

The Hidden Role of Racial Wealth Disparities in Older Adults' Vulnerability to COVID-19

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Abstract

Background: To examine racial and ethnic differences in wealth and other economic, exposure and baseline health-related risks of COVID-19 among older adults in the U.S.

Methods: Using rich data on wealth and long-term care use among older Americans unique to the 2016 Health and Retirement Study, we quantify differences in COVID-19 vulnerability among non-Hispanic white, non-Hispanic Black and Hispanic respondents aged 50+. We measure wealth, other economic (insurance, income); exposure (long-term care, employment, telework, household size); and health (chronic conditions, smoking) risk stratified by age (50-64, 65+).

Results: Blacks and Hispanics face dramatically greater financial risk that potentially increases exposure to COVID-19, relative to whites; Blacks and Hispanics are four to five times more likely to have no financial wealth. Blacks are also more likely than whites to use long-term care. Blacks and Hispanics also are less likely to have health insurance and face greater risk of exposure to COVID-19 because they are less likely to telework, and Hispanic older adults reside in larger households. Black and Hispanic older adults are also more likely to have a chronic condition associated with worse COVID-19 outcomes.

Conclusions: Our results suggest that wealth differences may play a substantial role in contributing to the very large racial and ethnic disparities in the health burden of COVID-19. Racial disparities in long-term care, where COVID-19 risks are higher, contribute to make older Black Americans even more vulnerable to COVID-19.

Introduction

Emerging evidence indicates that racial and ethnic minorities have disproportionately borne the devastating health consequences of the COVID-19 pandemic. Data from The COVID Tracking Project indicate that, as of October 21, 2020, Blacks were 2.1 times more likely to contract and 2.3 times more likely die from COVID-19, compared to whites. Hispanic or Latino persons were 2.1 times more likely to contract and almost 1.5 times more likely to die from COVID-19, compared to whites.(1) While documenting disparities is important, it is equally important to provide contextual information for understanding both the source of these disparities and how to address them among the age cohorts most affected.(2)

While a large body of literature prior to the COVID-19 pandemic has documented racial and ethnic disparities along many dimensions, individual studies tend to focus on a single domain.(3,4) Evidence emerging during the COVID-19 pandemic is similarly focused, and tends not to separately study older populations, despite age being an extremely important determinant of COVID-19 risk.(5,6) This study, in contrast, documents pre-pandemic disparities across multiple domains, using a single dataset and explicitly identifies risks associated with COVID-19. We focus on a nationally representative sample of adults aged 50 years or older as this group is particularly vulnerable to the health and economic consequences of COVID-19. COVID-19 mortality rates at ages 55-64 and at ages 85 years and over are 6.2 times and 97.5 times higher, respectively, than the mortality rates among people 35-44.(7) Older adults also face different economic risks since a late-career job loss (e.g., due to the pandemic) can have substantial and persistent effects on their employment, wages, and wealth.(8)

Methods

Using the 2016 Health and Retirement Study, the most recent wave available with respondents' geographic location, we create measures of economic risk (ability to withstand the financial consequences of the pandemic), exposure risk (the likelihood of being exposed to the virus) and health risk (the presence of health conditions that may increase the severity of health outcomes associated with infection). We measure the prevalence of these risks among adults aged 50 to 64 and among those aged 65 or greater, comparing Blacks and Hispanics to whites. We analyze the two age groups (50-64 and 65 and over) separately due to differences in COVID-19 health risks as well as employment and insurance coverage availability.

Economic Risks. We measure economic risk based on health insurance access, financial wealth, and income. Health insurance protects against the financial consequences of COVID-19 medical care. For those aged 50 to 64, we use two measures of this type of economic risk: 1) being uninsured and 2) living in a state without a Medicaid expansion. The latter represents the availability of a safety net for people with low income who are either currently uninsured or lose their job and their employer-sponsored coverage. For those 65 and older – who are nearly always eligible for Medicare and therefore universally insured – we measure lack of insurance supplementing Medicare. We also measure respondents' liquid financial assets and total household income to capture their ability to withstand income losses.⁽⁹⁾ Financial assets include the total value of checking, savings, or money market accounts; CD, government savings bonds, and T-bills; stocks, mutual funds, and investment trusts; bonds and bond funds; and IRA and Keogh accounts and are measured using a continuous variable as well as an indicator of no assets. Income includes earnings, pensions and annuities, unemployment and workers' compensation, other government transfers, household capital income, and other income for both respondent and spouse, where applicable. We note that these economic measures also influence one's ability to "shelter at home" and thus may be related to our measure of exposure risk.

