COVID-19: Investing in black lives and livelihoods

An unfolding public-health and economic disaster, the COVID-19 pandemic will disproportionately impact black Americans—unless stakeholders respond immediately.
Contents

2  Introduction

4  Black lives, black health

10 Black livelihoods, black wealth

22 Place-based risks and solutions for lives and livelihoods

23 Conclusion

25 Appendix: Evaluating county-level risk

27 Endnotes
Introduction

As the COVID-19 pandemic explodes into an ever-more urgent crisis, the most immediate imperative is to save lives. After ensuring that people who need lifesaving healthcare get it—and in equitable ways—a secondary mission is to safeguard livelihoods as the economic effects of the pandemic continue to ripple across the US.

The pandemic will impose an additional burden on black Americans, who already deal with a vicious cycle of structural barriers and disadvantages. Analysis shows that as a group, black Americans have worse health outcomes and are less likely to build wealth due to factors such as under-resourced community institutions, poor environments for investment, lower rates of career advancement,\(^1\) overrepresentation in lower-wage jobs, and a lack of inclusion in the financial system.\(^2\) These factors make black Americans more susceptible to the health and economic effects of the pandemic even though they are among the most poorly positioned to surmount the challenges—a double bind.

We evaluated COVID-19 as both a public-health crisis and an economic emergency that poses an elevated threat to the long-term well-being of black Americans. Because conditions are in constant development, projections and analysis are necessarily probabilistic instead of concrete. Even with limited information, we found that black Americans are 1.4–1.8 times as likely to live in counties which, if contagion hits, have the highest risk of severe public-health and economic disruption from the pandemic. To assess disruption, we evaluated five indicators: underlying health conditions, poverty rate, number of hospital beds, percentage of people in severe housing conditions, and population density. This perspective, which integrates health and economics, describes which counties are likely to get trapped in that vicious cycle of economic instability and poor public health.

Thirty percent of the US population lives in these high-risk counties, where 43 percent of the black population—17.6 million people—lives. The counties in the highest-risk decile are home to only 10 percent of the US population but 18 percent of the black population (Exhibit 1).\(^3\)

In addition, 39 percent of jobs held by black workers—seven million jobs—are now vulnerable to reductions in hours or pay, temporary furloughs, or permanent layoffs.

To assess the pandemic’s outsized risks to black Americans, we use a health-centric risk framework, our previous work on the wealth-building journey for black people and families,\(^4\) and estimations of location-based assets and disadvantages. Although we evaluate these factors separately, lives, livelihoods, and places are all components of a system that is putting black Americans at a disadvantage.

Because conditions are evolving quickly, the goal is not to provide a static set of instructions but to provide an analysis of black America’s most acute needs and initial ideas about how stakeholders might invest resources. The fact that many of these solutions are not novel means the pandemic can be an opportunity to build more equitable systems that can increase resilience for black Americans, communities, and institutions in the long term.
Black Americans are almost twice as likely to live in places where, if contagion hits, the pandemic will likely cause outsize disruption.

Counties most at risk of disruption due to COVID-19, heat map of highlighted counties in deciles 8–10, representing 30% of the population

Black Americans are clustered in 244 counties
Black Americans are clustered in 72 counties

1 Data includes 3,115 counties, 99% of counties in the United States. For 30 counties, COVID comorbidities were estimated using the state average due to lack of available data.

2 In these counties, black Americans are overrepresented (>13%) or above 100,000 total people in absolute terms.

The COVID-19 pandemic amplifies systemic dynamics that create worse health outcomes for black Americans. To begin with, they’re less likely to be insured: non-elderly black people are about 1.5 times more likely to be uninsured than their white counterparts, despite the availability of plans as mandated by the Affordable Care Act. Black Americans can also face challenges in accessing medical care, and when they do receive care, their treatment may be inferior to that of other groups.

Black Americans are also more likely to live in places with fewer adequate health and social services. Sixty-five percent of black Americans live in 16 states, most of which rank in the bottom half of all states in healthcare access, public health, and healthcare quality. Black Americans are also twice as likely as white Americans to live in poverty, which is associated with stressors such as food insecurity and unsafe housing. What’s more, black Americans of all socioeconomic levels are exposed to higher levels of air pollution, itself a contributor to respiratory illnesses. These factors can create a perfect storm of adverse health outcomes even in normal times.

Elevated vulnerability to COVID-19 and its effects
The preexisting inequities that disadvantage black Americans makes them more susceptible to severe illness, or even death, due to COVID-19. We will discuss four public-health considerations that are salient to the COVID-19 crisis: the likelihood of contracting the virus, access to testing, the likelihood of developing a severe or fatal case, and secondary effects from an overburdened healthcare system (for more on this public-health framework, see sidebar “Infection, testing, severity, and effects”).

Odds of contracting COVID-19
Black Americans’ economic circumstances can elevate their odds of contracting the coronavirus. Despite shelter-in-place and stay-home orders, only 20 percent of black workers can work from home, compared with 30 percent of white workers and 37 percent of Asian workers. Analysis reveals that black Americans
Infection, testing, severity, and effects

The odds of contracting the virus is a straightforward probability of infection for an individual. Types of factors that increase the probability of infection include inconsistent handwashing, touching the face, and coming into contact with an infected person or large numbers of people.

Access to testing for a suspected infection is determined by local factors. As of early April 2020, testing in the US is still scarce enough to make it difficult for most of the population to access clear information about their infection status, which then makes identifying and quarantining people who may have been exposed to the virus even more challenging. Without broad access to testing, mitigation strategies are less precise and possibly less effective.

The odds of developing a severe-to-fatal case of COVID-19 are estimated at 20 percent of active infections. However, an infection can progress or self-resolve regardless of testing.

Finally, the secondary effects of the COVID-19 crisis can ripple negative patient outcomes throughout the healthcare system. An overburdened healthcare system affects everyone who may need healthcare for reasons unrelated to COVID-19, from dialysis to childbirth. Similarly, a disrupted supply chain can affect healthcare providers’ access to equipment and patients’ access to prescriptions. As the number of severe COVID-19 cases increases, patients with less-acute needs may be displaced—with important procedures delayed or canceled outright—or receive an otherwise lower quality of care due to a shortage of healthcare staff and supplies.

