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The Intersection of Race and Public Health: An Analysis of COVID-19 in Queens, New York

What started off as a mysterious virus that infects the respiratory system has swiftly taken the entire world by storm, changing the lives of everyone indefinitely. As of the end of April, there have been over 2.5 million cases worldwide. The virus, known as COVID-19, continues to spread at a rapid and devastating speed. As the whole world has gone into lockdown, this has become one of the worst public health crises in the past 100 years, with society devolving into a seemingly apocalyptic state. A doctor at Elmhurst hospital in Queens, New York, shares an emotional anecdote about a critically ill patient on a ventilator in his final moments. The patient's family had called the doctor with a request to put the patient on the phone so they could say goodbye. As the doctor explains the situation, "I felt like I was intruding, but that's what it was. The words were mostly Spanish. Six or seven family members, all telling the man how much they loved him. I thought, My God, this is real. This is what everyone is doing now" (Galchen). Often deemed the epicenter of the epicenter, the Queens neighborhoods of Elmhurst, Corona, and East Elmhurst, which are all within 3 miles of each other, have been especially decimated by this pandemic. These three neighborhoods have faced an inordinate amount of deaths in comparison to other neighborhoods around New York City. An analysis of COVID-19 cases by zip codes and their demographics indicates that the hardest hit communities are primarily African-American and/or Hispanic neighborhoods. A closer look at these neighborhoods in Queens, New York, zeros in on the phenomena of the sweeping disproportion

of COVID-19 cases by race occurring nationwide that is likely due to deep-seated structural racism that is embedded throughout America's institutions.

Given the recency of the COVID-19 crisis in comparison to previous pandemics, the amount of accessible and published research on the subject matter is somewhat limited. However, the intersection of race and public health in previous epidemics and pandemics sheds light on the current COVID-19 pandemic. In particular, the Spanish Flu and AIDS bear striking resemblances to COVID-19. These diseases are worth a deeper look at because while COVID-19 may be a contemporary issue, the role race plays in coloring health crises is not. If we are to achieve desired equality of all races, this equality cannot be exclusionary of the healthcare system.

The disproportionate cases of COVID-19 by race holds several important lessons in regards to racism as a barrier to health equity, an issue that should be more of a chief concern within the American healthcare system. On a national scale, COVID-19 cases have disproportionately affected minority communities especially in states such as Louisiana, Michigan, and New York. In order to take a closer look at COVID-19 cases by race in New York City specifically, I found the zipcodes with the highest number of cases in addition to the demographics and income of these zip codes. The three neighborhoods that have the most concentrated number of cases were Elmhurst, Corona, and East Elmhurst in Queens. The number of cases in these neighborhoods have been up to 139% greater than the city average (Younes and Shaw). As a result of the heightened number of positive cases in these neighborhoods, the death rates are inevitably and concerningly higher. Despite being only 29% of the population, Latinos make up approximately 34% of the deaths in New York City and African Americans make up 28% of deaths, while only being 22% of the population (Mays and Newman). The New York

City Department of Health and Mental Hygiene found that the death rate for White people is 10 per 100,000 while the death rate for Black and Hispanic people is more than double that of White people (Mays and Newman). This disproportion in cases is exemplified by the predominantly Black and Hispanic neighborhoods of Elmhurst, East Elmhurst, and Corona. Furthermore, these neighborhoods are lower in median household income than the citywide median, making this not only an issue of race but also of socioeconomic status. The NYU Furman Center, which specializes in neighborhood and urban policy research, found that in 2017 the median household income in Elmhurst, East Elmhurst, and Corona was $52,984, 15% less than the citywide median of $62,040. This disparity undoubtedly plays a role in the severity of Coronavirus cases in these neighborhoods.

With economic challenges as well as racial divisions often comes a lack of health insurance. The Kaiser Family Foundation Commission on Medicaid and the Uninsured found that minorities were more likely to be uninsured than Whites. According to the report, in 2013, 26% of Hispanics and 17% of Black Americans were uninsured compared to only 12% of Whites (Majerol et al. 5). The barriers presented by a lack of health insurance renders the uninsured more likely to suffer from preventative conditions and get worse medical treatment than those who are insured. Additionally, this lack of insurance is likely to discourage the uninsured to receive care if they do fall sick with coronavirus, which could be a factor of higher death rates among minorities. The racial disparities of health insurance are highly prevalent in the COVID-19 crisis given the higher infection rates in minority communities around the country. Yet, a lack of health insurance is not the only way economic inequality is responsible for the racial gap in medical treatment and positive COVID-19 cases.

