Pandemic Increases Pressure on Rural Hospitals & Communities

Vulnerability, Health Inequity and Staffing Crisis Amplified in Pandemic's Third Year

THE CHARTIS GROUP

Widening rural health inequity, return of reimbursement cuts, nurse staffing crisis, and vaccine hesitancy threaten temporary stability from pandemic-related relief.

America's rural communities continue to be older, less affluent, less healthy and facing diminishing access to care, when compared against their urban counterparts. Our research, however, indicates that health disparities between rural and urban communities are growing and becoming increasingly complex. Health disparities are in fact worsening within rural communities themselves as we have discovered community health status is weakest in those places in which the local rural hospital is vulnerable to closure. For people of color in rural communities, health inequity creates an additional burden and even wider disparities.

As we enter the third year of the COVID-19 pandemic, these deepening health disparities and health inequity are a reminder of the underlying fragility of the rural health safety net. While pandemic-related relief programs helped provide the safety net with a measure of stability during 2021, there are several warning signs, including the return of policy-driven reimbursement cuts and an emerging workforce crisis, which threaten to ensure this stability is only temporary.

Health inequity has moved to the forefront of many national discussions regarding healthcare in the last 18 months, and for good reason. In our 2021 study, "Rural Communities at Risk", we found that in states where the percentage of people of color living in rural communities exceeds 15%, these residents tend to be more vulnerable than people of color in urban communities. The safety net in these states is already weakened by rural hospital closures (138 rural hospital closures since 2010) and are further threatened by the vulnerability crisis (453 rural hospitals are vulnerable to closure). These states also have among the largest differences across several health disparity and socioeconomic measures in our analysis.

This study builds upon our previous research into the dynamics shaping—and shaking—rural healthcare and seeks to strengthen our understanding of the stability of the rural health safety net. Our analysis reveals that:

- Since 2010, 138 rural hospitals have ceased operation, and another 453 are vulnerable to closure.
- The rural health safety net serves communities that are disadvantaged socioeconomically, with greater health disparities, such as chronic disease burden and poorer health status and racial inequity.
- Government intervention in the form of pandemic relief funds temporarily stabilized rural hospitals and helped slow hospital closures in 2021.
- The Medicare sequester's full return in July and the potential for additional cuts through legislative rules such as Pay-As-You-Go (PAYGO) pose a threat to rural hospitals temporarily propped up by relief funds.
- Nurse staffing shortages are forcing rural hospitals to scale back services, which is compounding the impact of diminishing access to services such as obstetrics and chemotherapy.
- The rural nurse staffing shortage is an escalating crisis, one that may become exacerbated due to the Supreme Court's decision in January to uphold the vaccine mandate for healthcare workers. Nurse staffing shortages may force facilities to reduce services and thus impact the delivery of care in vulnerable communities.

Rural Communities Grow More Vulnerable During the Pandemic

To date, there have been an estimated 6.6 million COVID-19 cases and more than 120,000 COVID-19-related deaths in rural communities.[1] Efforts to combat the spread of the virus in rural communities have been hampered for much of the last 12 months by vaccine hesitancy and resistance, not just on Main Street but within the corridors of rural hospitals. Nationally, the overall rural vaccination rate remains below 50%.[2] In some states (e.g., Alabama, Missouri, and Tennessee) rural vaccination rates are under 40%, and in others (e.g., Georgia and West Virginia) the rate has yet to reach 23%.[3] Meanwhile, a majority of rural hospital leaders we surveyed said only 50% to 69% of healthcare professionals at their facilities are fully vaccinated.

The breadth of the pandemic's impact on rural communities portends a difficult period for the rural health safety net in the aftermath of the pandemic. Health disparity gaps between rural and urban communities may be widening, and new gaps have emerged within rural communities, most notably those where a hospital vulnerable to closure is located. In these "vulnerable hospital communities," our analysis identified statistically significant gaps across several metrics—that means residents in these communities are at greater risk than those who reside in other rural communities. It is important to note that the baseline in this comparison is communities that are already statistically more vulnerable. This emphasizes a rural healthcare reality that those who can *least afford* a loss of access to care are the *most vulnerable* to a loss of access to care (Table 1).

