

COOK COUNTY  
HEALTH



# Employee Recognition

May 2022



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HEALTH

# COVID Research

PLOS ONE

RESEARCH ARTICLE

## Health disparities and COVID-19: A retrospective study examining individual and community factors causing disproportionate COVID-19 outcomes in Cook County, Illinois

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### Abstract

Early data from the COVID-19 pandemic suggests that the disease has had a disproportionate impact on communities of color with higher infection and mortality rates within those communities. This study used demographic data from the 2018 US census estimates, mortality data from the Cook County Medical Examiner's office, and testing results from the Illinois Department of Public Health to perform bivariate and multivariate regression analyses to explore the role race plays in COVID-19 outcomes at the individual and community levels. We used the ZCTA Social Deprivation Index (SDI), a measure of ZCTA area level deprivation based on seven demographic characteristics to quantify the socio-economic variation in health outcomes and levels of disadvantage across ZCTAs. Principal findings showed that: 1) while Black individuals make up 22% of Cook County's population, they account for 28% of the county's COVID-19 related deaths; 2) the average age of death from COVID-19 is seven years younger for Non-White compared with White decedents; 3) residents of Minority ZCTA areas were 1.02 times as likely to test positive for COVID-19, (Incidence Rate Ratio (IRR) 1.02, [95% CI 0.95, 1.10]); 1.77 times as likely to die (IRR 1.77, [95% CI 1.17, 2.66]); and were 1.15 times as likely to be tested (IRR 1.15, [95% CI 0.99, 1.33]). There are notable differences in COVID-19 related outcomes between racial and ethnic groups at individual and community levels. This study illustrates the health disparities and underlying systemic inequalities experienced by communities of color.

### Introduction

On March 11, 2020, the World Health Organization officially declared COVID-19, the disease caused by the SARS-CoV-2 virus, a pandemic. The virus has infected over 200 million people

Dr. Larissa Unruh, Chief Resident  
Emergency Medicine  
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Dr. Kenneth Soyemi, Medical Director,  
Cook County Juvenile Temporary Detention Center

# Nursing Clinical Excellence Award Winners



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Martia Brown, RN, BSN  
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**Dr. Maha Elsebaie**, Internal Medicine  
**Dr. Ufuk Vardar**, Internal Medicine  
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**Dr. Miao Jenny Hua**, Internal Medicine

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