%

Figure 2. Age Groups
Number of tests completed (bars) and positivity rate (dots) by age group.



Symptoms

At the time of specimen collection, patients were asked if they had been experiencing any of the symptoms commonly associated with COVID-19. More than a third (40%) of patients had at least one symptom, while others were tested due to known contact with positive cases or concerns about potential exposures at work or in the community. Fifty-four percent (54%) of those who tested positive had at least one symptom, with the most common symptoms being cough, body aches and fever. Rates of all symptoms for both all patients and those who tested positive are available in **Figure 3**.

Figure 3. Symptoms

Symptom	Positive Patients (%)		Total Patients (%)	
Chills	31	(12.9%)	65	(6.3%)
Headache	44	(18.3%)	177	(17.2%)
Rhinorrhea/congestion	5	(2.1%)	10	(1.0%)
Loss of taste/smell	6	(2.5%)	9	(0.9%)
Sore throat	43	(17.9%)	150	(14.6%)
Cough	73	(30.4%)	200	(19.4%)
Body aches	95	(39.6%)	244	(23.7%)
Fever	66	(27.5%)	138	(13.4%)
Shortness of breath	22	(9.2%)	73	(7.1%)
None	110	(45.8%)	619	(60.2%)
One or more	130	(54.2%)	410	(39.8%)

Rates of positives

According to RIDOH as of June 15, the City of Providence had the highest number of tests in the state, with 15% of the population tested so far. Among Providence residents who were tested, 20% were positive for COVID-19, which is much higher than the positivity rate of approximately 10% that had been seen throughout the state as a whole.[3] During the month of April, the rate of positive COVID-19 tests at CEHC was 48%, and **Figure 4** shows how the positivity rate changed over the months since then.

The rate of positive test results was significantly higher among male than female patients (30% vs. 16%, $p<0.001$) and among Hispanic than non-Hispanic patients (28% vs. 3%, $p<0.001$). It was also significantly higher among individuals without health insurance than those with health insurance (31% vs. 10%, $p<0.001$), and those experiencing food insecurity (41% vs. 19%, $p<0.001$). **Figure 5** shows the geographic distribution of positive tests in Providence and the surrounding areas based on ZIP code.

Figure 4. Months

Number of tests completed (bars) and positivity rate (dots) by month and overall. September excluded because only 25 tests had been resulted by the time of publication.

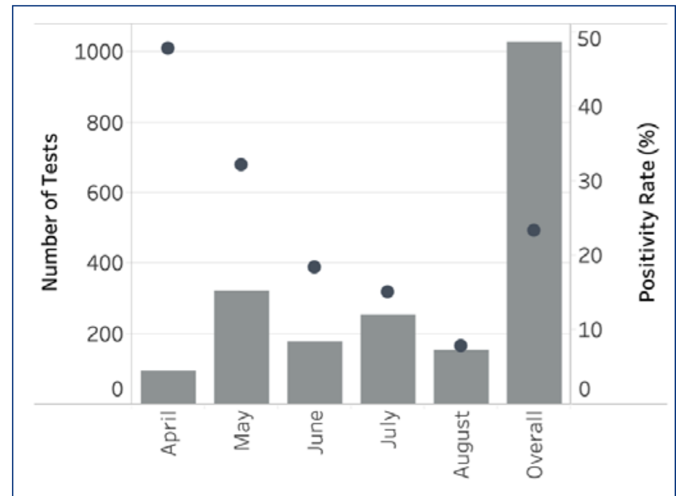
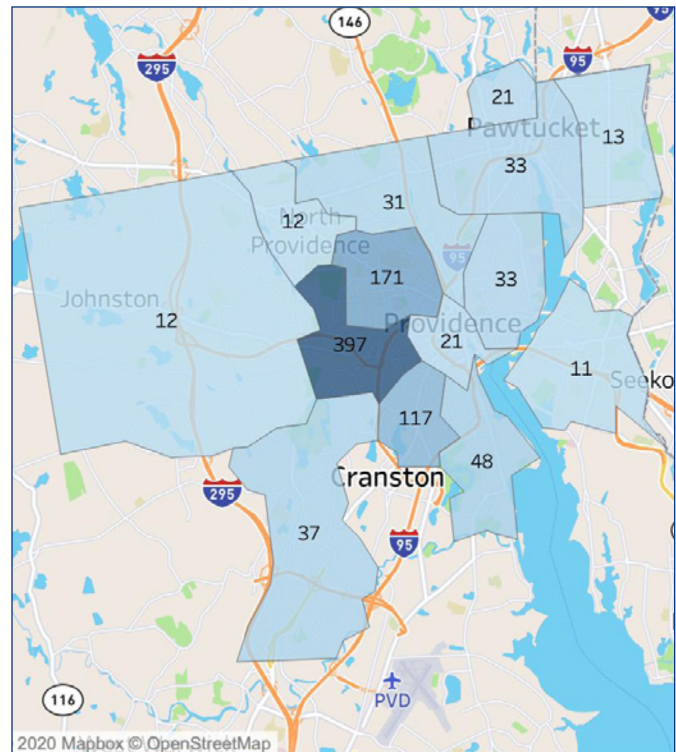


