

THE RELATIONSHIP BETWEEN SOCIAL INEQUALITY AND COVID-19 MORBIDITY AND MORTALITY

Country-Level COVID-19 Morbidity Rates and Gini Coefficient

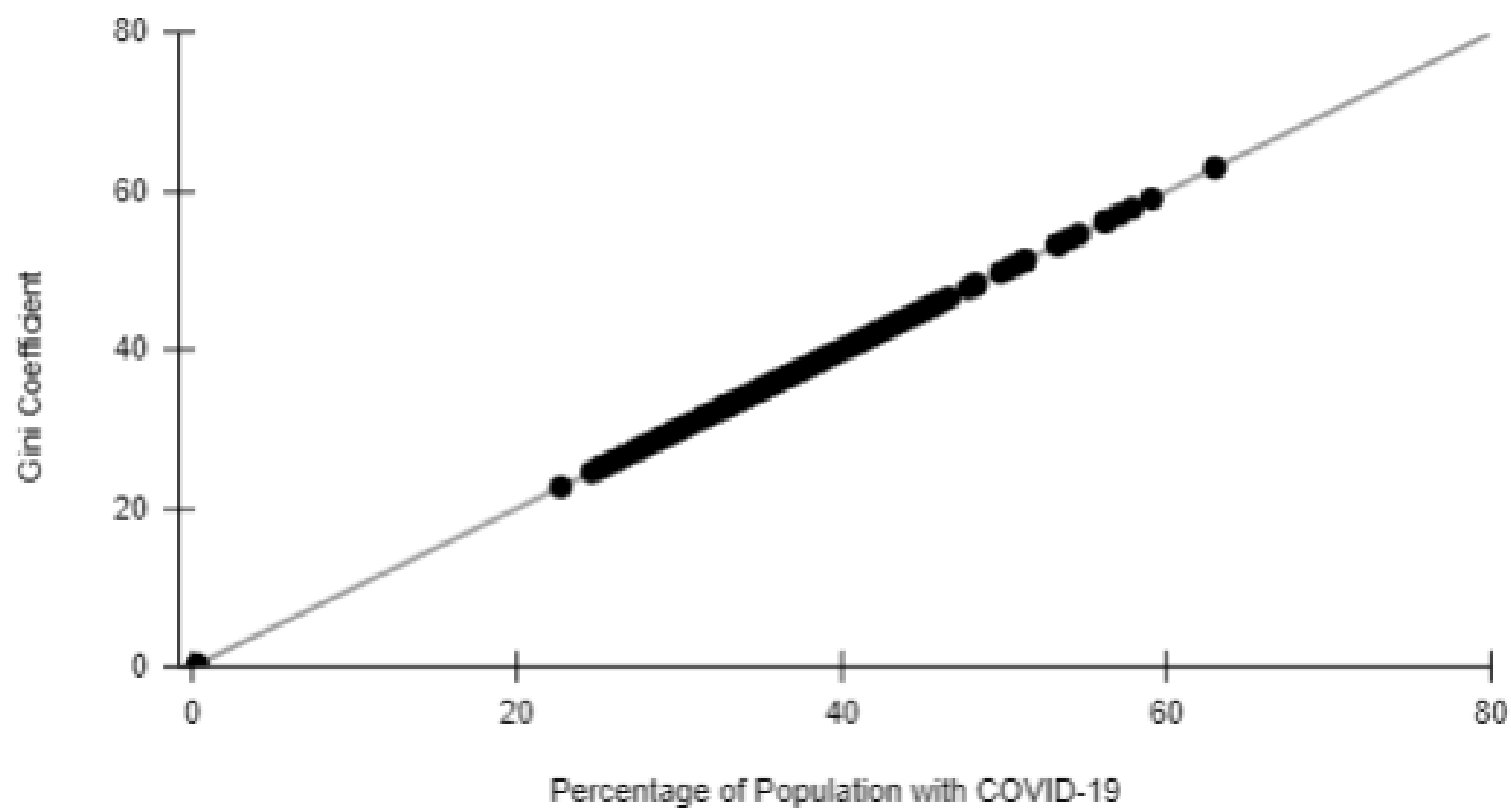


FIGURE 1: THIS FIGURE SHOWS THE GINI COEFFICIENT AS COMPARED TO THE PERCENTAGE OF COVID-19 CASES PER POPULATION WITHIN EACH COUNTRY IN 2020.