1 Andy Kiersz, “Gov. Andrew Cuomo: New York just boosted its total number of coronavirus tests by almost 50% in the past day. Here’s how the state is doing compared to other countries,” Business Insider, March 20, 2020, businessinsider.com.
2 Morgan McFall-Johnsen, “Fauci says that lifting lockdowns is ‘a matter of weeks’ and depends on the availability of 15-minute coronavirus testing,” Business Insider, March 29, 2020, businessinsider.com.

are overrepresented in all jobs that are considered essential during the pandemic: 15 percent of that entire workforce, and 20 percent of the workforce in nine of the ten lowest-wage, high-contact essential service occupations (Exhibit 2).

In addition, representation in front-line healthcare occupations is especially high: black people are at least a third of nursing assistants, orderlies, and psychiatric aides. Black workers are putting their lives and health on the line for goods and services that matter to society, particularly in healthcare.13

“A cross-sector push for efforts to ensure the long-term economic security of black Americans is one of the best ways to support them. The COVID-19 outbreak has led to a situation where low-wage workers who cannot afford to lose a day’s wages because of illness are less likely to seek medical care (for themselves and for their families) than workers who do have paid sick leave. These same workers are 1.5 times more likely to go to work with contagious illnesses.”

—Kevin E. Lofton, chief executive officer, CommonSpirit Health

COVID-19: Investing in black lives and livelihoods
Black people are also more likely to contract the virus because of the environments they live in. Multifamily housing,\textsuperscript{14} multigenerational households,\textsuperscript{15} and denser metro areas all increase likelihood of exposure to the virus (see sidebar “Especially vulnerable populations”).

It’s difficult to project black Americans’ rates of infection based on pre-pandemic data. However, as of March 27, 2020, preliminary data from the Illinois Department of Public Health shows that black residents made up 28 percent of confirmed cases, even though they make up only 14.6 percent of the state’s population.\textsuperscript{16}

\textbf{Access to testing}

As of April 4, there are little nationwide data on testing, and even less that’s cut by race. The median state tests 47 people per 10,000 residents; of the 16 states where most black people live, ten are below the...
Especially vulnerable populations

Black Americans are overrepresented among some of the most vulnerable populations in society. These groups live within systems in which it can be difficult or impossible to advocate for their own health—or they might live entirely outside conventional social systems.

For example, 33 percent of the prison population is black, compared with 12 percent of the adult US population. The median testing rate.17 As of publication, patients must be referred for COVID-19 testing by a primary care physician, but black Americans are less likely to have a primary care doctor who could refer them.18

Severe and fatal cases
Older adults and people who have serious underlying medical conditions are likely at higher risk for severe illness from COVID-19.19 Black Americans are on average about 30 percent more likely to have health conditions that exacerbate the effects of COVID-19, including cardiovascular disease, asthma, diabetes, chronic kidney disease, hypertension, and obesity.20 While the pandemic’s mortality data by race is currently scarce, as of April 3, black Americans account for 40 percent of deaths related to COVID-19 in Michigan, 70 percent of deaths in Chicago,21 and 81 percent of deaths in Milwaukee County.22

Secondary effects
The secondary effects of the pandemic, including physical distancing and a strained healthcare system, will also likely take a disproportionate toll on black Americans. Indeed, they are already more likely to regularly interact with the medical system to manage diseases and conditions.23 But on March 27, the American College of Surgeons recommended reconsidering and delaying procedures that are considered elective, including surgeries that meaningfully affect patients’ quality of life, such as hip replacements.24 With the medical system at maximum capacity, many medical appointments now take place via telemedicine, which black users are less likely to access or trust.25

The implications for black women’s health and well-being can also be serious. Black women are already up to 3.3 times as likely to die in childbirth than white women, and COVID-19 has increased the number of complications for parents navigating birth and the medical system. Many hospitals have barred partners, doulas, and others who may advocate for the mother in the delivery room.26 This is an important disadvantage, since black people are less likely to be listened to and treated adequately for pain27 (for the gendered impact of the pandemic, see sidebar “The second shift in a pandemic”).

---

1 John Gramlich, “The gap between the number of blacks and whites in prison is shrinking,” Pew Research, April 30, 2019, pewresearch.org.
The second shift in a pandemic

Women tend to work at least two shifts: one in the labor market and a second at home, where they take on the logistical and emotional work of caring for their families.¹ In a public-health crisis such as the COVID-19 pandemic, this dual burden is heavier than usual for black women, and the related stressors will likely lower their quality of life compared with their white counterparts and men.

Black women are overrepresented in low-wage healthcare occupations, such as nursing assistants and personal-care or home-health aides.¹ When compounded with government-mandated school closures and restrictions on movement and a lack of affordable access to childcare,² the stress of running a household for black women is exacerbated. In addition, half of black households with children are headed by single women. Of these households, 38 percent live below the poverty line. By contrast, only 20 of white households are headed by a single woman, and only 32 percent of such households live below the poverty line.³

Even though black women are already twice as likely to perform housework as black men, they still shoulder more than half of caregiving responsibilities. Compared with black men, black women spend 2.7 times as many hours on unpaid work caring for household members and children and 1.3 times as many hours caring for nonhousehold adults.

With elevated stress levels and constrained movements, black women are also in more immediate danger from domestic violence. Indeed, many cities have seen a spike in domestic violence;⁴ four in ten black women experience physical violence by an intimate partner in their lifetime, compared with three in ten white women.⁵

Solutions to save lives and preserve quality of life

Public-, private-, and social-sector stakeholders can consider a variety of actions to mitigate the pandemic’s likely disproportionate effects on black Americans.

Health agencies could ensure that black residents have equal access to testing. To accomplish this task, agencies could track and release testing data that disaggregates tests by race and uses this information to follow black Americans’ path from testing through treatment (if applicable). They could also combine data from disparate sources to forecast and meet local demand for tests.

Communities can also train and deploy community health workers, which are common in places where the need for healthcare significantly outstrips supply.²⁸ Community-health workers help connect patients to both health and social services, build trust in healthcare systems, and help licensed healthcare workers reserve capacity for the most critical cases. Community and faith-based organizations can be a hub for these workers, who can also share information about the virus and encourage preventative measures, such as environmental or personal hygiene and physical distancing.