Figure 5. Zip Codes

Number of tests completed by patients living in each ZIP code (displayed for ZIP codes with at least 10 tests).



DISCUSSION

CEHC serves some of the most vulnerable and disenfranchised members of the community, including those who do not have the opportunity to stop working because they are ineligible for unemployment insurance or face unsafe work conditions due to being 'essential' workers.

Many social and structural factors lead to the disproportionate effect of COVID-19 on CEHC's patient population observed in the data reported here. First, there is a high rate of chronic comorbidities in this patient population, such as heart disease and diabetes, which are known to predispose individuals to both infection with the novel coronavirus (SARS-CoV-2) as well as severe health outcomes.[6] Most CEHC patients are low-income, which has been shown to be independently associated with poor severe COVID-19 cases when compared to those with higher incomes. In addition, low-income Hispanic communities in Rhode Island often experience higher levels of environmental exposure to COVID-19, as many live in higher density residential settings and are less likely to be able to work remotely or in safe conditions due to a combination of economic and job-related factors.[7] Language barriers and low health literacy may also contribute to this community's ability to access health-related information on how to stay safe during the pandemic.[8] For example, information about COVID-19 was not made immediately available in languages other than English in Rhode Island, which may have further exacerbated the impact of the pandemic among non-English speaking communities. It is important to recognize that each of these factors are rooted in structural racism and discrimination, and the disparities exacerbated by the pandemic highlight their direct effects on health.[9]

The immense economic impact of the COVID-19 response has had significant effects on the lowest wage earners in the community with a disproportionate effect on Hispanic/Latino and other non-white populations.[10] In April, RI had one of the highest rates of unemployment claims in the country, reaching 17.9%, and remains high at 13.0% as of August 2020.[11] CEHC's patient population of largely Spanish-speaking immigrants are often not included in the national economic relief efforts.[12]

It is clear that there is a complex and multifactorial effect of the COVID-19 pandemic on underserved communities. The data presented here from CEHC's testing site highlight key risk factors and structural determinants that underly the disproportionate impact of COVID-19 on CEHC's patient population.[13] Nearly 1 in 6 patients being tested at CEHC reported that they are experiencing food insecurity, and those who reported experiencing food insecurity were significantly more likely to test positive than those who did not. These statistics, along with those that have been reported on a national scale, demonstrate the clear link between COVID-19 risk and socioeconomic factors, such as poverty, food insecurity and job-related factors. Efforts to reduce these disparities must be addressed both within the healthcare system and the many other factors that contribute to these health outcomes, such as access to safe housing, fair employment and healthy food sources.

