Unsanitized and Unfair: How COVID-19 Bailout Funds Refuel Inequity in the US Health Care System

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Abstract

Context: The CARES Act of 2020 allocated provider relief funds to hospitals and other providers. We investigate whether these funds were distributed in a way that responded fairly to COVID-19–related medical and financial need. The US health care system is bifurcated into the "haves" and "have nots." The health care safety net hospitals, which were already financially weak, cared for the bulk of COVID-19 cases. In contrast, the "have" hospitals suffered financially because their most profitable procedures are elective and were postponed during the COVID-19 outbreak.

Methods: To obtain relief fund data for each hospital in the United States, we started with data from the HHS website. We use the RAND Hospital Data tool to analyze how fund distributions are associated with hospital characteristics.

Findings: Our analysis reveals that the "have" hospitals with the most days of cash on hand received more funding per bed than hospitals with fewer than 50 days of cash on hand (the "have nots").

Conclusions: Despite extreme racial inequities, which COVID-19 exposed early in the pandemic, the federal government rewards those hospitals that cater to the most privileged in the United States, leaving hospitals that predominantly serve low-income people of color with less.

Keywords COVID-19, CARES Act, hospitals, safety net

As it has done for other dimensions of US society, the COVID-19 pandemic has exposed the vulnerability of our health care system and the enormous inequalities that exist within it. The US hospital system is marked by large and persistent inequalities. Health care in the United States has long been described as a "two-tier" health system in which patients with Medicare and private health insurance have access to a large number of hospitals,

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while the uninsured and patients covered by Medicaid have access to a much smaller set of hospitals typically referred to as the health care safety net, which includes public hospitals, academic medical centers, and some community-based nonprofit hospitals (Davis and Schoen 1978; Stevens and Stevens 1974).

When the COVID-19 pandemic arrived in the United States, the entire hospital system suffered. When elective procedures were postponed during the first months of the pandemic, this resulted in significant revenue loss for all hospitals because they earn much higher payments from elective procedures than they do from emergency department admissions. Elective procedures account for about one-third of total inpatient hospital revenues. During the four-month period between March 1 and June 30, 2020, US hospitals and health systems lost more than $202 billion, or about $55 billion per month, because of a 40–45% decrease in operating revenue for the average hospital (AHA 2020).

In addition to a reduction in profitable procedures, many hospitals also suffered financially because they cared for a disproportionate share of patients with COVID-19. This is true, of course, because positive COVID-19 cases were not disbursed evenly throughout the country (or even within various states). The US health care system is bifurcated into what many have called "have" and "have-not" hospitals (Berenson 2015). Even after passage of the Affordable Care Act, government support for safety net and Medicaid policies that serve vulnerable populations is less generous and easier to cut than policies and programs that serve privately insured and Medicare patients (Allen et al. 2014; Grogan and Park 2017; Gusmano, Rodwin, and Weisz 2017; Soss, Fording, and Schram 2011). Because Black and Brown patients are more likely to be uninsured or Medicaid beneficiaries than white patients (Cohen, Martinez, and Zammitti 2016), and state Medicaid programs continue to pay substantially less than private insurance, this "racial payer gap"—along with racial residential segregation—continues to result in de facto racial segregation in the US hospital system (Blustein 2008; Caldwell et al. 2017; Chan et al. 2012; Hall and Rosenbaum 2012; Serwer 2009; Yang, Zhao, and Song 2017).

While the loss of revenue associated with the elimination of elective procedures is most applicable to wealthy hospitals, the "have-not" hospitals—those with poor financial performance prior to the onset of COVID-19—faced even more challenges because they disproportionately take care of low-income and uninsured patients, and patients from Black and Brown communities, who were disproportionately affected by COVID-19 (Garcia et al. 2021). Hospitals with a large share of COVID-19

patients experienced higher expenses owing to the need to acquire necessary equipment and supplies, and the higher labor costs associated with the surge in demand for hospital services and personnel (AHA 2020). As such, and unlike wealthier hospitals, the financial situation of safety net hospitals that had a large share of COVID-19 patients was made worse. In sum, all hospitals needed help but for different reasons.

The point of public policy is to decide which needs are most important and should take priority. This was the crucial question before Congress when members voted on the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which was passed and signed into law by President Donald Trump on March 27, 2020. The CARES Act provided more than $2 trillion "to protect the American people from the public health and economic impacts of COVID-19."[1] Most of the legislation focused on relief to the general economy, particularly funding for the unemployed and small businesses; however, $175 billion was allocated to provide aid to the American health care system.

The purpose of this article is to first document how local policy elites, congressional members, and policy experts discussed what the intent of provider relief funding should be—which hospitals were considered most worthy of relief funding and why? Second, we examine how relief funds were actually distributed by the federal government to determine how the distribution matched various distributional arguments and congressional intent. We start by providing historical and recent evidence on inequities among hospitals in the United States. This provides a context to understand different arguments launched by stakeholders and policy makers about how relief funds should be distributed. We then detail our methodological approach and present our findings and conclusions.

Setting the Context: Long-Standing and Growing Inequities among US Hospitals

Several factors are fundamental to understanding inequalities in the US hospital system, in terms of the patients served, how hospitals are paid, and whether hospitals have access to financing for capital investments. The lack of a universal social insurance scheme explains why different payers pay different amounts for patients. However, the United States also has particular tax policies that allow bifurcated treatment among hospitals.

