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Integrating rural into the new reality of healthcare

Why the shift in how we pay for healthcare will drive further consolidations of rural healthcare services and what we can do about it

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For years, the big conversation around healthcare has been how to control the upward spiral of healthcare costs. But within that larger discussion, another one concerning rural healthcare has also been going on, this one about disappearing access to healthcare services for rural residents. Since the 1980s, the hospitals, clinics, physicians, specialists and services available in Greater Minnesota have been quietly going away.

Many of these services have been lost to consolidation of services by healthcare systems. What's perhaps being missed, though, is that these consolidations are being driven by the very policies created to control healthcare costs.

Now, Covid-19 and the measures that were taken at hospitals and clinics to prepare for it have severely undercut revenues for hospitals everywhere. Many rural hospitals were already operating at zero margins or worse. Without specific policies to address their plight, rural Minnesota will only lose more services and more facilities as healthcare systems cut expenses and deadweight in their fight to survive.

If rural communities are going to continue to have access to healthcare services, it will take policy that recognizes the economic differences between rural and urban healthcare facilities, the demographic differences between their patients, and the simple realities of what access to healthcare in rural Minnesota means.

The shifting landscape: Fee-for-service vs. value-based payments

For decades, payment for healthcare was based on a fee-for-service structure where a hospital, physician, specialist, etc., was paid based on the number of services provided or the number of procedures ordered. As our healthcare system grew in size and sophistication, though, the argument against this model grew as well.

Under the fee-for-service payment model, payers are billed for every step the patient takes through treatment. Those paying the bills, however—health insurance companies, the government, employers—started to recognize that the blind spot in this “heads-in-the-beds” business model is that it offers no incentive to promote preventive healthcare or overall quality of health for patients. As Sally Buck, chief executive officer of the National Rural Health Resource Center in Duluth, explains, while overall costs of these services and the publicly funded programs that pay for them grew, research was showing that Americans were paying the most of any industrialized nation for healthcare while having some of the lowest outcomes.

Starting in the 1980s, the federal government began making changes in the way federal programs such as Medicare and Medicaid paid health care providers. In an early effort, the federal government developed the “prospective payment system,” which required that a health care provider only be paid based on the complete treatment of a patient, not for each separate procedure within that treatment process. The amount paid for treating a particular diagnosis was then based on “diagnosis-related groups.” The thinking behind this new model would require service providers to be reimbursed based on the quality and efficiency of the care they provided, hopefully incentivizing them to consider best practices and overall outcomes when treating patients.

A 2020 article in the journal *Academic Medicine* argues that efficiency, quality and overall value for the patient increases when care is approached from a holistic perspective that looks at the patient’s whole health.¹ The previous fee-for-service model made it possible for physicians and other healthcare providers to provide services in isolation of one another, knowing they would be paid simply for providing the service whether the service was effective or not.

The new value-based approach gives physicians and care providers a new target to aim at: rather than counting the number of services, providers are rewarded for improving patient outcomes, which is often translated as fewer readmissions. The idea behind this is that the more effective a person’s treatment is and the better their overall health, the fewer times they will need to return to the hospital and/or the less intensive treatment they will need—hence, lower costs and better outcomes.

¹ Teisberg, Wallace, O’Hara, “Defining and Implementing Value-Based Health Care: A Strategic Framework,” *Academic Medicine*, May 2020, pp. 682-685.

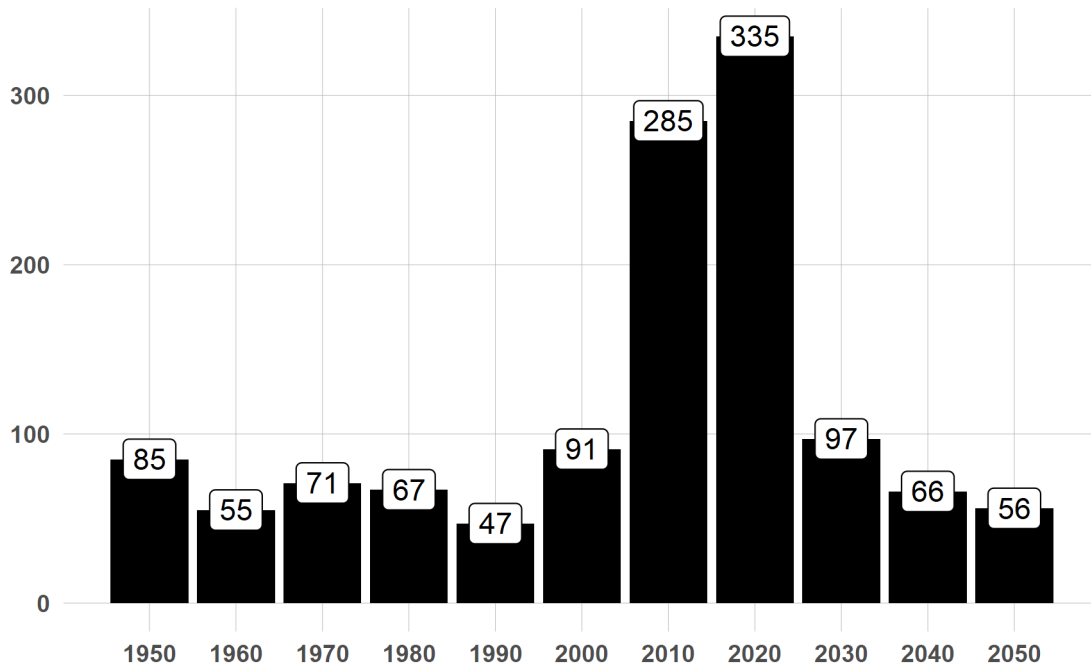


Figure 1: Minnesota is experiencing a significant increase in the number of people age 65 and older. Data: MN Demographic Center

Since the 1980s, though, the entire United States has been experiencing a significant demographic shift. The exploding number of older adults, who typically account for a large portion of the nation’s healthcare costs, is projected to go on growing through the 2020s (Figure 1) and continue to be a major driver of growth in healthcare costs.