In addition, the COVID-19 pandemic is putting additional pressure on the 'safety-net' system of healthcare for poor and undocumented individuals.[14] CEHC has already seen a 72% increase in walk-in visits to date in 2020 as compared to last year. More than half of individuals tested at CEHC's site lack health insurance, and the testing site has attracted 644 individuals who are eligible to become new patients (uninsured without a PCP and not a current CEHC patient). It is highly likely that the recent increase in the clinic's community presence will attract new individuals to be tested, and that these patients will seek further healthcare services at CEHC. CEHC is actively working to build capacity to meet these needs and educating potential new patients about the services CEHC offers.

With the major loss of income and healthcare coverage due to the economic fallout of the pandemic, it is clear that there is a growing need for community support of safety net organizations. In the midst of the sobering disparities in COVID-19 outcomes and the renewed reckoning of racial injustice in communities throughout the US, the altruistic commitment of free clinics like CEHC enables community members to work together to address and redress inequity within the healthcare system and beyond.

References

1. Webb Hooper M, Nápoles AM, Pérez-Stable EJ. COVID-19 and Racial/Ethnic Disparities. *JAMA–J Am Med Assoc*. 2020; 323(24):2466-2467. doi:10.1001/jama.2020.8598
2. Health Care Access Data: Department of Health. https://health.ri.gov/data/healthcareaccess/. Accessed September 21, 2020.
3. RI Department of Health COVID-19 Response Data Hub. RI Department of Health. https://ri-department-of-health-covid-19-data-rihealth.hub.arcgis.com/. Published 2020. Accessed September 22, 2020.
4. Rhode Island. United States Census Bureau. https://data.census.gov/cedsci/profile?g=0400000US44. Published 2018. Accessed September 22, 2020.
5. Wolfson JA, Leung CW. Food Insecurity and COVID-19: Disparities in Early Effects for US Adults. *Nutrients*. 2020;12(6):1648. doi:10.3390/nu12061648
6. Harapan H, Itoh N, Yufika A, et al. Coronavirus disease 2019 (COVID-19): A literature review. *J Infect Public Health*. 2020; 13(5):667-673. doi:10.1016/j.jiph.2020.03.019
7. Baker MG, Peckham TK, Seixas NS. Estimating the burden of United States workers exposed to infection or disease: A key factor in containing risk of COVID-19 infection. Nelson CC, ed. *PLoS One*. 2020;15(4):e0232452. doi:10.1371/journal.pone.0232452
8. Thakur N, Lovinsky-Desir S, Bime C, Wisnivesky JP, Celedón JC. The Structural and Social Determinants of the Racial/Ethnic Disparities in the U.S. COVID-19 Pandemic: What's Our Role? *Am J Respir Crit Care Med*. July 2020. doi:10.1164/rccm.202005-1523pp

9. Egede LE, Walker RJ. Structural Racism, Social Risk Factors, and COVID-19 – A Dangerous Convergence for Black Americans. *N Engl J Med*. July 2020. doi:10.1056/nejmp2023616
10. Couch KA, Fairlie RW, Xu H. The Impacts of COVID-19 on Minority Unemployment: First Evidence from April 2020 CPS Microdata. *SSRN Electron J*. May 2020. doi:10.2139/ssrn.3604814
11. Rhode Island Local Area Unemployment Statistics. RI Department of Labor and Training. https://dlt.ri.gov/documents/pdf/lmi/laus20.pdf. Published 2020. Accessed September 22, 2020.
12. Clark E, Fredricks K, Woc-Colburn L, Bottazzi ME, Weatherhead J. Disproportionate impact of the COVID-19 pandemic on immigrant communities in the United States. Brookes VJ, ed. *PLoS Negl Trop Dis*. 2020;14(7):e0008484. doi:10.1371/journal.pntd.0008484
13. Laurencin CT, Mcclinton A. The COVID-19 Pandemic: a Call to Action to Identify and Address Racial and Ethnic Disparities. doi:10.1007/s40615-020-00756-0
14. Woolhandler S, Himmelstein DU. Intersecting U.S. Epidemics: COVID-19 and Lack of Health Insurance. *Ann Intern Med*. 2020;173(1):63-64. doi:10.7326/M20-1491

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