Colorado Critical Access Hospitals and Clinics: Improving Communication and Readmission (*i*CARE) White Paper

June 2018

iCARE
Improving Communication and Readmission

COLORADO RURAL HEALTH CENTER
The State Office of Rural Health

Introduction

Through the Colorado Rural Health Center's Improving Communication and Readmission (*i*CARE) program, Critical Access Hospitals (CAHs) and Rural Health Clinics (RHCs) are participating in a statewide initiative to better the patient experience, reduce costs, and improve the health of their communities by improving communication in transitions of care, reducing avoidable hospital readmission rates, and improving clinical processes that contribute to readmissions.

CAHs and rural clinics provide vital access to care in their rural communities yet, they are often overlooked in national and statewide healthcare initiatives. Additionally many initiatives are designed for an urban environment. CRHC created *i*CARE as an opportunity to engage Colorado CAHs and their clinics in a statewide project aligning with national trends and priorities demonstrating sustainable improvements and outcomes. The program highlights the unique characteristics of rural healthcare, the strengths of rural health facilities, and their capacity for innovation to meet the needs of their patients.

"Critical Access Hospitals are a vital component of the rural health care delivery system providing inpatient and outpatient acute care and emergency services."
– Michelle Mills, CEO

The program started in 2010 with 9 CAHs and expanded in 2012 to include the RHCs affiliated with the hospitals. The focus and goals for clinics center on chronic disease management, specifically diabetes, and addressing the clinic's role in communications and reducing readmissions in partnership with the hospital. The program has continued to expand and currently has over 50 CAHs and RHCs from around Colorado participating in *i*CARE.

The Issue

Colorado is a rural state with 73% of its landmass considered rural or frontier. Over 750,000 Coloradans live in a rural or frontier county and often have to travel great distances for healthcare. For example, rural Las Animas County is roughly the size of Connecticut, yet has only one hospital. Rural Colorado also has fewer physicians (1:1766 patient to provider ratio) when compared to urban Colorado (1:1713) with a 3% difference, indicating reduced access to care. The disparity becomes even greater for access to dentists and specialists in rural areas. In looking at social determinants of health, Colorado's rural hospitals and clinics see populations that experience many health disparities. Of rural Coloradans aged 0-17, 23% live below the 2014 Federal Poverty level of $23,850 for a family of four compared with the state average of 16%. Rural Colorado also has higher rates of public insurance and uninsured compared to urban with 26% covered by Medicaid (17.6% urban), 15.7% Medicare (12.6% urban) and 11.4% uninsured (6.7% urban). The effects of the higher rates of poverty are augmented by higher costs. For example, rural, privately covered residents experience out-of-pocket costs that are approximately 10% higher than urban residents.[1]

Avoidable hospital readmissions and chronic disease management have been highlighted nationally as healthcare priorities, not only for their impact on patients, but also for the added cost to the healthcare system. Over $17 billion is spent annually for readmissions that would not need to happen if patients received the right care.[2]

Adults Diagnosed with Diabetes in Colorado, 2018[3]

Colorado: 6.0%
Rural Colorado: 6.5%
iCARE catchment area: 6.9%

In terms of how these excess costs translate to patients, obese adults spend 42% more on direct healthcare costs than healthy weight adults[4]; diabetics have healthcare costs 2.3 times greater than those without diabetes.[5]

A lack of communication between providers, inhibit the delivery of patient-centered, and coordinated care. Engaging providers and patients at each point along the care continuum is essential to decreasing inappropriate and costly hospital readmissions.