1. Coronavirus Aid, Relief, and Economic Security Act. Pub. L. No. 116–136, 134 Stat. 281 (2020).

In the 1960s state governments began to offer nonprofit hospitals more favorable lending conditions under the tax-exempt bond, which catapulted nonprofit hospitals into the capital credit markets. Debt financing increased from 38% of total financing for hospital construction in 1968 to 69% in 1981 (AHA 1986; Cohodes and Kinkead 1984). The dollar volume of health-care debt issues in the tax-exempt market went from $22 billion (5.7% of total issues) in 1974 to $75 billion (12.3%) in 1982. In just one year, from 1980 to 1981, hospitals and other health care institutions borrowed more than $5 billion in the long-term tax-exempt bond market. This represented a 40% increase from the 1980 level.

The increased reliance on private capital markets played a central role in creating a fundamental transformation toward the corporatization of the American health care system (Ermann and Gabel 1984; IOM 1983). The implications of this shift toward corporatization were threefold. First, reliance on private capital encouraged the formation of multihospital systems. The percent of US community hospitals affiliated with systems increased from 31% in 1979 to 53% in 2001 (Bazzoli 2004). Because large organizations could support the overhead necessary to develop sophisticated financial strategies, investment advisers and bond-rating agencies viewed multihospital systems as more financially stable (Brown and Saltman 1985). Because the credit rating of multi-institutional systems tended to be higher than single-facility hospitals, there was a strong motivation to join multihospital systems. For example, while 23% and 38% of multihospital systems had AA(+/-) and A+ ratings respectively, only 2% and 16% of single-facility hospitals had such ratings (IOM 1983). It is important to note that these mergers and acquisitions occurred regardless of ownership: nonprofit voluntary hospitals also experienced a growing number of corporate mergers and large-scale joint ventures (IOM 1983; Siegrist 1983).

Second, the shift toward reliance on private capital created explosive growth of proprietary hospital chains. The number of short-term acute care hospitals owned by for-profit hospital chains rose from 6% in 1977 to 10% in 1982. The five largest chains more than doubled their total beds during the same time period (Ermann and Gabel 1984; IOM 1983; Relman 1980). In 1990 33% of system hospitals were owned by for-profit systems (about one in four hospital beds) (Bazzoli 2004).

Third, the reliance on capital markets further bifurcated the US health care system. While public subsidies to access tax-exempt bonds were made easier for nonprofit hospitals in the post-1965 period, public hospitals were unable to take comparable advantage of subsidies attached to the tax-exempt bond markets. Because public hospitals had a higher proportion of

Medicaid patients among their payer mix, even private investors in the tax-exempt bond market with more lax rules saw them as a greater risk (Cleverley and Nutt 1984). This lower risk rating was clearly biased against a larger minority patient base and where many public hospitals were situated—in poorer minority neighborhoods in urban centers. While nonprofit hospitals serving predominantly white patients were welcomed into the capital markets, public hospitals (and other community hospitals with large Medicaid populations) were deemed a "bad risk" (Kinney and Lefkowitz 1982: 653).

Once they were deemed a bad risk, public hospitals found it very difficult to change their risk rating. Because public hospitals had much lower capital investment, their level of payments based on debt principal was low. As a result, it was difficult to build up an internal revenue base to use as leverage. Instead, public hospitals used a large portion of their discretionary funds to cover operating deficits, especially to meet the requirements of their mission to care for nonpaying patients. This stopgap measure led to future problems; since there was little capital investment, the amount of reimbursement continued to decline, and, as a result, discretionary funds continued to dwindle, and a downward cycle ensued. By the mid-1980s, several studies confirmed that public and nonprofit voluntary hospitals that served a disproportionate number of Black, Latino, and poor residents were much less likely to have access to capital markets than those hospitals that served predominately white residents with private insurance (Cleverley and Nutt 1984; Feder and Hadley 1983; Kinney and Lefkowitz 1982; Schatzkin 1984).

At the same time that states opened up the capital markets to nonprofit hospitals through the tax-exempt bond, in 1969 the IRS enacted a major change in interpreting charitable care for tax-exempt hospitals. As a result of the passage of Medicare and Medicaid, the IRS accepted the American Hospital Association's claim that "they couldn't find patients to whom to give free care" (Fox and Schaffer 1991). As part of its 1969 ruling, the IRS applied a far broader definition of "charitable" to hospitals wherein "the promotion of health is considered to be a charitable purpose" (Fox and Schaffer 1991). The IRS concluded that a hospital could be tax-exempt "even though the class of beneficiaries eligible to receive a direct benefit from its activities does not include . . . indigent members of the community."[2] This IRS ruling legally allowed nonprofit hospitals access to state-subsidized capital

2. Coronavirus Aid, Relief, and Economic Security Act. Pub. L. No. 116–136, 134 Stat. 281 (2020).

markets to invest in hospital renovations and new technology to distinguish themselves (as much as they could) as hospitals for the middle and upper class (by primarily accepting those with private insurance and Medicare) while leaving (and in many cases pushing) the poor and uninsured on to public hospitals.

While all nonprofit hospitals enjoy tax exempt status and can technically take advantage of the 1969 IRS ruling, not all do. Many small community-based nonprofit hospitals—especially those located in communities with high poverty rates and a high proportion of residents of color, or in rural areas—maintain a mission that predominantly serves the un- and under-insured and Medicaid beneficiaries. Like public hospitals, these non-profit community-based hospitals have difficulty accessing the capital markets and taking advantage of tax-exempt bonds. Thus, over time, a strict demarcation emerged between the "have-not" safety net hospitals, which include public and some nonprofit hospitals, and the "have" hospitals, which include for-profit and some nonprofit hospitals with access to capital markets.