Employers can support black Americans in essential roles by providing hazard pay that better reflects the level of risk their jobs entail, which could increase for more economically vulnerable workers. They could also consider expanding health insurance, subsidizing health-related supplies, or partnering with hotels to provide isolated housing.²⁹

---

² Childers, DuMonthier, and Milli, The status of black women in America.
⁴ Casey Tolan, “Some cities see jumps in domestic violence during the pandemic,” CNN, April 4, 2020, cnn.com
⁵ Childers, DuMontier, and Milli, The status of black women in America.
Once testing is more widely available, community foundations can organize clinicians, nonprofits, and private-sector leaders to set up neighborhood testing sites to perform rapid testing and identify asymptomatic carriers and those who have developed immunity to the virus. This approach to testing can help decrease transmission through asymptomatic carriers and identify community members who can take on higher-risk occupations relatively safely. When the need for testing is less acute, these centers can transition to helping community members access services such as health insurance after a layoff and government relief funding.

The pandemic can also be an opportunity to invest in work that will benefit black Americans. Public–private partnerships could use data on the disparate availability of primary care physicians to increase black Americans’ access to primary care, especially in communities that have been shaped by redlining and segregation. In addition, stakeholders can harness the current urgency for medical treatment to help widen black families’ adoption of telehealth solutions (and mitigate barriers to adoption such as broadband and insurance coverage). Stakeholders can also consider economic plans that expand incentives for clinicians to complete rotations in underserved communities. If realized, these communities will also become healthier and more economically productive.

Private-sector stakeholders can test products and services to ensure that they are not biased. For example, algorithms that determine patient risk can be biased because the majority of data used to build them comes from white patients. Stakeholders across the healthcare ecosystem should invest in improving relationships with black communities after a history of contributing to their distrust. Bettering such relationships can help increase the number of black patients in clinical trials and research studies to ensure that medical advances include black Americans.

National philanthropic organizations can channel the urgency created by the pandemic to bring together stakeholders in the healthcare ecosystem, create a shared definition of health equity, and set specific goals (such as decreasing the rate of childhood asthma for black children nationwide). The work could include short- and long-term aspirations, a progress plan, metrics for improvements and gaps in thinking, and ongoing research and analysis to quantify the benefits (medical, social, and economic) of improved health equity.

Optimizing public health is already daunting amid a pandemic. This pandemic also makes preexisting health inequities in our society even more stark. The short-term imperative will be to save lives. The sustained will be to preserve lives, health, and quality of life in equitable ways.

**National philanthropic organizations can channel the urgency created by the pandemic to bring together stakeholders in the healthcare ecosystem.**
Black livelihoods, black wealth

Community context, family wealth, family income, and family savings work together to generate wealth. The COVID-19 pandemic’s effects will ripple across this wealth-building journey for all communities but will likely disrupt the journey for many black Americans. The wealth disparity between black Americans and other communities means they will likely experience more bankruptcies, insolvencies, evictions, job losses, diminished institutions, and in this case, deaths. We provide a comprehensive perspective on the economic complications that will likely result from the pandemic, examine one key element of each leg of the wealth-building journey in detail, and identify potential solutions to mitigate economic damage and invest in long-term financial resilience for black families and communities.

Community context
Community context is the sum of public and private assets in a community. Persistent economic and residential segregation, political underrepresentation, and disparities in public services and investments in public goods make black families less likely than white families to live in communities that facilitate socioeconomic development and mobility. Those same neighborhoods are also the ones most in need of support.

The federal government passed a historic $2 trillion relief package.35 State and local governments will need capacity and supportive resources to effectively deploy these funds, develop targeted interventions, meet local needs not addressed by the relief package, and maintain local public services. These governments’ execution of such critical tasks will have a direct effect on residents’ lives.

Possible recession exacerbating economic inequities between communities
The possible recession will exacerbate structural disadvantages black communities already face. For example, black residents are more likely than whites to live in neighborhoods with lower levels of quality health infrastructure,36 public investment and poor business environments (as measured by access to capital, availability of business services, and investment incentives).37 Black citizens are also more likely to be politically underrepresented,38 including in discussions of economic development.39 With shelter-in-place and stay-home orders in wide effect, organizing conventional, mostly in-person community events will be more difficult.

In a pandemic environment, these challenges could create a disproportionate reduction in economic output and community resources from consumption and tax receipts—all in areas that are already more likely to receive less public investment.40 This decreased funding is a further burden on black residents, who are more likely to need public services (see sidebar “Black Americans’ greater need for public services”).
Black Americans’ greater need for public services

A McKinsey national consumer survey conducted from March 27 to 29, 2020, confirms that black communities are more likely than other communities to rely on essential public services such as transportation, childcare, and food security. For instance, 48 percent of black respondents reported that they regularly use food assistance programs, compared with 31 percent of white respondents. Twenty percent said they use public transportation compared with 11 percent of whites (exhibit).

Black respondents also reported more concern about economic and food security. A higher share reported interest in childcare, remote work, and avoiding eviction or foreclosure.

Exhibit

Black survey respondents are more likely to report use of public services.

Use of public services, by race,¹ % share of respondents

<table>
<thead>
<tr>
<th>Used public transportation</th>
<th>Used food assistance programs</th>
<th>Called a community help hotline since the crisis began</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Black people</strong></td>
<td><strong>White people</strong></td>
<td><strong>Black people</strong></td>
</tr>
<tr>
<td>20</td>
<td>11</td>
<td>48</td>
</tr>
<tr>
<td>+9</td>
<td>+17</td>
<td>+11</td>
</tr>
</tbody>
</table>

Finally, black families are also more likely to rely on the public-school system and other anchor institutions for essential services and support. For example, public schools provide children with lunch and basic health services, both of which will be limited while most public spaces are closed and services scaled back during the COVID-19 crisis. As a post-pandemic recession looms, black communities’ anchor institutions are threatened by a lack of resources (see sidebar “Historically black colleges and universities: Anchor institutions under threat”).

**Historically black colleges and universities: Anchor institutions under threat**

**Historically black** colleges and universities (HBCUs) are anchor institutions, sites of cultural identity, talent incubators, and regional economic engines. But the COVID-19 pandemic is likely to significantly—and quickly—hobble them.

In the short term, many of the 55,000 jobs HBCUs provide to local economies are at risk from campus closures. In the long term, reduced post-pandemic enrollment and retention will lead to financial losses that few HBCUs are equipped to weather due to their smaller student populations. The average HBCU had 2,667 first-time undergraduates (including both full- and part-time students), whereas the average American nonprofit university has 4,973 students. HBCUs also operate with similar structural disadvantages as black Americans as a whole, which translates into lower endowments and fewer sources of non-fee funding (such as affluent donors and alumni). Diminishing enrollment at HBCUs—where black students are 15.8 percent more likely to graduate compared with black students at predominantly white institutions, will compromise black families’ future earning power.

