The Impact of Rural Hospital Closures on Their Communities

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"We regret to inform you that St. Mark's Medical Center has ceased all treatment services effective 7 am, October 12, 2023, due to ongoing, insurmountable financial difficulties" (St. Mark's Medical Center, 2023). That was the headline that shook rural Fayette County, Texas, and caused an uproar of both panic and fear: Where would folks go for comprehensive or emergency medical care with nearby hospitals 30 minutes, or more, away? And, gosh, so many hospital employees would now be out of a job. Where would the staff—nurses, doctors, custodians, and so forth—work now, and what impact would their exodus have on the community—on the schools and local restaurants? And, most pressingly, what happened to the money already paid to the hospital for services rendered; the grants distributed by the federal government during the brunt of the COVID-19 pandemic; and the significant monetary donations gifted to the hospital by local nonprofit organizations and private donors? These were just a few of the questions swirling through the community, and no one had any good answers. I sought to understand the reasons behind the recent and rampant closures of rural hospitals in the United States within the context of healthcare management, specifically the relationship between hospital closures and inefficient management, and how these closures affect the health outcomes of rural residents. My aim was to identify and explore one specific management strategy that might be employed to mitigate the effects of the closures and, ideally, slow—or halt—the closures themselves. To that end, I will be utilizing Shewart & Deming's Plan-Do-Study-Act (PDSA) cycle (as cited in Olden & Erwin, 2023) to formulate a sample action plan for rural hospitals in danger of closure in the hope of providing a blueprint for future rural healthcare administrative personnel (pp. 328–329).

Literature Review: Reasons for Rural Hospital Closures:

Multiple reasons have led to the increase of rural hospital closures, but for the purposes of this paper, they may be summed up by the following shortlist: demographics, economics, technology and market trends, and policy changes (Holmes & Thomas, 2019, p. 216). The four categories do share some overlap, but this is understandable in an increasingly intertwined system, where each factor builds upon its predecessor.

***Demographics*:**

Socioeconomic factors, including age, race and ethnicity, poverty, and a lack of reliable public transportation, play an overstated role in many rural hospital closures (Holmes & Thomas, 2019, p. 217). While not every socioeconomic measure is statistically significant or consistent across all studies, there is ample evidence that demographic characteristics do impact hospital closures. Hospital closures occur more frequently in rural communities with a higher percentage of Black and Hispanic residents, as well as higher rates of unemployment and poverty (Rhoades et al., 2022, p. 644). Additionally, the hospitals that are in these communities are frequently financially insolvent, since many of their patients are uninsured or under-

insured, compared to hospitals in more affluent and densely populated areas (Ramesh & Tsai, 2023, p. 88). Furthermore, rural populations are often older, poorer, sicker, and, when they do have health insurance, it is more likely to be publicly funded, compared to their urban counterparts (Bell et al., 2023, pp. 291–292). Such unequal circumstances further exacerbate the economic and social disparities that these historically marginalized populations face.

***Economics*:**
It has often been said that "money makes the world go 'round," and so it makes sense that the lack of it can determine whether rural hospitals remain open. Financial instability is a major factor in most rural hospital closures (Ramesh & Tsai, 2023, p. 88). In rural communities that are struggling with the decision to keep their hospitals open, one of the main arguments in favor of closure often comes down to exorbitant costs and an inability to obtain recourse through reimbursement (Button et al., 2022, p. 166). Meanwhile, two of the most pointed indicators of financial distress and subsequent closure are community unemployment and a lack of patient insurance (Rhoades et al., 2022, p. 648). And, indeed, hospitals situated in poor rural communities with high rates of unemployment often contend with elevated levels of uncompensated care, which increases their likelihood of closure (Rhoades et al., 2022, p. 644). When people cannot find or are unable to work, their ability to pay for health insurance or their hospital bills falls by the wayside. And hospitals, which depend on patient reimbursement to remain financially solvent, suffer for it. Unfortunately, many rural hospitals eventually close due to persistent financial losses and a lack of adequate funding (Bell et al., 2023, p. 291).

