Spotlight on Special Topics

SOCIAL DETERMINANTS OF MORTALITY FROM COVID-19, A RETROSPECTIVE STUDY OF 6,000 PATIENTS

Poster Contributions
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Background: Health disparities and Coronavirus disease 2019 (COVID-19) mortality is an evolving topic. This study sought to explore the relationship between patient ethnicity, annual household income, and COVID-19 mortality.

Methods: A chart review was conducted of 6,000 hospitalized patients with positive COVID-19 polymerase chain reaction (PCR) tests from March 2020 to June 2021 at Methodist Health System in Dallas, Texas. Patient age, gender, ethnicity, and zip code were collected. The sample included 3,114 males and 2,886 females with a mean age of 61.6±17.1 years. Ethnicity selected by the patient was used. Median annual income by zip code was obtained from the 2020 U.S. Census Data. A Chi-square test was used to calculate p-values.

Results: No statistically significant difference in mortality based on ethnicity or median annual income by zip code was found. Asian American patients had the lowest mortality rate, while Hispanic, Latino, or Spanish origin had the highest mortality rate with p(0.92), independent of other factors. Patients living in a zip code with a median household annual income of $40-80K had the lowest mortality rate while those with ≥$80K had the highest mortality rate with p(0.12), independent of other factors as shown in Table 1.

Table 1. Patient Demographics and Mortality Rate

Variable		N	%
Ethnicity		6,000	100
Black or African American		2,038	34.0
	Alive	1,775	87.1
	Expired	263	12.9
White		1,828	30.5
	Alive	1,600	87.5
	Expired	228	12.5
Asian		211	3.50
	Alive	188	89.1
	Expired	23	10.9
Hispanic, Latino or Spanish origin		787	13.1
	Alive	682	86.7
	Expired	105	13.3
Other		1,052	17.5
	Alive	912	86.7
	Expired	140	13.3
Declined to Answer		84	1.40
	Alive	72	85.7
	Expired	12	14.3
Zip Code Median Income		6,000	
≤$40K		1,675	27.9
	Alive	1,450	86.6
	Expired	225	13.4
$40-80K		3,185	53.1
	Alive	2,801	87.9
	Expired	384	12.1
≥$80K		1,140	19.0
	Alive	978	85.8
	Expired	162	14.2

Conclusion: Our study suggested that neither ethnicity nor income predicted mortality in admitted COVID-19 patients, independent of age and gender.