# Americans' View of the Impact of COVID-19: Perspectives on Racial Impacts and Equity 

Katherine Carman<br>Anita Chandra<br>RAND Corporation<br>Carolyn Miller<br>Robert Wood Johnson Foundation<br>Christopher Nelson<br>Jhacova Williams<br>RAND Corporation


#### Abstract

Context: The COVID-19 pandemic has had a disparate effect on African Americans and Latinos. But it is unknown how aware the public is of these differences and how the pandemic has changed perceptions of equity and access to health care. Methods: We use panel data from nationally representative surveys fielded to the same respondents in 2018 and 2020 to assess views and changes in views over time. Findings: We found that awareness of inequity is highest among Non-Hispanic Black respondents and higher-income and higher-educated groups, and there have been only small changes in perceptions of inequity over time. However, there have been significant changes in views of the government's obligation to ensure access to health care. Conclusions: Even in the face of a deadly pandemic, one that has killed disproportionately more African Americans and Latinos, many in the United States continue not to recognize that there are inequities in access to health care and the impact of COVID-19 on certain groups. But policies to address inequity may be shifting. We will continue to follow these respondents to see whether changes in attitudes endure over time or dissipate.


Keywords COVID-19, race, equity, public opinion

The impact of COVID-19 has disproportionately fallen on African American and Hispanic groups, with these groups experiencing higher infection rates, mortality, and financial impacts. Case rates among African Americans are 1.4 times the rates among white Americans, and rates among Hispanic Americans are 1.7 times the rates among white Americans (CDC 2020). This stands on top of long-standing health inequities in the United States. In 2019, for instance, $18.7 \%$ of Hispanic Americans and $10.1 \%$ of

African Americans lacked health care access and coverage, compared to $6.3 \%$ of whites; and $21 \%$ of Hispanic Americans and $17 \%$ of African Americans did not see a doctor because of cost in in the past 12 months, compared with 13\% of whites (Artiga and Orgera 2019; US Census Bureau 2019). Similar patterns hold for other areas of well-being, such as incarceration and income (Nellis 2016; Wilson 2020).

While inequity in health is well-known and documented in the health fields (IOM 2003), historically it has been less understood by the general public. However, that may be changing. Compared to two years ago, evidence of widespread inequities (in health, education, justice, housing) is now regularly discussed in the mainstream media and in the context of COVID-19; and protests surrounding systemic racism and the deaths of George Floyd, Breonna Taylor, and others have brought increased attention to these disparities. But whether the public appreciates that there are inequities in access to health care related to race, ethnicity, or income, and whether their views have changed as a result of the pandemic, is an open question. This article seeks to assess views of the differential impact of COVID-19, equity in access to health care, and the government's role in addressing access to health care, and how these views may differ across demographic groups and over time.

Braveman and colleagues (2017: 2) state, "Health equity means that everyone has a fair and just opportunity to be as healthy as possible. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care." The public's views and understanding of inequity are key inputs into public policy. Previous studies have shown that political views and perceived costs can be barriers to achieving future policy changes related to equity in health care (Pacheco and Maltby 2017; Pagel et al. 2017).

Increasing polarization in the United States has underscored the ways in which different segments of the population view the same set of conditions and circumstances through different lenses. For instance, a Pew poll found that support for the Black Lives Matter movement remained virtually unchanged among Black Americans between June and September 2021 but fell markedly among white Americans and (to a somewhat lesser extent) among Hispanics (Thomas and Horowitz 2020). Thus it is reasonable to suspect that views of health inequity may differ across racial and other demographic groups. Previous research identifies several factors that influence whether inequity is perceived as a problem and support for government's role in addressing inequity. First, whites often have less diverse networks, providing fewer situational cues about health inequity, a
pattern exacerbated by segregation in neighborhoods, schools, and workplaces (Kraus, Rucker, and Richeson 2017; Shedd 2015). Second, social structures (e.g., framing of history) leaves Americans motivated to perceive society as fair and just, and this tendency may be stronger for whites, who are often more highly invested in existing social and economic structures (Salter, Adams, and Perez 2018). Motivated cognition related to a colorblind worldview may lead white Americans to underestimate the degree of inequity (Kraus, Rucker, and Richeson 2017; Kraus and Tan 2015; Richeson and Nussbaum 2004).

There is evidence of increasing support for the idea that health care coverage is a government responsibility, with an increase from $51 \%$ in 2016 to $60 \%$ in 2018. However, deeply rooted cultural narratives about free choice and personal responsibility remain barriers to widespread appreciation for health inequities (Gollust and Lynch 2011; Hook and Markus 2020). One critical challenge is that this value is inconsistent with another value that commonly underlies Americans' beliefs about social policy issues-individualism (Conover and Feldman 1984; Markus 2001). Economic individualism, for example, asserts that success stems from hard work and self-reliance. This core value of personal responsibility, when extended to conceptualizations of health, lends itself to the conclusion that individuals, rather than the government, should be responsible for ensuring their own health (Gollust and Cappella 2014).

Partisan identities can affect the degree to which individuals are willing to support political values such as equal opportunity and self-reliance (Goren, Federico, and Kittilson 2009), which have implications for views about policies to promote health. In addition, political views influence the relative interest in social investment (Citrin 1979). However, the public's willingness to accept these interventions depends on the costs they perceive for themselves, in particular whether they will have to change their own behavior (Diepeveen et al. 2013). Current events also may shift public opinion and attitudes (Krosnick and Kinder 1990). Race, ethnicity, and age are related to the degree to which individuals change their views, with people of color and younger individuals more likely to change their views as a result of media attention (Perrin 2020).

Finally, public opinion can ultimately influence public policy (Burstein 2003). Achieving future policy changes can be supported by a better understanding of the relationship between people's views of inequity and their attitudes about access to health care. According to Ann Swidler (1986: 273), "values remain the major link between culture and action." Thus, if research can help us understand the extent to which the current pandemic has brought a broader awareness and salience of the social determinants of
health, including inequity in access to health care, this awareness may create the demand for healthy communities and policies that support them (Jacobs 1992). Ultimately, we would expect these policies to improve overall health and well-being (Aknin et al. 2013; Hessami 2010; Oishi, Schimmack, and Diener 2011).

Using unique panel data, this article contributes to the literature related to COVID-19 by examining how perceptions related to inequity in health care change in the context of the pandemic. These data are ideal for three reasons. First, our data contain responses from the same respondents in two periods-2018 and 2020-allowing us to examine whether respondents change their responses to specific questions asked in both periods (e.g., have their views changed). Second, respondents are asked whether access to health care differed for African Americans and Latinos compared to white Americans in both periods. Examining responses to this question helps us understand how perceptions of inequity in health care differ across demographics and the extent to which perceptions change across periods. We expect people of color experiencing higher inequities in health care to be more likely to report them. Third, surveys in 2020 were fielded in June and July - one month following public outcry and protests over the deaths of George Floyd and Breonna Taylor. These field dates are critical to our understanding of how public perception related to racial inequity can change. Considering that much media attention was devoted to highlighting racial inequity in America following Floyd and Taylor's deaths, we hypothesize that perceptions related to racial inequity are likely to have changed, as the events of 2020 brought increased attention to these inequities.

Using these data, we seek to answer three questions. First, do people perceive racial inequities in health access? Second, is there support for policies that may address racial inequity? And third, do views change over time? For each question, we also address which groups are more or less likely to hold these views. We are particularly interested in understanding groups whose views did not change in light of the pandemic and increased attention to racial inequity.

## Methods

## Study Design and Sample

Our research draws on longitudinal survey data collected as part of the RAND-RWJF National Survey of Health Attitudes (NSHA) (fielded in 2018) and on the new COVID-19 and the Experiences of Populations at Greater Risk Survey (CEPGRS) (fielded in 2020). While the data used
in this article were collected in two separate surveys, the sample for the CEPGRS was drawn from the NSHA.

The NSHA was developed to provide insight into and perspective on how people in the United States think about, value, and prioritize health and consider issues of health equity. These surveys were designed to support measurement of the mindset and expectations of the American public as part of the Robert Wood Johnson Foundation's efforts to measure progress toward achieving a "Culture of Health" (Chandra et al. 2016). Additional information about the NSHA is available in studies by Katherine Grace Carman and others $(2016,2019)$.

