

Strategies to Reduce Hospital Readmission Rates in a Non-Medicaid-Expansion State

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Abstract

On October 1, 2012, as part of the Affordable Care Act, the Centers for Medicare and Medicaid Services began to reduce payments to hospitals with excessive rehospitalization rates through the Hospital Readmissions Reduction Program. These financial penalties have intensified hospital leaders' efforts to implement strategies to reduce readmission rates. The purpose of this multiple case study was to explore organizational strategies that leaders use to reduce readmission rates in hospitals located in a non-Medicaid-expansion state. The data collection included semistructured interviews with 15 hospital leaders located in five metropolitan and rural hospitals in southwest Missouri. Consistent with prior research, the use of predictive analytics stratified by patient population was acknowledged as a key strategy to help reduce avoidable rehospitalization. Study findings suggest that leveraging data from the electronic health records to identify at-risk patients provides comprehensive health information to reduce readmissions. Hospital leaders also revealed the need to understand and address the health needs of their local population, including social determinants such as lack of access to transportation as well as food and housing.

Keywords: hospital readmission rates; Hospital Readmissions Reduction Program (HRRP); population health; qualitative research; case study; complex adaptive systems; data analytics

Introduction

In recent years, hospital leaders have intensified efforts to reduce rehospitalization. These efforts have been increased by aligning payments with patient outcomes through the Hospital Readmissions Reduction Program (HRRP), established as part of the Affordable Care Act (ACA). The ACA also expands eligibility for Medicaid coverage and assumes federal responsibility for much of the cost of this expansion. Many states began expanding Medicaid eligibility on January 1, 2011. While the Medicaid expansion was intended to be national, a Supreme Court ruling in June 2012 made it optional for states.¹ As of December 2018, 14 states, including Missouri, had not expanded their Medicaid programs.²

The HRRP was implemented to provide incentives to hospitals to decrease their readmission rates by instituting penalties for hospitals with high readmission rates among Medicare patients. The penalties were initiated on October 1, 2012, at 1 percent for the first year, expanding to 3 percent in the third year.³ To avert payment penalties, hospital leaders must implement strategies to reduce patient readmissions. Therefore, this study explores the organizational strategies that hospital leaders use to reduce readmissions. The findings from this study will guide hospital leaders in states without Medicaid expansion to identify and implement new strategies to avoid financial penalties by reducing hospital readmissions. Furthermore, results from this study will help healthcare leaders simultaneously improve the overall health outcomes of their patient population and reduce the financial burden of hospital readmission rates on the national healthcare system.

Background and Significance

Hospital readmissions are costly to our national healthcare system. The annual cost of readmissions to the US healthcare system is approximately \$17.4 billion per year.⁴ Hospital team members readmit approximately 20 percent of patients who have Medicare as their primary payer within 30 days of initial discharge and readmit 34 percent of these patients within 90 days.⁵ Thus, the HRRP was enacted to help reduce the high rates of readmission by preventing avoidable hospital readmissions.⁶

Excess costs for the delivery of healthcare can cause a financial strain on both the federal government and hospitals. Unnecessary healthcare costs total about \$765 billion annually.⁷ Avoidable readmissions cost Medicare approximately \$17 billion per year.⁸ Under the current payment structure, the fee-for-service model, providers have an incentive to overtreat their patients because their payments are based on services rendered, not on the quality or appropriateness of services.⁹ The fee-for-service model does not include adjustments for medical necessity or tie any quality measures or patient satisfaction elements to a provider's reimbursement.¹⁰ The federal government is attempting to recoup some of these costs by using quality programs such as the HRRP.¹¹

The implementation of the HRRP is one of three policies that represent a fundamental transition in the structure of payments from the federal government to hospitals.¹² The other quality programs include reductions in payments for treatment of hospital-acquired conditions and the Hospital Value-Based Purchasing program.¹³ Through these quality programs, the Centers for Medicare and Medicaid Services (CMS) links quality care to the financial reimbursement that hospitals receive from the federal government.¹⁴ This pay-for-performance model creates an incentive for hospital leaders to improve the value of the services they provide.