Table 1: Disparities between rural and vulnerable hospital communities

DISPARITY MEASURE	URBAN	RURAL	VULNERABLE HOSPITAL COMMUNITY	CHANGE (+/-) RURAL VS. VULNERABLE RURAL
Primary Care Access	63	33	23	-10
Mental Health Access	62	32	17	-15
Uninsured Adult	48	53	73	20
Uninsured Child	40	60	69	9
Premature Death	40	61	77	16

Significant gaps in health and socioeconomic disparities exist between rural and urban communities. The gaps increase substantially when rural communities with rural hospitals vulnerable to closure are compared to urban communities.

Since the onset of the pandemic, the virus has disproportionately impacted people of color. Within the first few months of the pandemic, a study in the Annals of Epidemiology found that while nearly 20% of US counties are disproportionately Black, they accounted for 52% of infections and 58% of deaths at the time.[4] Vaccine hesitancy was also prevalent among Black Americans early last year. When we published our "Rural Communities at Risk" study in July 2021, we noted that 35% of Black adults living in rural areas and 43% of Hispanic adults expressed hesitancy or resistance to getting a COVID-19 vaccine.[5] During the second half of 2021, however, overall vaccination rates (e.g., at least 1 dose) among Black Americans and Hispanics both increased. As of January 10, 2022, vaccination rates among Hispanics had risen from 39% to 60%, while the rate among Black Americans had progressed from 34% to 54%.[6]

The uptick in vaccination rates is an encouraging sign, given the disparities people of color face living in rural communities. Our exploration of health disparities and inequity across rural America uncovered gaps across metrics such as child poverty and premature death for Black Americans in states where the population of Black Americans living in rural communities is greater than 15%. In these states, Black Americans living in rural locations tend to experience higher rates of premature death and poverty, particularly in children, which has been shown to have an adverse effect on general health and development (Table 2).

Table 2: Rural and urban premature death and child poverty percentile rankings for Black Americans

STATE	PREMATURE DEATH (BLACK AMERICANS) URBAN	PREMATURE DEATH (BLACK AMERICANS) RURAL	CHILD POVERTY (BLACK AMERICANS) URBAN	CHILD POVERTY (BLACK AMERICANS) RURAL
	PERCENTILE RANKING	PERCENTILE RANKING	PERCENTILE RANKING	PERCENTILE RANKING
Alabama	**70**	**86**	**72**	**79**
Georgia	**46**	**76**	**54**	**80**
Louisiana	**78**	**86**	**80**	**88**
Mississippi	**68**	**87**	**76**	**88**
South Carolina	**65**	**79**	**63**	**75**

Our research found similar inequity (e.g., higher rates of premature death and child poverty) for Hispanics in states where the percentage of Hispanics living in rural communities was also above 15%. As was the case in our analysis of Black Americans, the states under the spotlight are places in which the rural safety net is already weakened. In Texas, for example, 21 rural hospitals have ceased operation, and half of the state's rural facilities are operating in the red (Table 3).

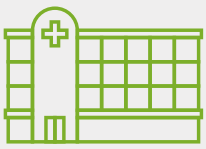
Table 3: Rural and urban premature death and child poverty percentile rankings for Hispanics

STATE	PREMATURE DEATH (HISPANICS) URBAN	PREMATURE DEATH (HISPANICS) RURAL	CHILD POVERTY (HISPANICS) URBAN	CHILD POVERTY (HISPANICS) RURAL
	PERCENTILE RANKING	PERCENTILE RANKING	PERCENTILE RANKING	PERCENTILE RANKING
Arizona	79	89	65	70
California	55	71	36	46
Colorado	80	87	23	43
New Mexico	97	99	58	72
Nevada	48	62	45	19
Texas	56	85	44	57

Relief Funds Provide an Opportunity to Exhale

The dominant focal point of the national conversation surrounding rural health in recent years has been the hospital closure crisis. Since 2010, 138 rural facilities have closed, further restricting access to care within these communities.[7] Additionally, our 2020 study, "The Rural Health Safety Net Under Pressure: Rural Hospital Vulnerability", identified 453 rural hospitals that are vulnerable to closure. Among the factors contributing to the downward, negative pressure on rural hospitals have been health disparities, recruitment and retention of healthcare professionals, and the unintended consequences of government policies, such as Medicare sequestration and bad debt reimbursement.

