EVIDENCE-BASED Medicine INFOSHEET: EPIDEMIOLOGY AND HEALTH SYSTEMS

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Is there increased risk for morbidity and mortality in the Latinx Population from COVID-19?

Key Findings:

CDC MMWR on disparities by region from March - December 2020

- The proportion of hospitalized patients with COVID-19 was highest for Latinx patients. This disparity was most pronounced during May - July 2020. Although the most recent data is less pronounced than it was at its worst, the disparity between Latinx persons and non-Hispanic whites persists in all regions, especially the West.[1]
- Possible causes include Latinx workers having less flexibility to work remotely, less access to healthcare and language barriers.[2]

CDC COVID Data Tracker (As of 8/12/2021, total number of COVID-19 cases = 36,268,057)

- Hispanic/Latinx persons account for 18.45% of the US population, however:
- Of the 63% of cases in which both race and ethnicity were known (n= 18,551,630), 28.3% were Hispanic/Latinx.[3]
- Of the 83% of deaths in which both race and ethnicity were known (n= 425,636), 18.5% were Hispanic/Latinx.[3]
- Hispanic and Latinx people are 2.8 times more likely than non-Hispanic white people to be hospitalized and 2.3 times more likely to die from COVID-19 infection. [4]

Additional

- Transmission rates
    - In New Jersey, 19% of the total population is Hispanic, but Hispanic people make up 30% of COVID-19 cases. This also is found in Utah (14% of total population vs 38% of COVID-19 cases) and Washington (13% of total population vs 34% of COVID-19 cases).[5]
    - In counties that were defined as hotspots (dense areas of COVID-19 positive people) by the CDC, 96.2% of them had disparities in ≥1 racial or ethnic minority group. Latinx populations had the largest number of people (3.5 million) living in the hotspots followed by African American/Blacks (2 million people).[7]
    - In San Francisco, 3,953 people were tested (40% Latinx, 41% White, 9% Asian/Pacific Islander, and 2% Black) and 83/3871 tested positive; 95% of the people that tested positive were Latinx.[8]
    - Across the US from March 9th, 2020 to May 31st, 2020, there was an increasing trend in SARS-CoV-2 positivity in Hispanics while there was a decreasing trend in SARS-CoV-2 positivity in White people.[9]
    - In California, Hispanics have accounted for 60% of all COVID-19 cases and 48% of deaths despite making up only 38% of the population.[10]
    - In Texas, Hispanics have accounted for 40% of all cases and 56% of deaths from COVID-19.[17]
    - Nationally, Hispanics have a 1.3 to 7.7 times higher risk of testing positive on SARS-CoV-2 PCR than non-Hispanic Whites.[19]
    - COVID-19 incidence disparities persist among Hispanic persons under the age of 25, although the large increase in COVID-19 incidence among White persons has improved

the apparent disparity. It should be noted that a decline in incidence among racial and ethnic minority groups has not occurred.[25]
    - During 2020, there was a larger difference in incidence among Hispanic children under the age of 14 than there were between ages 15-24, when compared to the non-Hispanic White population.[25]
    - During October-December 2020, Hispanic patients were 1.7 times more likely than non-Hispanic Whites to visit the emergency department for COVID-19.[26]
- Mortality rates
    - Hispanic people are dying at a rate above what population data would suggest. CDC's weighted population data show that over 26% of US COVID-19 deaths were among Hispanic people, who represent only 18% of the total US population[5]
    - Nationally, Latinx populations were found to have a mortality rate 2.6 times higher than non-Hispanic Whites.[11]
    - Hispanic life expectancy is expected to drop 1.5 years due to COVID-19 compared to only a 0.5 year drop in whites.[12]
    - The national mortality rate of Hispanics from COVID-19 is 52/100,000 compared to 35/100,000 in Whites.[13]
    - Nationally, Hispanics comprised 26.4% of COVID-19 deaths in August compared to 16.3% in May.[14]
    - Nationally, Hispanics had a 53.6% increase in deaths compared to 2019, the highest increase in mortality of any ethnic or racial group in the country.[15]
    - Nationally, Hispanic Black individuals were 1.58 times more likely to be hospitalized for COVID-19 and 1.72 times more likely to die from COVID-19 than non-Hispanic Whites.[16]
    - In Chicago, the average age of mortality in Hispanic COVID-19 patients was 63 compared to 71 in White patients.[18]
    - Nationally, Hispanics have a 3.2 times greater risk of mortality than non-Hispanic Whites.[19] Hispanic patients in California, Oregon, and Washington displayed an increased morbidity and in-hospital mortality.[23]
- Potential reasons for disproportionate effects of COVID-19 on Latinx population
    - Latinx people may experience this disparity due to work in frontline jobs (grocery stores, waste management, cleaning and sanitation services, and food delivery) as well as due to living conditions. This is because twenty-five percent of Hispanic people live in multigenerational households (compared with only 15% of non-Hispanic white people).[5] One major employment area of concern is Construction. Latinos represent 30% of the total construction workforce. "Essential" projects, job hazards, and lack of health insurance/benefits could be variables factoring into poor outcomes in Hispanics with COVID-19.[6]
    - The majority of the Latinx persons who tested positive in San Francisco were low-income, worked frontline jobs, and could not shelter in place while maintaining an income.[8]
    - Latinx communities, particularly immigrant Hispanic communities, are more likely to live in smaller living spaces with greater density.[9, 10]
    - Latinx populations face many barriers to COVID-19 testing such as limited information in Spanish on testing locations, indications for testing, test result interpretation, and posttest counseling.[10,21] Additionally, many Hispanics avoid testing due to fears of their information being handed to immigration authorities or their future documentation status being placed in jeopardy.[10,21]