The HRRP creates accountability for hospital leaders and clinicians to provide better care for patients after their initial hospital discharge.¹⁵ Holding hospital leaders and clinicians accountable for patients after discharge promotes communication and integration with healthcare providers across the continuum of care.¹⁶ Poor communication from hospital team members to post-acute care providers is a common reason for hospital readmissions; improving communication among stakeholders increases the quality of the care that hospital team members provide to patients.¹⁷ Effective communication is instrumental in helping patients understand their diagnoses and the importance of taking their medications and properly caring for themselves. The prevalence of excessive readmissions has intensified administrators' and clinicians' efforts, as these initiatives are based on the notion that readmissions reflect poor quality of care.

The objective of this multiple case study was to explore the strategies and initiatives that hospital leaders use to reduce readmission rates at their facilities. By implementing successful strategies to prevent or minimize readmissions, hospital leaders can mitigate the hospital's financial exposure from unnecessary rehospitalization. In particular, we aimed to answer the following question: What organizational strategies do hospital leaders use to reduce hospital readmission rates in a non-Medicaid-expansion state?

Literature Review

Reducing hospital readmissions is a critical objective for hospital leaders because readmissions affect the financial viability of both the hospital and the community in which the hospital resides.¹⁸ Although hospital readmissions have recently become a priority for CMS, the problem is not new. Here, we provide an overview of prior studies on leadership strategies to reduce avoidable readmissions.

The use of data analytics is a strategy to reduce readmission rates that has been documented as underused. Monga¹⁹ suggested that hospitals design an analytical model to predict the likelihood of patients' readmission. The author further explained that the data collected from the model could be used to develop discharge protocols to aid in preventing avoidable readmissions. Butler²⁰ further explained that the use of analytics can accurately predict readmission rates for patients with joint replacements. Butler also reported the use of data analytics to determine patients' probability of readmission, stratified by patient populations.²¹ Data analytics can be used to improve clinical operations, watch for care patterns, and identify readmission risk.

Ben-Assuli et al.²² found the use of electronic health records (EHRs) and health information exchange to be related to a reduction in the number of seven-day readmissions. The authors found that medical practitioners can identify issues, assist patients with management of their diagnoses, and refer patients to appropriate resources and services to support patients with education about their disease management to help reduce costly hospital readmissions.

Researchers have highlighted the use of mobile technology in conjunction with observations by nonmedical workers to predict readmission.²³ The study findings revealed that both use of technology and better use of this underutilized workforce could predict 30-day readmissions. The authors also advised that the use of nonmedical workers to reduce rehospitalization can increase the value-based care provided to patients while decreasing wasteful healthcare spending.

In a study conducted by Zuckerman et al.²⁴ to determine whether an increase in a hospital's observation stays correlated to a decrease in readmissions, the authors did not find a significant correlation between observation unit utilization and readmission rates. Other scholars have assessed how increased nursing staff levels can affect readmission rates.²⁵ McHugh et al.²⁶ discovered that hospitals with higher nurse staffing levels were less likely to be penalized in the HRRP than hospitals with lower nurse staffing levels. Hockenberry and Becker²⁷ further reported that frontline hospital team members have a material impact on overall performance across hospital domains.

Winborn et al.²⁸ explored perceptions of the care provided by hospitals that were financially penalized for readmission. Findings revealed that the effect on a hospital's reputation was more significant for hospitals that received a high readmissions penalty, with the corresponding perception of providing low-quality care, than for hospitals with low readmissions penalties, which were perceived as providing high-quality care. Additionally, Winborn et al.²⁹ identified themes similar to those found in a prior study by Gu et al.,³⁰ in which the authors discussed the adverse effect of serving an at-risk patient population.

Ahmad et al.³¹ piloted a qualitative analysis of hospital leaders to ascertain what strategies they might use to reduce hospital readmissions. The researchers reported that many hospital leaders identified themes like those discovered in previous quantitative studies.³²⁻³⁴ Their findings revealed that some factors influencing readmissions are outside of the hospital's control, such as poverty rates and mental health issues, which coincides with the findings of a study by Nagasako et al.³⁵ Additionally, Ahmad et al.³⁶ stated that hospital leaders identified poor communication among healthcare providers as a cause of patient readmissions.

While prior studies have explored strategies to reduce hospital readmissions, our study expands on the research conducted by Ahmad et al.³⁷ but differs in that we investigated strategies that hospital

leaders used to reduce readmissions in metropolitan and rural areas in a non-Medicaid-expansion state. While the benefits of Medicaid expansion (one of the most important provisions of the ACA) have been debated,^{38,39} recent studies^{40,41} have revealed that Medicaid expansion coverage has led to more appropriate use of healthcare to improve care transitions and reduce hospital readmissions for Medicaid patients. Examining the strategies that hospital leaders used to reduce hospital readmissions in a non-Medicaid-expansion state could further provide insight into population health management and the financial impact for states that decided not to expand Medicaid coverage.