Technology and Market Trends:
Technological advances and the mercurial nature of both the national and global stock markets have significant effects on most American businesses, including those within the healthcare sector. When the market dips, businesses suffer, and hospitals are not immune. Case in point, hospital closures increased during the global financial crisis of 2008–2009 (Miller et al., 2021, p. 789). Meanwhile, other hospitals have closed due to a technologically transformed healthcare service delivery system, in which procedures and treatments take place in ambulatory settings rather than hospitals, resulting in fewer patients and provider shortages at brick-and- mortar hospitals (Ramesh & Tsai, 2023, p. 88). And while technological improvements can be gamechangers in many industries, including healthcare, the implementation of these new gadgets often has deleterious consequences for medical workers, as automation phases out their jobs and machines perform specialized procedures in outpatient clinics.

Policy Changes:
Changes in the political landscape of the United States inevitably impact how businesses, including hospitals, operate. There have been wins for the populace and there have been losses. For instance, because of Medicare prospective payment reform in the 1980s, the US experienced a rash of rural hospital closures, but these were, thankfully, halted in the late 1990s due to Congress's creation of Critical Access Hospitals (CAHs) (Miller et al., 2021, p. 789). Conversely, there have been moments when lawmakers had the opportunity to take advantage of policy changes that could have benefited the health of their constituents but failed to do so. Illustratively, Ramesh & Tsai (2023) write that today, many struggling rural hospitals are in the South, in states with high minority populations, which neglected to expand their Medicaid coverage, even when given the option to do so (p. 88). This is not the fault of the residents, many of whom would benefit from expanded Medicaid, but is instead an oversight by state legislators. In brief, the failure to offer greater health insurance coverage to their residents is a true failing and an example of inefficient governance at its lowest, for it has perpetuated grievous health inequities that persist to this day and are only becoming more dire.

Inefficient Management in Current Practices:
Not every rural hospital closure can be attributed to the same causes, but most share similar symptoms, such as a lack of funding and a poorly coordinated healthcare delivery system. According to research by Button et al. (2022), many rural hospitals shut down due to prohibitive costs, a lowered quality of service, and a lack of staff (p. 159). Moreover, many rural hospitals find it challenging to stay open, especially if they are nonprofit and must meet federal requirements to maintain their tax-exempt status, and many end up operating at a negative profit margin (Holmes & Thomas, 2019, pp. 216–217). In fact, Maxwell et al.'s 2020 study (as cited in Miller et al., 2021) found that prior to the start of the COVID-19 pandemic, "approximately 39% of 'rural hospitals [operated] in the red'" (p. 795). To rectify this, Ramesh & Tsai (2023) argue that rural hospitals should revamp their existing compensation models instead of copying those utilized by full-service hospitals, which traditionally rely on fee-for-service reimbursement (p. 88). One suggestion has been to employ a global budgeting scheme, which allots rural hospitals a predetermined amount of money, adjusted for population health instead of hospital volume, and allows the hospital to allocate resources to address pertinent community health disparities (Ramesh & Tsai, 2023, pp. 89–90). However, this method is not without controversy, for while the global budgeting scheme could work for a small rural community with a static population, it struggles in one experiencing growth, leading to a decreased quality of care for patients as the population grows but the budget remains fixed (Center for Healthcare Quality and Payment Reform, n.d., para. 3–4). Given the circumstances, however, current financial and operational prac-

tices in failing rural hospitals must be reevaluated to prevent further closures.

Negative Health Outcomes and Other Disparities:

Rural residents suffer from health disparities at higher-than-average rates, compared to their urban peers. Overall, they have shorter lives and experience more illness than do city-dwellers (Button et al., 2022, p. 166). Those who are ethnic minority members are more likely to be obese, in poor health, and less likely to seek medical care due to cost concerns (Holmes & Thomas, 2019, p. 217). Rural members of the LGBTQIA+ community are more likely to suffer from mental illnesses than heterosexual rural residents, and rural elders are more likely to experience isolation and live in impoverished housing than those in urban areas (Holmes & Thomas, 2019, p. 217). In fact, it has been shown that "reduced access to [healthcare] services disproportionately affects vulnerable sectors of the population and racial minorities" (Rhoades et al., 2022, pp. 644, 648). As one can imagine, then, the effects of hospital closures on these communities can be devastating. Tellingly, a 2020 hospital closure in Randolph County, Georgia—a region historically impacted by racism and injustice—left residents scrambling for care at the height of the COVID-19 pandemic, when they had to choose between traveling 30 miles to the nearest hospital or simply forgoing care (Ramesh & Tsai, 2023, p. 88). And throughout the country, American counties with recent hospital closures—many of them in rural areas—experienced deaths from COVID-19 at a rate "37% higher than … state averages," proving that a lack of access to local healthcare can kill (Ramesh & Tsai, 2023, p. 88).