Despite enormous subsidies to the health care system—funding at least 70% of total national health expenditures (Pauly 2019)—the government's role in planning the health care system is largely restricted to antitrust rulings in the courts, and those decisions have largely turned in favor of mergers and acquisitions in the last three decades (Capps et al. 2019). While the number of multihospital systems increased from the 1970s to 2000, the growth in health system consolidations since 2000 has been enormous. Between 1998 and 2015, there were 1,410 hospital mergers and acquisitions in the United States (Pope 2019). By 2010, the top five hospitals or systems accounted for 88% of market power (Cutler and Morton 2013). Since 2010 average annual hospital merger volume has surged by 50% compared to the prior decade (Kaufman Hall 2018), and by 2018 "91 percent of hospital beds were in system-affiliated hospitals—an increase from 88 percent in 2016" (Furukawa et al. 2020). As consolidation has increased significantly, there is growing evidence that hospital and provider organizations have garnered monopoly-like power and are able to command significantly higher prices from commercial insurers (Cooper et al. 2019; Ginsburg and Pawlson 2014; MedPAC 2020). The main way hospitals are profitable is to charge high prices to private insurance, which is why they prefer privately insured patients over publicly insured patients (Ly and Cutler 2018).

Health system consolidations since 2010 have exacerbated hospital inequities. There are now not just "have" but "must-have" hospitals that are

able to obtain among the highest rates of payments from commercial payers, often exceeding 250% of Medicare's allowed payment (Berenson 2015). In a study of 13 health care markets, there was evidence of a wide gap between the highest- and lowest-priced hospitals; in three markets, the highest-priced hospital was paid well above twice as much as the lowest-priced hospital for inpatient services (White, Bond, and Reschovsky 2013). And, with these high prices, as Robert Berenson (2015: 713) explains, "these prestigious organizations are able to set aside huge reserves and compensate their executives quite generously." As such, the wealthy health systems with monopoly-like power have contributed significantly not only to the enormous health care expenditure problem in the United States but also to further bifurcation in the system (Berenson 2015; Rosenthal 2019). Of course, as the data above attest, many of these large, consolidated health care systems were quite wealthy before the pandemic hit. The median US hospital had more than 53 days of cash on hand, but some of the largest and wealthiest not-for-profit hospital systems had two to three times that amount of cash on hand (Liss 2020). Moody's Investors Service rated the bonds of 284 hospitals in 2018, and 50% had enough cash on hand to cover at least six months of operating costs with no revenues (Rau 2020). In contrast, the poorest 25% of all hospitals in the United States (including public, nonprofit, and for-profit hospitals) had only enough cash on hand to pay for a week (7.6 days) of their operating expenses (Khullar, Bond, and Schpero 2020).

When the pandemic hit, it was quite clear that some hospitals—certainly those with more than 100 days of cash on hand—would be well equipped financially to withstand the COVID-19 storm, while others in a more financially volatile position would not be equipped. Thus it is not surprising that when provider relief funds were forthcoming early in the pandemic, there was concern about how different hospitals would be treated and whether greater financial vulnerability would be taken into account. Before summarizing the main distributional arguments for hospital relief payments, we turn first to describing our methods.

Methods

A two-pronged methodological approach was used to determine congressional intent and common arguments launched for how provider relief funds should be distributed, and how the actual distribution matched these intentions and arguments. To determine congressional and stakeholder intentions for how provider relief funds should be used, we reviewed

Table 1 Provider Relief Fund Distributions, Target, and Funding

Distribution	Timing	Target/formula	Total funds
1st general fund	April 10 and 24	Medicare FFS providers/ net patient revenue	$50 billion
2nd rural providers	May 6	Rural acute hospitals and critical access hospitals	$10 billion
3rd high impact	May 7	Hospitals with at least 100 COVID-19 admissions	$12 billion
4th safety net hospitals	June 9	Hospitals with large number of Medicaid and uninsured patients	$10.2 billion

Note: There were other smaller distributions, such as $7.4 billion to nursing homes; however, in this analysis, we focused on the distribution of funding to hospitals. The rural distribution also included rural health clinics and community health centers, but we focused on rural hospitals.
Source: Congressional Research Service 2020.

several documents and policy discourse at the local and federal levels. The legislation itself clearly stated the intention of the relief funds; however, letters from members of Congress to the secretary of the Department of Health and Human Services (HHS) after the release of some provider relief funds also provide some evidence of bipartisan agreement as to how funds should be distributed. Moreover, media stories with key stakeholders, expert reports, and opinion pieces provide additional evidence of common concerns about the distribution of funds.

Second, to examine how provider relief funds (PRF) were actually distributed, we use data from HHS (n.d.). The provider relief funds were allocated to hospitals according to four distributional schemes: general, high-impact, rural, and safety net (see table 1). The first allocation—the "general" distribution—allocated $50 billion and focused on reimbursing hospitals based on concerns about revenues lost, whereas the "high-impact" (also called the hot-spot) distribution allocated $12 billion and focused on COVID-19 need. The remaining two distributions targeted allocations to hospitals in financial distress according to their location in rural areas or designation as a safety net provider.

The PRF data report provides name, state, city, and payment amount for the first $50 billion general distribution and the $12 billion high-impact distribution. They also report the amount of funding allocated to each state, and the number of providers receiving funding in each state, for both the rural and safety net distributions. Based on this more detailed information, we calculate more fine-tuned estimates for these distributions using the

formulas and comparing back to the state-level data (for exact formulas, see appendix A in the online appendix).

