

Social Determinants for COVID-19 Infection Among Minorities in the United States

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Abstract: According to recent data from the CDC, the majority of those impacted by COVID-19 in the US are minorities. Many leading health experts point to underlying medical conditions, including heart disease and diabetes, as one major explanation for why minority populations are seeing high incidence and death from COVID-19. In this study, we examine and assess the social determinants that contribute to minorities' high incidence of contracting the virus in the US. Overtime, research has revealed that poverty, quality of life, income and low socioeconomic conditions among minorities are major risk factors for health inequalities. Minorities form a major part of low-income earners in the US and their lifestyle makes them vulnerable to infectious diseases such as COVID-19. Knowing preexisting conditions and understanding the social factors that play a major role in contracting COVID-19 among minorities can help reduce spread of the virus. Understanding the social-economic factors affecting disadvantaged populations during a pandemic will help the United States government and others to better plan and manage health crisis so every citizen gets the care that they deserve. This research is a qualitative systematic review and we used search engines such as Google scholar, Scopus, PubMed Research gate for the literature.

Keywords: Infectious Diseases, COVID-19 Social Determinants, Minorities, Healthcare, Public Policy

1. Introduction

The world has been battling with the COVID-19 pandemic since November 2019. The World Health Organization declared this virus a threat due to devastating consequences such as hundreds of thousands of deaths, economies shut down and lockdowns issued in most parts of the world. This led government and health experts to enforce social distancing practices in a bit to reduce the spread of the virus. Social distancing is one of the most effective measures to reduce the spread of the virus, which is transmitted by air droplets [1]. The rapid increase in the number of cases of COVID-19 in Wuhan, China, in late 2019 highlighted how quickly health systems can be challenged to provide adequate care [2]. Globally, as of 19 July 2022, there have been 561,156,416 confirmed cases of COVID-19, including

6,365,510 deaths received by WHO from national authorities (World Health Organization). In the United States of America, from 3 January 2020 to 19 July 2022, there have been 88,411,460 confirmed COVID-19 cases with 1,013,960 deaths reported to WHO. As of 15 July 2022, a total of 591,276,330 vaccine doses have been administered. According to the World Health Organization's report Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health, "poor and unequal living conditions are the consequences of deeper structural conditions that together fashion the way societies are organized—poor social policies and programs, unfair economic arrangements, and bad politics [3].

Minority communities are mostly characterized by high housing density, high crime rates, and these social determinants of health must be considered including known

cardiovascular risk factors, which puts minorities who live in at-risk communities at greater risk for disease, not just for cardiovascular diseases but now for COVID-19 mortality [4]. This is especially prevalent among low-income and marginalized communities who are negatively affected by multiple social determinants of health, including people with disabilities; workers who do not have the option of staying home; people experiencing homelessness and who lack access to affordable, safe, and healthy housing [5]. Social distancing is the most effective strategy known to reduce the spread of COVID-19 and washing of hands with soap, but the greatest difficulty is that not everyone has the privilege to work from home. Most low-income earners lack jobs that will have them work from home and there lies the puzzle. The COVID-19 pandemic revealed important difficulties in accessing decent work for many employees in the United States, especially frontline workers, many of whom are employed in low-wage or precarious positions [6]. This paper will definitely generate more insights about social determinants of healthcare and its relations to minorities being prone to the virus.

2. Methodology

This research is a qualitative systematic review and we used search engines such as Google scholar, Scopus, PubMed, ResearchGate for the literature. Other websites that were accessed during this review include; World Health Organization (WHO), Center for Disease Control and Prevention guidelines and US Department of Health. The adapted keywords were 'COVID-19', 'minorities in the US' social determinants' 'infectious diseases' 'healthcare'. Other words like 'underlying factors' were used and for the exclusion criteria, all inappropriate studies and papers that did not match the key search words above were excluded. The main goal of this review is to provide comprehensive information on socio-economic determinants of COVID-19 infection among minorities in the US and suggest policy recommendations.

3. Literature Review

3.1. Employment

In 2018, 45% of low-income earners relied on an employer for health insurance which forces them to continue to go to work even when they are sick. Some employers allow their workers to be absent only when they test positive for COVID-19. With the way the virus spreads, by the time a person knows they are infected, they have likely already infected many others in close contact with them both at home and at work [7].

Most minorities work in jobs deemed essential such as healthcare, public safety, public transportation which if they quit, they might lose their health insurance and that is if they have it. Minority workers forced to work even when they are sick increases the risk of exposure to viruses because they

work in close quarters [8]. Paid leave, the ability for ill workers or their caregivers to take paid time off to heal or improve health, is a critical piece of a social and economic support system that helps individuals and families thrive. The New York Times reported in October 2021 that the United States, is one of six countries with no national paid leave. the virus. Without paid leave, the average worker taking off three days for illness is monetarily to their monthly household utility bill.

