

MISSION CONTROL

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E-BOOK PRESENTED BY MOTIENT

The Uphill Struggles of Rural Healthcare: A look at rising disparities and inequities — and how rural hospitals can push back

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DISTANCE AND DISPARITY GAPS

01

A Harsh Reality for Rural Hospitals

Rural hospitals are the first line of treatment for many small-town communities, but they face an increasingly steep uphill struggle in their efforts to ensure positive outcomes for their patients. Approximately 60 million people live outside urban areas¹, which means close to 20% of the US population occupies 97% of the country's land mass (urban centers make up the remaining three percent).²

With not even a quarter of the US population spread out over the vast majority of the nation's land, rural hospitals not only deal with many of the same challenges as urban hospitals, but they must also navigate a rural landscape — figuratively and literally — that compound these challenges.

RURAL HOSPITALS



**Make up
Only 1,800**
OF ALL
US HOSPITALS
VS 3,300 URBAN
HOSPITALS ³



**Have 1.7
ICU Beds**
PER 10,000
PEOPLE
VS 2.8 ICU BEDS IN
URBAN AREAS ⁴



**Take 42
Minutes**
DESPITE SEEING 90%
OF EMS TRANSPORTS
VS 28 MINUTES IN
URBAN AREAS ⁵

A HARSH REALITY FOR RURAL HOSPITALS

So, while rural hospitals are spread out over a much greater geographic area, **they are fewer in number and have less capacity in their ICUs than their metropolitan counterparts.**

Additionally, patient transports in more remote and isolated regions must travel farther distances to take patients in need of a certain level of care to a facility where that care can be administered.

Addressing the widening disparity gap in rural healthcare

The U.S. Department of Health and Human Services (HHS) launched the Healthy People initiative in 2010, with the explicit mission to improve the quantity and quality of life for all Americans.⁶

“Rurality” is recognized by the initiative as one of its 14 health disparities because the accessibility of sufficient healthcare for rural residents is significantly less than that compared to people living in more densely populated urban centers.¹

Unfortunately, the disparities and inequities of healthcare accessibility for rural residents continue to grow in their severity due to the progression of several critical issues impacting the entire healthcare industry.

To compensate for disparities and ultimately improve patient outcomes, rural hospitals must find ways to become more efficient despite these issues. One such aspect of patient treatment where the needed efficiencies can be gained:

Patient movement.

A move in the right direction for rural patients

This eBook reviews a few key industry-wide developments actively hindering healthcare accessibility in rural areas. While some aspects of rural healthcare have long been acknowledged as challenging — such as the previously noted geographic size — the factors we'll discuss here are relatively more recent, having taken shape mostly over the previous decade, only to be exacerbated by the COVID-19 pandemic

After an overview of what these factors are and how they disproportionately impact rural communities, we'll look at how rural hospitals can overcome these developments through technology-enabled processes that improve the efficiencies and cost-effectiveness of patient movement.

HARNESS THE POWER OF PATIENT MOVEMENT

A DECLINE IN HEALTHCARE WORKERS

02

Hospital Staffing Shortages

Hospitals throughout the United States are contending with a drastic decline in the number of healthcare workers in recent years. As reported by HHS, about 16% of all hospitals are experiencing critical staffing shortages.⁷ **However, even before the nationwide spike in healthcare staffing issues, only 11% of all physicians practiced in rural areas.**

A by-the-numbers breakdown

There are **39.8 physicians per 100,000 people in rural areas. Conversely, urban areas have 53.3 physicians per 100,000 people.**⁸ Based on these physician-to-patient ratios and the uneven distribution of physicians across the US, it can be reasonably assumed that rural hospitals will take the brunt of any further decline in physician workforce numbers.

A decline in the number of nurses

Rural communities are also experiencing greater fallout from the ongoing nursing shortage: **only 16% of all registered nurses live and work in rural areas.** With one study predicting that over one million RNs in the US will retire between now and 2030, we can again safely assume that rural areas will be disproportionately affected.^{9,10}

Lack of access

The hospital staffing shortage is dire everywhere, but the ease of access to adequate healthcare is still better in urban areas. In fact, as of 2017, **rural hospitals are estimated to need approximately 14,000 to 17,500 additional healthcare workers to provide the same access to care found in urban areas.**¹¹



ADD TO THIS THE FACT THAT

65%

OF ALL HEALTH PROFESSIONAL SHORTAGES ARE OCCURRING IN THESE SAME RURAL AREAS

The implication becomes clear: **Nationwide healthcare worker shortages are disproportionately affecting rural hospitals and their communities.**¹

RURAL HOSPITALS WILL NEED APPROX.