By September 2020, 4,674 hospitals had received some amount of provider relief funding. Hospitals did not have to apply for aid. If a hospital met the distributional requirement, it was sent a payment. Almost all hospitals that received funding accepted and attested to receiving it.

To examine how funds were allocated to particular types of hospitals, we utilize data from the most recent Medicare Cost Reports (2018) accessed from the RAND Corporation Healthcare Provider Cost Reporting Information System (HCRIS) files. Based on our policy and media review, which will be presented in the findings section below, three main distributional arguments emerged. To determine if the PRF payments were allocated according to these distributional arguments, we identify a measurement strategy for each. Here we briefly describe each distributional argument (though more detail as to where the argument comes from is provided in the findings section below) and the associated measurement.

The first main distributional argument was to provide relief to hospitals that suffered from revenue losses as a result of the elimination of elective procedures during COVID-19. Although there is no data that separates elective from nonelective procedures, most surgeries and outpatient procedures were eliminated during this time period and could therefore be used as a proxy for revenue loss. In particular, because hospitals vary substantially in the extent to which they rely on surgical and outpatient revenue streams, some hospitals will experience more revenue loss because of COVID-19 restrictions (Khullar, Bond, and Schpero 2020). We used the RAND dataset to calculate the percentage of total revenue from outpatient services.

The second main distributional argument claimed that hospitals with high financial vulnerability should receive relief funds. One measure to capture financial vulnerability is days cash on hand. This is a common measure of an organization's level of cash resources. It is an estimate of the number of days an organization could operate if no cash were collected or received. The exact measure is [Cash + Temporary Investments + Investments]/[(Total expenses - Depreciation)/Days in period]. This is a particularly good measure to determine if a hospital is able to get through a crisis like COVID-19, which represented a significant cash flow crunch. For example, if a hospital has 90–180 days cash on hand, it can operate for 3 to 6 months without any additional revenue. In contrast, those hospitals with fewer than seven days cash on hand have a week or less to operate without any additional revenue. To get through the COVID-19 cash

crunch, those hospitals would have had to borrow money, sell assets, or seek emergency funding. Without assistance, the hospital would fail to meet its next payroll (NCRHRP 2020).

Although there are other measures of financial performance, such as operating margin, current asset-to-liability ratio, and days in net accounts receivable (Khullar, Bond, and Schpero 2020), these measures are better for reflecting longer-term financial performance. Because the PRFs were distributed for the very purpose of temporary crisis assistance, days cash on hand is the best measure to determine if hospitals most in crisis of not being able to meet their daily operating expenses were provided assistance on par with hospitals that had more secure cash reserves.

For days cash on hand, and percent outpatient revenues, we calculate tertiles to illustrate how hospitals with low, medium, and high levels of days cash on hand and percent outpatient revenues receive significantly different average provider relief payments per bed.

The third distributional argument suggested that the PRFs should address both financial vulnerability and revenue losses. Because each of the four distributions was created by HHS to address these different concerns, we analyze the total allocation to hospitals across all four distributions to determine whether both concerns—financial vulnerability and revenues lost—were treated equally in the allocation of relief funding.

We conduct a multivariate regression to determine if these two main variables—days cash on hand and outpatient share of revenues—are significant when controlling for other hospital characteristics that might also impact the distribution of PRF payments. We control for the following hospital characteristics, which are often associated with financial performance: health system membership, ownership, teaching status, "critical access" hospital status, and occupancy rate. We do not control for the factors that HHS used to determine the PRF distributions, notably COVID-19 need, rural, safety net, and net revenues, because they would essentially explain all the variation. We are interested instead in understanding the substantive implications of using distributional formulas based on these factors.

A few other studies analyze provider relief payments by hospital characteristics (Khullar, Bond, and Schpero 2020; Schwartz and Damico 2020). In general, their findings suggest, based on HHS's formula for the first distribution, that hospitals with higher financial performance would receive higher PRF payments. While these were important early findings, they did not account for the three other distributions that HHS claimed would award payments to the more financially vulnerable hospitals. Our study examines actual PRF payments for the first two distributions (not

simulations of the formulas) and analyzes payments across all four distributions to determine which distributional arguments were privileged when and how.

Finally, as discussed below, another voiced concern was that the PRFs should be distributed to hospitals that serve a disproportionate number of Black and Brown patients. Unfortunately, the RAND dataset does not include patient demographic information by hospital. Searching other hospital datasets, such as data from the American Hospital Association, we could find no information on patient race by hospital. Pragya Kakani and colleagues (2020) analyze relief funding and race, but they look at counties as the unit of analysis. Many use safety net hospitals as a proxy for race because it is known that a disproportionate number of Black and Brown patients access safety net hospitals for inpatient care. This is imperfect because patient racial demographics vary widely across safety net hospitals.

Findings

Stakeholder Arguments and Congressional Intent

By the time the pandemic visibly arrived in March 2020, the reality of a separate and unequal hospital system, in which poor people will be treated in poor institutions, was largely accepted without question. Many were outraged when the early reports of huge racial disparities in COVID-19 deaths were announced, but that did not translate into dramatic (or even small) changes in how the health care system responded or in the public discourse about how the system should respond. Instead, public discourse focused on the need to provide assistance to address COVID-19–related racial disparities. Public discourse around racial disparities and COVID-19 in Chicago helps illustrate discourse at the local level.