Rural communities also experience higher rates of poverty, as well as issues with transportation due to limited public transit options and greater distances that residents must travel for needed services, including medical care (Holmes & Thomas, 2019, p. 217). Hospital closures result in rural residents having to drive longer distances for healthcare, while those without transportation often fail to "receive needed tests, … routine care, … [or] … life-saving therapies, [like] dialysis, cancer therapies, and treatment for catastrophic injuries" (Miller et al., 2021, p. 789). Furthermore, when rural hospitals close and residents must travel away from their local communities for medical care, other healthcare-related services, such as "lab testing, medical imaging, and pharmaceutical services," shutter their doors, depriving local people of well-paying jobs (Button et al., 2022, p. 166). As that happens, the overall economy of the county tanks, as support industries, like laundry, retail, and construction services, also leave for greener pastures (Rhoades et al., 2022, pp. 643–644). In general, as rural hospitals close, the size of the local labor force and economic prosperity of the locale decreases, while unemployment and healthcare disparities rise (Malone et al., 2022, p. 622). Moreover, many healthcare workers are intricately linked to their communities beyond their hospital work, often serving as the financial lifeblood that sustains local businesses, and frequently taking "part in community development, local councils, and … community-based activities" (Button et al., 2022, pp. 159, 167). With their livelihoods stripped away in the closures of rural hospitals, such civic engagement suffers and sometimes stutters to a stop, as hospital workers must choose to move or travel out of county to pursue another job. Thus, the closure of rural hospitals negatively impacts multiple aspects of local communities, resulting in a lower quality of life, as well as poorer health and financial outcomes for many rural residents.

Remedying the Malady:

As a potential aid to save current and future suffering hospitals, management teams in rural hospitals could implement the Plan-Do-Study-Act (PDSA) cycle to create solutions for closures before they occur. For the purposes of this experiment in thought, let us postulate an impending closure for Rural X, an imaginary hospital, and work our way through the PDSA cycle, utilizing the stages of the cycle as illustrated in Olden & Erwin's (2023) *Management of Healthcare Organizations: An Introduction* (4th ed.).

***Plan*:**

The first phase of the PDSA cycle requires that an organization "understand the problem and the underlying causes for a gap in quality; establish an objective; ask questions and make predictions; [and] plan to carry out the cycle" (Olden & Erwin, 2023, p. 329). In Rural X's case, management could ask why the hospital is facing closure, and then work to identify current inefficient hospital practices and note any existing regional disparities that might have bearing on the hospital's failing operations. Rural X's management team and board of directors would then establish an objective, for instance: *Rural X will consider an alternative payment plan to see if that improves financial metrics.* Rural X's management team and board of directors would then decide which payment plan to use and which department to test it out on, and then predict the success of the initiative and establish a period in which to test the alternative payment plan.

Do:

The second phase of the PDSA cycle requires that an organization "carry out the plan; document problems and unexpected observations; [and] begin analysis of the data" (Olden & Erwin, 2023, p. 329). In our experimental scenario, Rural X would operate under the alternative payment schema for three months in their emergency department (the department selected by Rural X's management team and board of directors for participation in the initiative), during which time the management team would observe how the initiative is going, noting any problems that cropped up and any aha moments that occurred. Then, after the three months have elapsed, the management team would analyze the data they have compiled.

Study:

The third phase of the PDSA cycle requires that an organization "assess the effect[s] of the change and determine the level of success achieved relative to the goal/objective; compare the results with [established] predictions; summarize the lessons learned; [and] determine what changes need to be made and what actions will be taken next" (Olden & Erwin, 2023, p. 329). For Rural X, data from the experiment in the emergency department showed a tiny, but significant, increase in billing revenue. Management was elated, yet cautious, as they compared the results of the data to their predictions, reviewed any relevant issues and successes from the experiment, and prepared to consult with the board of directors on the next steps to be taken.

Act.