To combat this, federal and state governments have been passing policies that try to hold increases to a minimum. The Affordable Care Act was a major move recently to shift the entire healthcare industry toward the value-based or outcomes-based payment system.

Healthcare systems have been adopting a number of strategies to meet the demands of the new system.

Risk sharing: Hospitals will no longer be reimbursed for what it costs to treat each individual patient. Instead, revenue in the form of reimbursements will be based on a hospital’s overall expected expenses. To lower the financial risk involved in this approach, healthcare systems want to increase the size of their patient pools so that a handful of high-cost patients don’t raise the average per-patient cost too much. The larger the patient pool, the more patients they can spread that risk among.

Technology investments: Since healthcare providers will be “rewarded” based on the quality of outcomes for their patients, hospitals are looking to investments in technology that will help improve overall outcomes for patients. For example, the ACA required hospitals to implement Electronic Health Records, not only for ease of sharing information among health-

care staff inside and outside their own systems, but also to make it easier to build a complete picture of a patient's health, which can lead to better decisions about treatment.

Enhancing coordinated care: The value-based payment philosophy offers incentives for hospitals to coordinate care across multiple service areas, creating a continuum of care that is both preventative and reduces in-patient admissions and readmissions. Coordinated care can come in multiple forms, usually agreements across services in-house or outside of the hospital network.

Find efficiencies: Finally, and most importantly, this shift has incentivized hospitals and clinics to find efficiencies. This can mean eliminating administrative positions, consolidating services into one location, eliminating duplication and allowing hospitals to purchase supplies in bulk.

The problem for rural hospitals, though, is that they face a number of built-in disadvantages because of their small patient pools. According to Buck, analysis has shown that based on risk, a positive business model requires at least 100,000 patients. Rural hospitals, however, are limited in how many customers they can attract simply because customers are spread out over a much larger area than in an urban setting.

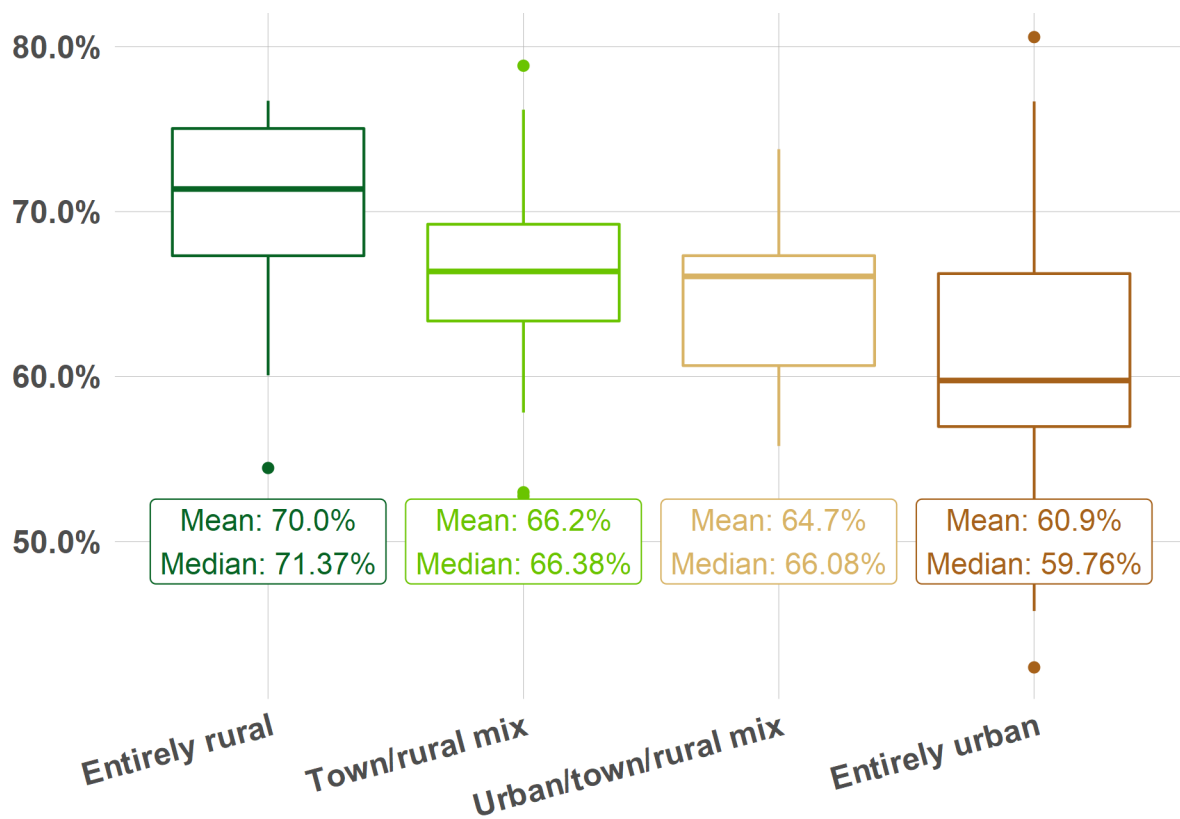


Figure 2: The percentage of charges to a public program such as Medicare or Medicaid increases as a hospital becomes more rural. Data: MN Dept. of Health | Health Economics Program, Hospital Annual Reports