On April 6, 2020, the Chicago public health department had just released data showing that while Black residents made up 30% of Chicago's population, they accounted for 52% of the city's lab-confirmed cases of COVID-19 and 72% of Chicago's deaths. In response, Chicago's Mayor Lori E. Lightfoot said, "Those numbers take your breath away. It's unacceptable. No one should think this is OK." That same night, Carol Marin, a reporter from a local news program, *Chicago Tonight*, asked health care administrator Sean O'Grady, from North Shore University Health System, about the degree to which his system, and other hospitals with greater financial capacity, were helping to support safety net hospitals in Chicago.

> Mr. O'Grady, safety net hospitals on the West and the South sides [of Chicago] are in more serious need of equipment versus more affluent hospitals, not unlike North Shore, is there a sharing at all going on *between the more affluent with the less affluent*?

In response, Mr. O'Grady said,

> Well, Carol, as you know, Swedish Covenant Hospital joined North Shore earlier this year and we have been working very closely with them as a safety net hospital that's a part of our system to ensure that they have the appropriate supplies and equipment that they need. And, that they are taken care of just as we are taking care of our folks in the Legacy North Shore System.

Carol Martin continued to press him on the extent to which "more affluent" hospitals were helping safety net hospitals, even if they were not part of the same hospital system. She asked,

> But, *hospitals in a classic sense compete against each other*, [however] in this plague it's a different sort of story. So, what is the kind of sharing that might be happening or is it not?

Rather than address the issue directly, Mr. O'Grady shifted to a discussion of how the state was working to bring providers together.

> So, I talk to my colleagues around the city on a regular basis, to find out what they're doing in various domains of the response plans and we are regularly talking about how we can help one another . . . uhm, I know my colleagues and I are very committed to sharing across the market. (Caine 2020)

This exchange illustrates how hospital inequalities are normalized by both speakers. Neither raised questions about whether there should be such an enormous financial disparity among the hospitals treating residents of Chicago; it was accepted as an immutable fact of reality. On a television news program, the terms *more affluent* and *less affluent* are used to describe the health care system as normal, and the question is how—or whether—the less affluent should be helped during this crisis, and voluntary "sharing between affluent and less affluent" is left intentionally vague.

On the same day that the public health department announced the high rates of COVID-19 among Black and Brown Chicagoans, the public hospital system, Stroger Health System, announced it would temporarily close Provident Hospital's emergency room—located in a community that is

95% Black with a third of the population living below the poverty level. In response to the closure, the president of the Chicago Medical Society, Dr. Jay Chauhan, said, "In the safety net hospitals—those hospitals with a lower degree of resources in more fiscally challenged areas—they are having more trouble . . . whereas some larger [more affluent health networks are well-resourced, and] were able to prepare for this in a more timely fashion." Dr. Chauhan's comments highlight the existence of a two-tiered hospital system in the United States, and he suggests, on behalf of the Chicago Medical Society, that hospitals with high financial vulnerability in "fiscally challenged areas" should receive more assistance during the COVID-19 crisis.

When the federal government passed the CARES Act and provided $175 billion for hospitals and physicians, the expressed intent of the Provider Relief Funds was, as written in the legislation, "to reimburse, through grants or other mechanisms, eligible health care providers for health care related expenses or lost revenues that are attributable to coronavirus."[3] Although not very detailed, the legislation clearly incorporates a distributional argument—that PRFs should be distributed to alleviate hospitals' financial stress caused by expenses of responding to COVID-19 need and lost revenue because of COVID-19 restrictions.

Many questions about fairness were raised based on the timing, allocation determinations, and funding amounts for these various distributions. First, because the funding amount to hospitals for the first allocation was based on net patient revenues, there was concern that HHS was prioritizing potential revenues lost during the COVID-19 pandemic over those hospitals that took on a disproportionate amount of COVID-19 patients. We emphasize "potential" revenues lost because at the time of disbursement it was not clear which hospitals would ultimately, at the end of the year, experience net revenue loss or gains. Second, and relatedly, because the first allocation was based on net patient revenues, the allocation may have rewarded hospitals in better financial health, not necessarily those hospitals that experienced the most financial harm—especially in the long-term. Third, although the high-impact allocation focused on hospitals with high COVID-19 need, these hospitals had to wait for payments, which were distributed a month after the first release of funding (May 7 compared to April 10). Fourth, the total funding amounts were lower for the high-impact distribution ($12 billion) compared to the first general distribution ($50 billion), which raised concerns about whether hospitals that took on a

3. Pub. L. No. 116–136 (March 27, 2020), section 3203, subpart B.

disproportionate number of COVID-19 patients would be adequately compensated. Finally, there was concern that safety net hospitals would have to wait much too long to receive financial help, given that many safety net hospitals in major US cities were on the front lines of the pandemic.

On May 7, 2020, Representative Frank Pallone Jr. (D-NJ), chair of the House Committee on Energy and Commerce, and Representative Richard Neal (D-MA), chair of the Committee on Ways and Means, sent a joint letter to Alex Azar, the secretary of Health and Human Services, and Seema Verma, the administrator of the Centers for Medicare and Medicaid Services (CMS). The two committee chairs raised several concerns about the HHS hospital allocation formula. First, they raised concern about "the lack of transparency with Congress and the American people about how funds are being spent or loans are being made . . . [and] who has received funds," and requested that all of the data on all distributions from the Provider Relief Fund be provided to Congress without further delay. Second, they argued that the formula used for the general fund was flawed because it was not targeted to providers in greatest need. As they put it, "The approach adopted clearly fails to target funding based on the statutory framework relating to COVID-19 driven costs, and in fact the level of funding appears to be completely disconnected from need" (Pallone and Neal 2020).