Medicaid Enrollment, average monthly enrollment 2018[6]

Colorado: 23.9%
Rural Colorado: 27.9%
iCARE catchment area: 31.4%

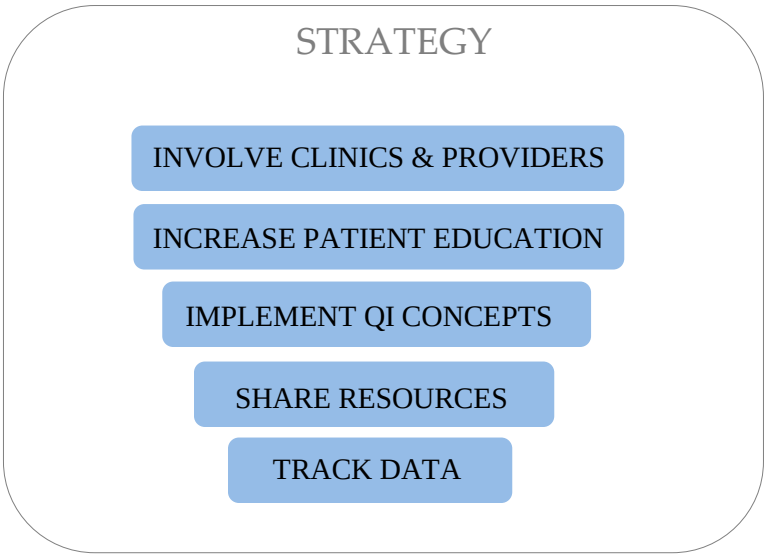
Compounding these issues are the challenges hospitals and clinics face related to their electronic health records (EHRs). The data component, critical for quality improvement, is challenging due to limitations in the functionality of many EHR systems in extracting data and generating reports as well as the cost involved in upgrades and customization to systems. This is especially burdensome for small, rural facilities that already have limited resources and staff.

iCARE participants are located in Archuleta, Chaffee, Rio Grande, Mineral, Conejos, Huerfano, Las Animas, Grand, Larimer, Sedgwick, Phillips, Jackson, Yuma, Washington, Prowers, Rio Blanco, Moffat, Mesa, Lincoln, Montezuma, and Baca counties, representing a population of 668,089. According to Census data, over 18% of residents in the target communities was over age 65 whereas the state average was 13.4%. All of these factors impact the healthcare and outcomes of Colorado's rural residents. In response, rural health facilities have become adept and resourceful and are looking at ways to continue to enhance the care for their populations to ensure it is comprehensive and coordinated. While there are numerous quality improvement initiatives in the state, CRHC's iCARE is the only program focusing on these topics through a rural lens.

Program Design

Although readmission rates among Colorado CAHs, by virtue of their volumes, may be low, CAHs and RHCs have utilized iCARE to stay ahead of national trends, spotlight the high-quality services they provide, improve processes that will help maintain low readmission rates, and enhance care for chronic disease populations. The project engages CAHs and RHCs focusing on three primary goals.

1. Maintain low avoidable readmission rates,
2. Improve communication in transitions of care
3. Improve clinical processes contributing to readmissions, particularly for patients with prevalent chronic conditions such as diabetes and hypertension.



Understanding the complexity and variety of factors that contribute to these broad aims, the iCARE program offers tools and support to help hospitals and clinics focus on the aspects most relevant to their communities and implement appropriate changes.

CRHC provides free resources and technical assistance to participants through a multi-faceted approach incorporating both on-site and remote support. CRHC provides data analysis to help participants utilize data to inform decision-making and improvement efforts. CRHC's team works one-on-one with each hospital and clinic to set goals and objectives, and provide on-site quality improvement support through workflow analysis and Plan Do Study Act (PDSA) methodologies. In addition to this customized, individual assistance, all program participants

come together virtually for monthly project webinars as a forum for education, and peer learning. Information is also shared to a statewide audience during sessions at CRHC's two annual conferences.

The *i*CARE program examines the following metrics for program evaluation:

1. 30-Day readmission measure,
2. Blood Pressure (NQF 0018), and
3. HbA1c (NQF 0059).

By tracking these clinical quality measures hospital and clinic staff identify areas where processes can be adjusted to benefit their patients.

In response to the challenges with EHRs, CRHC conducted data assessments to help determine gaps in hospitals' and clinics' electronic capabilities and facilitated EHR User Group calls to discuss best practices with system functionality. Through these activities, iCARE facilities have shared best practices, engaged with their vendors, worked on internal communication and processes, and initiated system optimization. This information has also been beneficial to tailoring CRHC's quality improvement support.