Exposure Risks. Our measures of COVID-19 exposure risk include assessments of employment, household size, and use of home health care or nursing home services. We measure the ability to work from home based on a categorization of the extent to which jobs in particular industries are conducive to telework.⁽¹⁰⁾ Wage dependency is indicative of the importance of employment for financial stability. Household size proxies the ability to isolate and avoid virus exposure from others, and nursing home and home health care use proxies for high-risk interactions with health care providers. For example, recent research finds that as of September 14th 2020, nursing home residents were 25 times more likely to have died from COVID-19 than older adults age 65 and over living outside nursing homes.⁽¹¹⁾

Health Risks. We measure health risk through self-reported chronic conditions (high blood pressure, heart problem, diabetes, severe obesity, and lung problems) and smoking status, which may raise the risk of severe illness from COVID-19,⁽¹²⁾ as well as through an indicator that the respondent has any of these chronic conditions or is currently a smoker. We first report means and proportions for non-Hispanic whites and we then report the difference in each measure for non-Hispanic Blacks and Hispanics relative to non-Hispanic whites.

Results

Economic Risks

Black and Hispanic older adults are more likely than white older adults to face economic risk associated with COVID-19 (Table 1). Among those age 50-64, both Blacks and Hispanics are more likely than whites to be uninsured; rates of uninsurance were five and 15 percentage points higher among Blacks and Hispanics, respectively, than whites. Blacks were also 16 percentage points more likely than non-Hispanic whites to live in a state without a Medicaid

expansion, an indicator of less access to publicly subsidized insurance for low-income adults. Blacks and Hispanics aged 65 and over are six and four percentage points, respectively, more likely to have no insurance that supplements their Medicare.

Blacks' and Hispanics' mean financial assets were substantially lower than whites in both age groups. For those ages 50 to 64, mean financial assets were nearly \$250,000 lower for Blacks and Hispanics than for whites. Put differently, whites' mean financial assets were 8.6 times and 7.0 times higher than Blacks and Hispanics, respectively. These differences persisted for the older age group. For people 65 and over, whites' assets were 6.9 and 15.9 times greater than those of Blacks and Hispanics, respectively. While only 10% of whites aged 50 to 64 had no assets approaching retirement, 44% and 50% of Blacks and Hispanics had no assets. Disparities in household income are also stark; pre-retirement-aged whites have income about two times higher than Blacks and one and a half times higher than Hispanics. Over 65, whites' income is 1.9 times higher than Blacks' and 2.2 times higher than Hispanics'.

Exposure Risks

Employment, by increasing contact with others, is one potential route of virus exposure. Though whites ages 50 to 64 were more likely to work than Blacks or Hispanics, a larger share of whites were employed in industries that likely allowed for working from home (Table 2). Fifty to 64 year old Blacks and Hispanics were both 9 percentage points less likely than whites to work in a position that likely allowed for working from home. Rates of employment decrease significantly with age, falling from 72% among whites 50-64 to 22% of those 65 and over. Among those 65 and over, there is no difference between whites and Blacks, and Hispanics were four percentage points less likely than whites to be employed. Likewise, among those 65 and over, the likelihood of being able to work from home is similar between whites and Blacks; Hispanics were four percentage points less likely to be able to work from home than whites. Among those aged 50 to 64, each group received more than half of household income on average through earnings, although Blacks and Hispanics were less dependent on wages as a source of income. This is because whites are more likely to be employed and earn higher wages on average when they are employed.

Living in larger households may also increase the risk of exposure to the virus. Hispanic older adults live in larger households than whites in each age group; the difference between Blacks and whites in household size is not statistically significant for those age 50-64 but Blacks age 65 and older live in larger households than whites.

Residence in a nursing home or use of paid home health care services may also increase risk of exposure to the virus because of the larger number of contacts possible. Blacks age 50 to 64 are more likely to reside in a nursing home than whites of that age group and are more likely to use home health care than whites across both age ranges.

Health Risks

Older adults, regardless of race, are at high risk of COVID-19 complications due to the presence of chronic conditions (Table 3). Among those 50 to 64, Black older adults are particularly likely to have at least one chronic condition. Eighty-one percent, 68% and 62% of Black, Hispanic, and white adults aged 50 to 64, respectively, had at least one of six measured health risks. Among persons aged 65 and older, 90%, 87%, and 78% of Blacks, Hispanics, and whites had at least one health risk. Among those 50-64, Blacks are more likely than whites to have high blood pressure, diabetes, and severe obesity and are also more likely to be a current smoker. Hispanics are more likely than whites in this age group to have high blood pressure, diabetes, and severe obesity. They are less likely than whites to report heart problems. These differentials largely persist among those 65 and older, although the Black-white differences in

rates of high blood pressure dissipate somewhat and rates of heart problems are lower among Blacks than whites in this age group.