14,000 - 17,000



ADDITIONAL HEALTHCARE WORKERS to match care found in urban areas

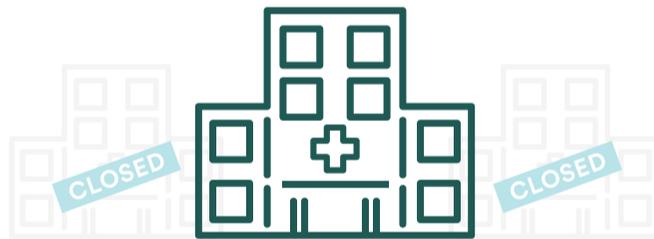
INCREASED TRANSPORT TIME

03

Rural Hospital Closures

Response delay and Emergency Medical Services (EMS) transportation times are already much longer in rural areas than urban ones. Now, in the race to move patients from one hospital to another so they can receive the care they need as quickly as possible, healthcare teams are literally gaining ground, but not in a good way—there have been 138 rural hospital closures since 2010,¹² which translates into more time spent moving a patient across a greater distance while the clock continues to tick.

CLOSURES HAVE LEAD TO:



One study observed that the mean EMS transport time prior to a rural hospital closure was 14.2 minutes. The transport time increased to 25.1 minutes after an observed hospital closed—a 76.4% average increase in time that patients spend in transit.¹³



Meanwhile, the U.S. Government Accountability Office published a report on the impact these hospital closures have on the surrounding communities. It found that residents living in the areas once served by the closed hospitals had to travel an average of 20 miles farther for healthcare services.¹⁴

RURAL HOSPITAL CLOSURES

Every second counts in patient movement

When a patient needs critical care and must be transported from one hospital to another, time is of the essence.

Whenever a rural hospital closes, especially one capable of providing a high level of potentially lifesaving care, the greater the distance patient transports must travel.

Additionally, since fewer hospitals not only means greater travel distances but also fewer available beds, the task of calling and finding a receiving hospital becomes all the more difficult.

When we factor hospital closures in with the previously discussed worker shortages, there are fewer beds, longer travel distances, and fewer nurses trying to coordinate timely patient transport. **The result is a reduced likelihood of positive patient outcomes.**

One study observed that the increased transportation time caused by **rural hospital closures contributed to an 8.7% increase of in-patient mortality.**¹⁵

The study's findings are concerning, though not surprising. After all, sending hospitals have already lost time due to the expanded distance the responding EMS must travel to deliver the patient to the emergency department.

This inefficiency, in turn, is passed along to the receiving hospitals, which also must contend with the time lost due to the added 11 minutes of travel time between the two facilities. For comparison, the same study found no discernable increase in EMS transportation travel times in urban areas with hospital closures.¹⁵

No signs of stopping¹⁶

SINCE 2015, THERE HAS BEEN AN AVERAGE OF

16.4

HOSPITAL CLOSURES
NATIONWIDE

Resulting in a decline in the number of hospitals from 1,887 to 1,805.

AN AGING AND UNINSURED POPULATION

04

Worsening Socioeconomic Factors

People in rural areas tend to be poorer and older than those in urban centers. They live in higher concentrations of poverty, and 18% of them are aged 65 years or older (compared to 13% of the urban population).¹⁴ Additionally, rural residents are more likely to be uninsured: about 12.3% of people in completely rural counties lack health insurance compared to 10.1% of people in completely urban areas.¹⁷ Rural areas also saw a 0.4% rise in the unemployment rate from 2010 to 2018, while urban areas saw a 4% employment rate growth.¹⁴



18%

AGED 65
OR OLDER



12.3%

LACK HEALTH
INSUREANCE

To compensate for these rural socioeconomic conditions, hospitals depend mostly on Medicare and Medicaid reimbursements for their revenue. However, reimbursements from Medicare and Medicaid arrive later than those from private payers, forcing many rural hospitals to operate with negative margins.