Procedure

Demographics

Through this study, we examine the strategies that hospital leaders used to reduce hospital readmissions. We conducted 15 semistructured interviews with participants ranging from executives to manager-level employees (see Table 1 for participants' titles), across five hospitals located in southwest Missouri. All five hospitals were nonprofit and subjected to the HRRP. Two of the hospitals in the study were in metropolitan statistical areas, and the remaining three were rural hospitals. The facilities ranged in bed size from 50–100 for the smallest hospital to more than 250 for the largest hospital (see Table 2 for hospital demographics).

Study Method and Design

This study used a qualitative research method. The qualitative case study approach, which explores the *what*, *how*, and *why* of a phenomenon or situation, was the optimal design for this research study.⁴² Scholars and researchers utilize the case study design to understand the answers to *how* and *why* questions in a bounded system.⁴³ Furthermore, by conducting a multiple case study, researchers can limit their biases and improve external validity.⁴⁴ Vohra⁴⁵ stated the case study design is appropriate for understanding how leaders operate in the context of a larger environment.

The results of the study were developed from the data collected through interviews. To support the data collected through interviews, the study also included a review and analysis of organizational artifacts including board-level briefings and subcommittee records, senior leadership review of readmission rates, and documentation regarding telehealth programs. A final source of data was field notes collected during the interviews and review of documentation. We used methodological data triangulation to identify reoccurring themes based on multiple data sources.

Before conducting the semistructured interviews (see Appendix A), we identified gatekeepers at the hospitals. Each hospital gatekeeper signed a letter of cooperation to ensure a partnership in the research. Additionally, we obtained approval from an institutional review board before conducting any research. Before we conducted the interviews, participants signed an informed consent form to ensure that they understood their role and options in the study. To avoid bias in our interviews, we used a bracketing technique.⁴⁶ Bracketing is a common technique in qualitative analysis in which researchers identify possible personal biases and attempt to eliminate any impact the biases may have on the research process. Bracketing occurs when researchers deliberately put aside their beliefs about the research phenomena.

We continued to interview participants until we reached data saturation, which is a core component of qualitative analysis.⁴⁷ In qualitative studies, data saturation occurs when a researcher is conducting interviews and identifies no new themes in subsequent interviews.⁴⁸

Once the semistructured interviews were complete, we had a professional transcription service transcribe the interviews into text. After we received the transcriptions and identified preliminary themes, we conducted member checking to ensure the validity of our interpretation. Member checking is the process of synthesizing participants' responses and having the participants validate the researcher's interpretation.⁴⁹ After participants confirmed their responses to each question, the synthesized versions were analyzed using qualitative computer software.

Data Analysis

Data were transcribed, coded, and analyzed according to Yin's⁵⁰ multiple-step data analysis process. We compiled all the data and used methodological data triangulation as the data analysis approach. Researchers using methodological triangulation discover themes and concepts from multiple sources of data including interviews, observations, personal notes, and organizational documentation.⁵¹ Using data triangulation in a research study increases the validity of the study.

We transcribed interviews and research notes related to observations and organizational documents and loaded the data into the qualitative analysis software. Thematic analysis was used to identify reoccurring themes and concepts. Thematic analysis is a systematic process that researchers use to analyze data in search of reoccurring themes and concepts.^{52, 53} This iterative process started when the first synthesized interviews were loaded into the qualitative analysis software. The process of identifying and coding themes continued until we identified four major themes consisting of numerous core themes.

During the analysis process, reoccurring core themes were identified and grouped into broader themes. However, the core themes could be organized into different major themes because of the overlapping nature of the material. Additionally, the major themes are connected and cannot be analyzed in isolation. The interconnectedness and overlap of the core themes is representative of the complex nature of healthcare.

Results

Four major themes emerged from the responses regarding strategies for avoidable readmissions among hospital leaders in a non-Medicaid-expansion state:

1. population health,
2. hospital operations and patient interactions,
3. leadership and mission, and
4. barriers to reducing readmissions.

These major themes are holistic viewpoints with numerous reoccurring commonalities. Many core strategies were identified within the four major themes (see Table 3). These core strategies are the granular elements of the major themes. The overlap, interconnectedness, and complexity of the major themes and core strategies are indicative of a complex adaptive system. The participants' responses and a narrative behind each theme are presented in the following sections.