In 2020, as it became clear that COVID-19 and the resulting recession were disproportionately impacting populations historically at greater risk, including people of color and lower-income households, the CEPGRS was developed to provide greater insight into the impact of the pandemic on vulnerable households and on the views of the general public as they relate to health, equity, and the impacts of COVID-19. Several key survey questions from the NSHA were included in the CEPGRS, allowing for longitudinal analysis. Additional information about the CEPGRS is available in Carman et al. 2020.

Both the NSHA and CEPGRS were fielded to the RAND American Life Panel (ALP), a nationally representative internet panel recruited via probability-based sampling methods (see Pollard and Baird 2017 for additional information). ${ }^{1}$ To ensure representativeness, computers and internet connections are provided for respondents who do not already have them. Respondents are compensated for completing surveys, receiving \$10 for a 15-minute survey, prorated for shorter or longer surveys.

Respondents to the CEPGRS were selected from the NSHA, with an oversample of lower- and middle-income, Black, and Hispanic respondents. ${ }^{2}$ The CEPGRS had two versions, with those from populations historically at greater risk receiving more questions about the impact of the COVID-19 pandemic on their personal situation, and others receiving primarily questions about their views. Table 1 summarizes key details of each survey.

We merged the two surveys together and calculated weights to align the characteristics of our sample in 2020 to the 2019 Current Population Survey (CPS) and to account for attrition between the two waves. Our weighting procedure is the same procedure used for other ALP surveys

[^0]Table 1 Description of Surveys

|  | NSHA | CEPGRS |
| :--- | :--- | :--- |
| Field dates | July 11 to August 30, 2018 | June 29 to July 22, 2020 |
| Number of questions* | 34 | 30 or 37 |
| Average survey length | 19 minutes | 9 or 13 minutes |
| Number invited | 2,858 | 2,308 |
| Number responded | 2,479 | 1,854 |
| Participation rate | $86.7 \%$ | $80.3 \%$ |

* Many questions include tables with multiple subquestions or subparts.
and is described in more detail (Pollard and Baird 2017). We aimed to match population proportions on interactions of gender and race and ethnicity, gender and education, and gender and age as well as household income interacted with household size. Appendix table 1 in the online appendix provides results from a regression predicting retention in the sample as a function of demographic characteristics; with the exception of age, which we adjust for in our weighting procedure, we find that demographic characteristics do not predict retention.


## Nomenclature

In this article we discuss historically underserved groups in two different contexts: as survey respondents and as groups specifically indicated in our survey questions. When referring to respondent groups, we will include the word respondents, and when referring to historically underserved groups that are mentioned in survey questions, we will refer to indicated groups. Some analysis will simultaneously refer to similar racial or ethnic groups as both respondents and as the indicated group. When discussing respondents, we will refer to non-Hispanic Black and Hispanic (which is how we define our racial and ethnic groups to create mutually exclusive groups), but when discussing indicated groups, we will refer to African Americans and Latinos. The latter language matches that used in our survey questions and is used because it is clearer for survey participants.

## Survey Instrument

Our surveys asked a number of questions about how race and ethnicity impact health, particularly in light of the pandemic. The full text of the 2018 and 2020 surveys are available in studies by Carman and colleagues (2019 and 2020, respectively).

In 2020 respondents were asked about whether they agreed or disagreed (on a five-point Likert scale with 1 representing strongly agree and 5 representing strongly disagree) that the pandemic had a greater impact on people of color.

People of color (e.g., African Americans, Latinos) are facing more of the health impact of coronavirus (COVID-19) than whites.
People of color (e.g., African Americans, Latinos) are facing more of the financial impact of coronavirus (COVID-19) than whites.

In 2018 and 2020, we asked respondents four questions about their views of equity of access to health care for different demographic groups. These questions were developed for the NSHA in conjunction with NORC at the University of Chicago and have been used in the NSHA as well as the American Health Values Survey (Bye, Ghiradelli, and Fontes 2016).

When African Americans need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?
When Latinos need health care, do you think it is easier or harder for them to get the care they need than it is for White Americans, or is there not much of a difference?
When low-income Americans need health care, do you think it is easier or harder for them to get the care they need than it is for those who are better off financially, or is there not much of a difference?
When Americans living in rural communities need health care, do you think it is easier or harder for them to get the care they need than it is for those who live in urban areas, or is there not much of a difference?

For each of these questions, the response options were "easier," "not much of a difference," or "harder." For these questions, the indicated groups are African Americans, Latinos, low-income Americans, and Americans living in rural communities. All indicated groups are compared to a reference group that does in fact have an easier time accessing health care (white Americans, those who are better off financially, or those who live in urban areas).

Respondents in both the 2018 and 2020 surveys were also asked about their beliefs regarding the government's obligation to ensure access to health care.

Do you agree or disagree with the following statement: It is the obligation of the government to ensure that everyone has access to health care as a fundamental right.

Respondents could answer on a five-point Likert scale, with 1 representing strongly agree and 5 representing strongly disagree.

## Statistical Analysis

For each question answered on a Likert scale, we considered both the full distribution of responses and dichotomized responses, with somewhat agree and strongly agree set equal to 1 , and neither agree nor disagree, somewhat disagree, and strongly disagree equal to 0 . For questions on access, we also dichotomized responses. In the case of access to health care, each of the indicated groups in our questions do face greater difficulty accessing health care than the reference group; thus we distinguished between those who report a harder time versus those who say not much of a difference or an easier time. In some analyses for questions that were repeated, we also examine changes over time, creating indicator variables for any respondent who moved up (or down) the scale. While the full distribution of responses allows for greater variation and precision offered by a higher level of measurement, in our analysis we did not find that it led to meaningfully different results. Using the dichotomized responses allowed us to estimate linear probability models, which we present for ease of interpretation. In the appendix, we present both linear probability models and ordered logit models. Results were qualitatively similar.

We calculated unweighted and weighted descriptive statistics for our sample to assess whether there were any significant changes in the demographic characteristics of our sample over time and whether attrition in our sample could be predicted by demographic characteristics.

For the questions measured only in 2018, we examined the means of each of our key variables and made comparisons by race and ethnicity. Race and ethnicity were assessed in two separate questions, which we combined to create these mutually exclusive categories. We also conducted regression analysis to assess whether differences in opinions by race and ethnicity held after controlling for other characteristics. All regressions controlled for 2018 demographics: gender (male and female), age group (younger than 45,45 to 64 , and older than 65 ), education (less than high school, high school, some college, and college degree), family income (<\$10,000, \$10,000-\$24,999, \$25,000\$-49,999, \$50,000-\$74,999, $\$ 75,000-\$ 99,999$, and $\$ 100,000$ or more), marital status (married or living with a partner, separated, divorced, widowed, and single [never married]), and census region (East, Midwest, South, and West). All characteristics were categorical variables.

For variables that were assessed in both 2018 and 2020, we examined crosstabs of changes over time and two types of regression models. The first regressed a dichotomized response from 2020 on 2018 responses and demographics characteristics. The second examined who was most likely to change their responses. These regressions allow us to better understand what the characteristics are of people whose views are changing. If our dependent variables were continuous variables, these models would be akin to estimating a model in which the dependent variable was the change in the outcome. However, because we are interested in changes in a categorical variable, a simple difference does not suffice. First, a simple difference would result in many zeros, for people who expressed the same views in both periods, but people who said harder in both periods are likely very different from those who said easier in both periods. Second, many respondents are constrained and cannot move up (or down) the scale because they are already at the top (or bottom). To address this, we consider two groups of models with selected samples: those whose responses could move toward endorsing that some groups have more difficulty accessing care (i.e., those who did not respond harder in 2018), and those who could move down the scale toward reporting that some groups have an easier time accessing care (i.e., those who did not respond easier in 2018). As an example, in the models that assess who moves toward endorsing that African Americans have a harder time accessing health care than white Americans, we condition our sample on reporting easier or not much difference in 2018 and exclude those who report harder in 2018. Including those who already reported harder in 2018 would potentially bias our results, as these individuals are already at the top of the scale. They cannot report a higher level than harder in 2020. In the case of questions about access, these models can be thought of as measuring those who are not already endorsing the "truth," who moves toward the truth, and of those who are endorsing the truth (or equal access) who moves away from the truth. We exclude those who already endorse the truth, to better understand which individuals change their views and which do not. We consider similar models for the obligation of the government to provide access to care. All analysis was conducted in Stata 16.

