

## Structural vulnerability to COVID-19 among Latinx communities in the United States

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COVID-19 is disproportionately impacting racial and ethnic minority groups, namely Black, Latinx, and Native American communities, in both urban and rural areas in the United States (US).<sup>1</sup> Latinx groups have 2 to 4 times higher rates of COVID-19 than expected for their population share in 43 out of the 44 jurisdictions in the US that reported ethnicity data.<sup>2</sup> These ethnic disparities are also evident in terms of COVID-19 related deaths, which are 1.5 times higher for Latinx individuals compared to White counterparts.<sup>3</sup> In California, despite representing 38% of the total population, Latinx persons account for 60% of all cases, and 48% of all deaths.<sup>3</sup> In this issue of *Clinical Infectious Diseases*, Chamie et al aim to identify factors driving community spread of COVID-19 in San Francisco's majority Latinx census tract 022901.

The authors conducted a 4-day, community-based assessment employing SARS CoV-2 PCR and antibody testing in this census tract. This cross-sectional study took place 6 weeks into the city's shelter-in-place ordinance in March 2020. The group assessed the point prevalence (PCR positive) and cumulative incidence (antibody or PCR-positive) of COVID-19 in residents and people who work in the census tract, as well as risk factors associated with recent (PCR positive/antibody negative) and prior infection (PCR negative/antibody positive). In this study, point prevalence of COVID-19 for Latinx participants that was 20 times higher than non-Latinx participants (3.9% vs. 0.2%), and no association was found between individual co-morbid conditions and recent COVID-19 positivity. Latinx individuals accounted for 95% of all PCR-positive tests, many (>60%) of them younger men living in poverty and/or working frontline service jobs. One in every 10 Latinx people working in the census tract had a positive COVID-19 PCR. Several factors may render this group more vulnerable to acquiring COVID-19. The nature of the essential service industries (healthcare, food/beverage, housekeeping and maintenance) does not allow for remote working. Employers for these industries sometimes fail to provide basic protections against COVID-19 (masks, physical distance between employees), as we have witnessed in poultry and meat processing plants in Georgia, and do not offer financial coverage in case of illness (paid sick leave and health insurance). Based on our experience in Atlanta, Latinx populations also

face potential COVID-19 exposures during commuting to- and from- work while using mass public transportation, either because they can't afford a vehicle, or because they cannot obtain a driver's license, which is the case for undocumented immigrants in many US states including Georgia. Other recent studies have identified similar patterns of COVID-19 vulnerability in Latinx groups in the US. Figueroa et al concluded that community-level factors, including having a foreign-born non-citizen status, larger household sizes and job type predisposed individuals residing in Latinx communities in Massachusetts' towns to the most severe COVID-19 clinical outcomes.

Latinx persons account for 41% of San Francisco's census tract 022901's population.<sup>4</sup> Housing segregation rooted in structural racism has been perpetual in most large urban metropolitan gateway areas, where Latinx communities settled in largely segregated "barrios" since the post-war era.<sup>5</sup> In the last ten years, exponential growth of Latinx populations and "rural industrialization" have driven these groups, some of them undocumented or part of mixed-status families, to smaller and newer destinations in the South and Midwest.<sup>5,6</sup> These areas are characterized by limited resources for newly arrived immigrants, low wage jobs, and low educational attainment.<sup>5,7</sup> In addition to the constant fear of detainment in immigration facilities, family separation, and deportation, these individuals face hardship when securing housing.<sup>6</sup> The combination of these factors has created the ideal setting for COVID-19 to spread, as individuals have no other option than to congregate in small spaces they can afford within segregated neighborhoods.<sup>6</sup> In this regard, a major strength of the study by Chamie et al is their phylogenetic analysis of available SARS-CoV-2 genomes to illustrate the role of household transmission among these communities. SARS-CoV-2 sequence patterns from PCR-positive participants who shared a home with another PCR-positive participant were confirmed and they observed a higher proportion of high-density households (>5 persons living in the same home) among Latinx participants as a risk factor for clusters of infections compared to non Latinx-participants.

Another important finding from the study was that 52% of persons with a positive PCR test were asymptomatic. The investigators followed all PCR positive participants after two weeks and found that 29% remained asymptomatic. They also compared estimated SARS-CoV-2 viral loads (by RT-PCR cycling thresholds) between asymptomatic and symptomatic PCR positive participants to be almost identical and consistent with high viral loads. These findings highlight the importance of scaling up COVID-19 testing, regardless of symptomatology, to allow for optimal case identification, isolation, and contact tracing. Asymptomatic individuals, unaware of their infection, will likely continue to work, send their children to school, and interact with society.

It is important to highlight that the successful execution of this project was in large part the result of the investigators partnering with the San Francisco Latino Task Force, a group of close to 40 community-based organizations (CBOs) that offer support to Latinx communities during the pandemic<sup>8</sup>. By doing so, they intentionally aimed to overcome barriers to COVID-19 testing for Latinx populations, namely: scarce information in Spanish about testing site locations, indications for testing, interpretation of test results, post-test counselling, limited availability of Latinx staff in testing sites, fear of personal information being shared with immigration authorities, and fear of risking future resident documentation status by seeking care, according to the new federal “public charge” policy. In the southern US, these barriers are even more profound, as local immigration policies are more stringent, and funding for community-based organizations is sparse. We witnessed such barriers firsthand during the planning and implementation of our community-based COVID-19 testing events in the Atlanta area. In addition to organizing the community outreach, our partner local CBO, the Latino Community Fund, was instrumental in conveying the population’s preferences to optimize engagement, namely: choosing the testing location, avoiding requirement for online pre-registration (as many are not able to navigate the system), being flexible in testing hours to accommodate for competing obligations, eliminating the need to present an identification document or social security number at the testing event, and explaining to the participants

that the gathered information was to be used solely for results reporting. A well supported partnership with local CBOs is key to the success of future COVID-19 testing strategies for Latinx communities including their inclusion in COVID-19 vaccine clinical trials currently conducted in the US.

In summary, the study by Chamie et al sheds light into the social and structural root causes of the increased burden of COVID-19 among Latinx populations. It uncovers the social asphyxia that many Latinx communities face in the US, leading to disparities in health outcomes. Implementation of structural interventions, including nationwide, non-employer related Medicaid expansion and elimination of the “public charge” policy, are urgently needed. Guaranteed labor protections to all workers regardless of documentation status, namely masks provisions, physical distance planning, frequent employee COVID-19 testing, and paid sick leave, are equally as important. Overcoming the current COVID-19 pandemic, its disastrous effects for all Americans, and preparing for future threats will require that state and federal policies foster social justice for ethnic minorities and actively aim to dismantle structural racism in the US.

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**Potential Conflict of Interests**

All No reported conflict of interest.

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