Participants review aggregated project data during project webinars and have access to the CRHC *i*CARE portal, a password-protected website containing links to resources, templates, past webinars and other relevant project information.

Percent Population 65 years old or older, 2018[7]

Colorado: 13.4%
Rural Colorado: 19.6%
iCARE catchment area: 20.3%

The Solution

Maintain Low Avoidable Readmission Rates

iCARE facilities have made great strides in improving care processes and patient outcomes as demonstrated through clinical quality data and patient satisfaction metrics. CAHs have decreased avoidable readmission rates. From 2016-2017, iCARE CAHs reported an average 3% readmission rate for same or similar diagnosis, a 35% decrease since 2013. Although iCARE primarily focuses on readmissions for same or similar diagnoses, many CAHs also track all-cause readmissions and report an average 4.9% readmission rate for all-cause readmissions, compared with 15.3% state average. In order to accomplish these reductions, facilities have employed many techniques including root-cause analysis to determine the causes of their readmission cases, with the understanding that some readmissions are unavoidable.

Along with monitoring readmission data, CAHs are exploring the intersection of this work and how it affects the patient's experience. For example, in examining causes of readmissions, CAHs have worked on hospital discharge procedures to ensure patients have the information necessary to successfully continue their recovery once they leave the hospital. By analyzing the HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) Survey's Discharge Information composite CAHs are gauging how satisfied patients are with the information they receive regarding their recovery at home after hospital discharge. Complete and understandable discharge information is critical to a patient's post-discharge recovery. According to the most recent available data, Colorado CAHs have improved the HCAHPS Discharge Information composite measure from 86.5% to 89.2%.

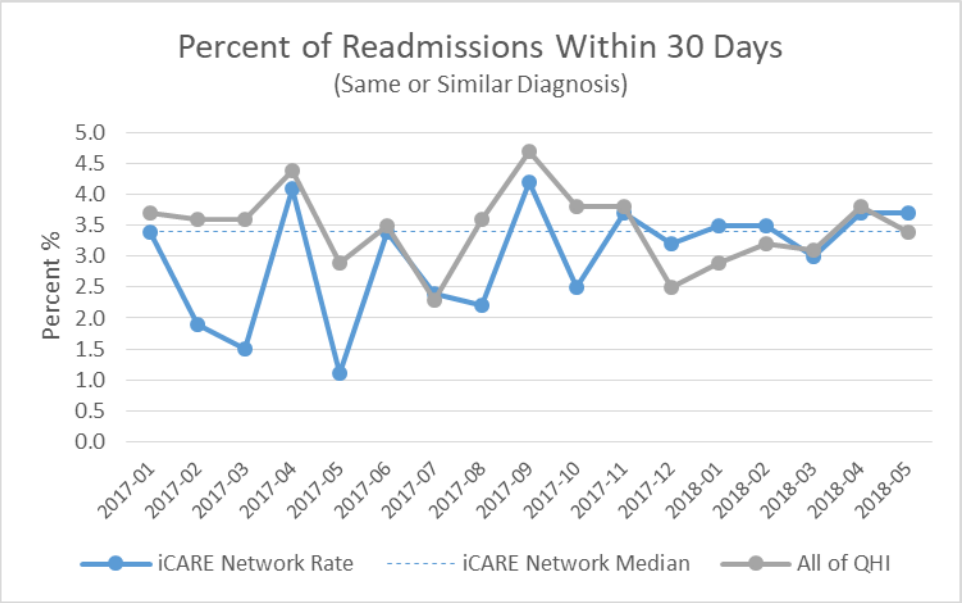
One area of focus within iCARE has been assisting hospitals and clinics in utilizing their data to meaningfully inform improvement efforts, thereby maximizing limited resources for greater impact. For example, one hospital/clinic initially planned to focus on processes related to patient follow-up appointments. However,

after analyzing data and workflows, they discovered they were performing well in that area. The team utilized their data and determined the area of need was in avoidable readmissions to the emergency department within 72 hours of hospital discharge and began concentrating their improvement resources in those areas. They brought together multi-disciplinary staff from the hospital, emergency department, and primary care clinic and implemented the following:

- Data analysis to identify trends in causes of readmissions
- Processes to transmit information about patients that were admitted to the hospital
- Communication procedures for discharge follow-up phone calls.