The fourth phase of the PDSA cycle requires that an organization "act on what [has been] learned; determine whether the plan should be repeated with modifications or whether a new plan should be created; make necessary changes; identify remaining gaps in the process or performance; [and] carry out additional PDSA cycles until the goal/objective is met" (Olden & Erwin, 2023, p. 329). For Rural X, though the success of the initiative is still in the initial stages, the increase in billing revenue encouraged the board of directors and other shareholders, and they have decided to keep Rural X open. They tasked the hospital's management team with rolling out the alternative payment plan to the rest of the hospital, and billing department personnel quickly began learning how to implement the new financial system. Overall, the initiative was a success and, for now, Rural X will remain in business.

Insights, Reflections, and Commitment as a Healthcare Leader

While there are many and varied management principles and theories to assist managers in making tough decisions, they all fall short of truly solving the key issues, or these dilemmas will no longer exist. While the PDSA cycle is a useful tool and can be immensely beneficial in identifying and diagnosing a theoretical problem, putting thoughts and words into viable action in real life seems far more challenging. The PDSA cycle only works as far as an organization is willing to compromise within the confines of its larger societal structure: That is, until the federal and state governments are willing to tackle the growing problems with healthcare in this country, no number of PDSA cycles will remedy the problem.

I fear more rural hospitals will close unless we can overhaul the current healthcare system in the United States, especially regarding financial reimbursement for rural hospitals versus the value of affordable, convenient service for patients. On the other hand, however, there are many smaller hospitals and independent medical practices which get sucked into massive healthcare conglomerates—replete with the accompanying lack of patient choice, difficulty in obtaining appointments, and rising care costs. I fail to see why some rural hospitals are swallowed by conglomerates while others are left to languish and grow weeds in their parking lots. While huge healthcare organizations are monopolies, they also guarantee continuity of care for many patients and move America towards a more universal healthcare system.

If I could work within the rural healthcare system, I would think twice before accepting such a role. The more I learn about the healthcare system in this country, the less I want to be part of it. Though perhaps that is why I am meant to be part of it—to change it. And to profoundly change a system, one must do so from the inside out. To do so, then, I can use the knowledge gleaned from this research project to become a more fully informed future healthcare worker, healthcare consumer, voter, and citizen.

Summary and Conclusion:

So, what about the sad case of St. Mark's Medical Center? The hospital had been deeply in debt for years; a situation compounded by its expansion into "newer digs," built in 2006. While the state-of-the-art facilities were a point of pride for the community, they came with a hefty price tag, one which St. Mark's Medical Center was never able to get out from under. The hospital folded incrementally. Texas's failure to accept federal aid in the form of Medicaid expansion was a factor. The hospital was chronically unable to collect debts from patients who could not pay, and in 2017, the hospital eliminated the labor and delivery department to cut costs (Chang, 2019). But that was not enough, and the hospital continued to flounder. In 2019, a majority (51 percent) of local taxpayers rejected a proposed tax district which would have bolstered the hospital for several more years (Collins, 2019). In March of 2023, St. Mark's Medical Center announced that the hospital would no longer provide in-patient services and would, instead, become a Rural Emergency Hospital (REH), offering 24/7 emergency care but little else (Carey, 2023). The hospital received a breath of hope in September of 2023, when a nonprofit action group, the Hospital Center of Excellence (HCOE), managed to secure private funding, state grants, increased Medicaid reimbursement rates from the state, and a new hospital management operator, the Progressive Health Group (PHG)! But St. Mark's Medical Center's board of directors rejected the terms agreed to by the HCOE and the PHG, "and decided to see the closure through" (Kayser, 2023). St. Mark's Medical Center's long fight was over, but the pain felt by the community would continue to live on.

Rural hospital closures in America are ramping up rather than slowing down, and that is cause for concern. The closures are leaving many rural residents without close and convenient medical care, which negatively impacts their health and mortality quotients, since many do not have the means to travel long distances for healthcare. Rural hospitals need equitable solutions that enable them to remain in business to prevent the further degradation of rural resident health outcomes, allow

local healthcare providers to maintain healthy careers, and ensure a higher standard of living for all. I believe that this solution should include more hospital conversions, which, while not a perfect solution since patients would still have to seek emergency care elsewhere, would enable rural residents to obtain primary care and nursing at their local hospital, staffed by providers they know and trust. It is of the utmost importance to continue developing innovative solutions which help rural communities keep their healthcare facilities open, so that they may continue to serve the patients who so implicitly rely upon them.

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