Less than one month after chairmen Pallone and Neal wrote their letter, Senator Charles Grassley (R-IA), the chair of the Senate Finance Committee; Senator Ron Wyden (D-OR), the ranking member on the Senate Finance Committee; Representative Pallone; and Representative Greg Walden (R-OR), the ranking member on the House Energy and Commerce Committee wrote another letter to Secretary Azar raising specific concerns about the failure of the department to allocate funds to Medicaid providers. This bipartisan group wrote:

> As the chairs and ranking members of the committees of jurisdiction over the Medicaid program, we are concerned that the delay in disbursing funds from the Public Health and Social Services Emergency Fund (PHSSEF) for Medicaid-dependent providers could result in long term financial hardship for providers who serve some of our most vulnerable populations. It could also severely hamper their ability to continue to serve as essential providers amid the COVID-19 pandemic and beyond. (Grassley et al. 2020)

As with the previous letter from Pallone and Neal, this letter raised concerns about the HHS formula and argued that the department was delaying payments to providers in greatest need. The letter stated: "HHS has, thus

far, relied on methodologies that favor providers that receive a larger share of their payments from Medicare or private insurance" (Grassley, Wyden, and Walden 2020). In the context of a politically polarized Congress, this show of bipartisan concern about how HHS allocated the CARES Act funds is noteworthy.

Multiple reports and industry publications also raised concern about the allocation of funds. On April 27 the *Washington Post* published an article with the headline, "Amid Coronavirus Distress, Wealthy Hospitals Hoard Millions," in which it documented how safety net hospitals with little cash on hand were competing with wealthy hospitals for federal relief funds (Rau 2020). On May 26 articles in the *New York Times* and *Becker's Healthcare*, an influential industry publication, noted that the 20 largest hospital systems received $5 billion in government funds, even though these systems were holding more than $100 billion in reserves (Drucker, Silver-Greenberg, and Kliff 2020; Ellison 2020).

Based on local and national policy discourse, CARES legislation, and publications critiquing how PRFs were distributed, three main distributional arguments emerge. First, the hospital industry lobbied for relief funding to address the problem of lost revenue as a result of COVID-19 restrictions. The first general distribution developed by HHS addressed this concern. The formula relied primarily on net patient revenues from 2018 to determine PRF payments to hospitals in this first allocation of $50 billion. As discussed above, many immediately raised concerns that this formula would disproportionately reward hospitals in good financial condition, and was not adequately tied to revenues lost because of COVID-19 restrictions. As discussed in the methods section, we analyze the percent of outpatient revenues to determine whether hospitals with a higher share of outpatient revenues received more PRF payments on average.

A second concern expressed early at the local level, and in response to HHS's formula for the general distribution, argued that the PRF allocation should be based on financial vulnerability and the extent to which hospitals could operate during the COVID-19 crisis. We analyze days cash on hand to determine whether hospitals with low cash reserves received more on average PRF payments as one would hope under the logic of this distributional argument.

Finally, the third distributional argument, embedded in the legislative language, suggested that the PRF payments should balance these competing concerns. Indeed, the four distributions did each attempt to address these different distributional arguments: 1) general distribution addressed revenue lost, 2) high-impact distribution addressed COVID-19 need, 3) the safety net, and 4) rural distributions addressed concerns about financially

vulnerable hospitals. Yet because the amount of funding for each distribution varied, it raised the question—does combined funding across all four distributions equally balance these competing concerns?

How Does the Actual Distribution of Funds Match the Distributional Arguments?

Although we use graphs to illustrate the bivariate relationships of interest below, all reported significance levels are based on multivariate regression analyses controlling for variables listed in the methods section. The models are all significant according to F-tests, and the control variables are all significant in the expected direction (appendix B in the online appendix).

Revenues Lost. The purpose of the general distribution was to provide relief to hospitals that experienced major revenue losses as a result of the elimination of elective procedures during COVID-19 restrictions. Using the outpatient share of a hospital's total revenue, it is clear that hospitals with the highest potential revenue losses were provided substantially more relief funding than those with lower levels of reliance on elective procedures for revenues (see fig. 1). Those hospitals with more than 80% of their revenue coming from outpatient procedures received about $97,000 per bed on average compared to $26,488 per bed for hospitals with less than 60% outpatient revenue share. As one would expect, the relationship was reversed for the high-impact distribution based on COVID-19 need. Those hospitals that rely heavily on outpatient revenues (i.e., elective procedures) received only $432 per bed on average compared to those hospitals with the lowest share of outpatient revenues—about $18,000 per bed on average.

Financial Vulnerability. The safety net and rural distributions were specifically aimed at hospitals that suffer more financial vulnerability during the COVID-19 crisis, and especially in terms of safety net hospitals, take care of a disproportionate amount of Medicaid and uninsured patients. Although all hospitals that met these definitions benefitted from relief payments, the allocation did not disproportionately help the most financially vulnerable within these groups (see fig. 2). Safety net hospitals with more than 76 days of cash on hand received about the same average PRF payments per bed as those with fewer than 3 days cash on hand. Among rural hospitals, those with more than 76 days cash on hand received almost $8,000 per bed on average compared to $4,500 per bed for those rural hospitals with fewer than 3 days cash on hand.