The facility was able to decrease avoidable readmissions from a baseline of 28 in the third quarter of 2017, to 15 as of first quarter 2018.

Another team developed a warm hand-off process between their CAH and RHC for patients being discharged from the acute care floor, ensuring clinic follow up. They worked on creating and implementing the warm hand off process, provided education to staff, and did PDSA and monitoring of the process. The new process helped to improve communication, continuity of care, overall patient satisfaction and ease of transitions from acute care, home and clinic, and reduce readmissions. This process improvement has assisted them in meeting their goals of improving patient satisfaction and reducing readmission rates. Their HCAHPS baseline score for willingness to recommend the hospital was 55% for 4Q 2016 and they have increased that score to 70% as of 3Q 2017 – the latest data available. Additionally, they have reduced readmission rates from 17% to 0% and have maintained that improvement for the last 5 months.



8

Improve Communication in Transitions of Care

Facilities are also improving transitions between care settings for patients. iCARE offers the unique opportunity to refine processes between the hospital and clinic entities. For example, one CAH expanded the hospital huddles to include staff from their RHC. This offers both teams a forum to receive and provide updates about patients being discharged from the hospital and ensure the clinic has the information necessary for follow-up care. Another hospital and clinic, working on patient follow-up appointments, had a goal to increase their rate of making clinic follow-up appointments within seven days from hospital discharge from 87% in 2017 to 90% in 2018. Through implementing internal processes, they exceeded their goal are currently at 92%. Additionally, they wanted to help improve the rate of patients keeping their follow-up appointments. By implementing reminder phone calls to patients 48 hours prior to the appointment, 96% of patients are attending their appointments, leaving only a 4% no-show rate.

Finally, one of the CAHs leveraged the technology within their Electronic Health Record (EHR) to facilitate information transfer between the inpatient unit and their Diabetic Educator. The hospital enabled EHR functionality so that inpatient nursing assessments that carry primary or secondary diagnosis of diabetes trigger a task note to the Diabetes Educator who then follows-up

with the patient on diabetes education and management needs. They have also activated secure messaging so the Diabetes Educator can send notes to the other members of the care team which prevents copying, faxing and scanning of the same notes, thereby saving limited staff time and resources. Not only have these changes streamlined internal processes, this interdisciplinary participation has had the added effect of heightening awareness of the services available through the Diabetic Educator to better serve the inpatient population.

"iCARE helped us initiate a project between the clinic and the hospital…"

"We've systematically set up now a monthly meeting with all the payers so we're in the room at one time. And then we have the people in there that not only do the work,… senior leaders are there so if there's any barriers, we can break those down…"

"…We were always connected somehow but now we're a team."