Conclusion

Prior to the COVID-19 pandemic, U.S. Black and Hispanic older adults were more vulnerable than white older adults to the pandemic's negative consequences. Using detailed data from the HRS, we document multiple dimensions along which racial and ethnic minorities were differentially exposed to risk prior to the COVID-19 pandemic. Blacks had substantially fewer financial resources, were more likely to live in states without a health insurance safety net, were more likely to have interactions with health care providers and thus have higher exposure risk, and were in worse pre-pandemic health than whites. Hispanics also had substantially fewer financial assets, had high rates of uninsurance, lived in larger households, and reported worse health, particularly diabetes. White older adults were more likely to be employed (and in jobs more conducive to telework) than either Blacks or Hispanics.

We note that the health disparities were present in both age groups (50-64 and 65+) that we analyzed; however, Black-white disparities in health risks narrowed slightly in the 65+ age group. This is consistent with evidence of selective mortality leading to the narrowing of differences in health status between Blacks and whites with age from other studies. (13,14) In addition, evidence from the COVID-19 pandemic indicates that the Black-white gap in COVID-19 death rates is substantially larger at younger ages.(15)

Our analysis points to many systematic and pre-existing ways in which Black and Hispanic older adults stood at greater risk for negative health and economic consequences of the COVID-19 pandemic, even before it began. These findings have important public health policy implications. Identifying economic, exposure, and health risks for different groups can inform the targeting of COVID-19 public health and economic policies towards these individuals for whom policy should most provide protections. In addition to Blacks being more likely to use nursing home care, recent research shows that conditional on using nursing home care, Black and Hispanic residents are more likely to contract COVID-19 and more likely to die from the virus.(16) This may be because nursing homes are segregated by race; Blacks tend to reside in nursing homes of worse quality than whites,(17,18) and nursing homes of lower quality have substantially higher COVID-19 mortality.(11) So, efforts to limit the spread of the virus in nursing homes will be especially beneficial to Black and Hispanic older adults. Importantly, these results will also enable states to make more evidence-based decisions regarding COVID-19 vaccine priority populations in the coming year.(19)

Declarations

Ethics approval and consent to participate:

The Human Research Protection Program in the Office of Research Compliance at Indiana University has granted exemption under protocol 1902534740.

Consent for publication:

not applicable

Data availability statement:

The data are the restricted version of the Health and Retirement Study and as such are unavailable for sharing by the authors.

Competing interests:

The authors declare that they have no competing interests.

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Authors' contributions:

RW - data analysis; RW, KS, MM, MB, and PA – manuscript drafting.

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not applicable.

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Tables

Table 1
Economic Risks

| | Ages 50–64 | | | Ages 65+ | | |
|--|------------|---------------------|-------------|------------|---------------------|-------------|
| | Mean | Difference in Means | | Mean | Difference in Means | |
| | White | Black | Hispanic | White | Black | Hispanic |
| Uninsured | 0.08 | 0.05*** | 0.15*** | - | - | - |
| | | 0.01 | (0.02) | - | - | - |
| Resides in nonexpansion state | 0.38 | 0.16*** | 0.00 | - | - | - |
| | | (0.02) | (0.02) | - | - | - |
| Has no Medicare supplemental insurance | - | - | - | 0.17 | 0.06*** | 0.04** |
| | - | - | - | | (0.02) | (0.02) |
| Financial assets (\$) ^a | 280,039 | -247,358*** | -239,858*** | 368,171 | -314,803*** | -345,002*** |
| | | (18,894) | (19,360) | | (17,557) | (16,453) |
| Has no financial assets | 0.10 | 0.34*** | 0.40*** | 0.10 | 0.27*** | 0.45*** |
| | | (0.02) | (0.02) | | (0.02) | (0.02) |
| Household income (\$) ^b | 132,300 | -69,864*** | -46,519*** | 81,279 | -39,265*** | -44,246*** |
| | | (4,297) | (21,278) | | (2,726) | -3,582 |
| Weighted N | 40,134,660 | 6,674,515 | 6,430,537 | 40,856,456 | 4,319,853 | 3,526,168 |
| Sample N | 4,538 | 2,513 | 1,876 | 7,362 | 1,538 | 999 |
| ^a Total value of checking, savings, or money market accounts; CD, government savings bonds, and T-bills; stocks, mutual funds, and investment trusts; bonds and bond funds; and IRA and Keogh accounts. | | | | | | |
| ^b Earnings, pensions and annuities, unemployment and workers' compensation, other government transfers, household capital income, and other income for both respondent and spouse | | | | | | |
| Standard errors in parentheses | | | | | | |
| * p < 0.10, ** p < 0.05, *** p < 0.001 | | | | | | |
| Data source: 2016 Health and Retirement Study | | | | | | |