Theme 1: Population Health

Population health is the first major theme of the study. The concept of population health is not a new idea to healthcare and is representative of the transition from the fee-for-service landscape to the value-based environment.⁵⁴ Although population health is not an explicit strategy or initiative for reducing readmissions, hospital leaders can use it as a framework to develop initiatives for reducing readmissions. The core strategies of population health identified by the participants were as follows:

1. Care coordination across the care continuum,
2. Patient education, and
3. Developing local and community approaches to healthcare.

Coordination across the care continuum. Nine of the 15 participants (60 percent) reported care coordination across the continuum as affecting hospital readmissions. Participant H3P2 stated: "We are in the process of redesigning the care coordination across the system, so we can make sure that we have linkages in communication and activities in a timely manner. This goes from the ED [emergency department] to inpatient to post-acute services" Participant H4P2 further stated: "First, it is key that we

understand the continuum of care as patients move through the hospital and the outpatient world.” Another participant (H1P2) indicated: “Sometimes if a patient gets sick in their care, they tend to just call an ambulance and transfer the patient back to the hospital, which in some cases is premature. It is difficult to help them implement a protocol for those types of situations, so they don’t just transfer patients back to the hospital. The key issue is educating the nurses and doctors at the post-acute care facilities (PACFs).”

Patient education. Eleven of the 15 participants (73 percent) cited patient education as a critical issue affecting hospital readmissions. Responses related to this core strategy suggest that while hospital leaders attempt to empower their patients to be champions of their health, some patients do not understand their conditions, their treatments, or how to manage their symptoms. Participant H5P3 stated: “I think health literacy is a really big issue, especially in our rural population. They might read and write, but health literacy is a separate issue.” Another participant (H2P1) stated: “Another big aspect is education. We do our best to educate our patients on the benefits of following their care plan. Telling them why they need to take their medications, go to their follow-up appointments, and start living healthy.”

Developing local and community approaches to healthcare. Eleven of the 15 participants (73 percent) stated that developing local and community approaches was critical to reducing readmissions. Participant H4P1 stated: “We start by being proactive and building relationships with other community organizations, such as The Kitchen or Salvation Army. It comes down to being able to be better partners with them to provide the necessary resources. Are we serving the needs of the community? Because if not, it’s going to be a drain on everybody.” Additionally, participant H4P1 observed malnutrition as an influencing factor and stated the need to help patients with “things like malnutrition because they do not have a good diet. We need to try and get those patients connected with the local food bank or other [ways to address] dietary needs.”

Theme 2: Hospital Operations and Patient Interactions

Hospital operations and patient interactions were identified as components of strategies that hospital leaders utilize with internal team members to reduce readmissions. These specific reoccurring themes were identified in the semistructured interviews. The core strategies of hospital operations and patient interactions identified by the participants were as follows:

1. Multidisciplinary rounding teams,
2. Post-acute services, and
3. Monitoring of readmission rates.

Multidisciplinary rounding teams. Six of the 15 participants (40 percent) identified multidisciplinary rounding as a strategy for reducing readmissions. In this strategy, team members from different organizational domains form a team to discuss and share their information on patients. Participant H3P1 stated: “Our multidisciplinary rounding has been a great team and program. This way the physician can hear from all levels of the care team. Everybody holds a piece to the puzzle including the nutritionist, the social worker, and the nurses taking care.” Another participant (H2P1) stated that “by incorporating nurses into the team, it is a good opportunity for the team members who spend the most time with the patients to communicate their knowledge.”

Case management, while similar to the use of multidisciplinary rounding teams, is a common practice among hospital team members attempting to reduce readmissions. Hospital leaders and clinicians utilize case management to track patients across the continuum and help increase communication between providers and patients. Participant H4P3 stated: “Also, we are focusing on care management and providing those patients with resources to manage their disease. The chronic care managers can help communicate with those patients across the continuum.” Case management is a holistic approach

encompassing many of the themes identified in the research, such as care coordination, patient education, and post-acute services.

Post-acute services. All 15 participants in the study identified providing post-acute services to patients as a strategy for reducing readmissions. Participant H1P3 stated: “The most effective strategy has been setting patients up with post-acute services. The more post-acute services they have access to, the better they do in terms of readmissions.” Newer strategies involve using telehealth services to reach patients. Participant H4P1 highlighted the need to understand the holistic needs of patients beyond their primary diagnosis: “Some of the issues patients face include transportation and malnutrition. We look at how can we leverage our community health workers to help the patients get the resources they need. Treating the whole patient, not just the disease.”