Also, healthcare isn't exactly scalable. There will be a certain amount of up-front cost to provide service whether the patient pool holds 1,000 or 100,000. That difference is where the inefficiency of rural healthcare lies and why many rural hospitals and clinics have voluntarily chosen to be acquired by a larger healthcare system. It's a matter of survival.

Much of the new shift in philosophy, though, is being driven by Medicaid and Medicare, whose payments make up a significant percentage of smaller rural healthcare providers' revenues (Figure 2). Therefore, if a rural hospital can't adapt to these changes, it will feel it disproportionately at its bottom line. Merging with a larger system, with hospitals in both rural and urban settings, provides a more balanced patient pool.

All these issues facing rural hospitals and other healthcare providers can translate into poor financial performance (Figure 3). In 2018, hospitals located in counties in the entirely rural

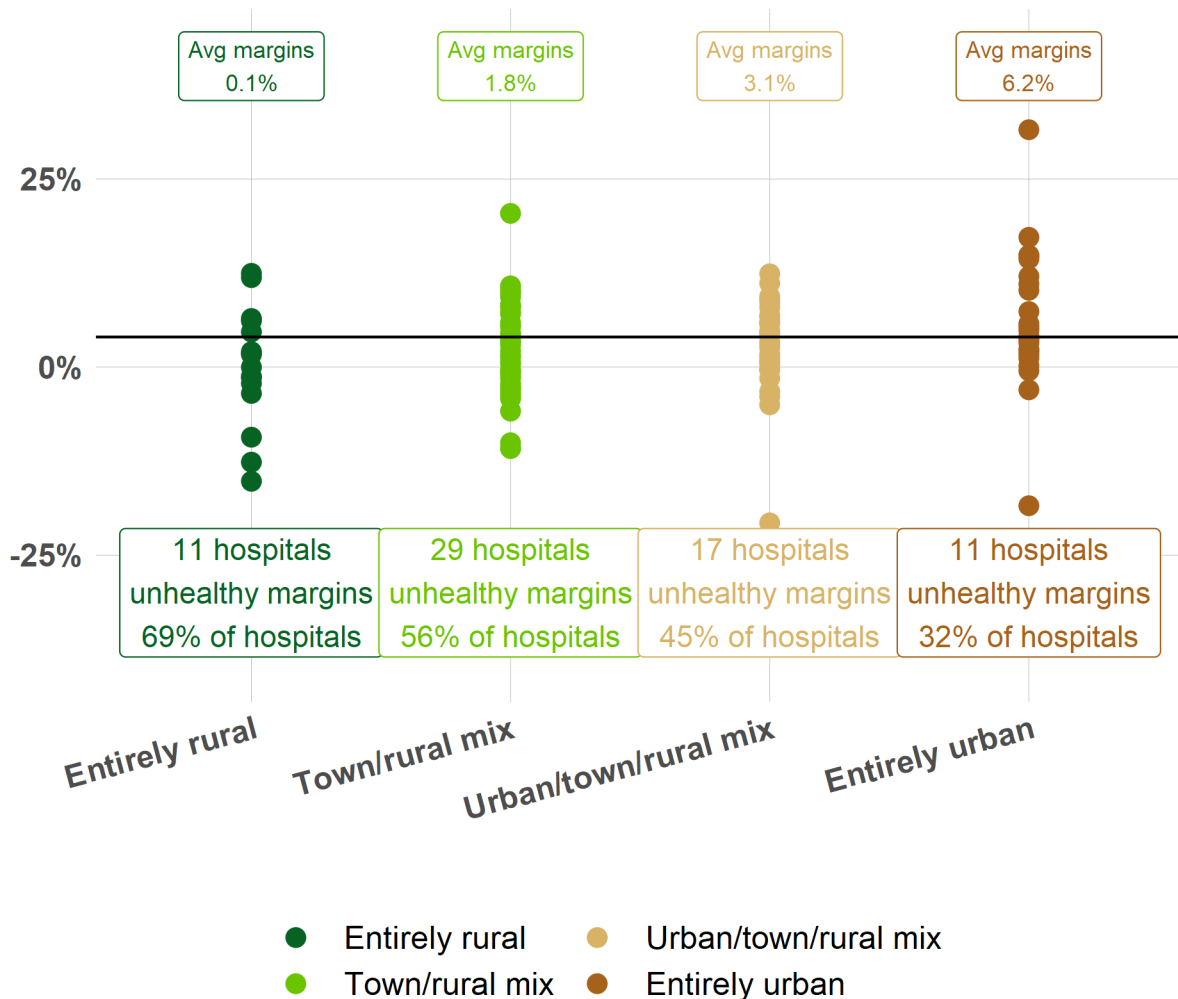


Figure 3: A profit margin is profit or net loss divided by the total revenue for each hospital. Margins typically decrease as a hospital's location becomes more rural. An unhealthy margin is considered to be less than 4%. In addition to lower margins, rural areas tend to have more hospitals with unhealthy margins. Data: MN Dept. of Health | Health Economics Program, Hospital Annual Reports