Against this backdrop, however, just 2 rural hospitals closed in 2021. This was a significant departure from 2020, when a record number of rural hospitals (19) closed their doors, after 18 had ceased operations in 2019.[8] Prior to the pandemic, rural hospital operating margins were in steady decline as nearly half (46%) of all rural hospitals operated in the red.



Rural hospitals received more than **$12B** through CARES Act and CAAP Program funds.

Our analysis of the most recent hospital data shows that overall, rural hospital operating margins have improved slightly with 40% now in the red. This finding tells us that rural hospitals, which rely heavily (80% at the national median) on revenue from outpatient services, benefited from programs and legislation, such as the Paycheck Protection Program, the Centers for Medicare and Medicaid Services' COVID-19 Accelerated and Advance Payment (CAAP) Program, and the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Rural hospitals have also received additional financial relief in 2021 via the American Rescue Plan.

Our research shows that rural hospitals received more than $12 billion in financial aid through the CAAP program and the CARES Act. Through the early phases of the CARES Act and the Provider Relief Fund, for example, Critical Access Hospitals received at the median $4.1 million, while rural and community hospitals received at the median $9.1 million. With Medicare advance payments, the national medians were $2.4 million for Critical Access Hospitals and $7 million for rural and community hospitals. Additionally in 2021, rural providers received at least $887 million through the American Rescue Plan.[9, 10, 11]

As we conducted this analysis, we weighed how to best interpret this data in the context of what we have been researching about the rural health safety net for more than a decade. At face value, pandemic relief funds did bring some measure of stability and in all likelihood, steadied the ship temporarily with regard to rural hospital closures. A record number of rural hospitals closed in 2020, yet last year, only 2 facilities shut their doors—MercyOne Oakland Medical Center in Nebraska and Community Healthcare System, St. Mary's in Kansas. We may see another year with relatively few closures in 2022 as well. To this point, none of the pandemic-related relief programs or legislation are designed to provide rural hospitals with payments on a recurring basis. The funds are essentially stop-gap measures addressing the immediacy of the pandemic and not the larger issues that have brought the long-term financial viability of rural hospitals into doubt. For this reason, 2021 and quite possibly 2022 are more likely anomalies rather than symbolic of a turning of the tide.

With this in mind, we evaluated operating margins excluding the pandemic-related relief funds. When we back these payments out of the analysis, we find that the number of rural hospitals with a negative operating margin is 45%, with a national median of 0.9%. This is consistent with our finding in last year's study, which was 46%. Using this approach, we find that the median operating margin of rural hospitals in non-Medicaid expansion states is -0.3%, versus 1.6% in states that have expanded Medicaid under the Affordable Care Act.

Excluding pandemic-related relief funds, **45%** of rural hospitals are operating in the red.

Reimbursement Cuts Threaten to Undo Stability of Relief Payments

As our analysis has revealed, pandemic relief funds brought a tremendous amount of stability to rural hospitals at a time when it was desperately needed. During the early stages of the pandemic, Congress also suspended the Medicare sequester, which helped to further ease the financial burden as rural hospitals faced a suspension of outpatient services in an attempt to limit the spread of the virus. But the Medicare sequester and other policies continue to represent foreboding clouds on the horizon with the potential to undo some of the stability created by pandemic relief aid. The unintended consequences of polices such as the sequester, which is a 2% reduction in Medicare reimbursement, or bad debt reimbursement are factors we have long highlighted in our analysis of the rural health safety net's challenges.

On December 20, 2021, Congress extended the sequester suspension but only through March 31, 2022. A 1% reduction will apply from April 1, 2022, to June 30, 2022, with the full 2% reduction returning on July 1, 2022.[12] Once the full 2% reduction kicks back in, the impact to rural providers will be significant.[12]

> A full year of sequester and PAYGO would cost rural providers **$1.4B** in revenue.

