

School of Dental Medicine

## COVID-19 and U.S. Hispanic/Latinx Population Health Disparities: A Systematic Literature Review

Principal Investigator: Aidee Nieto-Herman, DMD, CAGS, MScD Co-investigators: Gabriel Perez\*, Alexa Perez\*, Orestes Riera\* Tufts University School of Dental Medicine



### INTRODUCTION

The term health disparities refers to preventable differences in the healthcare system's history among disadvantaged populations including race, ethnicity, socioeconomic status, age, location, gender, disability status, sexual orientation, etc. These disparities result in comorbidities, increased mortality rates and unnecessary costs. There is a strong correlation between low household income and increased risk of poor health. Poverty is recognized as a contributor to death and disease. This highlights the need for policies that promote and advocate for racial, economic and healthcare equality. The pandemic's striking differences in social and ethnic groups provide the opportunity to reaffirm and further explore these disparities.

# Results

There has been a steady increase in COVID-19 cases and deaths among U.S. Hispanics/Latinxs. Despite being 18% of the U.S. population, the CDC revealed that they account for34% of all U.S. COVID-19 cases. Hispanics/Latinxs have one of the highest probabilities of testing positive for COVID-19 in the U.S. (Figure 3).

Rate ratios compared	American Indian or Alaska	Asian, Non-	Black or African	Hispanic or
to White Non-Hispanic	Native, Non-Hispanics	Hispanics	American, Non-Hispanic	Latinos
Cases	1.9x	0.7x	1.1x	



### Objective

The aim of this study is to bring awareness to the disparities to which U.S. Hispanics/Latinxs are facing. These disparities are variables that put the Hispanic/Latinx community at higher risk of becoming infected by SARS- CoV-2; these variables are specific to this community.

Hospitalizations	3.7x	1.1x	2.9x	3.2x
Deaths	2.4x	1.0x	1.9x	2.3x

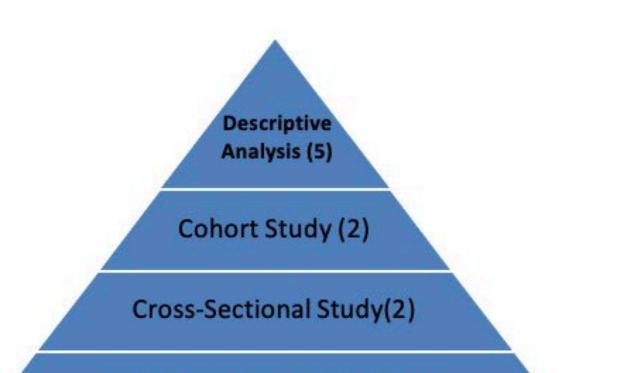
Figure 3: Covid-19 Race Ratios Compared to Whites. CDC 2021

### Conclusion

Health disparities and inequities are not new to U.S. Hispanics/Latinxs. These injustices have been long implemented on minorities, which stem from the basis of individual/systemic racism and discrimination. U.S. minorities carry a greater burden of SARS-CoV-2 infections and deaths compared to their White counterparts. These disparities include, but are not limited to, language barriers, immigration status, delayed help-seeking behavior, larger and multigenerational households, access to healthcare, underlying health issues, lower income, lower educational levels, health insurance coverage, transportation, and greater risk of exposure to SARS-CoV-2 by being "essential workers". These disparities are expected to play a role in the current/future distribution of the COVID-19 vaccine. From a public health perspective, more research is recommended to expose these disparities, recognize and mitigate them.

# Methods

The primary database used was Medline (via PubMed). The key words used were COVID-19 [tiab] AND SARS-CoV-2 [tiab] AND Hispanic [tiab] AND Latinx [tiab] AND Health disparities. This research was further supplemented by hand-searching of relevant literature. Literature published between February 2020 and February 2021 was reviewed. Only articles published in English and in the U.S. were included. Initially, 62 articles were obtained, 19 mentioned U.S. health disparities, only 7 addressed health disparities, U.S. Hispanics/Latinxs, and COVID-19



## REFERENCES

1.Baquero B, Gonzalez C, Ramirez M, Chavez Santos E, Ornelas IJ. Understanding and Addressing Latinx COVID-19 Disparities in Washington State. Health Educ Behav. 2020 Dec;47(6):845-849. doi: 10.1177/1090198120963099. Epub 2020 Oct 14. PMID: 33148042.

2.Kaufman HW, Niles JK, Nash DB. Disparities in SARS-CoV-2 Positivity Rates: Associations with Race and Ethnicity. Popul Health Manag. 2020 Sep 23. doi: 10.1089/pop.2020.0163. Epub ahead of print. PMID: 32985959.

3.Goyal MK, Simpton JN, Boyle MD, et al. Racial and/or Ethnic and Socioeconomic Disparities of SARS-CoV-2 Infection Among Children. Pediatrics.2020;146(4): e2020009951

4.Price-Haywood EG, Burton J, Fort D, Seoane L. Hospitalization and Mortality among Black Patients and White Patients with Covid-19. N Engl J Med. 2020 Jun 25;382(26):2534-2543. doi: 10.1056/NEJMsa2011686. Epub 2020 May 27. PMID: 32459916; PMCID: PMC7269015.

5.Raine S, Liu A, Mintz J, Wahood W, Huntley K, Haffizulla F. Racial and Ethnic Disparities in COVID-19 Outcomes: Social Determination of Health. Int J Environ Res Public Health. 2020 Nov 3;17(21):8115. doi: 10.3390/ijerph17218115. PMID: 33153162; PMCID: PMC7663309.

#### Webinar Lecture Series (1)

Figure 1: Level of Evidence of Identified Literature



Figure 2: Sequence of Eligibility Selection

6.Rentsch CT, Kidwai-Khan F, Tate JP, Park LS, King JT, Jr, Skanderson M, et al. (2020) Patterns of COVID-19 testing and mortality by race and ethnicity among United Statesveterans: A nationwide cohort study. PLoS Med 17(9): e1003379. https://doi.org/10.1371/journal. pmed.1003379

7.Vahidy FS, Nicolas JC, Meeks JR, et al. Racial and ethnic disparities in SARS-CoV-2 pandemic: analysis of a COVID-19 observational registry for a diverse US metropolitan population. BMJ Open 2020.

8.Risk for Covid-19<u>cdc</u> infection, hospitalization, and death by race/ethnicity. (n.d.). Retrieved March 02, 2021, from https://www.gov/coronavirus/2019-ncov/coviddata/investigations-discovery/hospitalization-death-by-race-ethnicity.html

Presented at the 97<sup>th</sup> Annual Session of the Greater New York Dental Meeting in 2021