- Many individuals in Latinx communities use public transportation to commute to work and home, placing them at increasing risk for COVID-19 expsosure.[10]
  - 26% of Hispanic respondents in NYC reported losing their health insurance since the start of the pandemic compared to only 6% of White Respondents.[11]
- Insurance status plays a significant role in determining an individual's ability to access COVID-19 resources as well as their risk for contracting and developing complications from COVID-19. There was no difference nationally between the mortality of Hispanic veterans compared to White veterans, who have similar levels of insurance coverage, compared to non-veteran Hispanics and non-veteran Whites where significant differences in insurance coverage and COVID-19 mortality exist. In Texas, counties with higher levels of uninsured individuals had fewer COVID-19 tests conducted per 100,000 than counties with lower percentages of uninsured individuals. Hispanics account for 61% of the uninsured population in Texas.[20]
- Nationally, diabetes, heart disease, and cirrhosis are disproportionately elevated in Hispanic communities compared to other ethnic and racial groups. These conditions increase the likelihood of COVID-19 mortality.[16]
- Mitral valve disorder is a pre-existing condition that is a COVID-19 risk factor in Latinx patients and not non-Hispanic whites. Hypertension is a stronger risk factor for hospitalization in Latinx patients.[24]
- Latinx patients tend to present with more advanced disease and greater inflammatory response.[24]

Vaccinations

- Of the 58.2% of persons with at least one dose in which both race and ethnicity were known (n= 114,418,404), 16.7% were Hispanic/Latinx.[22]
- Of the 63.1% of persons who are fully vaccinated in which both race and ethnicity were known (n= 105,619,168), 15.8% were Hispanic/Latinx.[22]
- Of the Hispanic/Latinx population, 36.6% have received at least one dose, and 32.0% are fully vaccinated.[27]
- In a study of vaccination and intent status among adults between the ages of 18 to 39, 22% of Hispanic adults said they "probably or definitely will not get vaccinated."[28]
- COVID-19 vaccination rates during pregnancy were low among Hispanic women, who accounted for 32.9% of pregnancies, and 11.9% of these women received at least one dose.[29]

Recommendations:

- Though the amount of racial and ethnic data on the epidemiology of COVID-19 has increased, more data is needed to fully characterize how COVID-19 affects Latinx populations and to understand the impact of both sex and race on hospitalization rates in this population [3,4].
- Evidence suggests that disparities may be increased due to lack of education and health awareness among the Latinx community. National programs (such as CDC's REACH program) and local programs (such as Penn State Project ECHO) are being implemented to increase education and resources dedicated to the Latinx community.[5] These programs serve to educate the Latinx community via pamphlets and online resources that are translated to Spanish for adequate reading. These initiatives should be expanded at the national, state, and local level. This is especially important because of the large number of Latinx persons that live in COVID-19 hotspots[7] and work frontline jobs and therefore cannot shelter in place to maintain their income[8]. Focus should be placed on educating on best ways to maintain social distance and best practices on mask use in these populations.

- Trusted community organizations, leaders, and pre-existing health programs targeting Hispanics should be mobilized to assist with disseminating factual information on COVID-19 and connecting Hispanic communities with testing services and other COVID-19 resources.[10, 21]
- Intersectionality should be considered when providing care to Hispanic individuals.[16]
- As vaccination campaigns continue across the United States, it is essential that racial and ethnic data be reported at both the provider and jurisdictional levels. This will allow for monitoring of vaccine administration and ensure the rapid detection of racial and ethnic disparities in vaccine distribution.

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