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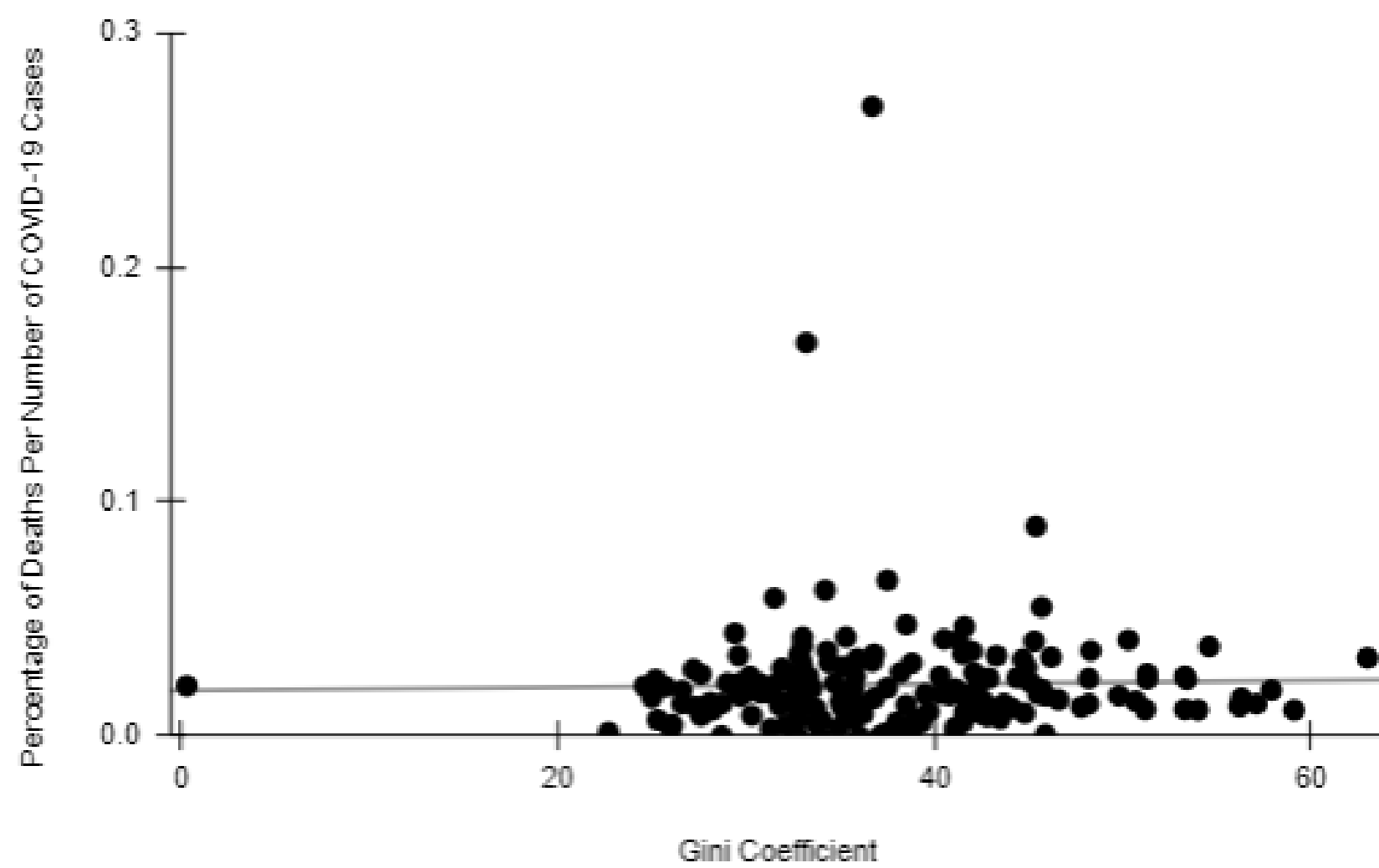


FIGURE 2: THIS FIGURE SHOWS THE GINI COEFFICIENT AS COMPARED TO THE PERCENTAGE OF COVID-19 DEATHS PER NUMBER OF COVID-19 CASES WITHIN EACH COUNTRY IN 2020.

RESULTS

The Gini coefficient is a numerical ranking of a country's income inequality. Figure 1 shows that there is a direct correlation between the Gini coefficient and morbidity rates. Figure 2 shows that there is a slight correlation between the Gini coefficient and mortality rates.

Countries with a lower Gini coefficient within their population had lower COVID-19 morbidity while those with a higher Gini coefficient per population had higher COVID-19 morbidity. This means that those countries with a lower measure of income inequality also had a lower percentage of COVID-19 cases, while those with a higher measure of income inequality had a higher percentage of COVID-19 cases.

Countries with a high level of income inequality will most likely have higher COVID-19 mortality rates while countries with lower levels of income inequality are likely to have lower COVID-19 mortality rates. However, there have been some exceptions to this trend. Yemen for example, had the highest mortality rate with only a 36.7 Gini coefficient. This country did not have the highest level of income inequality even though they had the highest mortality rates. This means that the trend is not linear nor direct.

DISCUSSION

This data provides insight into the links between inequality and COVID-19 morbidity and mortality. It is likely that the direct link between inequality and morbidity is due to socioeconomic and occupational factors, poverty rates, and the quality of or access to healthcare. It is also very likely that variables such as the quality of the healthcare and sanitation infrastructure, poverty rates, and/or the existence of conflict influences the mortality to inequality ratio. However, more research is needed to further understand why there is a direct link between inequality and COVID-19 morbidity but not mortality. By looking at inequality and COVID-19 rates, this study has shown that inequality must be addressed as a public health issue in order to prevent future pandemics.

References:

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