**Broadband access to facilitate learning and preserve future economic mobility**

Public education systems, which provide early childhood through secondary education, are facing challenges that can threaten students’ future earning power. Remote learning requires at-home infrastructure—specifically, broadband internet—that many communities lack.

Disparities in broadband access are highly correlated with race; school systems that serve predominantly black students—and their families—are therefore less likely to have the resources for the digital infrastructure required for remote learning. Compared with 21.2 percent of white households and 11.9 percent of Asian households, 36.4 percent of black households report having either no broadband internet or no computer at home. This gap in broadband access—and access to learning during the pandemic—will likely widen preexisting achievement gaps, themselves strongly correlated with racial and socioeconomic disparities.
Solutions for black communities

Michael L. Lomax, CEO of the United Negro College Fund, believes that “there needs to be more insight and understanding drawn from engaging leaders and institutions in the black community.” Economic and residential segregation tends to leave black communities worse off after recessions. Stakeholders from the public, private, and social sectors could invest in the communities that are likely to be hardest hit to ensure an equitable recovery.

Authorities can consider convening people across sectors to set up an “equity team” that synthesizes data from disparate sources to track COVID-19’s differential impact on black communities. Actions to consider include ensuring relief funds are being allocated equitably, identifying institutions that are critical to vulnerable communities’ resilience and designating them as priority funding recipients, anticipating regional demand for services, and advocating for equity in communities and nationwide. If such a team were embedded with the broader COVID-19 response team, it could help ensure that equity is integral to the response.

Public-sector agencies could consider repurposing federal programs for specific needs focused on COVID-19. Possible initiatives include pick-up points for food, widespread access to telecounseling, and remote staffing for domestic-violence hotlines. In addition, foundations could partner with these agencies to support especially vulnerable populations, by investing in re-entry programs for returning citizens and creative solutions for de-crowding homeless shelters.

The philanthropic sector can invest in black-led, community-based organizations that have pre-existing trust and connection to black communities and provide critical supplementary social services. Black-led nonprofits tend to have smaller cash reserves and are more likely to struggle in a downturn. Foundations can allocate more giving to organizations that are likely to have a harder time raising money from other sources.

To increase access to broadband, companies and cities can consider increasing caps on data usage and provide subsidized or no-cost broadband access and Wi-Fi hotspots in places that don't currently have it. Education technology companies can optimize curriculum delivery software for mobile, which black Americans access at the same rates as white Americans.

Public-sector agencies could invest in financial and logistical disaster preparation and develop targeted interventions. Specifically, stakeholders might consider funding or increasing funding caps for state and local rainy-day funds and design rules and protocols for equitable ways to deploy funding. Similar funds focused on liquidity can provide bridge funding and specialized financing for anchor institutions, housing needs, and distressed community assets.

Finally, governments might consider how community land trusts could initiate public works projects to employ community members and invest in community assets. Reskilling programs can help workers get the training they need. Such investments in capabilities are crucial for future investments in public assets and infrastructure, especially in many black communities, where they can bring the most benefits at the margin.

Economic and residential segregation tends to leave black communities worse off after recessions.
Family wealth

Family wealth is the net value of a family’s pool of financial and nonfinancial assets. Collectively, black families have less wealth and have more of their assets in poor environments for investment, entrepreneurship, and business development. The business disruptions and unemployment that will result from the COVID-19 crisis will disrupt and complicate wealth generation for all families. However, black families face additional challenges, particularly as homeowners and business owners.

An uphill climb for homeowners and business owners

Many black families live in predominantly black communities. The legacy of segregation has impaired black families’ ability to access to high quality mortgages and locate businesses in nonwhite communities. This continued segregation depresses the value of black-owned assets, particularly homes and businesses.

This history affects black families’ investment attitudes and decision making. As a result, black families’ asset portfolios are less liquid than that of white families, meaning that black families are more likely to liquidate long-term assets such as retirement accounts during financial hardships. Black families are also more likely to liquidate assets because financial hardships tend to arrive earlier and last longer. Indeed, black workers across education levels and occupations are more likely to be among the first to be laid off, which puts black families at more risk of defaulting on their mortgage payments and—ironically—student loans. In light of black families’ already higher odds of carrying student loan debt, the COVID-19 crisis can decimate black families’ wealth through evictions, personal bankruptcies, and financial contagion that infect business activity in communities.

Precarious environments for business recovery and expansion

Black-owned businesses are in a precarious position in a pandemic-induced recession. They are overrepresented in the sectors that will be most negatively affected, such as leisure, hospitality, transportation, and retail (Exhibit 3).

About 40 percent of revenues for black-owned businesses are in these vulnerable sectors, compared with 25 percent of revenues for all firms. Because black-owned businesses tend to be smaller, with only a third of the revenue of nonblack businesses, a steep drop in general demand puts black-owned businesses at higher risk of bankruptcy.

Most small businesses hold less than a month of expenses, so access to liquidity is paramount. However, black-owned businesses face more hurdles in accessing liquidity and support services. Black- and minority-owned businesses that continue to operate during and after the recession are about 60 percent less likely than their peers to receive 100 percent of the financing they need, which puts them at additional risk of failure. Black employers are also less likely to seek advice from professionals, possibly reflecting the cost of accessing such services. Because black-owned businesses are a consistent source of employment for black workers and local investment, interventions to support their survival are urgent. Otherwise, unchecked business and homeownership failures could reach a threshold that sparks a vicious cycle of declining neighborhoods and business districts. Adrienne Trimble, the president of the National Minority Supplier Development Council, agrees: “While the Coronavirus Aid, Relief, and Economic Security (CARES) Act is intended to assist and support all small businesses, it is imperative that access and distribution of funding is executed equitably and fairly.”
Exhibit 3

The five hardest-hit sectors represent nearly 40 percent of revenues for black-owned businesses compared to 25 percent of revenues for all firms.