Monitoring rates, benchmarking, and electronic flagging. Thirteen of the 15 participants (87 percent) identified monitoring readmission rates as a core strategy for understanding the patient populations. Participant H4P2 stated: “We look at Emergency Department (ED) visits per 1,000. Of course, some patients need to be admitted, but we want to look at patients in the ED we could help prevent from showing up in the ED in the first place. If we can control the ED, we can help manage our readmissions rates.” Another participant (H5P1) indicated: “We utilize baselines and benchmarks for a three-year period on either a regional, national, or state level. Then, we look at readmission rates by each clinic provider.”

Theme 3: Leadership and Mission

Strategies related to the leadership and mission of individual hospitals are broad themes identified from the interviews. These organizational strategies to reduce hospital readmissions are holistic and involve hospital leaders setting a strategic direction for their teams. The core strategies of leadership and mission identified by the participants were as follows:

1. Setting the mission and vision, and
2. Enabling team members and reducing barriers.

Setting the mission and vision. Ten of the 15 participants (67 percent) discussed the importance of the organization’s mission and vision as a strategy to reduce readmissions. Participant H4P1 stated: “Our leadership team is incredible and care very much about the people of the community. This stems from our mission and culture. Leaders need to set the mission of the organization.” Another participant (H2P3) indicated: “As leaders, you need to demonstrate the importance of why we are doing it. Always need to provide the why. Also, leaders need to remove barriers and understand how to better support the people who are doing it.”

Enabling team members and reducing barriers. Ten of the 15 participants (67 percent) identified enabling organizational team members and reducing barriers as critical roles of leaders in reducing readmissions. Participant H1P1 stated: “The biggest role of a leader is to ensure that there is a coordinated effort focused on readmissions and that everyone is working together. Another aspect is to eliminate any barriers for team members during the process. Leaders need to make sure team members have the resources they need and help reduce barriers to their effectiveness.” Additionally, participant H2P2 stated: “I really do think that the people who know what works best are the people who do it.”

Theme 4: Barriers to Reducing Readmissions

Despite discussing possible strategies for reducing readmissions, hospital leaders acknowledged the need to understand the barriers that can prevent the success of these strategies. Although these barriers are primarily outside of their control, the participants acknowledged that hospital leaders need to understand how the barriers may affect their strategies. The core barriers to reducing readmissions identified by the participants were as follows:

1. Social factors,
2. Patient compliance, and
3. Access to care.

Social factors. Twelve of the 15 participants (80 percent) identified social factors as a significant factor influencing patient readmissions. The social determinants affecting hospital readmissions identified by the participants were poverty, homelessness, dietary needs, education, drug abuse, and transportation. Participant H2P4 stated: “One important aspect is that of socioeconomic status in the healing process. Communities that have the resources to provide to their patients have better outcomes. Things like access to the right nutrition, the right caregivers, going to a place that has proper housing, and access to medication. Some do not have fruits and vegetables in their diet because it is easier to go to the gas station and get cheap, filling food packed with preservatives.” The participants acknowledged the need to address patients’ socioeconomic status but also acknowledged that their influence in controlling those issues is limited. For example, participant H4P1 stated: “There is only so much we can control at the organizational level. There are so many societal factors that come into play like determinants of health, lifestyle choices, and access to primary care. A lot of patients do not have the right income, resources, or even a permanent home.”

Patient compliance. Six of the 15 participants (40 percent) identified patient compliance—or, more accurately, patient noncompliance—as a barrier to reducing readmissions. Participant H3P2 stated: “Unfortunately, personal decision making, such as a patient’s decision to use drugs, is a big barrier.” Another participant (H5P3) indicated: “Patient compliance. There is only so much the hospital staff, home care, and nursing homes can really do. The patients need to be responsible to go to the doctor’s appointment, and we need to help them realize that.”

