

# Rural Hospital Profitability during the Global COVID-19 Pandemic Requires Careful Interpretation

George Pink, PhD; Susie Gurzenda, MS; Mark Holmes, PhD

## KEY FINDINGS

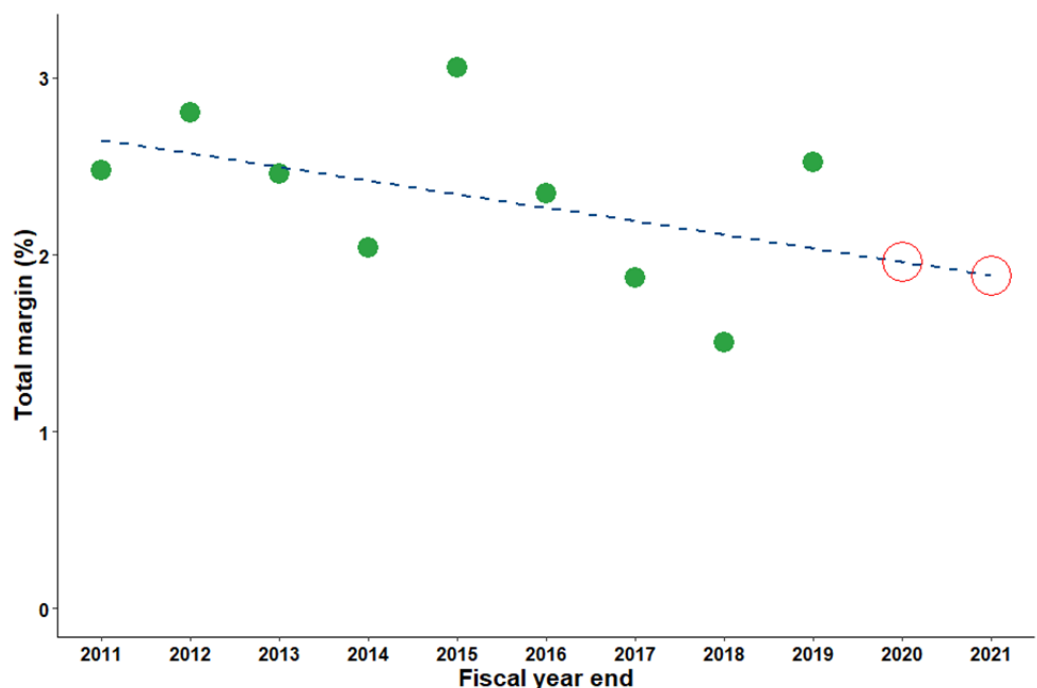
- In the nine years before the COVID-19 pandemic began (2011-19), the median total margin of rural hospitals was on a downward trajectory, ranged between 1.5% and 3.1%, and the percentage with a negative total margin was increasing.
- In 2020, rural hospitals and urban Inpatient Prospective Payment System (IPPS) hospitals reported receiving over \$32 billion in federal support, primarily from the Provider Relief Fund (PRF), to compensate for loss of revenue and increased expenses from the pandemic.
- The PRF and Paycheck Protection Program (PPP) funds and timing differences in reporting could temporarily distort reported profitability measures and conceal the long-term financial challenges facing rural hospitals.

The financial challenges faced by rural<sup>1</sup> hospitals have been well-documented over the last decade. Media coverage of the 138 rural hospital closures between January 2010 and January 2022<sup>2</sup> has highlighted the health care access and economic challenges facing rural America. The North Carolina Rural Health Research Program has been tracking rural hospital profitability for more than a decade, as many small rural hospitals struggle with profitability compared to their urban counterparts. The purpose of this findings brief is to describe the pre-pandemic (2011-19) trend of rural hospital profitability and to explain why possible increases in reported profitability during the pandemic (2020-21) may mask the long-term financial challenges of rural hospitals.

## Rural Hospital Profitability before COVID-19

Figure 1 shows the median total margin (net income / total revenue) of all rural hospitals for each year between 2011 and 2019.<sup>3</sup> The figure shows that the median total margin ranged between 1.5% (2018) and 3.1% (2015). The downward-sloping dashed line is the linear trend of the 2011-2019 medians, and the red circles are estimates that assume the trend line from 2011-2019 continued to hold for 2020 and 2021. The figure shows that rural hospitals reported declining levels of profitability in the nine years before the pandemic.