## Results

## General Sociodemographic Characteristics

Table 2 provides descriptive statistics of the basic demographic characteristics of our sample. Columns 2 and 3 provide the unweighted characteristics, and columns 5 and 6 provide the weighted characteristics, both

Table 2 Demographic Characteristics of Sample

|  | Unweighted |  |  | Weighted |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2018 | 2020 | t-test (p) | 2018 | 2020 |
| Gender |  |  |  |  |  |
| Male | 43.8 | 43.8 | 0.00 (1.00) | 48.1 | 48.1 |
| Female | 56.2 | 56.2 | 0.00 (1.00) | 51.9 | 51.9 |
| Race/ethnicity |  |  |  |  |  |
| Non-Hispanic white | 72.2 | 71.7 | 0.33 (0.74) | 64.6 | 64.1 |
| Non-Hispanic Black | 9.2 | 9.2 | 0.00 (1.00) | 11.7 | 11.7 |
| Hispanic | 13.4 | 13.4 | 0.00 (1.00) | 18.0 | 18.0 |
| Non-Hispanic Asian/PI | 2.8 | 2.8 | 0.00 (1.00) | 3.0 | 3.3 |
| Non-Hispanic other | 2.4 | 2.9 | -0.92 (0.36) | 2.6 | 3.0 |
| Age group |  |  |  |  |  |
| 18-24 | 0.4 | 0.1 | 2.12 (0.03) | 2.0 | 0.2 |
| 25-44 | 19.0 | 16.0 | 2.42 (0.02) | 41.4 | 38.7 |
| 45-64 | 48.1 | 44.2 | 2.37 (0.02) | 38.2 | 37.6 |
| 65+ | 32.5 | 39.7 | -4.59 (0.00) | 18.3 | 23.5 |
| Education |  |  |  |  |  |
| Less than high school | 2.2 | 2.7 | -0.96 (0.34) | 5.5 | 6.9 |
| High school | 11.2 | 11.2 | -0.05 (0.96) | 29.9 | 30.1 |
| Some college | 34.6 | 33.7 | 0.62 (0.53) | 28.2 | 25.8 |
| College grad | 52.0 | 52.4 | -0.26 (0.79) | 36.4 | 37.2 |
| Family income |  |  |  |  |  |
| <10k | 4.4 | 3.7 | 1.01 (0.31) | 7.5 | 6.1 |
| 10k-24,999 | 11.5 | 10.3 | 1.23 (0.22) | 11.6 | 11.2 |
| 25k-49,999 | 22.8 | 23.8 | -0.67 (0.50) | 21.9 | 23.3 |
| 50k-74,999 | 22.4 | 21.1 | 0.94 (0.35) | 24.6 | 20.3 |
| 75k-99,999 | 11.5 | 11.0 | 0.43 (0.66) | 10.1 | 10.6 |
| $100 \mathrm{k}+$ | 27.3 | 30.1 | -1.82 (0.07) | 24.3 | 28.5 |
| Marital status |  |  |  |  |  |
| Married or living with a partner | 59.5 | 59.9 | -0.23 (0.81) | 60.4 | 61.6 |
| Separated | 2.2 | 2.2 | 0.00 (1.00) | 3.7 | 2.4 |
| Divorced | 16.8 | 16.5 | 0.26 (0.79) | 12.6 | 13.8 |
| Widowed | 6.2 | 6.8 | -0.73 (0.46) | 4.0 | 4.8 |
| Single (never married) | 15.4 | 14.7 | 0.55 (0.58) | 19.3 | 17.5 |

weighted based on the sample characteristics in 2020. Column 4 displays t-tests comparing 2018 and 2020. For the most part, we see no significant changes in the characteristics of our sample. We also see that our sample ages during the two-year period, in part reflecting attrition and in part reflecting normal aging.

## The Impact of COVID-19 on People of Color

Respondents were asked whether they agreed or disagreed that people of color faced more of a health and financial impact of COVID-19 than whites. In both cases, approximately $60 \%$ somewhat or strongly agreed, $27 \%$ to $30 \%$ neither agreed nor disagreed, and the remainder somewhat or strongly disagreed, as illustrated in figure 1.

We also examined differences by race and ethnicity and found that nonHispanic Black respondents were significantly more likely to report that they strongly agreed with both statements than other racial groups (fig. 2). Of the non-Hispanic Black respondents, $58 \%$ reported that they strongly agreed that the pandemic has had a greater health impact on people of color, while for other races only $27 \%$ to $31 \%$ ( $\mathrm{p}<0.01$ for all comparisons). Of the non-Hispanic Black respondents, $59 \%$ reported that they strongly agreed that the pandemic has had a greater financial impact on people of color, while for other races only $25 \%$ to $34 \%$ ( $p<0.01$ for all comparisons, except to non-Hispanic other races, where $p=0.027$ ).

Table 3 presents selected results of a linear probability regression in which questions measuring the perceived health impact and financial impact on people of color are dichotomized. Columns 1 and 3 consider our base models. We find that non-Hispanic Black respondents are 16 percentage points more likely than non-Hispanic white respondents to somewhat or strongly agree that there is a greater health impact on people of color, and 31 percentage points more likely to agree that there is a greater financial impact. Hispanic respondents are seven percentage points more likely than non-Hispanic white respondents to agree that there is a stronger financial impact on people of color, but no more likely to endorse a difference in health impacts. Among non-Hispanic Asians, respondents are 19 percentage points less likely to agree there was a larger health impact than non-Hispanic whites, and those who report their race as Other were 13 percentage points more likely than non-Hispanic white respondents to somewhat or strongly agree that there was a greater financial impact.

We also find that both the views that there have been greater health and greater financial impacts on people of color are nine percentage points more likely to be endorsed by those in the highest income group (\$100,000 or more) relative to those with income between $\$ 25,000$ and $\$ 49,999$. Both the views that there have been greater health and greater financial impact are 22 to 23 percentage points more likely to be endorsed by those with a college degree relative to those with a high school degree. We find that those living

Strongly disagree

## nor disagree People of Color Are Facing More of <br> or Are Facing More of the Health Impact of COVID-19 than Whites

Distribution of responses to questions about impact of COVI9-19 on people of color.
Health impact.
Figure 1


Figure 1B Financial impact.



$\begin{array}{ccccc}\begin{array}{c}\text { Strongly } \\ \text { agree }\end{array} & \begin{array}{c}\text { Somewhat } \\ \text { agree }\end{array} & \begin{array}{c}\text { Neither agree } \\ \text { nor disagree }\end{array} & \begin{array}{c}\text { Somewhat } \\ \text { disagree }\end{array} & \begin{array}{c}\text { Strongly } \\ \text { disagree }\end{array}\end{array}$
Figure 2 Distribution of responses to questions about impact of COVI9-19 on people of color by race and ethnicity.
Figure 2A Health impact.


Table 3 Selected Results of Linear Probability Model Predicting Somewhat or Strongly Agree COVID-19 Has Had a Greater Impact on People of Color

|  | More health <br> impact on POC | More health <br> impact on POC <br> (additional controls) | More financial <br> impact on POC | More financial <br> impact on POC <br> (additional controls) |
| :--- | :---: | :---: | :---: | :---: |
| Non-Hispanic Black (relative to | $0.162^{* * *}$ | 0.0565 | $0.312^{* * *}$ | $0.163^{* * *}$ |
| non-Hispanic white) | $(0.0382)$ | $(0.0369)$ | $(0.0400)$ | $(0.0369)$ |
| Hispanic (relative to non-Hispanic white) | -0.0418 | $-0.0931^{* * *}$ | $0.0721^{* *}$ | 0.00494 |
|  | $(0.0334)$ | $(0.0318)$ | $(0.0349)$ | $(0.0318)$ |
| Non-Hispanic Asian/Pacific Islander | $-0.185^{* * *}$ | $-0.170^{* * *}$ | -0.108 | -0.0878 |
| (relative to non-Hispanic white) | $(0.0647)$ | $(0.0615)$ | $(0.0676)$ | $(0.0615)$ |
| Other non-Hispanic (relative to | -0.00171 | -0.0253 | $0.131^{* *}$ | $0.0962^{*}$ |
| non-Hispanic white) | $(0.0619)$ | $(0.0584)$ | $(0.0647)$ | $(0.0584)$ |
| Female (relative to male) | $0.0543^{* *}$ | 0.0324 | 0.0295 | 0.00277 |
|  | $(0.0215)$ | $(0.0204)$ | $(0.0225)$ | $(0.0204)$ |
| Age 65 and older (relative to 44 and younger) | $0.105^{* * *}$ | $0.0990^{* * *}$ | $0.0603^{*}$ | 0.0504 |
|  | $(0.0334)$ | $(0.0315)$ | $(0.0349)$ | $(0.0316)$ |
| Highest level of education: bachelors or higher | $0.222^{* * *}$ | $0.156^{* * *}$ | $0.226^{* * *}$ | $0.134^{* * *}$ |
| (relative to high school) | $(0.0365)$ | $(0.0348)$ | $(0.0381)$ | $(0.0348)$ |
| Family income $\$ 100,000$ or higher | $0.0943^{* * *}$ | $0.0701^{* *}$ | $0.0867^{* *}$ | $0.0552^{*}$ |
| (relative to $\$ 25,000$ to $\$ 49,999$ ) | $(0.0323)$ | $(0.0306)$ | $(0.0337)$ | $(0.0306)$ |