Access to care. Six of the 15 participants (40 percent) identified access to care as a factor affecting hospital readmissions. Patients, especially those in rural areas, may not have a primary care physician nearby. Additionally, participants cited the lack of behavioral health services available to their communities. Participant H2P4 stated: “Another aspect is the psychological component of healthcare. The primary diagnosis may be congestive heart failure (CHF), but the secondary is depression because I’m home alone and I have CHF. Just the words CHF can induce anxiety and depression. So what are we doing about mental health?” Additionally, participant H4P1 stated: “We have a lot of work on behavioral health, which is an ongoing community need. We just do not have enough behavioral health beds.”

Discussion

The 15 hospital leaders in Missouri identified several key strategies to reduce hospital readmission rates. Data and information collected from the in-depth semistructured interviews and artifacts revealed similar strategies from previous studies. These insights can assist leaders to mitigate their hospital’s financial risk from avoidable readmissions while simultaneously improving the overall health of the population and reducing the financial burden on the national healthcare system.

We found that hospital leaders acknowledged that their internal teams and clinicians are part of a more extensive network addressing patient care, specifically post-acute care facilities across the continuum of care. This finding is consistent with prior work.⁵⁵ Ahmad et al.⁵⁶ and McClintock et al.⁵⁷ both agreed that providing post-acute services is vital to the care of the patient. McCarthy et al.⁵⁸ also pointed out that follow-up services, addressing both medical and social issues, are essential to reducing readmissions. Participants in this study also revealed that communication, both within their facility and with other organizations, is a factor influencing hospital readmissions. Our findings highlight the importance of communication initiatives and feedback loops with post-acute care facilities in preventing unnecessary hospital readmissions.

We also found that patient education and health literacy are factors affecting hospital readmission. Participants explained that while care teams can attempt to inform patients about their conditions, patients need to understand and apply the information provided by the clinicians. Patient education is a contributing factor for readmission.⁵⁹ Jotterand et al.⁶⁰ confirmed the value of patient education but also indicated that patient education can be a valuable tool for clinicians because engagement can empower patients to become more independent in managing their health. Through the provision of additional informational resources, patients can attempt to manage their conditions on their own without the need for rehospitalization, which is consistent with findings reported by other researchers.⁶¹ The evidence suggests that patient education and healthcare literacy can affect readmission rates. Improving healthcare literacy as a strategy to decrease rehospitalization is a key aspect of the Healthy People 2020 initiative.⁶²

Our findings are also consistent with prior study findings identifying community-based partnerships as a strategy for reducing hospital readmissions.⁶³⁻⁶⁵ The participants' comments suggest that hospital leaders need to coordinate and create relationships with other community organizations that provide the necessities to keep patients healthy. Kocher and Adashi⁶⁶ explained that community-based care transition programs are based on the premise of partnerships between hospitals and community-based organizations to reduce hospital readmission rates. McCarthy et al.⁶⁷ stated that developing community relationships is a vital aspect of controlling hospital readmissions. De Angulo and Losada⁶⁸ further discussed a multidimensional approach for collaboration among community stakeholders. Hospital leaders can enable their team members to engage with the community to provide resources beyond their clinical care to achieve the desired outcomes for patients.

Our study expands on prior studies on the use of monitoring rates, benchmarking, and electronic flagging. Similar to the findings of Ahmad et al.,⁶⁹ in our study 87 percent of hospital leaders identified monitoring rates as a core strategy in understanding their patient populations and readmission rates. Also consistent with the findings of Ahmad et al.,⁷⁰ 40 percent of the hospital leaders in our study discussed using flags in the EHR to identify at-risk patients. Kripalani et al.⁷¹ suggested that proactively identifying high-risk patients upon admission allows leaders to deploy targeted interventions to reduce the chance of readmission. The authors discussed using risk-prediction models to identify high-risk patients. These findings imply that the strategy of using technology to track high-risk patients is one that is consistent with the literature. As suggested by Monga,⁷² the use of analytics to predict the likelihood of rehospitalization may provide a more accurate predictor of rehospitalization than other techniques.

Furthermore, the evidence from this study and previous studies reinforces assertions that information technology plays a critical role in increasing the quality of care and reducing hospital readmissions. As noted by Bau,⁷³ the Health Information Technology for Economic and Clinical Health (HITECH) Act provides administrators and clinicians with the incentives and resources to "analyze the information in their electronic health records and proactively find opportunities to improve health care quality and outcomes, such as screening rates or avoidable hospitalizations." Since the HRRP penalizes hospitals for high readmission rates, using EHRs in a meaningful way can aid in the reduction of rehospitalization, as indicated by the participants in this study and existing literature.