RUCA group averaged a 0.1% profit margin (profit or net loss divided by total revenue). In contrast, hospitals in entirely urban counties averaged a 6.2% profit margin. Not only do profit margins become significantly lower as a hospital becomes more rural, but the probability that they have a margin considered unhealthy (4% or less) increases. In 2018, 69% of hospitals in entirely rural counties had unhealthy margins, while only 32% did in entirely urban counties.

The new healthcare normal: Mergers and acquisitions

It's important to understand that none of the systems for reimbursing healthcare providers in the United States has been replaced. Instead of replacing systems, layers of policy have been added to the existing structure, increasing its complexity. To keep up with the demands of these complexities and the shift in a payment system dependent on outcomes, healthcare providers need to be able to control two factors: their economies of scale and a patient's continuum of care. They can achieve both by becoming larger.²

Health economists have identified several factors driving hospitals to go the merger-and-acquisition route to create a bigger patient pool.

- As discussed earlier, hospitals can **spread the financial risk** posed by a few high-cost patients among a larger pool of average-cost patients, lowering the overall per-patient cost of treatment.
- Adapting requires major investments in technology, equipment, and buildings to update, streamline and coordinate care. Being in a larger system opens up **access to more capital**.
- A larger patient pool allows a hospital to **participate in an Accountable Care Organization**, a designation that allows a hospital or group of healthcare service providers to set up goals with state and federal government in exchange for financial incentives.
- A larger organization buys supplies in larger quantities, giving it greater **purchasing power** and reducing per-item cost.
- A larger healthcare provider is able to **negotiate higher reimbursements** from private health insurance companies. Reimbursements for Medicaid and Medicare patients often don't cover the cost of the care provided. To make up for this, hospitals try to negotiate higher reimbursements from insurance companies for the same procedures. Hospitals serving a larger percentage of an insurance company's patient pool have better leverage.
- A larger system can usually offer a broader range of services in house, giving patients **a more complete continuum of care**. In addition, having more specialists in one location improves communication, eliminates duplication of services, and allows providers to standardize trainings and processes, providing continuity across all divisions.

² Cacace, M., & Schmid, A. (2009). The role of diagnosis related groups (DRGs) in healthcare system convergence. BMC Health Services Research, A5.

- Beyond physical communication, systems can use more **sophisticated record-keeping** to analyze data for overall health trends among patients and the provider’s financial trends.
- Larger hospitals tend to have an easier time **attracting talent**. The trend among younger doctors is to not join a small physician group or clinic where the financial risk is spread over fewer patients. Also, with the demand for record keeping and other administrative work increasing, doctors in smaller groups are often expected to do some of these tasks themselves instead of caring for patients.

Not only do financial options open up for small rural providers when they join a larger system, but there is the belief that they can provide better care this way. At the same time, a rural provider can be attractive to larger systems because it would add to their market share. Small hospitals also typically have less competition in rural areas, so acquiring these providers adds to the system’s market leverage.

As one doctor in central Minnesota explained: “When we were looking at our future projections, we knew we couldn’t make it on our own as a smallish physicians’ group. We knew we needed to merge with a larger system to help our financial outlook.”

What does “access” mean?

Whether mergers and acquisitions actually drive down healthcare costs depends on a number of factors, including which strategies a healthcare system chooses to use and the political, economic and demographic environments they are operating within.

Research did bring up some red flags for rural areas, however: the potential for loss of community control, loss of healthcare workforce,³ and loss of health care services.

At the policy level, much of the debate surrounding healthcare mergers and acquisitions revolves around the consolidation of services and the definition of “access.” Access is often defined in terms of a person’s ability to pay for healthcare (i.e., access to health insurance), but a significant amount of research has also been dedicated to studying access to the services themselves in a rural setting. Most of it looks at the topic from a nationwide perspective, but even at this level results consistently show hospital closures occurring at a significantly higher rate in rural areas than in metro areas. In addition, the distances rural patients travel for services are noticeably higher than for metro patients.

The Minnesota Department of Health’s Health Economics Program regularly conducts a healthcare access survey that shows there are conspicuous disparities around the state.

3 Noles, M. J., Reiter, K. L., Boortz-Marx, J., & Pink, G. (2015). Rural Hospital Mergers and Acquisitions: Which Hospitals Are Being Acquired and How Are They Performing Afterward? *Journal of Healthcare Management*, 395-407

Their most recent survey results draw a disturbing picture for rural residents:⁴

- 16.5% of Minnesota's population lives in small towns in the state's most rural areas, yet 9% of the healthcare providers are located in these same areas.
- Between 2009 and 2018, rural hospitals saw an 11% decrease in inpatient surgery services, 7% decline in outpatient surgery services, 30% decline in detoxification services, 7% decrease in CT scanning services, and 8.5% decrease in MRI services.
- During those same years, nine rural counties lost hospital birth services, driving up the total to 29 counties.
- Rural Minnesotans were more likely to be told that a provider was no longer accepting new patients (5.9% of Greater Minnesota respondents compared to 4.4% of Twin Cities seven-county metro respondents), or weren't able to get an appointment as soon as they needed with a primary care provider (64.6% of respondents compared to 48.3% of metro respondents).