Table 3 (continued)

|  | More health impact on POC | More health impact on POC (additional controls) | More financial impact on POC | More financial impact on POC (additional controls) |
| :---: | :---: | :---: | :---: | :---: |
| South Census Region (relative to East) | $\begin{aligned} & -0.120^{* * *} \\ & (0.0300) \end{aligned}$ | $\begin{aligned} & -0.0828 * * * \\ & (0.0284) \end{aligned}$ | $\begin{gathered} -0.103 * * * \\ (0.0313) \end{gathered}$ | $\begin{gathered} -0.0494 * \\ (0.0284) \end{gathered}$ |
| When African Americans need healthcare $=$ not much of a difference |  | $\begin{gathered} 0.105 * * \\ (0.0470) \end{gathered}$ |  | $\begin{aligned} & 0.145 * * * \\ & (0.0470) \end{aligned}$ |
| When African Americans need healthcare $=$ harder |  | $\begin{aligned} & 0.222^{* * *} \\ & (0.0517) \end{aligned}$ |  | $\begin{aligned} & 0.389 * * * \\ & (0.0517) \end{aligned}$ |
| When Latinos need healthcare = harder |  | $\begin{aligned} & 0.193 * * * \\ & (0.0466) \end{aligned}$ |  | $\begin{aligned} & 0.185 * * * \\ & (0.0466) \end{aligned}$ |

Notes: Standard errors in parentheses. Variables in the regression included gender, age, education, income, marital status, and region. The complete regression models with all included controls are available in the online-only appendix.
in the southern census region relative to the eastern census region are 12 and 10 percentage points less likely to endorse greater health and financial impacts, respectively. We also found that women (relative to men) and those older than 65 (relative to those younger than 45) are 5 and 11 percentage points, respectively, more likely to endorse a greater health impact.

In columns 2 and 4, we add controls for past views about whether African Americans and Latinos have a harder time accessing the health care (or "care") they need as measured in 2018. In columns 2 and 4, we see meaningful changes in the coefficients for non-Hispanic Black and Hispanic respondents compared to columns 1 and 3, suggesting, as we will see in the next section, that there is a high degree of collinearity between race and views about access to care for indicated groups in our questions about differences in access to health care. The signs and significance of other coefficients are more stable. We found that those who stated that it is harder for African Americans to access care were 22 percentage points more likely to indicate that the pandemic has had a greater impact on the health of people of color, and 39 percentage points more likely to indicate that it has had a greater financial impact, relative to those who said it was easier for African Americans to access care. Those who stated that it is harder for Latinos to access care were 19 percentage points more likely to indicate that the pandemic has had a greater health and financial impact on people of color, relative to those who said it was easier for Latinos to access care. We also found that those who stated that it is neither easier nor harder for African Americans to access care were 11 percentage points more likely to indicate that the pandemic has had a greater impact on the health of people of color and 15 percentage points more likely to indicate that it has had a greater financial impact, relative to those who said it was easier for African Americans to access care.

## Views of Differences in Access

In both 2018 and 2020, respondents were asked about their views of differences in difficulty accessing health care for different groups. Panel data allows us to assess not only how the overall average has changed over time but also how many individuals have changed their views, which is important if there are groups that are moving in opposite directions. Table 4 presents crosstabs comparing results in 2018 and 2020 for each of the questions assessing differences in access for historically underserved groups, with each cell reporting a percentage of each 2018 response. For each indicated group, the majority of respondents reporting easier access moved away

Table 4 Differences in Perceptions in Access over Time
Table 4A When African Americans Need Health Care, Do You Think It Is Easier or Harder for Them to Get the Care They Need than It Is for White Americans?

|  | 2018 |  |  |
| :--- | :---: | :---: | :---: |
| 2020 | Easier <br> $(7.4 \%)$ | Not much of a difference <br> $(52.6 \%)$ | $\begin{array}{c}\text { Harder } \\ \\$ |
|  Easier (4.1\%) \end{array} $\left.23.0 \%\right)$ |  |  |  |
| Not much of a difference (51.3\%) | $57.3 \%$ | $4.1 \%$ | $0.6 \%$ |
| Harder (44.6\%) | $19.2 \%$ | $72.4 \%$ | $22.5 \%$ |
| Total | $100 \%$ | $23.5 \%$ | $76.9 \%$ |

Table 4B When Latinos Need Health Care, Do You Think It Is Easier or Harder for Them to Get the Care They Need than It Is for White Americans?

|  | 2018 |  |  |
| :--- | :---: | :---: | :---: |
| 2020 | Easier | Not much of a difference | Harder |
|  | $(10.3 \%)$ | $(49.0 \%)$ | $(40.7 \%)$ |
| Easier (6.3\%) | $35.3 \%$ | $4.5 \%$ | $1.0 \%$ |
| Not much of a difference (49.8\%) | $53.4 \%$ | $69.5 \%$ | $25.2 \%$ |
| Harder (43.9\%) | $11.3 \%$ | $25.9 \%$ | $73.8 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ |

Table 4C When Low-Income Americans Need Health Care, Do You Think It Is Easier or Harder for Them to Get the Care They Need than It Is for Those Who Are Better Off Financially?

|  | 2018 |  |  |
| :--- | :---: | :---: | :---: |
| 2020 | Easier <br> $(14.6 \%)$ | Not much of a difference <br> $(19.0 \%)$ | Harder <br> $(66.4 \%)$ |
|  | $26.3 \%$ | $8.2 \%$ | $4.7 \%$ |
| Easier (8.6\%) | $37.6 \%$ | $52.5 \%$ | $16.1 \%$ |
| Not much of a difference (26.2\%) | $39.2 \%$ | $79.2 \%$ |  |
| Harder (65.3\%) | $36.1 \%$ | $100 \%$ | $100 \%$ |
| Total | $100 \%$ |  |  |

Table 4D When Americans Living in Rural Communities Need Health Care, Do You Think It Is Easier or Harder for Them to Get the Care They Need than It Is for Those Who Live in Urban Areas?

|  | 2018 |  |  |
| :--- | :---: | :---: | ---: |
| 2020 | Easier | Not much of a difference | Harder |
|  | $(4.2 \%)$ | $(34.3 \%)$ | $(61.5 \%)$ |
| Easier (2.9\%) | $13.2 \%$ | $3.5 \%$ | $1.8 \%$ |
| Not much of a difference (36.9\%) | $62.9 \%$ | $62.5 \%$ | $20.8 \%$ |
| Harder (60.3\%) | $23.9 \%$ | $34.0 \%$ | $77.4 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ |

from that perception. Of respondents who reported easier access for African Americans in 2018, $77 \%$ reported not much difference or harder in 2020, and $65 \%$ of those reporting easier access for Latinos in 2018 reported not much difference or harder in 2020. Of those reporting easier access for low-income Americans in 2018, $74 \%$ reported not much difference or harder in 2020, and $87 \%$ of those reporting easier access for Americans living in rural communities in 2018 reported not much difference or harder in 2020. The percentage of 2018 reports of harder access for these groups moving away from that perception toward easier ranged from $21 \%$ to $26 \%$.