Interestingly, the high-impact distribution awarded higher average PRF payments to more financially vulnerable hospitals. Because this distribution

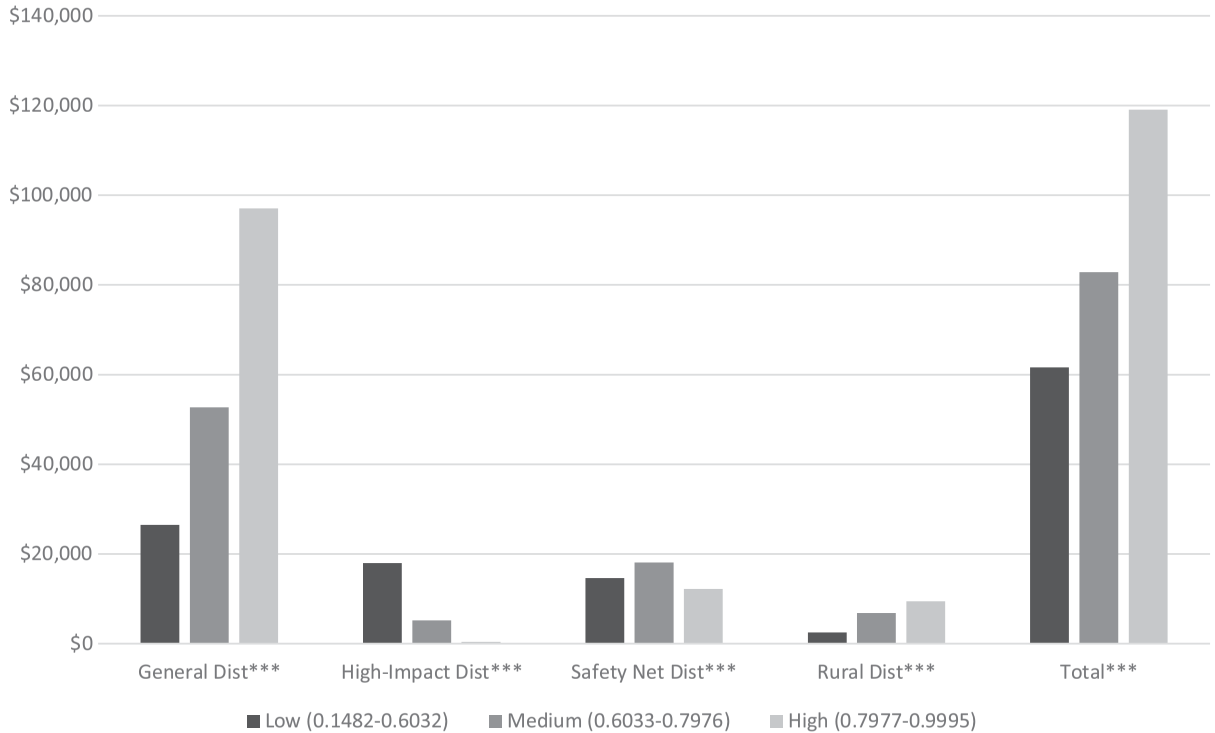

Figure 1 Average provider relief fund payment per bed by outpatient share of revenue.

Note: ***=<=0.001 significance level is based on OLS regression results as described in the Methods section above and provided in appendix B of the online-only appendix.

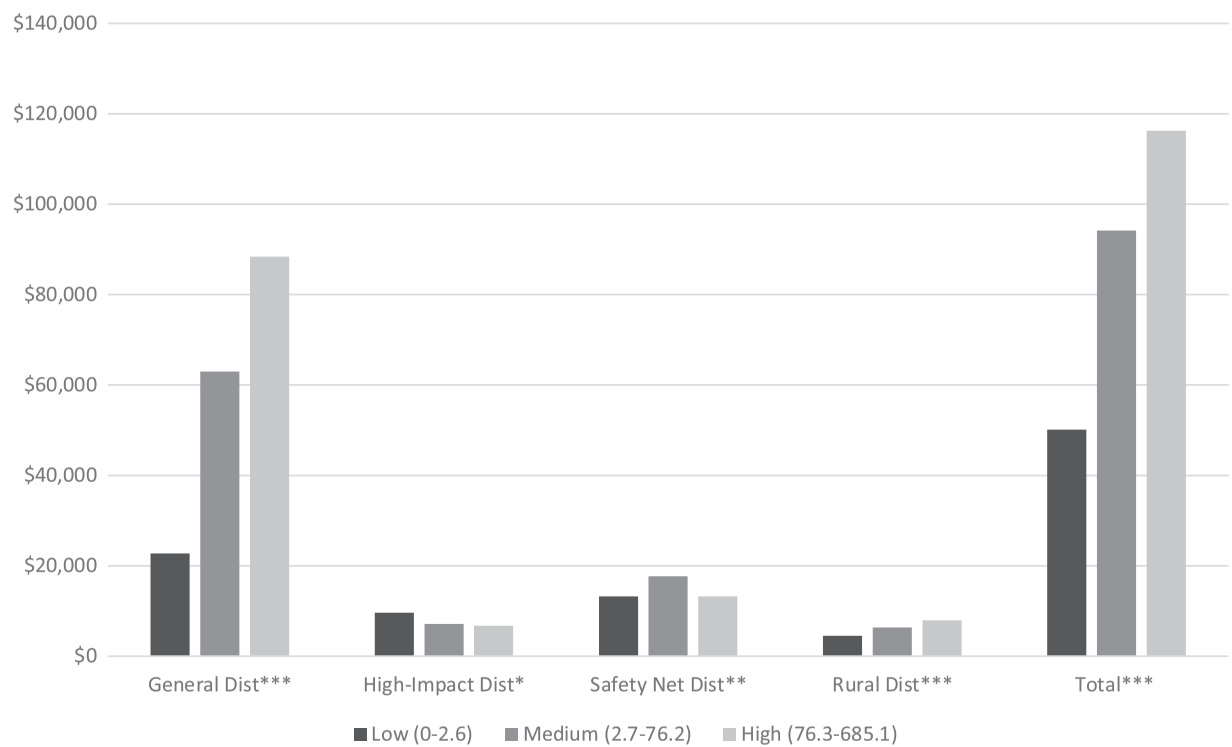

Figure 2 Average provider relief fund payment per bed by days of cash on hand.