Our study also expands on past studies that assessed the impact of social factors on hospital readmission.⁷⁴⁻⁷⁷ Eighty percent of the participants in this study identified social determinants as a major factor influencing patient readmissions. Our finding is consistent with those of both McCarthy et al.⁷⁸ and Jha.⁷⁹ Consistent with our study, Snyderman et al.⁸⁰ previously noted that issues like poverty, affordability of medication, and housing affect hospital readmissions. While Gu et al.⁸¹ agreed with Calvillo-King et al.⁸² and McCarthy et al.,⁸³ they further found that dual-eligible patients (i.e., those enrolled in both Medicare and Medicaid) were more likely to be readmitted than non-dual-eligible patients. We interpret these findings as the premise for understanding population health management and the socioeconomic factors that influence patient outcomes beyond clinical care.

A limitation of this study was that all the participants came from the same the geographic area of southwest Missouri. Because of the geographic location of the participants, their responses may not be generalizable to all hospitals. However, the results of the study may apply to hospitals in other states that do not have an expanded Medicaid option through the federal government. Further research should involve exploring readmission reduction strategies in Medicaid expansion states and major metropolitan areas.

Conclusion

Hospital leaders continue to grapple with the mandated and complex issue of reducing hospital readmissions. Since the enactment of the HRRP to reduce readmissions by aligning payments with patient outcomes, hospital leaders have intensified efforts to understand the factors affecting the populations they serve and to implement strategies to reduce avoidable readmission. The major themes identified in this study are population health, hospital operations and patient interactions, leadership and mission, and barriers to reducing readmissions.

While findings from this study revealed that no single strategy is likely to reduce readmissions, participants recognized the degree to which the identified strategies are dependent on one another, which is indicative of complex adaptive systems. The main conclusions of this study shed light on the importance of communication feedback loops with post-acute care facilities, health literacy, community-based care transition programs, use of EHRs, and patient socioeconomic factors. Also, we discuss the specific value of data analytics to help predict the likelihood of readmission after hospital discharge. We extend previous research that suggests that addressing rehospitalization requires leaders to understand both the needs of their patient population and the transitioning of the healthcare landscape to value-based care in order to implement readmission reduction strategies and thereby reduce financial penalties and improve patient outcomes simultaneously.

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Appendix A

Interview Questions

1. What organizational strategies do you use to reduce patient readmissions?
2. What is the role of hospital leaders in developing and implementing strategies to reduce readmission rates?
3. How do you monitor the success of your initiatives to reduce readmissions?
4. Which programs, policies, or strategies have proven most successful in reducing readmissions?
5. What are the biggest challenges and barriers you encounter as a hospital leader in implementing strategies to reduce readmissions?
6. How have you addressed the challenges to implementing the strategies to reducing readmission rates?
7. What are the issues affecting readmissions outside the control of the hospital?
8. What else would you like to add about your organizational strategies to reduce readmission rates?

Table 1
Participant Coding

Hospital	Participant	Title	Code
1	1	Director	H1P1
	2	Chief nursing officer	H1P2
	3	Director	H1P3
2	1	Chief operations officer	H2P1
	2	Chief medical officer	H2P2
	3	Chief nursing officer	H2P3
	4	Chief executive officer	H2P4
3	1	Chief nursing officer	H3P1
	2	Chief operations officer	H3P2
4	1	Director	H4P1
	2	Vice president	H4P2
	3	Director	H4P3
5	1	Director	H5P1
	2	Manager	H5P2
	3	Manager	H5P3

Table 2

Hospital Demographics

Hospital	Bed Size	Type	Setting	Corporate Affiliation
H1	200–250	Nonprofit, faith-based	Urban	System
H2	100–150	Nonprofit	Rural	System
H3	100–150	Nonprofit	Rural	Independent
H4	>250	Nonprofit, faith-based	Urban	System
H5	50–100	Nonprofit	Rural	Independent

Table 3**Major Themes and Core Strategies**

Major Theme	Core Strategies	Participant Response Rate
Population health	Coordination across the care continuum	60%
	Patient education	73%
	Developing local and community approaches to healthcare	73%
Hospital operations and patient interactions	Multidisciplinary rounding teams	40%
	Post-acute services	40%
	Monitoring of readmission rates	87%
Leadership and mission	Setting the mission and vision	67%
	Enabling team members and reducing barriers	67%
Barrier to reducing readmissions	Social factors	80%
	Patient compliance	40%
	Access to care	40%