Table 5 presents the selected results of linear probability regression models that predict if 2020 respondents endorsed that each group had a harder time accessing health care, controlling for their response to the same question in 2018 and for demographic characteristics. In all cases, those who reported harder in 2018 were significantly more likely to report harder again in 2020 (reflecting the stability observed in table 4), and those who reported not much difference for African Americans and Latinos in 2018 were more likely to report that it was harder in 2020 for those groups than those who reported easier in 2018. Controlling for 2018 responses, non-Hispanic Black respondents were more likely than non-Hispanic white respondents to report that African Americans and low-income Americans have a harder time accessing care. Hispanic respondents were less likely than non-Hispanic white respondents to report that Latinos, low-income Americans, and those living in rural areas have a harder time accessing care. Those in the middle age group (45 to 64) were generally less likely than those in the youngest age group to report that access was harder for our indicated groups, while those in the highest income and education
Table 5 Selected Results of Linear Probability Model Predicting That Getting Health Care Is Harder for Indicated Underserved Groups When They Need Care

| African Americans |  |  |  |
| :--- | :---: | :---: | :---: |
| relative to white | Latinos relative to | Low-income relative | Americans in |
| to high-income | rural relative |  |  |


$0.362 * * *$
$(0.0577)$

(continued)
Table 5 Selected Results of Linear Probability Model Predicting That Getting Health Care Is Harder for Indicated Underserved Groups When They Need Care (continued)

|  | African Americans <br> relative to white <br> Americans | Latinos relative to <br> white Americans | Low-income relative <br> to high-income <br> Americans | Americans in <br> rural relative <br> to urban areas |
| :--- | :---: | :---: | :---: | :---: |
| Demographics |  |  |  |  |
| Non-Hispanic Black (relative to | $0.0904^{* *}$ | 0.0302 | $0.0796^{* *}$ | -0.0123 |
| non-Hispanic white) | $(0.0353)$ | $(0.0350)$ | $(0.0360)$ | $(0.0364)$ |
| Hispanic (relative to | -0.0411 | $-0.0656^{* *}$ | $-0.112^{* * *}$ | -0.0383 |
| non-Hispanic white) | $(0.0304)$ | $(0.0304)$ | $(0.0315)$ | $(0.0318)$ |
| Female (relative to male) | $0.0513^{* * *}$ | $0.0420^{* *}$ | 0.0130 | $0.0393^{*}$ |
| Age 45-64 (relative to 44 | $(0.0195)$ | $(0.0194)$ | $(0.0203)$ | $(0.0204)$ |
| and younger) | $-0.0968^{* * *}$ | $-0.0888^{* * *}$ | $-0.0905 * * *$ | -0.00599 |
| Highest level of education: | $(0.0282)$ | $(0.0281)$ | $(0.0292)$ | $(0.0295)$ |
| bachelors or higher | $0.140^{* * *}$ | $0.160^{* * *}$ | $0.134^{* * *}$ | $0.186^{* * *}$ |
| (relative to high school) | $(0.0334)$ | $(0.0332)$ | $(0.0344)$ | $(0.0351)$ |
| Family income $\$ 50,000$ or higher | 0.0122 | 0.0106 | 0.0442 | $0.0558^{*}$ |
| (relative to $\$ 25,000$ to $\$ 49,999)$ | $(0.0293)$ | $(0.0292)$ | $(0.0304)$ | 1,843 |
| Observations | 1,841 | 1,840 | 0.214 | $(0.0307)$ |
| R-squared | 0.371 | 0.377 | 1,843 |  | *** $\mathrm{p}<0.01, * * \mathrm{p}<0.05, * \mathrm{p}<0.1$.

groups and women were generally more likely to report that access was harder for our indicated groups.

Table 6 shows selected results for models that investigate respondents who move toward endorsing that indicated groups have a harder time getting the care they need and those respondents who move away from endorsing that indicated groups have a harder time getting the care they need. Among those who did not recognize inequities in access in 2018, very few variables are correlated with moving toward reporting that it is harder for our indicated groups to access health care. Among those that had not previously reported harder, non-Hispanic Black respondents are more likely to move toward harder access for African Americans. Among those that had not previously reported easier, Hispanic respondents are more likely to move toward easier for all indicated groups. Higher income and higher education are positively associated with moving toward reporting harder, and negatively associated with moving toward reporting easier, while lower-income respondents are more likely to move toward easier. Non-Hispanic white, lower-income, or less-educated respondents who previously did not recognize inequities were less likely to change their views than non-Hispanic Black, higher income, or more highly educated respondents. In all models, we find that those whose views were previously at the extreme are more likely to shift their views than those whose views were in the middle.

## Beliefs about the Government's Obligation to Ensure Access to Health Care

In both 2018 and 2020, respondents were asked whether they agree that it is an obligation of the government to ensure access to health care as a fundamental right. We can again assess how many individuals have changed their opinions, which is important if there are groups that are moving in opposite directions. Table 7 presents a crosstab comparing results in 2018 and 2020. Nearly 14 percentage points more individuals report that they strongly agreed in 2018 compared to 2020. About half of the respondents strongly disagreeing in 2018 reported strongly or somewhat agreeing in 2020. We see that same proportion of opinion shifting among those somewhat disagreeing in 2018. Among those strongly agreeing in 2018, $12 \%$ moved to somewhat or strongly disagreeing in 2020. Of those neither agreeing nor disagreeing in 2018, 43\% somewhat or strongly agreed in 2020, and $14 \%$ somewhat or strongly disagreed in 2020.
Table 6 Selected Results of Linear Probability Model Predicting Changes in Endorsement That Getting Care Is Harder for Indicated Underserved Groups

|  | Move toward harder |  |  |  | Move toward easier |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | African Americans relative to white Americans | Latinos <br> relative <br> to white <br> Americans | Low-income relative to high-income Americans | Americans in rural relative to urban areas | African <br> Americans <br> relative to white Americans | Latinos <br> relative <br> to white <br> Americans | Low-income relative to high-income Americans | Americans in rural relative to urban areas |
| When African Americans need healthcare $=$ not much of a difference | $\begin{aligned} & -0.468 * * * \\ & (0.0412) \end{aligned}$ |  |  |  |  |  |  |  |
| When African Americans need healthcare $=$ harder |  |  |  |  | $\begin{aligned} & 0.146 * * * \\ & (0.0151) \end{aligned}$ |  |  |  |
| When Latinos need healthcare $=$ not much of a difference |  | $\begin{aligned} & -0.376 * * * \\ & (0.0380) \end{aligned}$ |  |  |  |  |  |  |
| When Latinos need healthcare $=$ harder |  |  |  |  |  | $\begin{aligned} & 0.143 * * * \\ & (0.0153) \end{aligned}$ |  |  |
| When low-income <br> Americans need healthcare $=$ not much of a difference |  |  | $\begin{aligned} & -0.257 * * * \\ & (0.0430) \end{aligned}$ |  |  |  |  |  |

Table 6 (continued)

Table 6 Selected Results of Linear Probability Model Predicting Changes in Endorsement That Getting Care Is Harder for Indicated Underserved Groups (continued)

|  | Move toward harder |  |  |  | Move toward easier |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | African <br> Americans relative to white Americans | Latinos relative to white Americans | Low-income relative to high-income Americans | Americans in rural relative to urban areas | African <br> Americans relative to white Americans | Latinos <br> relative <br> to white <br> Americans | Low-income relative to high-income Americans | Americans in rural relative to urban areas |
| Highest level of education: <br> bachelors or higher (relative to high school) | $\begin{aligned} & 0.0960 * * \\ & (0.0440) \end{aligned}$ | $\begin{gathered} 0.0723 \\ (0.0463) \end{gathered}$ | $\begin{gathered} 0.0568 \\ (0.0683) \end{gathered}$ | $\begin{gathered} 0.121 * * \\ (0.0617) \end{gathered}$ | $\begin{gathered} -0.0451 * \\ (0.0262) \end{gathered}$ | $\begin{aligned} & -0.117 * * * \\ & (0.0272) \end{aligned}$ | $\begin{gathered} -0.131 * * * \\ (0.0335) \end{gathered}$ | $\begin{aligned} & -0.108^{* * *} \\ & (0.0290) \end{aligned}$ |
| Family income \$100,000 or higher (relative to $\$ 25,000$ to $\$ 49,999$ ) | $\begin{aligned} & 0.108 * * * \\ & (0.0418) \end{aligned}$ | $\begin{gathered} 0.110 * * \\ (0.0436) \end{gathered}$ | $\begin{gathered} 0.0486 \\ (0.0662) \end{gathered}$ | $\begin{gathered} 0.142 * * \\ (0.0616) \end{gathered}$ | $\begin{gathered} -0.0517 * * \\ (0.0225) \end{gathered}$ | $\begin{gathered} -0.0131 \\ (0.0233) \end{gathered}$ | $\begin{gathered} -0.0220 \\ (0.0292) \end{gathered}$ | $\begin{gathered} -0.0478 * \\ (0.0253) \end{gathered}$ |
| Observations | 1,066 | 1,047 | 533 | 591 | 1,714 | 1,670 | 1,593 | 1,784 |
| R-squared | 0.150 | 0.110 | 0.115 | 0.116 | 0.092 | 0.098 | 0.082 | 0.077 |
| Excludes | Harder in 2018 | Harder in 2018 | Harder in $2018$ | Harder in $2018$ | Easier in 2018 | Easier in 2018 | Easier in 2018 | Easier in 2018 |