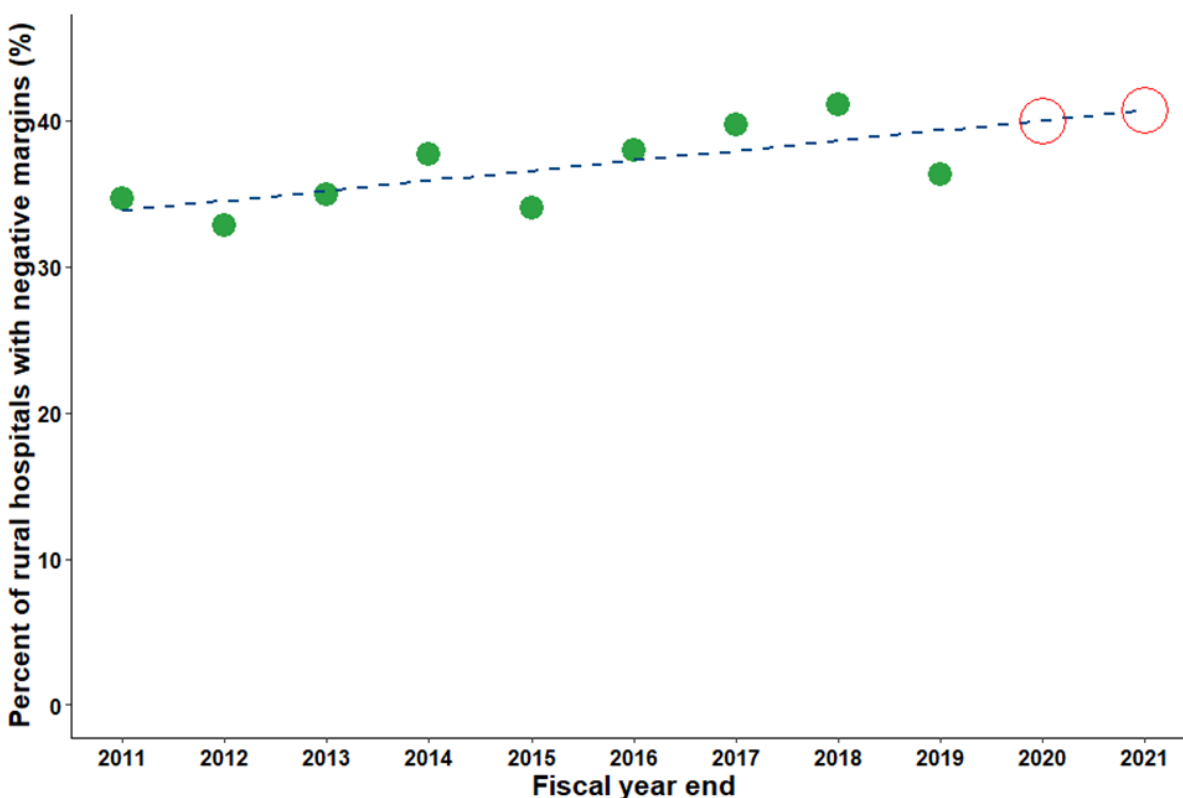
Figure 1. 2011-19 Median Total Margin of All Rural Hospitals



Source: Centers for Medicare & Medicaid (CMS) Healthcare Cost Report Information System (HCRIS), 9-31-2021

Figure 2 shows the percentage of unprofitable rural hospitals for each year between 2011 and 2019. The figure shows that the percentage ranged between 33% (2012) and 41% (2018). The upward-sloping dashed line is the linear trend of the 2011-19 percentage of unprofitable hospitals, and the red circles are estimates that assume the trend line from 2011-2019 continued to hold for 2020 and 2021. The figure shows that the percentage of unprofitable hospitals increased in the nine years before the pandemic.

**Figure 2. 2011-19 Percentage of Rural Hospitals with a Negative Total Margin**



Source: CMS Healthcare Cost Report Information System (HCRIS), 9-31-2021

### Revenue, Expenses, and Probable Profitability During the Pandemic

Since the start of the coronavirus pandemic, the federal government has provided enhanced financial support for hospitals and other health care providers to compensate for revenue loss and higher costs associated with the pandemic. The primary support has come from general and targeted distributions of \$178 billion from Provider Relief Funds (PRF) and \$100 billion from Paycheck Protection Program (PPP) loans (forgivable if specific requirements are met), and more funds<sup>4</sup> are being distributed, including \$8.5 billion in rural funding from the American Rescue Plan Act on top of the PRF appropriations.<sup>5</sup> Table 1 shows that the estimated general and targeted distributions of PRF to rural hospitals were reportedly \$14.967 billion in February 2021.<sup>6</sup>

**Table 1. Estimated Distribution of Provider Relief Funding to Hospitals as of February 2021 (millions)**

Hospital type	Number of hospitals	Number of beds (thousands)	General distribution		General, safety-net, rural, and tribal distribution		General, safety-net, rural, tribal, and high-impact distribution	
			Total funding	Funding as a share of FY 2018 operating expenses	Total funding	Funding as a share of FY 2018 operating expenses	Total funding	Funding as a share of FY 2018 operating expenses
Urban	3,567	567.8	\$18,643	2.0%	\$30,305	3.3%	\$49,273	5.3%
Rural	2,454	102.5	\$2,433	1.9%	\$14,261	11.0%	\$14,967	11.5%
<b>Total</b>	6,021	670.3	\$21,077	2.0%	\$44,566	4.2%	\$64,241	6.1%