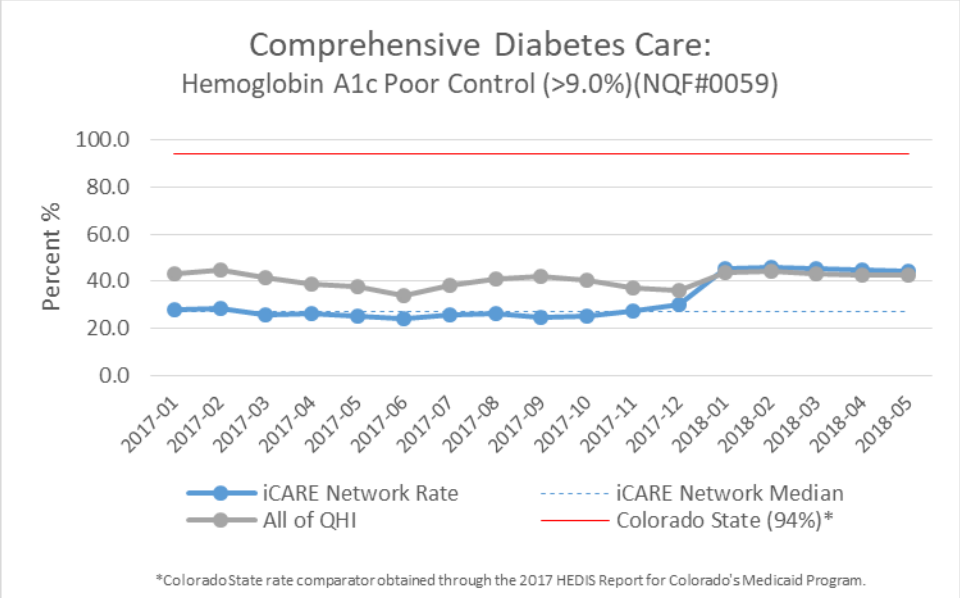
- *iCARE Participants*

Improve Clinical Processes

CAHs have been able to not only reduce avoidable readmissions, but also maintain low rates, which demonstrates sustainable improvements in their processes. The outcomes facilities report also speak to better patient care, efficiencies, and cost reductions by eliminating duplication and increasing communication. For example, by extending beyond the walls of their facilities, one CAH and RHC are working to improve foot exams for their diabetic patients. In partnering with home health in their community they have implemented a process to communicate information when the clinic's patients receive foot exams in the home health agency setting which eliminates duplicating the foot exam in the clinic setting.

In studying data for their diabetic patients, another clinic discovered an opportunity to improve the process for diabetic patient eye exams. The clinic's Patient Navigator generates a report

of patients with upcoming annual visits and requests records from the area's optometrists for those patients. The information received from the optometrists helps inform the patient's clinic visit and reduces redundancy. The work facilities are doing to look more closely at their internal procedures contribute to improvements for patients and gains have been reported in chronic disease management. Clinics average rates of patients demonstrating good blood glucose control are outperforming statewide Medicaid rates. Among iCARE participants, 72.8% of diabetic patients demonstrate good control of blood glucose levels compared with a 55% national average based on Medicaid data.



9

The Future

As iCARE continues to grow, areas of opportunity remain. Communities are using program data to inform wider population health and community wellness and engage patients and families to help provide direction to meet the community's needs. CRHC augments these efforts by supplying population health data through its Health Awareness for Rural Communities (HARC) database and creating reports combining that data together with the facility's clinical quality data to paint a comprehensive picture and how the hospital's and clinic's iCARE work aligns with these community needs. Additionally, CRHC distributes county-specific

reports to each facility outlining the three county health rankings they are excelling at as well as the three rankings indicating areas of opportunity.

One community is utilizing this data as the foundation for a community dashboard in development by a local alliance bringing together partners to build a healthy, thriving county. Once completed the online dashboard will provide community members and organizations instant insight into the work being done to advance four community-created goals: every county resident eats healthy foods; every county resident is physically active; families choose to stay, live and invest in the county; and the county is a deeply connected community with strong civic health. The dashboard will also include a report card to communicate progress on the goals and will serve as a tool for awareness, alignment, shared measurement, and creating opportunities for action.

Another CAH is using their Patient and Family Advisory Council (PFAC) as a mechanism to help the hospital and clinic address the local needs. The PFAC started with a group of patients with diabetes that were willing to meet to help problem-solve health care concerns by providing suggestions to the hospital such reformatting the visit summary document to include lab results, and developing an information packet that can be sent home with patients after their diabetic visits. As part of the next phase of their work, the PFAC will turn their attention to behavioral health and how to help patients participate in integrated behavioral health care. Another hospital is involving patients through their diabetes management committee. The committee, which includes patient representatives, offers feedback that the hospital utilizes to inform diabetes management work and resources.