Representation in the top five negatively impacted sectors

Real GDP Q2 2020, relative to Q4 2019,¹ % change

<table>
<thead>
<tr>
<th>Sector</th>
<th>Leisure and hospitality</th>
<th>Retail trade</th>
<th>Other services²</th>
<th>Transportation and utilities</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>% change</td>
<td>-25</td>
<td>-15</td>
<td>-12</td>
<td>-12</td>
<td>-10</td>
</tr>
</tbody>
</table>

Sources of revenue, by racial-ownership of business % share

<table>
<thead>
<tr>
<th>Sector</th>
<th>Leisure and hospitality</th>
<th>Retail trade</th>
<th>Other services²</th>
<th>Transportation and utilities</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage points</td>
<td>+6</td>
<td>+1</td>
<td>+1</td>
<td>+1</td>
<td>+4</td>
</tr>
</tbody>
</table>

¹ GDP estimates calculated under a scenario in which virus is contained.
² Establishments in this sector are primarily engaged in activities such as equipment and machinery repairing, promoting or administering religious activities, grantmaking, advocacy, drycleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services.

Source: Analysis of 2012 Survey of Business Owners, McKinsey analysis in partnership with Oxford Economics
Guarding and building family wealth in the time of COVID-19

To protect black families from losing more ground in the coming recession and preserve any economic gains from the 2009–20 economic expansion, stakeholders across the public, private, and social sectors could consider a variety of interventions.

Public- and social-sector stakeholders could consider additional supplementary support for black families, such as moratoriums on foreclosures or forced liquidation, to protect them from the systemic failure of critical financial investments. This could include a wide range of options, such as student-loan forgiveness for bankruptcies connected to the pandemic’s effects, or the creation of new funds to purchase distressed assets and provide liquidity to families that may decide to sell their homes at depressed prices. They could also increase matched savings rates for individual development account programs or cover redemptions due to the crisis up to a certain percentage to supplement lost savings and re-orient families towards asset-building. Social enterprises that provide minimal or free financial advisory services can help families plans for the future.

Economic development institutions could also ensure that business owners can access and make full use of recovery- and relief-related opportunities and resources. Loan guarantees and supplemental funding for community development financial institutions (CDFIs) could help preserve black communities’ wealth. A wide-ranging campaign to raise awareness of bridge financing will help black businesses take advantage of funding opportunities. Larger corporations could accelerate their remittance of payables to small and minority-owned businesses and create more generous terms for receivables. Local economic development organizations might also provide business services that can help small and microbusinesses apply for relief funding to lighten the load on business owners.

In the market, trade associations could help black-owned businesses develop the capabilities required to successfully compete for contracts in both the public and private sector, particularly in growth industries like healthcare. Partnerships with banks focused on innovation funding could also help black-owned businesses make long-term investments.

CDFIs could support small-business loan deployment and target underserved populations, which could help jumpstart a virtuous cycle of investment and economic development in black-owned businesses and communities. Some sectors will take more time than others to fully restart, so helping businesses prevent large balloon payments and reset their financial clocks more gradually will help many businesses stay afloat. In the meantime, development programs can help entities diversify their revenue streams to increase resilience when the next economic downturn comes.

Insurance against future financial crises will also be critical for families. Home buyers could benefit from programs that include the option to sell a home for a specified price under certain conditions. Such “soft put” programs can insulate individual homeowners from some of the economic losses that can occur during downturns. Similarly, recession insurance as part of property tax assessments and funding to contain financial contagion have been successful at protecting housing prices during emergencies.

Family income

Family income represents how families create cash flows from entrepreneurship or the labor market. Black workers and entrepreneurs enter the crisis at a disadvantage in education, skills, and access to professional experiences in the labor force. The combination of residential and academic segregation, as well as discrimination in the labor market, create challenges that depress the ability to generate income. The pandemic intensifies these obstacles.
Disrupted education and preparation for work
Black students have less access to high-quality education at every life stage, including early childhood. Black students have less access to high-quality education at every life stage, including early childhood.63 Sheltering in place abruptly deprives every child of formal education, but black children have more to lose because they tend to derive more cognitive, social, and academic benefits from these programs.64

From kindergarten through high school, nonwhite school districts receive $23 billion less per year compared with their same-sized peers.65 School districts with predominantly black students have significantly less resources to set up remote-learning infrastructure and effectively facilitate remote learning, including the necessary teacher training. Parents also play an important role in supporting remote learning, but black parents may be less able to provide support because of a higher proportion of single parent households and parents who are employed in essential occupations. As a result, black students are at significant risk of falling behind.66

In higher education, black students are already 12 percentage points less likely to finish college compared with their white peers.67 Black students may suffer disproportionately negative effects from remote learning in higher education as well, including lower rates of college persistence.68 Cumulatively, these challenges to black students’ learning now are likely to decrease their future earning power.

Un(der)employment as an elevated threat
An unprecedented number of people—more than 16 million—have already filed for unemployment benefits between March 14 and April 4.69 Black workers were already twice as likely to be unemployed than their white peers, regardless of their qualifications.70 Now 39 percent of jobs held by black workers, seven million jobs in all, are vulnerable due to the COVID-19 crisis, compared with 34 percent for white workers.71 Indeed, black workers will likely experience higher rates of unemployment as a result of the crisis and see more of their jobs impacted in the near term. In a March 2020 survey of American households, 22 percent of black respondents said they or someone in their household had been laid off or lost a job because of the coronavirus outbreak (compared with 17 percent of white respondents). And 28 percent reported that they or someone in their household had to take a pay cut due to reduced hours or demand for their work because of the coronavirus outbreak (compared with 23 percent of white respondents).72

While the crisis will likely result in a disproportionate number of unemployed black Americans, unemployment will also likely to be undercounted. For instance, workers who are placed on unpaid leave, who have their hours involuntarily reduced, and who lose one or two of multiple jobs, will not be counted among the unemployed. An analysis of the number of vulnerable jobs is more useful for such workers, whose jobs are often classified as nonessential during the pandemic and require close or frequent in-person interactions.73

Sheltering in place abruptly deprives every child of formal education, but black children have more to lose.
Because black workers are overrepresented in the roles that are most impacted by the COVID-19 pandemic—food services, customer service, and sales and office support—39 percent of all jobs held by black Americans are vulnerable to disruption. Annual wages for the vulnerable jobs are about $2,550 lower for black workers in 15 of the 16 occupational groups compared with their white peers (Exhibit 4).74

Given lower average wages across these occupations, black workers will likely feel the negative consequences of job loss even more acutely than their white peers.