Our analysis indicates that rural hospital revenues will plummet by more than $228.5 million and result in a potential loss of more than 4,600 community jobs this year. Rural hospitals that will be impacted the most with the end to the sequester moratorium in 2022 include those in Texas ($11.2 million), California ($11.1 million), Minnesota ($10.5 million), North Carolina ($9.5 million), and Wisconsin ($9.3 million). States will also be impacted by the associated community jobs lost. Based on our analysis, the estimated potential community jobs lost will be 249 in Texas, 201 in North Carolina, 186 in New York, 183 in Minnesota, and 175 in Michigan. Calculated out over the course of a 12-month period, the return of the 2% sequester will see rural providers lose more than $457 million and result in a potential loss of over 9,200 community jobs.[13]

PAYGO Is Sidelined for Another Year

An important benefit of December's legislative action was delaying the PAYGO requirement associated with the American Rescue Plan for 2022. This legislative rule requires across-the-board cuts to spending programs if new legislation increases the federal deficit. Had it come into play for 2022, the rule would have resulted in an *additional* 4% cut to provider Medicare reimbursement.

PAYGO casts a long shadow over discussions about the unintended consequences of policy as it is by its very nature always "in play" from one year to the next. In any environment, PAYGO's activation would be devastating for rural hospitals. But in the midst of a pandemic—or its aftermath—the results could be catastrophic. According to our analysis, PAYGO would have cost rural hospitals more than $900 million in revenue and a potential loss of nearly 18,500 community jobs.[14]

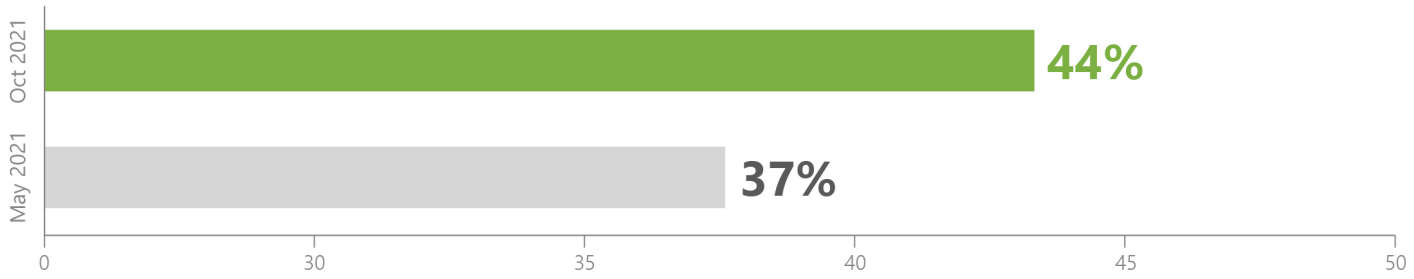
Staffing Shortages Point to Greater Safety Net Instability

Understanding the relative stability of the rural health safety net extends far beyond financial-related metrics. Rural communities have long struggled with workforce recruitment and retention, particularly physicians, nurses, and other clinical providers. According to our research, 62% of primary care facility Healthcare Professional Shortage Areas (HPSA) are in rural communities. The pandemic's surge of hospitalizations in rural communities has altered how we think about staffing challenges, particularly when it comes to nursing.

With the Delta variant surging in rural communities last fall, reports of staff burnout, staff shortages, and service suspension began to appear with increased frequency in news outlets. Our 2021 survey of rural hospital executives, "The COVID-19 Pandemic's Impact on Rural Hospital Staffing", found that nearly 100% of respondents said their hospital was experiencing a staffing shortage, and 96% indicated that nursing was a role they are having difficulty filling.

Our survey showed that COVID-19 vaccination rates among healthcare professionals remains low. When asked what percentage of healthcare personnel at their facility were fully vaccinated, most respondents to our survey said it was just 50% to 69%.

Chart 1: Percentage of Respondents Who Said Just 50% to 69% of Healthcare Personnel at Their Facility Were Fully Vaccinated



With the Supreme Court's decision on January 13, 2022, to uphold a federal vaccination mandate for healthcare workers, we may be on the precipice of an accelerated exodus of rural hospital staff. An overwhelming number of our survey respondents (75%) said that their facilities were not mandating vaccination at the time, and our previous research on this topic showed that a strong sense of "personal freedom" is an integral factor in the decision to be vaccinated and mandate vaccination.