Notes: Standard errors in parentheses. Variables in the regression included gender, age, education, income, marital status, and region. The complete regression models with all included controls are available in the online-only appendix.
$* * * \mathrm{p}<0.01, * * \mathrm{p}<0.05 * \mathrm{p}<0.1$

Table 7 Differences in Attitudes of Government Obligations over Time

|  | 2018 |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | Strongly <br> agree <br> $(31.8 \%)$ | Somewhat <br> agree <br> $(21.1 \%)$ | Neither agree <br> nor disagree <br> $(15.8 \%)$ | Somewhat <br> disagree <br> $(12.1 \%)$ | Strongly <br> disagree <br> $(19.3 \%)$ |
| 2020 | $80.6 \%$ | $36.6 \%$ | $21.0 \%$ | $15.7 \%$ | $37.6 \%$ |
| Strongly agree (45.8\%) | $10.1 \%$ | $41.6 \%$ | $21.7 \%$ | $35.7 \%$ | $13.7 \%$ |
| Somewhat agree (22.4\%) | $7.1 \%$ | $10.1 \%$ | $43.2 \%$ | $18.0 \%$ | $8.2 \%$ |
| Neither agree nor <br> disagree (15.0\%) |  |  |  |  |  |
| Somewhat disagree (8.5\%) | $0.8 \%$ | $5.3 \%$ | $11.5 \%$ | $20.8 \%$ | $14.2 \%$ |
| Strongly disagree (8.4\%) | $1.4 \%$ | $6.4 \%$ | $2.5 \%$ | $9.7 \%$ | $26.3 \%$ |
| Total | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ | $100 \%$ |

The first column of table 8 presents a linear probability regression model (similar to table 5) that predicts whether in 2020 respondents reported somewhat or strongly agree that it is the government's obligation to ensure access to health care, controlling for their response to the same question in 2018 and for demographic characteristics. The second and third columns are similar to table 6 , reporting those who move toward or away from strongly agree. Those who reported somewhat or strongly agree in 2018 were significantly more likely to report somewhat or strongly agree again in 2020. Non-Hispanic Black and Hispanic respondents (compared to nonHispanic white respondents) and women (compared to men) were more likely to agree in 2020 (controlling for 2018 responses) and more likely to move toward agreement that government has an obligation to ensure access to health care. Those with the highest levels of education are more likely to somewhat or strongly agree, and less likely to move away from strongly agreeing. We also found strong regional differences, with those in the eastern census region mostly likely to agree and to move toward agreement.

## Discussion

Our analysis suggests that approximately $60 \%$ of respondents believed that people of color faced more of a health and financial impact of COVID-19 than whites, which is broadly consistent with earlier findings by Sarah E. Gollust and colleagues (2020) and from the Kaiser Family Foundation

Table 8 Selected Results of Linear Probability Model Predicting That Somewhat or Strongly Agree It Is the Obligation of the Government to Ensure Access to Health Care

|  | Somewhat or <br> strongly agree | Move toward <br> strongly agree | Move away from <br> strongly agree |
| :---: | :---: | :---: | :---: |
| Government obligation $=$ | $0.414^{* * *}$ |  | 0.0353 |
| strongly agree, 2018 | $(0.0266)$ |  | $(0.0298)$ |
| Government obligation | $0.280^{* * *}$ | $-0.347 * * *$ | $0.0812^{* *}$ |
| somewhat agree, 2018 | $(0.0293)$ | $(0.0342)$ | $(0.0317)$ |
| Government obligation = neither | -0.0334 | $-0.262^{* * *}$ | 0.0452 |
| agree nor disagree, 2018 | $(0.0346)$ | $(0.0405)$ | $(0.0361)$ |
| Government obligation $=$ | $-0.0619^{*}$ | $-0.101^{* *}$ |  |
| domewhat disagree, 2018 | $(0.0338)$ | $(0.0393)$ |  |
| Non-Hispanic Black (relative | $0.145^{* * *}$ | $0.199^{* * *}$ | -0.0508 |
| to non-Hispanic white) | $(0.0354)$ | $(0.0568)$ | $(0.0366)$ |
| Hispanic (relative to | $0.120^{* * *}$ | $0.149^{* * *}$ | $-0.0749 * *$ |
| non-Hispanic white) | $(0.0307)$ | $(0.0429)$ | $(0.0324)$ |
| Female (relative to male) | $0.0404^{* *}$ | $0.0593 * *$ | -0.0149 |
|  | $(0.0199)$ | $(0.0281)$ | $(0.0211)$ |
| Highest level of education: | $0.0678^{* *}$ | -0.0209 | $-0.0606^{*}$ |
| bachelors or higher | $(0.0338)$ | $(0.0469)$ | $(0.0353)$ |
| (relative to high school) |  |  |  |
| Midwest Census Region | $-0.107 * * *$ | $-0.133^{* * *}$ | 0.0328 |
| (relative to East) | $(0.0320)$ | $(0.0466)$ | $(0.0334)$ |
| South Census Region | $-0.150^{* * *}$ | $-0.149 * * *$ | $0.0933^{* * *}$ |
| (relative to East) | $(0.0276)$ | $(0.0403)$ | $(0.0292)$ |
| West Census Region | $-0.121^{* * *}$ | $-0.170^{* * *}$ | 0.0444 |
| (relative to East) | $(0.0286)$ | $(0.0421)$ | $(0.0301)$ |
| Observations | 1,843 | 1,233 | 1,447 |
| R-squared | 0.239 | 0.131 | 0.029 |

Notes: Standard errors in parentheses. Variables in the regression included gender, age, education, income, marital status, and region. The complete regression models with all included controls are available in the online-only appendix.
*** $\mathrm{p}<0.01,{ }^{* *} \mathrm{p}<0.05, * \mathrm{p}<0.1$.
(Hamel et al. 2020). The results presented here also suggest that there are significant racial and ethnic differences in views regarding the impact of the COVID-19 pandemic on minorities, and that there are also differences in how individuals' views have changed in the time between 2018 and 2020. Our panel data allows us to observe changes across the same individuals from a period well before the pandemic began to the summer of 2020 .

Of particular note, while the pandemic has impacted both African Americans and Latinos more negatively than white Americans, we observe dramatic differences in responses to several questions for these groups. While non-Hispanic Black respondents were much more likely than nonHispanic white respondents to note that people of color had been more negatively impacted by the pandemic (both in terms of health and financial impacts), Hispanic respondents' reports were more similar to non-Hispanic whites. These findings are broadly consistent with previous work suggesting that whites are less likely to perceive racial inequities (Kraus, Rucker, and Richeson 2017; Kraus and Tan 2015; Richeson and Nussbaum 2004). However, our findings contrast with surveys administered in spring 2020 by Gollust and colleagues (2020) that found no differences between Blacks and whites in perceptions of racial differences in the health impacts of COVID-19, suggesting that racial differences in COVID-19 impact may have become more salient to non-Hispanic Blacks since the early days of the pandemic.

Our findings do not provide information that allows us to tease out what specific mechanisms might be at work here (e.g., differences in social networks, motivated cognition related to a commitment to a race-neutral ideology, etc.). Nor do they speak directly to why there are differences among specific nonwhite groups. However, our results also show that those respondents (controlling for race and ethnicity) who in 2018 endorsed greater difficulties for designated groups in accessing care were more likely to report that the pandemic has had a greater impact on people of color. This finding suggests that those who are most likely to endorse the idea that the pandemic has had disproportionate impacts on people of color are those who were already aware of inequities in our society. Thus our analysis appears broadly consistent with the idea that beliefs about racial inequity change either slowly, or only in response to deep shocks to the system (Scheidel 2018). Furthermore, it may take more than news coverage of inequities to change the minds of some groups. It is impossible to separate the effects of the pandemic from the effects of the greater attention to racial inequity brought on by the killings of George Floyd and Breonna Taylor and subsequent protests; however, our results suggest that those groups who were most likely to change were the same groups that were already most likely to report awareness of inequities.