The most visible difference in access, however, is probably travel times. Many of healthcare systems have adopted a hub-and-spoke feeder model for their facilities. Rather than each smaller rural hospital and clinic offering the whole range of services, they instead act as satellite offices, offering fewer services and feeding patients into the larger hospitals located in population centers where the specialty care can be provided for less per patient.

People living in rural areas expect to drive farther for healthcare services, but there is no hard and fast definition of how much is too much, nor how much travel times should differ for patients in rural areas compared to metro-based patients.

But according to the Health Economics Program's 2017 Rural Health Access survey, "rural patients seeking inpatient mental health and chemical dependency treatment travel three times longer than urban patients (77 minutes compared to 24 minutes)." Their survey also showed that rural patients travel farther for obstetrics, although the difference isn't as significant as with mental health, where there is a particular shortage of services in rural areas.

To get a better grasp of how "ruralness" factors into distance traveled for medical services, we analyzed discharge data provided by the Minnesota Hospital Association to see if we could determine a difference. We chose three inpatient services and five outpatient services common enough that most if not all hospitals would provide these services several times a year.

Figure 4 provides the average distance patients traveled for three specific inpatient services. For all three, residents in the most rural counties traveled three to four times farther than urban patients did. For example, cardiology patients in the entirely rural county group traveled 77 miles, compared to only 21 miles for patients in the entirely urban group.

⁴ MN Department of Health | Division of Health Policy, presentation, "Rural Health Care in Minnesota: Data Highlights," November 21, 2019.

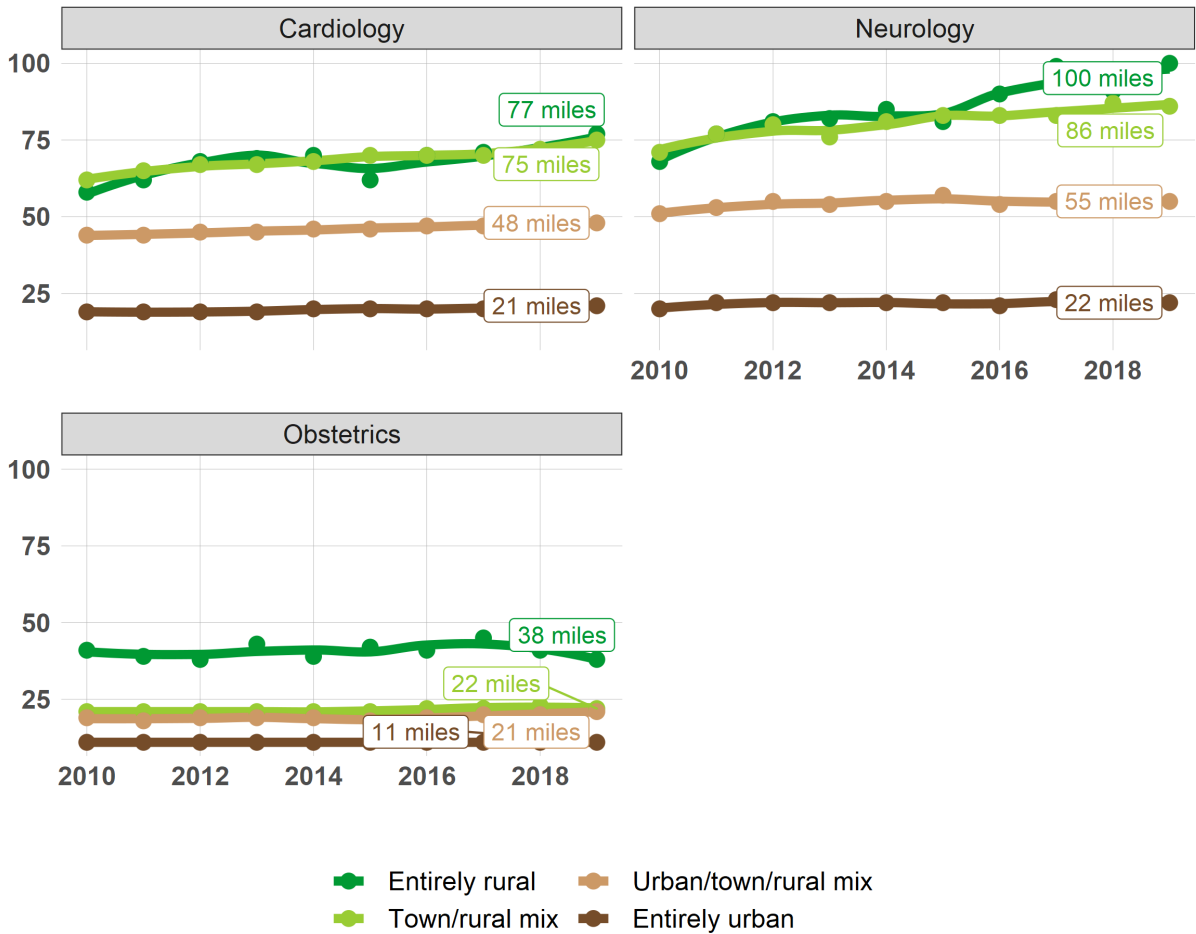


Figure 4: The number of miles traveled for these inpatient services increases significantly as the location becomes more rural. In fact, on average patients in the most rural counties travel three to four times farther than urban patients. Data: MN Hospital Association

More concerning, though, is the trend: patients from entirely rural and town/rural-mix counties were traveling about 33% farther for cardiology and neurology services in 2019 than in 2010.