Economic inequality is expectedly linked to disparities in health and life expectancy. Getting the appropriate means necessary to lead a healthy lifestyle is often too expensive for impoverished people as they are unable to afford medical care or a diet consisting of necessary nutrients. As a result, people with lower incomes are at higher risk of diabetes, a condition that puts people at higher risk for developing a more severe case of COVID-19. Additionally, lower income or minority communities are at increased risk because they are more susceptible to the adverse health effects of environmental racism. The neighborhoods of Elmhurst, East Elmhurst, and Corona all bear the brunt of exposure to harmful fumes from the nearby LaGuardia Airport, one of New York's largest and most frequented airports. According to *The Airport Traffic Report* from The Port Authority of NY and NJ, LaGuardia experiences nearly 400,000 aircraft movements per year (17). The residents of the surrounding minority communities suffer from the health repercussions of LaGuardia's high aircraft traffic. Several studies have found a correlation between living in close proximity to an airport and several health issues. One study in particular looked at the exposure to pollution and health issues in areas close to 12 major airports. The study found that living within six miles of an airport makes people much more likely to suffer from heart problems or respiratory issues. The precise findings of the study reveal that living in close proximity to an airport "increases asthma counts by 17% of the baseline average, total respiratory problems by 17%, and heart problems by 9%" (Schlenker and Walker). Heart and respiratory complications are also preexisting conditions that can worsen the symptoms of COVID-19 or make it harder for the body to fight off. The neighborhoods of Elmhurst, Corona, and East Elmhurst are all less than six miles from LaGuardia airport. In addition to the lack of proper resources and medical care, the close proximity of these three neighborhoods to the airport is likely a large factor why they have seen heightened cases and death rates.

In addition to high numbers of reported cases, recent data has disclosed that there have been an abundance of home deaths in New York City due to COVID-19, resulting in a severe underreporting of deaths. These deaths were likely in underserved areas as many people living in disadvantaged communities are unable to afford medical care so they avoid a trip to the hospital at all costs. The issue here, though this is not always the case, is that resources should be doled out where they are needed the most. An undercounting of cases may lead authorities to think that these communities do not need more resources and tests, resulting in less allocation of the necessary services. With less access to tests, cases are yet again undercounted in these neighborhoods and this vicious cycle repeats. This is not just a small undercounting. According to the article "Staggering Surge of NYers Dying In Their Homes Suggests City is Undercounting Coronavirus Fatalities" by Gwynee Hogan, "The FDNY says it responded to 2,192 cases of deaths at home between March 20th and April 5th, or about 130 a day, an almost 400 percent increase from the same time period last year." Hogan goes on to explain that even if someone dies at home of symptoms similar to those of COVID-19, because the health department is not testing the deceased for the virus, these numbers are not included in the death counts because they are not confirmed.

Even more concerning is that the number of deaths at home in New York City have only risen since and the communities that are most vulnerable are still not getting the help needed. Bias is certainly at play when it comes to governmental decisions regarding facilities and services allocated to each neighborhood. Unfortunately, as a result, minority neighborhoods always receive the short end of the stick and that is exactly what is playing out in the COVID-19 crisis. By living in minority communities, people are not only less likely to have access to medical treatment but even the opportunity to get tested for the virus as opposed to people who

may live in a whiter area or more affluent area. In the neighborhoods of East Elmhurst, Corona, and Elmhurst, where most residents are African-American or Hispanic and many are essential workers, this is the case. According to a report released by New York City Comptroller Scott Stringer's office, 75% of front line workers in the city are people of color, including healthcare, transit, postal, and grocery employees. These essential employees are likely still operating and riding public transportation to get to work as minorities make up over 70% of transit workers according to this report. As of early April, over 6,000 transit workers have become sick or self quarantined (Goldbaum). Although they face far greater exposure to the virus, members of these communities are not getting the proper care necessary.

This is the case with HIV/AIDS, which has and still does disproportionately affect minorities, especially African Americans. In the past, the AIDS pandemic, often called an epidemic by the WHO, has been linked with biased and negative attitudes towards gay men. Some of the old bias towards gay men has now shifted to the African American community, especially when it comes to receiving treatment. While both AIDS and COVID-19 do not have cures, there is treatment available for AIDS. Antiretroviral therapy (ART) is highly effective at managing HIV/AIDS but is extremely costly. A 2015 study of the lifetime medical costs for individuals with HIV/AIDS found that the lifetime costs came out to be $597,300 for someone aged 35 years old with over half of these costs credited to ART. Additionally, the study found that monthly medical costs range from $1854 to $4545 (Schackman et al.) These high prices are evidently difficult for most to afford, especially those without insurance. Because of the lack of health insurance among minorities, those most vulnerable to AIDS are once again worse off when it comes to receiving treatment. A study on the roles of race and treatment of AIDS in San Francisco found drastic disparities of mortality between races. According to the research, "the

1999 Black mortality rate was 70% higher than the White rate, and the 2006 rate was over 2-times greater than the White rate." Unfortunately, these cases of higher mortality rates among African-Americans are a commonality in pandemics as we are seeing in the current pandemic (Arnold et al.) The same study found that neighborhoods had a large role to play in racial disparity in AIDS mortality. According to the research, not only does living in disadvantaged neighborhoods pose several health conditions that can make it harder to battle an infection, but it also affects the provision of medical facilities and access (Arnold et al.). This issue of minority neighborhoods being at a disadvantage when it comes to receiving treatment is the exact case in the Queens neighborhoods of Elmhurst, East Elmhurst, and Corona.