Indeed, when respondents are asked about difficulties accessing health care, we find that more respondents report there are differences related to income and rural or urban location than race, and that the stark inequities highlighted by the pandemic only slightly changed these perceptions. In
fact, in 2020 Hispanic respondents were less likely than non-Hispanic white respondents to report that Latinos had a harder time accessing health care than white Americans and more likely to move toward reporting that Latinos have an easier time accessing care. Non-Hispanic Black respondents, on the other hand, were more likely in the midst of the pandemic to recognize inequities and move toward recognizing inequities. There were two key groups that were likely to report inequities and to move toward recognizing inequities: those whose incomes were more than $\$ 100,000$ and those with a college education or more. The pandemic, resulting inequities, and civil unrest around the country related to racial inequities appear to have had very unequal impacts on views of inequity.

We saw striking changes in the share of respondents reporting that it is the obligation of the government to ensure access to health care, with nearly 14 percentage points more individuals reporting that they strongly agreed this was an obligation of the government than in 2018, and a total of $68 \%$ of respondents in 2020 somewhat or strongly agreeing this was an obligation. This increase appears to be appreciably larger than earlier increases in support for a government role in health noted at the beginning of the article (Kiley 2018). These increases were most strong among non-Hispanic Black and Hispanic respondents, women, those with higher education, and those living in the eastern census region. This result for Hispanics is particularly interesting, since they were also less likely in 2020 than in 2018 to report that Latinos have a harder time accessing health care. It is interesting that the views of inequity in access to care are not necessarily tied to views about government's obligation to ensure access to health care, even though the government could play a central role in reducing inequity by ensuring that everyone has access to care.

## Conclusion

The events of 2020 (pandemic, recession, and racial tension and civil unrest) have disproportionately affected historically marginalized racial and ethnic groups in our society and have brought heightened attention to these inequities. This could be an opportunity to educate the public about inequities that are common in our society and encourage more social policies to help address these inequities. However, our results contribute to the growing evidence of polarization in our society and that many views remain stable. Even in the face of evidence in the news media on a near daily basis, views of equity changed only slightly. Deeper research is needed to understand why those who do not report inequities continue
to stick to their views, and a more concerted effort to help people understand the experiences of other groups may be needed. In particular, among the less-educated, lower-income, and white groups, views of equity were less likely to change.

While there have been only small changes in perceptions of inequity, there have been larger changes in the perception that the government has an obligation to ensure access to care, a key tool in addressing inequity. This suggests that the increase in the demand for government ensuring access to health care is not driven by an increased concern about inequity but rather by other changing views.

There are several important limitations of our work that speak to the need for further research. First, there are other potential explanations that are unmeasured. The unwillingness to report racial and ethnic inequity may stem from a desire to appear race neutral (Richeson and Nussbaum 2004); we see no similar unwillingness to report inequity based on income or rural locations. Our 2018 survey contains no other measures of views about race. Similarly, other measures of political ideology and affiliation are not included in our survey. Second, our 2020 survey was fielded primarily in early July. At that time, the COVID-19 pandemic had significantly impacted large cities, and the second wave of cases seen in the summer primarily in the southern and rural areas was only just beginning. As COVID-19 infections spread across the country, views may continue to evolve. In future surveys, including one in the field at the time of writing, one to be fielded in January, and another to be fielded in early spring, we may see attitudes continue to shift, awareness grow or wane. Third, we are not able to measure the views and perspectives of American Indians/Native populations in our research, as they make up too small a share of our sample to separately report results for this group. However, given the profound impact of the pandemic on Native populations, this is an important limitation of our research.

Even in the face of a deadly pandemic, one that has killed disproportionately more African Americans and Latinos, many in our society do not recognize that there are inequities in access to health care and disparate health and financial impacts of the pandemic on these groups. While some groups are changing their views, changing these deeply seated views to more accurately reflect reality will continue to be a challenge. While there have been changes, it remains to be seen whether these changes will be persistent as the pandemic continues. There seems to be growing support for the government ensuring access to health care; however, other policies to address inequity may require further shifts in public opinion. Shifting perspectives is a key part of how societies make changes and progress.

Large-scale events, such as the COVID-19 pandemic and the resulting recession and attention to inequity, have in the past provided opportunities for change. We will continue to follow these respondents to see if changes in attitudes endure over time or dissipate.

Katherine Carman is a senior economist and director of the Center for Financial and Economic Decision Making at the RAND Corporation. Her research focuses on how information and perceptions affect individual behavior and decisions. She is particularly interested in the ways that knowledge and trust can influence views, values, and mindset. Her work spans several topic areas, including financial decisions, health behaviors, voting behavior, political attitudes, and labor decisions. She has developed surveys and new data to shed new light on these important questions. Previously she was a professor at Tilburg University in the Netherlands and a research scholar at Harvard University.
kcarman@rand.org
Anita Chandra is the vice president and director of RAND Social and Economic Well-Being and a senior policy researcher at the RAND Corporation. The division also manages RAND's Center to Advance Racial Equity Policy. She leads studies on civic well-being and urban planning; community resilience and long-term disaster recovery; public health emergency preparedness; effects of military deployment; equity, health in all policies, and advancing a culture of health; and child health and development. Throughout her career, she has engaged governmental and nongovernmental partners to consider cross-sector solutions for improving community well-being and to build more robust systems, implementation, and evaluation capacity.

Carolyn Miller is a senior program officer with the Research-Evaluation-Learning unit at the Robert Wood Johnson Foundation. Prior to joining the foundation in 2013, she was a research consultant, conducting quantitative and qualitative research for commercial and academic research organizations, foundations, nonprofit organizations, and professional associations. She has held research positions with Mathematica Policy Research, the Gallup Organization, and Princeton Survey Research Associates.

Christopher Nelson is a senior political scientist at the RAND Corporation and a professor of policy analysis at the Pardee RAND Graduate School. He has more than 25 years of experience as a policy analyst. Primarily he works on health systems and preparedness, but he has also worked on public safety, transportation, energy, and education. Previously he served on the faculty of Carnegie Mellon University and held research staff positions at Western Michigan University and the Illinois General Assembly.

Jhacova Williams is an associate economist at the RAND Corporation. She is an applied microeconomist focusing primarily on economic history and cultural economics. Her previous work has examined Southern culture and the extent to which historical events have impacted the political behavior and economic outcomes of Southern Blacks. Recent examples include historical lynchings and the political participation of Blacks and Confederate symbols and labor market differentials. She has also done a series of projects investigating the role of structural racism in shaping racial economic disparities in labor markets.

## Acknowledgments

The authors thank Delia Bugliari and Linnea Warren May for research assistance. This research was funded by the Robert Wood Johnson Foundation (award no. 74430). The funding body offered input on the study design and interpretation of data, but ultimately the RAND study team had final determination of all research design, analysis, and interpretation choices. The manuscript was written by the RAND study team.