Figure 5 provides the average miles traveled by patients from each RUCA group for a few select outpatient services. Again, patients from the most rural parts of the state have to travel farther than their urban counterparts. However, this difference isn't as significant as it is with inpatient services, indicating that these outpatient services are more widely available in rural areas.

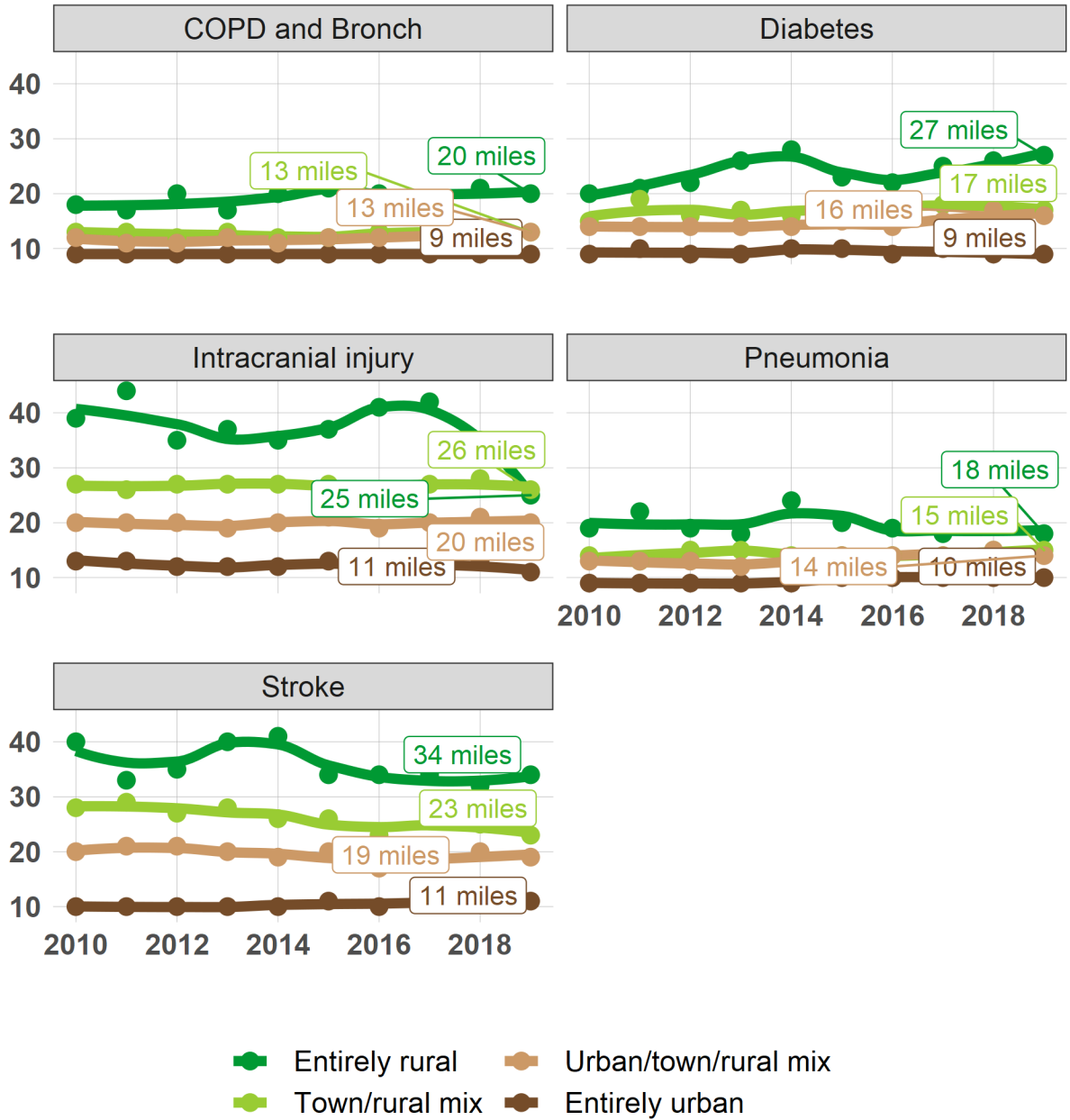


Figure 5: The number of miles traveled for these outpatient services increases as the location becomes more rural, but not as significantly as with the inpatient service examples. Data: MN Hospital Association

A case in point

Given the trajectory of the major shifts occurring in the healthcare market, consolidations of services are likely to continue, with healthcare systems facing tough choices about what services to offer in rural Minnesota and where.

Does the solution always have to be consolidation, though? And does the solution to consolidation have to be forcing the provider to not consolidate? One very public case of service consolidation in Greater Minnesota suggests that it doesn't.