While the AIDS pandemic shows similarities to COVID-19, the coronavirus outbreak has also frequently been compared to the 1918 H1N1 influenza pandemic, otherwise known as the Spanish Flu given the severity of both viruses. While the viruses themselves are notably different, the characteristics of the pandemics are worth comparing. Similar to New York City, Chicago has seen an alarming rate of coronavirus cases and deaths within Black communities. Although African Americans make up only 30% of Chicago's population, they compose 52% of COVID-19 cases and 72% of the city's COVID-19 deaths (Wall and Schulte). During the 1918 influenza pandemic, Black people were often blamed for the spread, especially in Chicago. A racist headline from the *Chicago Daily Tribune* read: "*Rush of Negroes to City Starts Health Inquiry."* Fast forward to 2020 and prejudiced scapegoating is still present in our current pandemic but racism is now directed towards Asians. This scapegoating is yet another of the many ways the characteristics of these pandemics overlap.

The social dynamics of the Spanish Flu are also highly related to those of coronavirus in regards to the factors that play a role in dictating whether or not people will receive medical

attention and if they do, the quality of care they receive. While the Spanish Flu occurred during the years of segregation, leaving Black people confined to substandard and segregated hospitals, 100 years later this trend of people of color receiving second-rate care continues. Admittedly, conditions are nowhere near as severe as during the period of segregation, but the similarities are concerning enough to take a closer look at. Given that a large population of minorities are uninsured, when they do seek care it is often only with doctors they can afford or at free health clinics, which does not always mean the best of care. A study on race and the 1918 influenza pandemic found that although Black people had a lower chance of getting sick, if they did develop the disease they had much higher fatality rates. In fact, the only year that Black people had a lower influenza mortality rate than White people was in 1918. This was attributed to the notion that Black people were able to build up more immunity during the less dangerous wave of the disease given their high exposure living and working conditions. As a result of this, when the disease came around twice as fatal than before, Black people were far less susceptible to it (Okland). The chances of this happening again with COVID-19 are quite possible considering that essential workers, many of which are minorities, may be closer to immunity than others. Similar to the Spanish Flu, several experts speculate that a second wave of COVID-19 is highly possible and it may be more difficult than the current wave. Yet, even if these are not the lessons we take from previous pandemics to apply to the coronavirus pandemic, the similarities of the number of Black deaths in each pandemic holds great significance about just how much more work needs to be done to achieve health equity.

Medical schools are a great place to start this effort towards reaching health equity considering this is the place that shapes future doctors and their careers. A study on thousands of students at 49 U.S. medical schools found that the climate and curriculum at medical schools

play a large role in a student's intent to work in underserved communities. Looking at the beginning of medical school to graduation, the researchers found little change in the percentage of students who wished to work in disadvantaged communities, which they find was due largely to the environment fostered by the university and the curriculum itself. As the authors of the study themselves put it: “Gaining interest in both working in an underserved area and caring primarily for minority patients was associated with taking part in a seminar on minority health, the medical school’s learning orientation toward interracial interactions, and the number of interactions students had with Black students, faculty, and staff” (Phelan et al. 17). In other words, having a curriculum inclusive of minority health and a diverse classroom environment makes medical students more likely to gain interest in caring for minority communities. Unfortunately, the research found that most schools failed to incorporate these factors into the education of their students resulting in less inclination among students to work in high-needs areas.

While the result of this study is discouraging news, the study implies that there is a fairly easy fix that starts in medical schools. NYU Langone Health announced that they would be using donations to provide free tuition for all medical students, which is a great example of one of the steps medical schools should be taking in order to create an environment that encourages students to work in the areas that need them the most. The hope here is that by eliminating debt for medical students, they will feel less compelled to go into lucrative specializations in order to pay their debt off and will be more willing to work in underserved areas or primary care. Although this can be unattainable for several schools, it can still be used as a model of a medical school doing their part to help reach health equity. While no one saw COVID-19 coming, had any of these strategies been implemented by medical schools prior to the virus, underserved

communities would likely have more resources and necessary facilities to curb the devastation the virus has brought.

Without a doubt, life for everyone has been flipped around by the coronavirus pandemic, but there have been some silver linings that should not be ignored. One of these is the drastic levels of pollution reduction all over the world. Additionally, in the midst of the pandemic, people have been able to unite, whether it's singing songs from a balcony or cheering on health care workers, after years of being divided, society has been able to come together, while of course remaining six feet apart. However, while we all are in this together, some have it far worse than others. The "we're all in this together" rhetoric often leaves out minorities who are facing more severe circumstances due to the virus. This saying turns a blind eye to the people who are most vulnerable during this pandemic. The government can no longer turn a blind eye towards the issue of health inequity as demonstrated by COVID-19. Unlike after past pandemics, we must use the lessons learned in the COVID-19 response in order to help prevent this from happening again in the future because while viruses don't discriminate, people do.

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