Exhibit 4

**Black workers disproportionately fill vulnerable jobs—and make less doing them.**

**Share of vulnerable¹ jobs for each racial group, 2020, % of jobs**

<table>
<thead>
<tr>
<th>Racial Group</th>
<th>Hispanic</th>
<th>Black</th>
<th>White</th>
<th>Asian</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>44%</td>
<td>39%</td>
<td>34%</td>
<td>32%</td>
</tr>
</tbody>
</table>

¹ ‘Vulnerable’ jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing. Share of vulnerable jobs is calculated separately for each racial group.

Source: McKinsey Global Institute analysis
Black workers disproportionately fill vulnerable jobs—and make less doing them.

<table>
<thead>
<tr>
<th>Job Category</th>
<th>Black wages more than white wages</th>
<th>White wages more than black wages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health professionals</td>
<td></td>
<td>5,011</td>
</tr>
<tr>
<td>Health aides, technicians, and wellness</td>
<td></td>
<td>4,646</td>
</tr>
<tr>
<td>Creatives and arts management</td>
<td></td>
<td>3,773</td>
</tr>
<tr>
<td>Managers</td>
<td></td>
<td>3,518</td>
</tr>
<tr>
<td>Educator and workforce training</td>
<td></td>
<td>3,511</td>
</tr>
<tr>
<td>Production work</td>
<td></td>
<td>3,224</td>
</tr>
<tr>
<td>Community services</td>
<td></td>
<td>2,745</td>
</tr>
<tr>
<td>All vulnerable jobs</td>
<td></td>
<td>2,489</td>
</tr>
<tr>
<td>Business/legal professionals</td>
<td></td>
<td>2,488</td>
</tr>
<tr>
<td>Office support</td>
<td></td>
<td>2,199</td>
</tr>
<tr>
<td>Builders</td>
<td></td>
<td>2,192</td>
</tr>
<tr>
<td>Transportation services</td>
<td></td>
<td>1,591</td>
</tr>
<tr>
<td>Mechanical installation and repair</td>
<td></td>
<td>1,484</td>
</tr>
<tr>
<td>STEM³ professionals</td>
<td></td>
<td>1,353</td>
</tr>
<tr>
<td>Customer service and sales</td>
<td></td>
<td>1,255</td>
</tr>
<tr>
<td>Property maintenance and agriculture</td>
<td></td>
<td>1,221</td>
</tr>
<tr>
<td>Food services</td>
<td></td>
<td>366</td>
</tr>
</tbody>
</table>

¹'Vulnerable' jobs are subject to furloughs, layoffs, or being rendered unproductive (for example, workers kept on payroll but not working) during periods of high physical distancing.
² Average black wages less average white wages by occupation.
³ Science, technology, engineering, and mathematics.
Source: McKinsey Global Institute analysis
Protecting family incomes
Public-, private-, and social-sector stakeholders could consider providing financial support for employers that include protections for workers and historically disadvantaged groups. One approach is to guarantee financial support—such as low-interest loans and tax holidays—for employers that protect workers.

Targeted job-matching programs can also place displaced workers into roles created by federal relief packages and state projects in the short- and medium term. For workers who need time to recover from illness or take care of their families, the public and private sector can both extend paid sick leave and paid family and medical leave to stabilize the workforce and public health.

Stakeholders can invest in job training and education at scale for displaced and vulnerable workers. Indeed, the COVID-19 pandemic has accelerated the transition toward a future version of work, characterized by increased use of automation and evolving skill requirements. Systemic skill-building and retraining must meet that need for workers and the larger economy, especially for companies that receive relief funding related to the COVID-19 pandemic.

Finally, businesses over a certain size can disclose racial demographic data on any workforce contraction, to demonstrate a commitment to equity. Making such information public could be a way to help companies self-audit for equity and give external stakeholders opportunities to intervene as needed.

Family savings
Family savings are how families pool capital and create wealth for themselves and their communities. In times of crisis, families and individuals can tap into liquidity from their savings. Before this crisis, black families already suffered from a lack of access to financial resources, systems, and tools. This lack of support increases financial volatility and lowers economic resiliency and security for black families and communities. The COVID-19 pandemic makes liquidity a particularly acute need.

Financial insecurity as a persistent fact of black life
Fifty-two percent of black workers surveyed say the coronavirus outbreak is major threat for their personal financial situation compared with 43 percent of white respondents. Black families are also less likely to fully participate in the financial system, which includes accumulating long-term wealth, insuring against major risks, making routine transactions, accessing credit, and planning for financial goals. In part because systemic factors have long inhibited black families’ participation, financial insecurity persists for many black Americans (an estimated 51 percent of black Americans are economically insecure compared with 26 percent of white Americans).

The COVID-19 pandemic will likely worsen black Americans’ financial insecurity. In addition to being in jobs that are more likely to be negatively affected, black Americans lack access to mainstream financial services due to lower incomes and paying higher fees for financial services. As a result, a higher share of black Americans are unbanked and underbanked compared with their white counterparts.

Black households are also more likely to require credit to withstand the financial shocks that result from the post-pandemic recession but are less likely to have it. Black Americans of every educational background are more likely than other racial groups to be unable to afford all of their current bills or after an unexpected $400 expense. In 2018, about 33 percent of black Americans did not have access to a credit card (compared with 15 percent of white Americans). Black families’ lower rates of health insurance coverage—9.7 percent of black Americans were uninsured in 2018, compared with 5.4 percent of white Americans—also makes them more vulnerable to medical debt. A combination of financial...
insecurity, lack of liquidity, and financial setbacks from the pandemic will disproportionately degrade black Americans’ quality of life.

**Financial lifelines**
The most urgent priority should be to give families liquidity, which could include direct cash assistance to support household needs. Both public- and private-sector stakeholders could provide extensive low-interest liquidity to black families.

Creditors could also extend deadlines and provide flexible payment programs for outstanding debts. For instance, credit bureaus and banks might offer credit forgiveness for a set period after the COVID-19 pandemic resolves to give families time to financially recover from the period when they missed payments. In fact, alternative credit reporting that accounts for the effects of the pandemic can help black families more easily access credit in the future.

CDFIs could increase long-term financing for financial institutions focused on community economic development. Such institutions can help black families connect to financial institutions and secure and grow their wealth even after the COVID-19 crisis passes. Indeed, black families may benefit from programs such as long-term insurance funds for frontline workers—all essential workers who worked in high-contact jobs, from grocery to healthcare—during the COVID-19 crisis. Such a fund would partially compensate those workers for the risks they were exposed to in the course of work and insure them against yet-unknown health complications that may result from this period.
Place-based risks and solutions for lives and livelihoods

The work to rebuild starts now. Of the 566 counties at highest risk, black people are clustered in 244 of them (Exhibit 5).