The city of Albert Lea attracted a good deal of attention in 2017 when a number of residents there protested an announcement from Mayo Health System that it would be moving most of the inpatient services being provided at the Albert Lea facility, including birthing services, to Austin, 25 miles to the east, while inpatient behavioral health services and some outpatient services would be moved to Albert Lea. Albert Lea also retained its emergency room.

The two primary drivers behind Mayo’s decision were financial and staffing, Mayo regional vice president Dr. Annie Sadosty explained at the time, saying it had become too difficult to staff identical services in both cities. The Albert Lea and Austin hospitals together had lost nearly \$13 million in the previous two years.⁵

⁵ “Albert Lea rises up against Mayo’s plan to trim hospital services,” Matt McKinney, Minneapolis Star Tribune, Sept. 2, 2017.

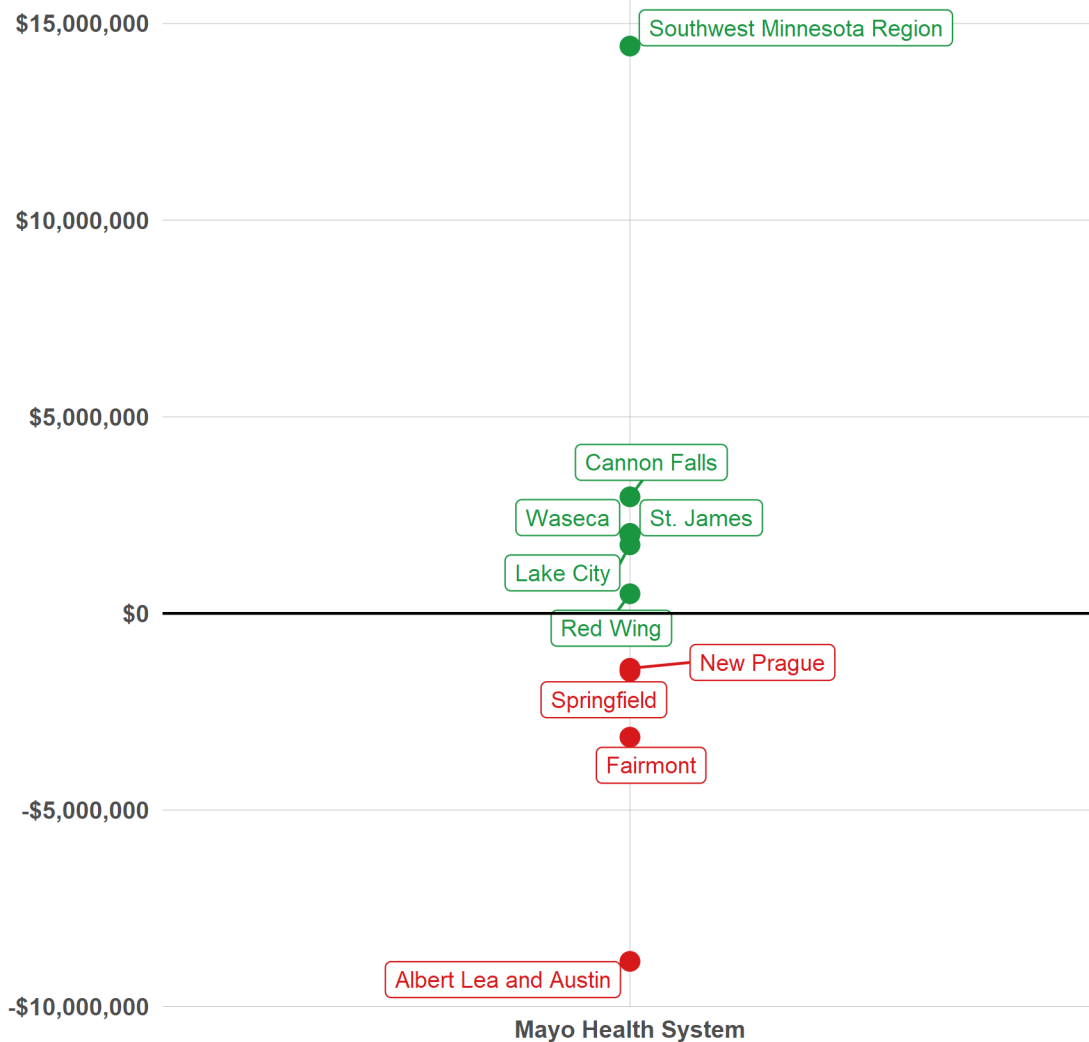


Figure 6: The net income/loss of each Mayo Health System location shows a wide variance. Data: Hospital Annual Report

Consolidating services and closing facilities are nothing new in rural Minnesota. According to a Star Tribune article at the time, between 1987 and 2017, 49 hospitals closed in Minnesota.⁶ Most went unnoticed except in the small towns where they were located. The shuffle between Albert Lea and Austin might have gone largely unnoticed, too, except that the residents of Albert Lea chose to organize, first to fight back as “Save Our Hospital,” then to find alternatives as “Save Our Healthcare.”

The case in Albert Lea reveals a couple of things about the issue of consolidation.

First, a look at Mayo Health System’s hospitals in Minnesota just supports what Figure 3 above showed—that rural hospitals become less profitable the more rural they are—which means a healthcare system must figure out how to deal with the significant variation in the financial performance of the hospitals and other facilities within its own system. Out of the eleven locations for which Mayo provides financial reporting, four of them reported a net loss in 2018 while five reported margins considered to be “healthy” (above 4%) (Figure 6).