Source: COVID Relief Funding for Medicaid Providers, MACPAC Issue Brief February 2021. (<https://www.macpac.gov/wp-content/uploads/2021/02/COVID-Relief-Funding-for-Medicaid-Providers.pdf>)

Rural hospitals have faced particularly difficult challenges from the COVID-19 pandemic. A March 2021 report by the Office of the Inspector General found that “Rural hospitals reported particular difficulty responding to the COVID-19 pandemic and that the pandemic had worsened longstanding challenges in staffing, limited capacity, and finances. Hospitals explained that strategies employed by other hospitals, such as sharing clinicians across systems and providing telehealth services, may not work for rural hospitals due to remote locations and lack of access to technology”.<sup>7</sup>

Thus, the PRF and PPP funds were an important financial lifeline for many rural hospitals, and the support may have contributed to the decline in rural hospital closures during 2020.<sup>5</sup> However, the PRF and PPP funds are temporary and will be fully distributed at some point in 2022. Unless Congress authorizes additional funding, we expect rural hospitals to return to pre-pandemic levels of profitability.

When the 2020 and 2021 financial data for rural hospitals become widely available, we expect profitability could show a significant improvement during these years because of the COVID-19 pandemic relief funding. This expected increase in reported profitability may suggest that rural hospitals are out of financial difficulty and there is less risk of hospital closure or less need for enhanced payments from payers. However, it is important to recognize the following long-term factors affecting rural hospital profitability.

*Patient volume.* More patient activity generates higher revenue and spreads fixed costs over more patients. Furthermore, hospitals with less patient activity experience greater volatility (on a percentage basis) in revenue and costs. Increased volatility may be particularly common during the COVID-19 pandemic because of spikes in demand for inpatient ward and intensive care unit beds.

*Payer mix.* Rural patients are older, sicker, and poorer,<sup>8</sup> and rural hospitals serve a population that is more likely to be uninsured<sup>9</sup> or covered by public health insurance programs (e.g., Medicare, Medicaid, etc.).<sup>10</sup> Consequently, unprofitable hospitals may have a higher proportion of self-pay and a lower proportion of revenue from commercial and private payers.

*Patient bypass.* Small rural hospitals may be less able to maintain an effective mix of medical, nursing, and other staff that can meet local patient demand, increasing the number of patients who travel to obtain care at other hospitals.

### **Timing Differences in Reporting**

Timing differences in hospital recognition of revenue versus expenses on Medicare cost reports could also distort reported profitability in 2020 and 2021.<sup>11</sup> The rapid distribution of these funds and the complicated guidance for reporting could result in variation in reporting practices across hospitals.<sup>12</sup> Revenue and expenses may not always align in a fiscal year;<sup>13</sup> for example, if a hospital recognized associated pandemic-related revenue in 2021 but related expenses in 2020, then profitability would be understated in 2020 and overstated in 2021. In this circumstance, there would be a two-year distortion in reported profitability, and it would be advisable to assess profitability in 2020 and 2021 in aggregate. Given the significant influx of revenue, uncertainty of reporting details and other changes hospitals are facing during the pandemic, we may see higher-than-average revisions of hospital financial data and statements.

### **Profitability in Financial Models**

Composite measures that rely on these financial values are also likely to show a potentially misleading improvement in profitability. These measures include indices like our Financial Distress Index (FDI)<sup>14</sup> as well as measures used by other researchers and consultants. Thus, it is our responsibility as researchers to recognize these limitations to financial data during this period; balancing the transparency and timeliness of data analysis against the likelihood of misinterpretation is a key consideration of our work analyzing finances during this period. Just as early returns on election night may give a false impression of trends, it is important to not prematurely celebrate the financial recovery of rural hospitals until the effects of short-run injections of federal support during the COVID-19 pandemic have passed.

### **Conclusion**

Rural hospitals have faced particularly difficult challenges from the pandemic, and PRF, PPP, and other federal support funds were an important financial lifeline for many hospitals. However, the long-term pressures remain; rural hospitals are vulnerable to shifts in the economy and demographics of their markets as well as to state and

federal policy changes. This puts rural hospitals at higher risk of financial distress, complete closure, or conversion of the hospital to some other type of non-inpatient health care facility. For all these reasons, it is important for policy makers and others to carefully interpret profitability increases during the pandemic and to recognize the long-term financial challenges facing rural hospitals.

## Acknowledgement

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## Suggested Citation

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