Unfortunately, most rural hospitals still end up losing more money on Medicaid patients than they do on patients with private insurance.¹⁹

A population in decline

Rural populations are dwindling, with a two percent decline observed between 2010 and 2018.¹⁴ Fewer patients means an even further reduction in revenue for rural hospitals. Furthermore, the patients who remain are generally in poorer health.

Studies have shown a higher prevalence of chronic diseases among older rural adults, including coronary heart disease and diabetes. Rural adults are also more likely to be obese, and deaths resulting from complications with diabetes are as much as 17% higher in rural areas.²⁰

When compared to urban hospitals, this means rural hospitals are tasked with providing services to a greater number of poor residents who require a greater level of care.

WORSENING SOCIOECONOMIC FACTORS

The smallest hospitals may be at the greatest risk

For small rural hospitals, low payments from private insurers and patient debt are the main causes of financial troubles. Ultimately, more than half of all small rural hospitals that closed in recent years showed losses of at least ten percent in the year prior to closure. More than one-fourth had losses greater than 20%.¹⁹

A pandemic ripple effect

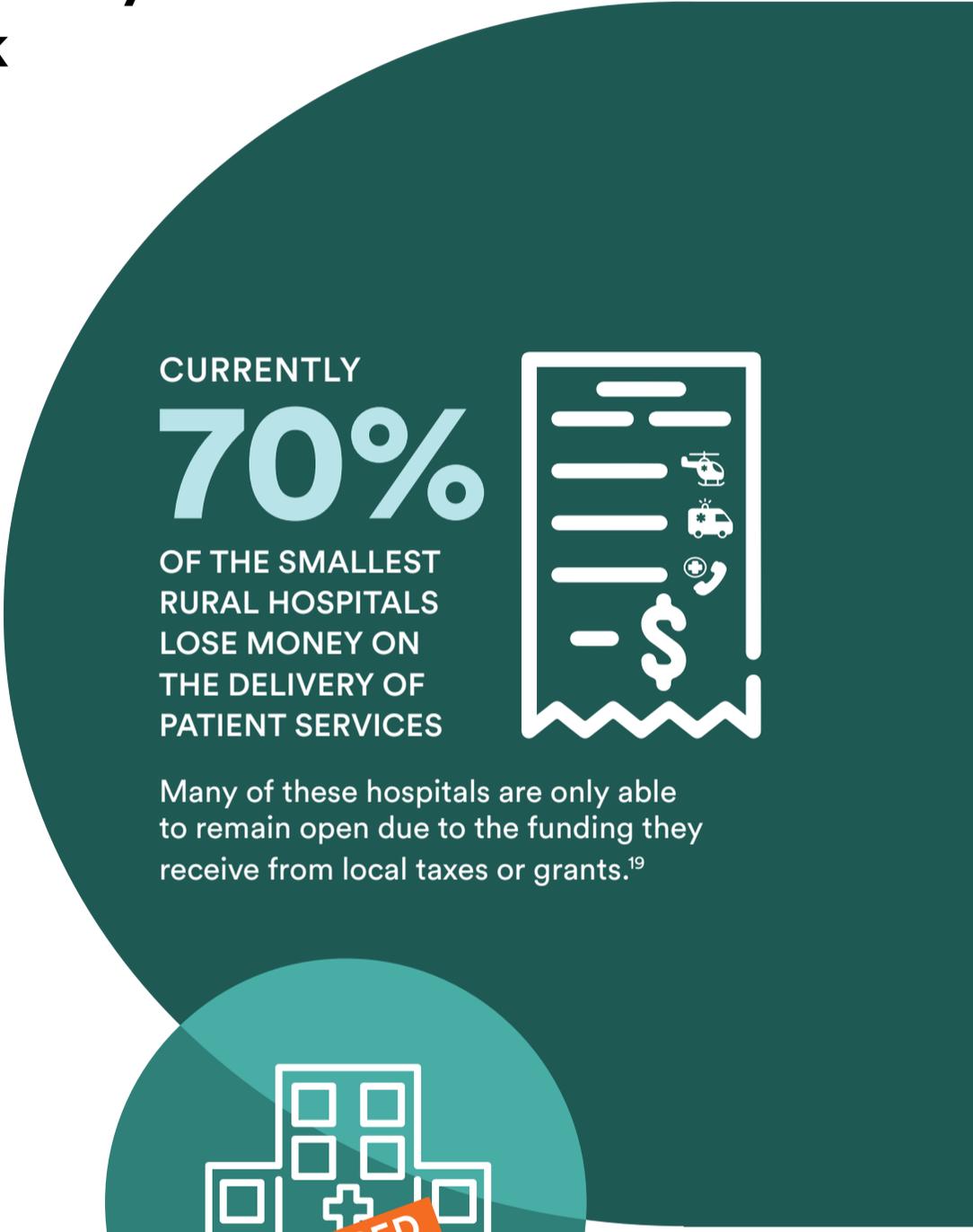
COVID-19 disrupted what was already a financial balancing act for rural hospitals. Over the past year and a half, they lost revenue from the cancelation and deferment of elective services due to the pandemic.