Second, the public reaction in Albert Lea showed that rural residents are fed up with and even downright afraid of gradually losing their access to healthcare services. As services disappear, the need to drive farther and farther to access them becomes a larger and larger concern, especially since rural Minnesotans tend to be older. The distances involved, especially in winter, may be difficult for urban residents to grasp.

However, there is also the way rural residents are made to feel when their healthcare services are taken away. In the case of Albert Lea specifically, Brad Arends, organizer of Albert Lea’s “Save our Healthcare” group, stated, “They did this without any feedback from local citizens or leaders. No economic impact study or health impact study. Even though they have all this money in profits, they said Albert Lea isn’t worth it.”

But since 2017, the residents of Albert Lea pulled off something almost unimaginable: they successfully recruited a new healthcare system to town. MercyOne, the largest hospital system in Iowa, is currently working on opening a clinic in the city’s vacant Herberger’s location. The plan is to eventually open a full-service hospital.

That was the plan, at least as of January 2020. The pandemic has slowed things down, but it still doesn’t change what the residents of Albert Lea accomplished. It’s rare for a community, especially one under 20,000, to successfully recruit in another hospital system where an existing healthcare system already operates. But MercyOne responded to the group’s request for proposals, presenting a five-phase development plan that includes a level-2 trauma center.

In the current healthcare market, the elimination of services in places where there is already a lack of services and alternatives has potentially dire implications for the community. Not only is it a potential threat to health and quality of care within the town, but also to the region. The presence of healthcare is important to employers trying to recruit workers to their

⁶ Ibid.

community. And healthcare facilities are major employers in rural cities. If the hospital or clinic leaves, many of the doctors and nurses who work there will also leave, leading to what could be a significant transfer of wealth and economic activity out of that community.

Recruiting a new healthcare facility may not be an option for every community, but it's time to consider that there can be alternatives to consolidating services.

Recommendations

The ongoing shifts in the healthcare market, particularly given the impact of COVID-19, will be significant and long-lasting. Therefore, we can expect horizontal and vertical mergers and acquisitions to continue into the future, and along with them, continued consolidation of services away from smaller rural providers and toward more centralized locations within the larger population centers.

But while much of the push for cost-cutting has come down from the federal government so far, the state has room to act, too. How can state lawmakers help small healthcare facilities become more efficient and increase quality of care without corresponding cuts to services? Can these facilities be rewarded for cutting costs in a way that improves their revenue and patient outcomes?

Here are a few recommendations for policymakers to consider.

- **Require a review of consolidations of services:** The episode in Albert Lea demonstrated that for rural residents, it's not just business. Losing important healthcare services is personal. But before MercyOne can offer inpatient services, it must address one major requirement from the state: a certificate of need.

Minnesota currently has a moratorium on adding hospital beds anywhere in the state, one of a number of policies passed in the 1960s and '70s to prevent significant duplication of services that could lead to increases in healthcare costs. In 1987, these policies were deleted, but one still remains: the public interest review process. MDH's Health Economics Program must conduct a public interest review to make sure that any increase in beds is in the public interest before a facility can add any.

The Albert Lea episode raises a curious question then: Why is a government review required when a healthcare system wants to open up and offer more services in a community (specifically inpatient services), but not when a provider decides to consolidate and eliminate services from a community?

Rather, we suggest developing a policy that would require healthcare systems planning to remove services from a rural facility, whether through a cut or consolidation of services, to explain their reasoning and calculate the impact on the community in terms of access and jobs. The increased transparency would at the very least help stakeholders prepare for the changes and develop alternatives.

- **Differentiate between rural and urban hospitals, even within the same healthcare system.** The economics of rural and urban hospitals are simply different because of economies of scale and patient volume. A cost-cutting strategy developed for one (or all) healthcare systems may work across the board for the system as a whole but cripple the small facilities within the system, leading to further cuts or closures. Can policymakers develop strategies based on patient volume of individual facilities rather than the overall healthcare system? This may be crucial now considering the potentially devastating economic impact the pandemic is having on all of healthcare.
- **Assess negative impacts any significant cost-saving policy proposals would have on rural providers.** The public has every reason to want to see more control over increases in healthcare prices, but attempts to cap prices or equalize them across payers may limit providers' ability to make up for their disproportionate losses caused by Medicare and Medicaid's lower payments. As in the previous recommendation, new policies should be evaluated to understand their impacts on small rural facilities and their very slim to negative profit margins. For instance, policy makers could review the Integrated Healthcare Partnerships program, a legislative pilot program, to assess not only if the model controls costs, but also whether it is causing impacts on rural access.
- **Examine what revenue streams hospitals rely on and explore alternatives.** For example, rather than requiring hospitals to go through a vetting process only to be turned down for more inpatient services, can a rural hospital receive help to expand its outpatient services? This could potentially lower costs and increase revenue, helping them offer more services to their patients and be a better profit center for their system.
- **Explore policy that gives communities more input into the decisions made about their healthcare.** Each hospital system is different in terms of decision-making and representation, and some already require regional or community representation on their boards of directors and in other decision-making capacities. But as systems become larger and merge or acquire more providers across the state, the decision-making center moves farther and farther away from local communities. Ensuring local input will help guard against decisions that benefit the system but not the individual facilities and their patients.