3.2. Income Level

As the COVID-19 pandemic spreads across the United States, schools and child care services are stepping up to help prevent transmission of the disease by ensuring access to food for children who rely on the federal nutrition safety net. With the joint efforts of the U.S. Department of Agriculture [9], School Breakfast Program, National School Lunch Program, and Child and Adult Care Food Program serve nearly 35 million children daily, delivering vital nutrition and financial assistance to families in need, according to the United States Department of Agriculture Economic Research Service. With the disruption of such programs due to the virus, an essential element will be feeding children from low-income families.

Snacks and meals from schools or child care centers make up to two thirds of children's daily nutritional needs and are healthier than those from home [10]. Children from low-income families have a higher chance of poorer health and low academic performance than those from wealthy homes. Thus, short term effects of missing meals will weaken their immune system thereby giving room for diseases and possibly infection with the virus [10].

When child care centers and schools close, children miss out on food services worth about \$30 and this a huge amount for low-income families especially in times like this where unemployment rate is high [10]. Increased food financial burden can harm other household members or force families to ration food or forgo other important necessities such as bills, medication just to meet up. Also, distributing food to these kids require that they should be outside or at least a member of the family who is responsible thereby exposing them to the virus in one way or the other.

Also, they lack disposable income, readily available cash to stock up on food and supplies since most of them depend on their paycheck to meet up with daily expenses. As such, these individuals tend to buy more processed food and smaller quantities of food because of financial restrictions and lack of disposable income [11]. This could affect them adversely in a case where they lose their jobs especially those who work in businesses that had to shut down such as restaurants, hotels to name a few. Most of them still go to work thereby exposing themselves to the virus even though majority of the population is working from home.

Lower income Americans are less able to afford healthcare services and health insurance. People with low incomes tend to have more restricted access to medical care and are more likely to be uninsured or underinsured. This way they face

greater financial barriers to affording deductibles, copayments, and the costs of medicines and other health care expenses.

Low income has also been associated with hypertension and chronic kidney disease. Adverse dietary patterns, such as higher intake of processed meats and fats and limited intake of fruits and vegetables, are common in lower-income neighborhoods in the U. S [12]. Healthier foods, such as fruits and vegetables, tend to be costlier to these populations. This makes it hard for low-income families to afford healthy diets. Individuals have access to high amounts of processed meats and fats instead of fruits and vegetables in low-income neighborhoods and food deserts [13]. In a qualitative study by Suarez *et al.*, family income demonstrated a stronger association with diet, blood pressure, and CKD than living in a food desert as reported by the low income earners who always did not have vegetables or fruits at home due to its expensive nature [14]. Their difficult living standards often preclude active recreational opportunities for regular exercise, and the cost of gym memberships or exercise equipment is often prohibitive. Also, they may face financial barriers to obtaining assistance with lifestyle changes, such as smoking cessation, or assistance with alcohol and drug addiction [15].

3.3. Education

Health literacy (HL) is defined as the ability to find, understand, appraise and apply health-related information that could help healthcare systems and individuals achieve a better quality of care, lifestyle, disease management, treatment decision, and health outcomes [16, 17]. Health literacy is recognized as a key factor in reducing health inequities and improving health and well-being [15, 18]. Adequate health literacy enables health-friendly environments, efficient health policies implementation, effective health promotional efforts, better self-care, healthcare outcomes, and lower expenditures [19]. This aspect is lacking in minority communities despite the fact that they have most underlying health conditions such as diabetes, asthma, blood pressure to name a few.

Most minorities do not have access to formal education or financial aid to help them go through college. Illiteracy is still a major issue among minority populations and with constant updates from the various state institutions like Department of Health, CDC about the virus, most of this population will be left behind as regards proper safety measures to take.

3.4. Household

Usually, most minority populations live with relatives in the same household. They mostly live in clusters [20]. This way it makes it easier for the household to get infected if one member of the family has the virus. In addition to them being essential workers who have to go out every day to work in order to support and take care of their families, living in a clustered environment or small house gives room for an easy spread of the virus to other members of the house. Given that

people experiencing homelessness often live in close quarters, have compromised immune systems, and are aging, they are exceptionally vulnerable to communicable diseases, including the coronavirus that causes COVID-19.

4. Policy Recommendations

In order to bridge this gap, meaningful community engagement & advocacy with community institutions and diverse leaders is needed. Educating the population on how to navigate some of these barriers will be strongly recommended.

Also, programs should be put in place to manage some of the socio-economic factors plaguing the minority communities such as easy access and affordability of health insurance and health information during and even after pandemics.

Improving data collection to better identify socio-economic disparities and target specific interventions by legislators will be a great step towards resolving some of these barriers in the minority communities.

5. Conclusion

Minorities are most likely to be affected by COVID-19 due to preexisting conditions and other demographics of the population. Having an understanding of this is the first step towards preventing the spread of the virus while the government should look into the health inequalities buried the US healthcare system.

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