Exhibit 5

39 percent of black Americans live in 244 counties where, if contagion hits, the pandemic will likely cause outsized disruption.

Counties’ most at risk of disruption due to COVID-19, heat map of highlighted counties in deciles 8–10, where black Americans are clustered

¹ Data includes 3,115 counties, 99% of counties in the United States. For 30 counties, COVID comorbidities were estimated using the state average due to lack of available data.

These localities have different characteristics, such as community assets and economies, and may have different paths to recovery after the pandemic. We highlight three archetypes, identify their unique challenges, and draw from the preceding discussions of lives and livelihoods to develop specific near-term solutions for an equitable recovery for each community archetype (for methodology, see Appendix).

**Archetype: High-growth environments**
High-growth environments tend to be urban and densely populated. Examples from the set of counties we included include Philadelphia and the Bronx.

**Crowded but well-resourced and healthy**
Counties within this archetype are, on average, the most densely populated of US counties and have the highest percentage of residents with severe housing problems. These constraints make sheltering in place and physical distancing more difficult when proximity to other people can pose a danger to health.

However, compared with low-growth counties, high-growth counties have slightly healthier populations, with a lower incidence of comorbidities that increase the risks of complications from COVID-19. In addition, they have the lowest overall poverty rates (although in some cases, higher-concentrated poverty). High-growth counties will likely rebound from the pandemic more easily, thanks to high-growth industries such as finance and insurance as well as to high-quality healthcare and social assistance.

**Capitalize on accessible cross-sector partnerships**
To integrate public- and economic-health recovery, high-growth counties could capitalize on their assets such as anchor institutions. For example, clinicians and community foundations could partner to develop neighborhood-based serology testing, which could help identify people who have developed immunity. These low-risk residents could be trained and deployed as community health workers to support people who are at highest risk.

Corporations could respond directly in ways that are aligned with their mission. For instance, a grocery chain could direct corporate-social-responsibility funding to food banks in vulnerable parts of those counties; likewise, tech companies could help public agencies improve operations and timeliness for social service delivery through technology platforms.

In the private sector, businesses could prioritize localized hiring and reskilling initiatives to help displaced workers. Offices can be retrofitted for pandemic resilience through measures such as consistently improved sanitation protocols.

Housing security will be a critical investment for high-growth counties. Long-term rent support and moratoriums on foreclosures can help residents stay in their homes and retain the value of their investments.

**Archetype: Semi-urban ‘mixed middle’ counties**
Counties in the mixed middle—such as Wayne County, Michigan, and Orleans Parish, Louisiana—are exactly that. They resemble urban areas in their population density and rates of comorbidities but have lower rates of severe housing problems and higher poverty. Furthermore, counties in the mixed middle have the most hospital beds across the three archetypes.

**Dependent on specific industries**
Post-pandemic outcomes for mixed middle counties will likely depend on factors such as the local mix of industries and human capital. Specifically, Orleans Parish (which includes New Orleans) may suffer from the hit to its hospitality and tourism industries. Similarly, Wayne County (which includes Detroit) may see the
auto industry contract. Mixed middle counties with diversified revenue bases may fare better and recover more easily.

**Finding localized opportunities and advantages**

Some counties in the mixed middle can capitalize on their proximity to urban centers while enjoying lower density. Counties can capitalize on their hospital beds by dynamically managing demand and routing patients with severe cases of COVID-19 to facilities with more capacity.

Public-sector agencies can ensure that all families have access to public assistance as needed. Local infrastructure such as pickup points for food programs and access to telemedicine can lighten the load for both residents and agencies.

Some mixed middle counties have both high population density and hard-hit industries. Employers and universities can partner to develop reskilling programs to support displaced workers, particularly for industries that are likely to continue to decline. CDFIs can provide localized investment in businesses to help them weather the crisis.

**Archetype: Low-growth and rural areas**

Low-growth and rural counties score worse on poverty rate, number of hospital beds, and COVID-19 comorbidities. Examples of such places include Cumberland, North Carolina, and El Paso County, Texas.

**Poorer and less healthy—but easier to physically distance**

The average low-growth and rural county has more residents with conditions that put them at risk of developing a severe case of COVID-19. The economic impact of the pandemic can last longer in those areas because they have higher rates of poverty than urban areas and lower educational attainment.

However, because these counties are rural—and, therefore, less densely populated—and have a lower share of residents with severe housing problems, the virus may spread more slowly and infect fewer people than in cities.

**Contain infections and build regional economies**

Because of the relatively low population density in these areas, local public-health agencies could borrow the approach of small European jurisdictions to containing COVID-19 infections. Specifically, near-universal testing and isolating infected individuals, including the asymptomatic, could protect these vulnerable areas from the public-health and economic crisis associated with the pandemic. In addition, authorities could consider promoting physical distancing to keep the local rates of infection low.

Public–private partnerships could support digital infrastructure development (such as fiberoptic cable) and create jobs. Businesses could also begin to consider incorporating these counties into their supply chain. Indeed, more national and regionally focused economies can help secure supply chains in the event of a protracted pandemic. Currently low-growth and rural counties are prime candidates for reshoring investments—with an intentional focus on occupations that are more resistant to automation.
Conclusion

The COVID-19 pandemic is already a generation-defining crisis. Because it affects all social systems, it heightens preexisting challenges that face black Americans.

But a trial can also be an opportunity. Our society can consider how we can respond to the COVID-19 crisis and fallout to fortify black communities’ resilience and help them do more than simply recover. Where can we actually rebuild our systems to be more equitable? The economy stands to unlock between $1.0 trillion and $1.5 trillion.

Stakeholders in the private, public, and social sectors all have roles to play. Companies can make decisions that reflect and reinforce equity as a value. State and local actions can help ensure that federal interventions find their way to black citizens, businesses, and institutions. The social sector can deploy capital quickly and test innovative solutions to seemingly intractable problems.

Our local, national, and global community will eventually move past the COVID-19 crisis, but we don’t have to simply survive it. We call on all stakeholders to commit to equity in our collective actions over the near and long term.