As CRHC embarks on the next phase of iCARE, the organization is implementing the Institute for Healthcare Improvement's (IHI) Breakthrough Series Collaborative model, an evidence-based approach that will build on the current offerings and further the collaboration and knowledge spread of the program. Because hospitals have demonstrated success in maintaining low readmission rates, CAHs will continue monitoring readmissions to

ensure sustainability and will address another emerging priority, avoidable emergency department utilization. As part of its program expansion efforts, CRHC will also pilot technical assistance related to emergency medical services and community paramedicine to offer another level of support for rural communities looking to increase their capacity for access and care for patients. Finally, the program will work with participants as they further their community engagement efforts including examining patient and family engagement and how those community groups can support goals related to care transitions and chronic disease management. With further community engagement, rural CAHs and RHCs will also be able to better demonstrate their impact on community and population health.

Conclusion

National intervention strategies have shown statistically positive benefits on readmissions rates with many leading to better patient outcomes. *i*CARE is one of these nationally recognized strategies. In Colorado, the *i*CARE program relies on the nature of CAHs and RHCs as the hubs of healthcare in their rural communities, and well-positioned leaders in facilitating enhanced care transitions into and out of their facilities.

> ***[CRHC] is critical to the survival and thriving of our rural providers.***
>
> **– CEO,**
> ***i*CARE participant**

CAHs and RHCs have a significant impact on the communities they serve as they are often the only source of healthcare in their communities. Consequently, they face challenges related to staffing and staff turnover, use of modern technology and in some cases reliable access to internet necessary for health information technology (HIT) due to the geographical areas. As seen through this paper, although improvements have been achieved, there is still progress to be made to impact overall population health. This, in turn, strengthens the need for the continuation of *i*CARE and its activities.

About Us

The Colorado Rural Health Center was established in 1991 as Colorado's State Office of Rural Health. As a 501(c)(3) nonprofit corporation, CRHC serves dual roles as the State Office of Rural Health with the mission of assisting rural communities in addressing healthcare issues; and as the State Rural Health Association, advocating for policy change to ensure that rural Coloradoans have access to comprehensive, affordable healthcare services of the highest quality. For more information visit www.coruralhealth.org, call 303-832-7493, or call toll free 800-851-6782 from rural Colorado

Funding for the iCARE Program has been provided through CRHC's receipt of the following: Federal HRSA Medicare Rural Hospital Flexibility Program Grant, CFDA 93.241; Award 2 H54RH00056-17-00; the Colorado Department of Public Health and Environment's Cancer, Cardiovascular, and Pulmonary Disease Grant Program (July 2015-June 2018); the Telligen Community Foundation (July 2017-June 2018); and the NextFifty Initiative.

Sources:

[1] Colorado Rural Health Center (CRHC) - Colorado's State Office of Rural Health (SORH). (2018, February). Snapshot of Rural Health [Press release]. Retrieved July, 2018, from http://coruralhealth.wpengine.netdna-cdn.com/wp-content/uploads/2013/10/2018-Snapshot-FINAL-February-2018.pdf.

[2] The Robert Wood Johnson Foundation (2013). The Revolving Door: A Report on U.S. Hospital Readmissions. Retrieved July, 2018 from https://www.rwjf.org/content/dam/farm/reports/reports/2013/rwjf404178.

[3, 6, 7] Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute. (2017, April). Colorado County Data. Retrieved July, 2018, from http://www.countyhealthrankings.org.

[4] The State of Obesity: Better Policies for a Healthier America (August 2017). Trust for America's Health and the Robert Wood Johnson Foundation.

[5] The Staggering Cost of Diabetes. (n.d.). Retrieved April 24, 2018, from http://www.diabetes.org/diabetes-basics/statistics/infographics/adv-staggering-cost-of-diabetes.html. American Diabetes Association®.

[8, 9] [Quality Health Indicators (QHI)]. (2018). Unpublished Raw Data. CRHC iCARE Participant Data.

*** Note on data: *i*CARE data is aggregated among participants and proprietary. HARC data is collected from multiple public data sources and analyzed at CRHC to reflect Colorado rural-specific information.

Contact Us

COLORADO RURAL HEALTH CENTER
The State Office of Rural Health
3033 S. Parker Rd., Ste. 606
Aurora, CO 80014
T: 800.851.6782
F: 303.832.7496

info@coruralhealth.org
www.coruralhealth.org