Note: * = < 0.05, ** = < 0.01, and *** = < = 0.001 significance levels are based on OLS regression results as described in the Methods section above and provided in appendix B of the online-only appendix.

was based on the number of COVID-19 cases over 100 in each hospital, it is clear that hospitals with less cash on hand experienced higher COVID-19 impact. In particular, among hospitals with high COVID-19 impact, those with fewer than 3 days cash on hand received $9,637 per bed payments on average compared to $6,737 per bed for hospitals with more than 76 days cash on hand.

Finally, although the general distribution was intended to provide relief to hospitals with high revenue loss, figure 2 makes starkly clear how this formula also disproportionately rewarded hospitals with more financial security. Hospitals that could operate without assistance for more than two months (76 days cash on hand) during the COVID-19 crisis received $88,000 per bed on average compared to $23,000 per bed on average for hospitals with less than a week of cash on hand.

Balance Competing Concerns: Revenue Loss, COVID-19 Impact and Financial Vulnerability? Although it is clear that hospitals with better financial performance were the first to receive relief payments, and they received higher average payments per bed from that first general distribution, an important question is whether the overall payments evened out over time after HHS was able to provide the additional distributions based on COVID-19 need and hospital financial vulnerability—rural location and safety net status. To analyze this question, we calculated total payments across all four distributions (see "Total" columns in figs. 1 and 2). Overall, the four distributions from the CARES Act allocated substantially higher average relief payments per bed to hospitals with potential revenue loss associated with the elimination of outpatient procedures, and to hospitals with higher levels of financial security (more than 76 days cash on hand).

Conclusion: COVID-19 Relief Funds Fuel Hospital Inequities

We began this inquiry by noting that the US hospital system is marked by large and persistent inequalities. It is a two-tier health system in which hospitals with high financial performance tend to take care of patients with Medicare and private health insurance and predominantly white patients, whereas hospitals with low financial performance tend to take care of the uninsured and patients covered by Medicaid and predominantly Black and Brown patients.

The United States could have responded to hospital vulnerability during the COVID-19 crisis when it was clear that Black and Brown patients were suffering disproportionately from COVID-19 by providing higher-on-average relief payments to financially vulnerable hospitals. Instead, it did

the opposite. It privileged concerns about revenue loss over other articulated concerns, and those hospitals with the most financial security received the most relief. Thus, at a time when racial inequities were on stark display, the United States chose to allocate funding in ways that continued to fuel these inequities (see Fink 2021 for a recent investigative report of this situation in Los Angeles).

One might argue—as many actually did—that providing relief to all hospitals including the more financially well-off is important because of their impact on local economies. Yet, while public officials hoped relief funds might prevent layoffs and furloughs, the only requirement put in place for the receipt of COVID-19 provider funds was to not charge uninsured COVID-19 patients (since hospitals would be reimbursed separately) and to agree to no "surprise (out-of-network) billing" for COVID-19 patients. The lack of any stipulations meant that many hospitals receiving payments still furloughed workers.

Moreover, even if one might agree that multiple reasons for financial hardship—lost revenue, COVID-19 need, and financial vulnerability—are worthy, there is no logical reason that average payments for one reason (revenues lost) should substantially outweigh the other (COVID-19 need). In this sense, the allocation of CARES Act funds reflects perhaps the most profound aspects of political power. The administration rewarded those hospitals that cater to the most privileged in the United States, leaving hospitals that predominantly serve low-income people of color with less. In terms of distributional equity, the allocation of Provider Relief Funds to address the COVID-19 crisis can only bluntly be described as unsanitized and unfair.

These findings also reveal how structural inequities and structural racism are embedded in the organization and financing of the US hospital system. As long as the United States continues to rely on a two-tiered health care financing system with significantly lower payments to hospitals that care for a high proportion of indigent patients and Black and Brown patients, policies that address short-term financial crises, like the one caused by the pandemic, will likely replicate this pattern. Specifically, distributional policies that rely on "revenues lost" and broad definitions of "safety net" hospitals without explicitly considering the implications of the allocation of funding by race and its impact on poor and Black and Brown communities will further embed—and hide—policies that enhance race and income inequalities.

To begin to undo this pattern of structural racism within the hospital system, the federal government should require all Medicare-participating hospitals to submit aggregate data on the racial composition of all their

patients. This would allow for much greater transparency in racial variations in policies and treatment across US hospitals. However, more important would be to address the root cause of structural racism and inequity across hospitals. Future health reform in the United States should focus not only on expanding insurance coverage but also on creating a more uniform national system of payments. Doing so would not only simplify the administration of the health care system and provide the government with a tool for reducing health care inflation (Gusmano et al. 2020), it would also eliminate one of the factors that created and continues to reinforce a bifurcated hospital system.

■ ■ ■

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