Earl Fitzhugh is a partner in McKinsey’s Stamford office. Aria Florant and Nick Noel are consultants the Washington, DC, office, where Jason Wright is a partner. JP Julien is a consultant in the Philadelphia office. Duwain Pinder is a consultant in the New Jersey office, where Shelley Stewart III is a partner. Sam Yamoah is an associate partner in the Minneapolis office.

The authors wish to thank the Center for Societal Benefit through Healthcare for its contribution to this article.

While this article was in development, one of the author’s family members, a healthcare worker in Brooklyn, passed away from complications related to COVID-19. This article is dedicated to her and to everyone on the front lines of this crisis.
Appendix: Evaluating county-level risk

To estimate the COVID-19 pandemic’s disruption to public health and economic life for each county, we looked at evaluated county-level data across five dimensions:

— *The presence of comorbidities*, which elevates residents’ risk for complications associated with COVID-19

— *The poverty rate*, which estimates the number of people who are likely to struggle financially, either because of a job loss or medical bills

— *The population density*, which describes areas that facilitate the spread of the virus

— *The number of hospital beds per 100,000 people*, which helps estimate health systems’ capacity

— *The percentage of people in severe housing conditions*—involving overcrowding, a lack of access to kitchen or plumbing facilities, and high costs of housing relative to income—which suggests unstable economic situations and/or an elevated risk of infection

For each of these indicators, we ranked counties into ten deciles, with each decile representing 10 percent of the population, and assigned a decile score for that indicator. Then, we created a combined index score based on the individual decile scores, and assigned a final, combined decile score to each county.

Even though these factors are intertwined—for instance, the poverty rate is correlated to the percentage of residents in severe housing conditions—using them as scoring criteria is an accessible way to estimate the relative risk the pandemic poses to individual counties.
Endnotes


3 Counties’ risk of disruption related to the pandemic is measured by comorbidities that predispose residents to complications associated with COVID-19, poverty rates, population density, number of hospital beds, and the share of residents in severe housing conditions (characterized by overcrowding, a lack of access to kitchen and plumbing facilities, and rent burdens). For each of these indicators, we ranked counties into ten deciles, with each decile representing 10 percent of the population, and assigned a decile score for that indicator. Then, we created a combined index score based on the individual decile scores, and assigned a final, combined decile score to each county. Each indicator is equally weighted. Age was not included. This analysis does not do epidemiological forecasting. Counties do not have to have identified cases to qualify for this analysis. See Appendix for more. Sources include: 2017 CMS LIDS Medicare FFS data and DHR 835/837 data © 2020 DR/Decision Resources, LLC. All rights reserved. Reprinted with permission. Reproduction for non-commercial use is permitted if attributed, American Community Survey, 5-year estimates 2013 - 2018. Poverty status in the past 12 months; U.S Census Bureau, 2010 Census, Population, Housing Units, Area, and Density; American Community Survey, 5-year estimates 2013 - 2018. Total Population; CMS Hospital Compare and Medicare Provider Cost Reports; Robert Wood Johnson Foundation, US Department of Housing and Urban Development, Comprehensive Housing Affordability Strategy.

4 Noel, Pinder, Stewart, and Wright, The economic impact of closing the racial wealth gap.


10 “Poverty in America continues to affect people of colour most,” The Economist, September 26, 2019, economist.com.


12 Table 1. Workers who could work at home, did work at home, and were paid for work at home, by selected characteristics: United States, 2018, Summary Health Statistics: National Health Interview Survey, 2018, ftp.cdc.gov.


14 American Housing Survey Table Creator, American Housing Survey (AHS), US Census Bureau, census.gov.

15 “Grandparents and grandchildren,” US Census Bureau, September 6, 2016, census.gov.


18 Disparities Details by Race and Ethnicity for 2016, AHS-3: Persons with a usual primary care provider (percent), Healthy People, healthypeople.gov.


20 Centers for Disease Control and Prevention; includes cardiovascular disease, asthma, diabetes, chronic kidney disease, hypertension, and obesity.

21 Elliott Ramos and María Inés Zamudio, “In Chicago, 70% of COVID-19 deaths are black,” WBEZ, April 5, 2020, wbez.org.


23 Table P-10a. Age-adjusted percent distribution (with standard errors) of number of overnight hospital stays during the past 12 months, by selected characteristics: United States, 2018, Summary Health Statistics: National Health Interview Survey, 2018, ftp.cdc.gov.


COVID-19: Investing in black lives and livelihoods


42 The Digital Divide: Percentage of Households by Broadband Internet Subscription, Computer Type, Race and Hispanic Origin, US Census.


39 Florant, Julien, Stewart, Yancy, and Wright, “The case for accelerating financial inclusion in black communities.”


35 Caucasian women are more likely than black women to be hired by black-owned businesses: Revisiting key variables,” Office of Advocacy, January 29, 2014, sba.gov.

34 Community foundations are grantmaking organizations that focus on specific regions.


30 Foundations that focus grantmaking on a specific city or region.


23 floralit, Julien, Stewart, Yancy, and Wright, “The case for accelerating financial inclusion in black communities.”

65 “Nonwhite school districts get $23 billion less than white districts despite serving the same number of students,” EdBuild, February 2019, edbuild.org.
69 Unemployment weekly claims, US Department of Labor, April 9, 2020, dol.gov.
70 Nick Buffie and Sarah Rawlin “The different experiences of black unemployment and white unemployment,” CEPR, March 30, 2017, cepr.net.
71 Vulnerable to reductions in hours or pay, temporary furloughs, or permanent layoffs.
74 McKinsey Global Institute analysis.
76 Noel, Pinder, Stewart, and Wright, The economic impact of closing the racial wealth gap.
78 Florant, Julien, Stewart, Yancy, and Wright, “The case for accelerating financial inclusion in black communities.”
82 Florant, Julien, Stewart, Yancy, and Wright, “The case for accelerating financial inclusion in black communities.”
84 Serology is the assessment of blood serum for diagnostic purposes.
85 COVID-19: Investing in black lives and livelihoods
87 Severe housing conditions are defined as the percentage of households with at least one of these issues: a lack of complete kitchen facilities; a lack of plumbing; overcrowding; and housing that imposes a severe cost burden. For more on these criteria, see “Severe housing problems,” County Health Rankings and Roadmaps, countyhealthrankings.org.
88 Each indicator is equally weighted. Age was not included. Counties do not have to have identified cases of COVID-19 to qualify for this analysis. This analysis does not include epidemiological forecasting.