## References

Aknin, Lara B., Christopher P. Barrington-Leigh, Elizabeth W. Dunn, John F. Helliwell, Justine Burns, Robert Biswas-Diener, Imelda Kemeza, et al. 2013. "Prosocial Spending and Well-Being: Cross-Cultural Evidence for a Psychological Universal." Journal of Personality and Social Psychology 104, no. 4: 635-52.
Artiga, Samantha, and Kendal Orgera. 2019. "Key Facts on Health and Health Care by Race and Ethnicity." Kaiser Family Foundation, November 12. www.kff.org/report -section/key-facts-on-health-and-health-care-by-race-and-ethnicity-coverage-access -to-and-use-of-care/.
Braveman, Paula, Elaine Arkin, Tracy Orleans, Dwayne Proctor, and Alonzo Plough. 2017. What Is Health Equity? And What Difference Does a Definition Make? Princeton, NJ: Robert Wood Johnson Foundation.
Burstein, Paul. 2003. "The Impact of Public Opinion on Public Policy: A Review and an Agenda." Political Research Quarterly 56, no. 1: 29-40.
Bye, Larry, Alyssa Ghirardelli, and Angela Fontes. 2016. "American Health Values Survey." Robert Wood Johnson Foundation, June 30. www.rwjf.org/en/library /research/2016/06/american-health-values-survey-topline-report.html.
Carman, Katherine Grace, Anita Chandra, Delia Bugliari, Christopher Nelson, and Carolyn Miller. 2020. "COVID-19 and the Experiences of Populations at Greater Risk Description and Top-Line Summary Data-Wave 1, Summer 2020." www .rand.org/t/RRA764-1 (accessed April 22, 2021).
Carman, Katherine Grace, Anita Chandra, Carolyn Miller, Matthew Trujillo, Douglas Yeung, Sarah Weilant, Christine DeMartini, Maria Orlando Edelen, Wenjing Huang,
and Joie D. Acosta. 2016. "Development of the Robert Wood Johnson Foundation National Survey of Health Attitudes: Description and Top-Line Summary Data." www.rand.org/pubs/research_reports/RR1391.html (accessed April 22, 2021).
Carman, Katherine Grace, Anita Chandra, Sarah Weilant, Carolyn Miller, and Margaret Tait. 2019. "2018 National Survey of Health Attitudes: Description and TopLine Summary Data." www.rand.org/pubs/research_reports/RR2876.html (accessed April 22, 2021).
CDC (Centers for Disease Control and Prevention). 2020. "COVID-19 Hospitalization and Death by Race/Ethnicity." August 18. www.cdc.gov/coronavirus/2019-ncov /covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html.
Chandra, Anita, Joie Acosta, Katherine Carman, Tamara Dubowitz, Laura C. Leviton, Laurie Martin, Carolyn E. Miller, et al. 2016. "Building a National Culture of Health: Background, Action Framework, Measures and Next Steps." www.rand .org/pubs/research_reports/RR1199.html (accessed April 22, 2021).
Citrin, Jack. 1979. "Do People Want Something for Nothing: Public Opinion on Taxes and Government Spending." National Tax Journal 32, no. 2: 113-29.
Conover, Pamela Johnston, and Stanley Feldman. 1984. "Group Identification, Values, and the Nature of Political Beliefs." American Politics Quarterly 12, no. 2: 151-75.
Diepeveen, Stephanie, Tom Ling, Marc Suhrcke, Martin Roland, and Theresa M. Marteau. 2013. "Public Acceptability of Government Intervention to Change Health-Related Behaviours: A Systematic Review and Narrative Synthesis." BMC Public Health 13, no. 1: 756.
Gollust, Sarah E., and Joseph N. Cappella. 2014. "Understanding Public Resistance to Messages about Health Disparities." Journal of Health Communication 19, no. 4: 493-510. doi.org/10.1080/10810730.2013.821561.
Gollust, Sarah E., and Julia Lynch. 2011. "Who Deserves Health Care? The Effects of Causal Attributions and Group Cues on Public Attitudes about Responsibility for Health Care Costs." Journal of Health Politics, Policy and Law 36, no. 6: 1061-95. doi.org/10.1215/03616878-1460578.
Gollust, Sarah E., Rachel I. Vogel, Alexander Rothman, Marco Yzer, Erika Franklin Fowler, and Rebekah H. Nagler. 2020. "Americans' Perceptions of Disparities in Covid-19 Mortality: Results from a Nationally-Representative Survey." Preventive Medicine 141: 106278.
Goren, Paul, Christopher M. Federico, and Miki Caul Kittilson. 2009. "Source Cues, Partisan Identities, and Political Value Expression." American Journal of Political Science 53, no. 4: 805-20.
Hamel, Liz, Audrey Kearney, Ashley Kirzinger, Lunna Lopes, Cailey Muñana, and Mollyann Brodie. 2020. "KFF Health Tracking Poll—June 2020." Kaiser Family Foundation, June 26. www.kff.org/racial-equity-and-health-policy/report/kff-health -tracking-poll-june-2020/.
Hessami, Zohal. 2010. "The Size and Composition of Government Spending in Europe and Its Impact on Well-Being." Kyklos 63, no. 3: 346-82.
Hook, Cayce J., and Hazel Rose Markus. 2020. "Health in the United States: Are Appeals to Choice and Personal Responsibility Making Americans Sick?"Perspectives on Psychological Science 15, no. 3: 643-64.

IOM (Institute of Medicine). 2003. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: National Academies Press.
Jacobs, Lawrence. 1992. "Institutions and Culture: Health Policy and Public Opinion in the US and Britain." World Politics 44, no. 2: 179-209.
Kiley, Jocelyn. 2018. "Most Continue to Say Ensuring Health Care Coverage Is Government's Responsibility." Pew Research Center, October 3. www.pewresearch .org/fact-tank/2018/10/03/most-continue-to-say-ensuring-health-care-coverage-is -governments-responsibility/.
Kraus, Michael W., Julian M. Rucker, and Jennifer A. Richeson. 2017. "Americans Misperceive Racial Economic Equality." PNAS 114, no. 39: 10324-31.
Kraus, Michael W., and Jacinth J. X. Tan. 2015. "Americans Overestimate Social Class Mobility." Journal of Experimental Social Psychology 58: 101-11.
Krosnick, Jon A., and Donald R. Kinder. 1990. "Altering the Foundations of Support for the President through Priming." American Political Science Review 84, no. 2: 497-512.
Markus, Gregory B. 2001. "American Individualism Reconsidered." In Citizens and Politics, edited by James H. Kuklinski, 401-31. Cambridge: Cambridge University Press.
Nellis, Ashley. 2016. "The Color of Justice: Racial and Ethnic Disparity in State Prisons." Washington, DC: Sentencing Project.
Oishi, Shigehiro, Ulrich Schimmack, and Ed Diener. 2011. "Progressive Taxation and the Subjective Well-Being of Nations." Psychological Science 23, no. 1: 86-92.
Pacheco, Julianna, and Elizabeth Maltby. 2017. "The Role of Public Opinion—Does It Influence the Diffusion of ACA Decisions?" Journal of Health Politics, Policy and Law 42, no. 2: 309-40. doi.org/10.1215/03616878-3766737.
Pagel, Christina, David W. Bates, Don Goldmann, and Christopher F. Koller. 2017. "A Way Forward for Bipartisan Health Reform? Democrat and Republican State Legislator Priorities for the Goals of Health Policy." American Journal of Public Health 107, no. 10: 1601-3.
Perrin, Andrew. 2020. " $23 \%$ of Users in US Say Social Media Led Them to Change Views on an Issue; Some Cite Black Lives Matter." Pew Research Center, October 15. www.pewresearch.org/fact-tank/2020/10/15/23-of-users-in-us-say-social-media -led-them-to-change-views-on-issue-some-cite-black-lives-matter/.
Pollard, Michael, and Matthew D. Baird. 2017. "The RAND American Life Panel: Technical Description." August 24. www.rand.org/pubs/research_reports/RR1651 .html.
Richeson, Jennifer A., and Richard J. Nussbaum. 2004. "The Impact of Multiculturalism versus Color-Blindness on Racial Bias." Journal of Experimental Social Psychology 40, no. 3: 417-23.
Salter, Phia S., Glenn Adams, and Michael J. Perez. 2018. "Racism in the Structure of Everyday Worlds: A Cultural-Psychological Perspective." Current Directions in Psychological Science 27, no. 3: 150-55.
Scheidel, William. 2018. The Great Leveler: Violence and the History of Inequality from the Stone Age to the Twenty-First Century. Princeton, NJ: Princeton University Press.

Shedd, Carla. 2015. Unequal City: Race, Schools, and Perceptions of Injustice. New York: Russell Sage Foundation.
Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies." American Sociological Review 51, no. 2: 273-86.
Thomas, Deja, and Juliana Menasce Horowitz. 2020. "Support for Black Lives Matter Has Decreased since June but Remains Strong among Black Americans." Pew Research Center, September 16. www.pewresearch.org/fact-tank/2020/09/16 /support-for-black-lives-matter-has-decreased-since-june-but-remains-strong-among -black-americans/.
US Census Bureau. 2019. "Selected Characteristics of Health Insurance Coverage in the United States." data.census.gov/cedsci/table?q=s2701\&t=Health\ Insurance \&y=2019\&tid=ACSST1Y2019.S2701 (accessed April 26, 2021).
Wilson, Valerie. 2020. "Racial Disparities in Income and Poverty Remain Largely Unchanged amid Strong Income Growth in 2019." Economic Policy Institute, Working Economics Blog, September 16. www.epi.org/blog/racial-disparities-in -income-and-poverty-remain-largely-unchanged-amid-strong-income-growth-in -2019/.


[^0]:    1. Both surveys were also fielded on the KnowledgePanel; however, we are not able to follow respondents over time in the KnowledgePanel. As such, we have focused this article on the American Life Panel.
    2. The sample for the 2018 NSHA included respondents from the 2015 NSHA; as a result, neither survey (NSHA or CEPGRS) includes respondents who were 18 or younger in 2015 (born in 1997 or later).