Table 2
Exposure Risks

| | Ages 50–64 | | | Ages 65+ | | |
|--|------------|---------------------|-----------|------------|---------------------|-----------|
| | Mean | Difference in Means | | Mean | Difference in Means | |
| | White | Black | Hispanic | White | Black | Hispanic |
| Employed | 0.72 | -0.14*** | -0.08*** | 0.22 | -0.02 | -0.04** |
| | | (0.02) | (0.02) | | (0.02) | (0.02) |
| Employed in industry that likely allows telework ^a | 0.25 | -0.09*** | -0.09*** | 0.07 | -0.01 | -0.04*** |
| | | (0.01) | (0.02) | | (0.01) | (0.01) |
| Earnings as a fraction of income ^b | 0.63 | -0.09*** | -0.04** | 0.13 | -0.01 | -0.03** |
| | | (0.02) | (0.02) | | (0.31) | (0.01) |
| Number in household | 2.38 | 0.07 | 0.77*** | 1.95 | 0.21*** | 0.64*** |
| | | (0.05) | (0.06) | | (0.05) | (0.06) |
| Any nursing home use | 0.00 | 0.01*** | 0.00 | 0.06 | 0.01 | -0.02** |
| | | (0.00) | (0.00) | | (0.01) | (0.01) |
| Any home health care use | 0.04 | 0.04*** | -0.01 | 0.11 | 0.05*** | 0.02 |
| | | (0.01) | (0.01) | | (0.01) | (0.01) |
| Weighted N | 40,134,660 | 6,674,515 | 6,430,537 | 40,856,456 | 4,319,853 | 3,526,168 |
| Sample N | 4,538 | 2,513 | 1,876 | 7,362 | 1,538 | 999 |
| ^a Industries most likely to allow telework: Educational Services; Professional, Scientific, Technical Services; Finance and Insurance; Information; Management, Administration, Support, Waste; Wholesale Trade | | | | | | |
| ^b Earnings as a fraction of income = annual earnings/annual income | | | | | | |
| Standard errors in parentheses | | | | | | |
| * p < 0.10, ** p < 0.05, *** p < 0.001 | | | | | | |
| Data source: 2016 Health and Retirement Study | | | | | | |

Table 3
Health Risks

| | Ages 50–64 | | | Ages 65+ | | |
|---|------------|---------------------|-----------|------------|---------------------|-----------|
| | Mean | Difference in Means | | Mean | Difference in Means | |
| | White | Black | Hispanic | White | Black | Hispanic |
| Has any of the risk factors listed below | 0.62 | 0.19*** | 0.06*** | 0.78 | 0.12*** | 0.09*** |
| | | (0.01) | (0.02) | | (0.01) | (0.02) |
| High blood pressure | 0.42 | 0.26*** | 0.05** | 0.63 | 0.20*** | 0.09*** |
| | | (0.02) | (0.02) | | (0.01) | (0.02) |
| Heart problem | 0.14 | 0.02 | -0.04*** | 0.31 | -0.04** | -0.06*** |
| | | (0.01) | (0.01) | | (0.02) | (0.02) |
| Diabetes | 0.15 | 0.12*** | 0.17*** | 0.24 | 0.15*** | 0.20*** |
| | | (0.01) | (0.02) | | (0.02) | (0.02) |
| Severe obesity | 0.11 | 0.04*** | 0.03*** | 0.03 | 0.02** | -0.01 |
| | | (0.01) | (0.01) | | (0.01) | (0.01) |
| Lung problem | 0.08 | 0.00 | 0.00 | 0.11 | 0.00 | -0.04*** |
| | | (0.01) | (0.01) | | (0.01) | (0.01) |
| Current smoker | 0.26 | 0.08*** | -0.02 | 0.08 | 0.05*** | 0.02 |
| | | (0.01) | (0.02) | | (0.01) | (0.01) |
| Weighted N | 40,134,660 | 6,674,515 | 6,430,537 | 40,856,456 | 4,319,853 | 3,526,168 |
| Sample N | 4,538 | 2,513 | 1,876 | 7,362 | 1,538 | 999 |
| Standard errors in parentheses | | | | | | |
| * p < 0.10, ** p < 0.05, *** p < 0.001 | | | | | | |
| Data source: 2016 Health and Retirement Study | | | | | | |