They also had to invest in proper equipment to treat COVID-19 patients and protect staff and visitors.

This loss in revenue and rise in expenditures have resulted in a sudden spike in the number of rural hospitals in danger of closing.²¹

PRE-PANDEMIC, MORE THAN
500 Hospitals
WERE AT RISK OF COSURE

THAT NUMBER HAS RISEN TO NEARLY **900**²²



HOW MISSION CONTROL CAN HELP

05

Overcoming the Disparities and Inequalities in Rural Healthcare

Rural hospitals are tasked with providing positive patient outcomes to an older, sicker, and poorer population than hospitals in urban areas. To do so, these hospitals must contend with staffing shortages, fewer hospitals over greater distances of travel, and worsening socioeconomic conditions. In light of these factors, rural hospitals must turn to technologies that help them find efficiencies in patient movement — efficiencies that result from streamlining the otherwise time-consuming tasks of finding beds, arranging the correct mode of travel, and overseeing all other transportation logistics and communication.

Improve patient outcomes in rural areas with Mission Control

Mission Control, Motient's SaaS platform, provides rural hospitals with the means to streamline every aspect of patient movement. A physician-created, web-based analytics service, Mission Control eliminates communications and data silos between healthcare professionals and information systems. It delivers real-time, end-to-end insight into patient movement via a single dashboard, while allowing users to drill down into detailed specifics of any patient transport — past or present.

01. Sending hospitals in rural areas can use Mission Control to gain real-time insight into the capabilities and capacities of surrounding hospitals.
02. Informed by their own patient assessment and guided by the previously inaccessible data delivered to them via Mission Control, healthcare providers can better ensure that patients receive the appropriate care they need as fast as possible.
03. Mission Control helps healthcare staff to rapidly determine the receiving hospital most likely to optimize a patient outcome, arrange the appropriate ground or air transport, and coordinate with all stakeholders — from EMS teams to the receiving hospital — seamlessly and in real-time, every step of the way.

HOW MISSION CONTROL WORKS

Mission Control provides healthcare professionals with the means to ensure safe, fast, and efficient patient transport through several key features:



MOTIENT ACUITY INDEX

Empower teams with data-driven insights

Our Acuity Index equips users with a standardized methodology that aligns a patient's condition with the most appropriate mode of transportation.

This number is derived from a series of questions representing the patient's current condition and the risk that transport could play in that person's care.

REPORTING AND ANALYTICS

Stay organized and up-to-date with real-time information

Mission Control provides previously inaccessible transport data (updated every two hours) so users can make informed decisions that balance quality of care with resource utilization. Through Mission Control, you can conduct analytics on a range of data sets—such as clinical severity and—to make the best possible transport decisions (i.e., value-based decision making).



REAL-TIME LOGISTICS CONTROL

Ensure quality care and optimize resource allocation

Mission Control provides an easy-to-navigate dashboard to give teams at the sending and receiving facilities—along with transport teams—the ability to monitor a patient's movement in real-time and stay informed. The dashboard includes vital details such as changes to the patient's condition, ETA updates, routing changes, real-time maps, and more—delivered securely and made easily accessible.



Push back against the disparities and inequities in rural healthcare

Mission Control can provide rural hospitals with technology-enabled efficiencies that help them overcome the staffing shortages, hospital closures, and socioeconomic factors impacting their ability to provide positive patient outcomes.

To learn more about how Mission Control help you push back against the disparities and inequities of rural healthcare, visit motient.io.

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HARNESS THE POWER OF PATIENT MOVEMENT

LEARN MORE

Contact Us

Find out how Mission Control powered by Motient can benefit your team. Book a live demo with one of our experts.

Learn more at motient.io | contact@motient.io

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