While pandemic-related burnout and retirement rank high on the list of reasons for nurse staff departures in 2021, the single largest reason according to our survey is more financially lucrative opportunities at other hospitals. What this finding tells us is that a fierce battle is under way to recruit—and retain—healthcare personnel. When asked (using an open field comment box) what action their facility was taking with regard to staff retention, 53% of respondents referenced sign-on bonuses for prospective employees, while 61% referenced financial incentives for existing employees. Some respondents shared specific detail in their responses, with one adding that their facility is moving staff from the 50th percentile to the 75th percentile for wages, while another noted they are offering a $25,000 signing bonus.

The current nursing shortage is forcing many rural providers to increasingly rely on traveling nurses. Prior to the pandemic, 52.3% of survey respondents said that their hospitals rarely used traveling nurses, while another 24.6% indicated they never used such services. Today, however, the situation has turned 180 degrees. In our survey, 53.9% told us that their reliance on traveling nurses had "significantly increased" during the pandemic.

Whether it is financial incentives or increasing the use of traveling nurses, each of these findings points to rural hospitals having to commit greater financial resources to plug gaps in staffing. As one survey respondent noted, their facility had just implemented its first $1 million wage package.

"Care Deserts" for Expecting Mothers and Cancer Patients Continue to Expand in Rural Communities

Not all staffing shortages can be addressed quickly, however, and given the pace with which departures are occurring, many rural hospitals are being forced to suspend services or not treat patients. More than half of our survey respondents revealed that a lack of nurse staffing had prevented them from admitting patients in the last 60 days. Additionally, nearly 50% said that nurse staffing issues had either resulted in a suspension of services at their facility or it was something being considered. This means that procedures typically available under normal circumstances (e.g., general surgery) are being paused, thereby forcing patients to delay care or seek treatment at another facility.

The suspension of services due to staffing shortages is a worrying development for rural communities. Our research into rural health disparities tells us that rural America struggles with access to healthcare services, and important services such as obstetrics (OB) and chemotherapy continue to disappear at an alarming rate at hospitals that remain open. Between 2011 and 2019, nearly 200 rural hospitals stopped providing OB services, thereby forcing expecting mothers to drive further and longer for care and delivery. States experiencing the biggest loss of OB services include Minnesota (17 hospitals), Texas (14 hospitals), Oklahoma (11 hospitals), and Iowa (10 hospitals).

A similar analysis of chemotherapy shows that between 2014 and 2020, more than 300 facilities ceased providing this service. In states such as Kansas and Texas, the number of hospitals no longer offering this service tops 2 dozen (26 in each state), while Georgia and Missouri have each seen 16 rural hospitals in their states stop offering chemotherapy. In another 7 states, the number is in the double digits.

Readying the Safety Net for the New Normal

America's rural communities are no longer simply older, less healthy, and less affluent than their urban counterparts. They are becoming places in which residents are increasingly vulnerable and at risk as health disparities and socioeconomic measures grow wider. When compared to their urban counterparts, rural residents are more likely to have chronic health conditions such as diabetes, lack healthcare insurance, face higher rates of poverty for children and adults, and lack the vaccinations required to adequately reduce the risk of COVID-19. For people of color, our analysis shows evidence of disconcerting inequity in several states, particularly as it relates to premature death.

As we enter Year 3 of the pandemic, working to understand and address these gaps in health disparities and health inequity reminds us of the long-standing structural challenges faced by rural communities and the safety net that serves them, and the reality that the foundation of the system is not strong. The reinstatement of the sequester moratorium, bad debt reimbursement cuts, and always-present specter of PAYGO, for example, threaten to quickly unravel the temporary stabilization brought about by the various pandemic relief funds. And the extant staffing crisis, exacerbated by the pandemic and pursuit of more financially lucrative nursing opportunities, if not adequately addressed, may present the most troubling barrier. A lack of staffing not only impacts quality of care and the ability of rural hospitals to provide services, but also may delay or prevent leadership teams from moving forward with service line expansion and/or the addition of services needed within their communities. The research and analysis presented in this study should provide rural healthcare advocates and legislators with a useful starting point for devising and developing public policy aimed at the long-term stability of the rural health safety net.

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