INTRODUCTION

Through the Colorado Rural Health Center’s Improving Communication and Readmission (iCARE) program, Critical Access Hospitals (CAHs) and Rural Health Clinics (RHCs) are participating in a statewide effort to better the patient experience by improving communication in transitions of care and clinical processes, and reducing avoidable hospital readmission rates.

CAHs, which have a federal designation allowing them to receive 101 percent of Medicare cost reimbursement, must meet certain criteria including being located in rural areas and at least 35 miles (or 15 miles in the case of mountainous terrain or only secondary road access) from other hospitals, and have no more than 25 inpatient beds. Because CAHs are often overlooked in national and statewide healthcare initiatives, CRHC created iCARE as an opportunity to engage Colorado CAHs and their clinics in a statewide improvement project aligning with national trends and funding priorities demonstrating sustainable improvements and outcomes.

The program started in 2010 and expanded in 2012 to include the RHCs affiliated with the hospitals. The focus and goals for the clinics center on chronic disease management, specifically diabetes, and addressing the clinic’s role in communications and reducing readmissions. In its current year, 21 CAHs and 14 RHCs from around Colorado volunteered to participate in iCARE. These hospitals and their rural health clinics have formed project teams consisting of quality directors, case managers, nursing staff, and clinic staff.

“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

Adults Diagnosed with Diabetes, 2014

Colorado: 5.24%
Rural Colorado: 4.91%
iCARE catchment area: 4.4%
Hospitalizations account for almost one-third of the $2 trillion spent on healthcare in the United States.\textsuperscript{1} Many of these hospitalizations are considered necessary and appropriate, but a significant number of these patients are returning to the hospital after a recent stay.\textsuperscript{1} According to the Centers for Medicare and Medicaid (CMS), 30-day readmission measures are estimates of unplanned readmission for any cause to any hospital within 30 days of discharge.\textsuperscript{2} Recently, hospitals’ avoidable readmission rates have come under scrutiny because of the high savings potential associated with them.

A report by the Robert Wood Johnson Foundation estimated that the cost of readmissions for Medicare patients is $26 billion annually, with more than $17 billion for unneeded readmissions that would not need to happen if patients got the appropriate care.\textsuperscript{3}

Hospital readmissions are argued to be one of the leading problems facing the US healthcare system and known as the revolving door syndrome at hospitals.\textsuperscript{3} This has many looking to identify system-level interventions to reduce readmissions.\textsuperscript{4} Addressing hospitals’ avoidable readmissions in Colorado has the potential to save Coloradans over $80 million in healthcare dollars and collectively help patients avoid an extra 34,000 days in the hospital.\textsuperscript{5}

Although readmission rates among Colorado CAHs, by virtue of their volume, may be small, there is opportunity for Colorado to stay ahead of national trends, spotlight the great services
Colorado’s CAHs and rural clinics are providing, make improvements in processes that will help maintain low readmission rates and continue to showcase the hospital and clinics’ status as leaders in their community.

**Preventable Hospital Stays**, Hospitalization rate for ambulatory-care sensitive conditions per 1,000 Medicare enrollees, 2014

- Colorado: 47.9
- Rural Colorado: 50.5
- iCARE catchment area: 57.33

A lack of communication and relationships between inpatient and outpatient providers, as well as primary care physicians and specialists, inhibit providers from delivering high quality, patient-centered, and coordinated care. It is believed that engaging providers and patients at each point along the care continuum is essential to decreasing inappropriate and costly hospital readmissions. iCARE participants are encouraged to improve their communication, coordination and discharge planning.

Initial problem assessment and analysis for the iCARE program are accomplished through group discussion and sharing of challenges and solutions.

**Project Design**

CRHC’s iCARE program was initiated in 2010 in response to the growing scrutiny nationally and statewide on hospital’s avoidable readmission rates and lack of initiatives addressing this issue from a rural relevant vantage point. With primary funding through the Medicare Rural Hospital Flexibility Grant Program (FLEX), CRHC received additional funding in 2012 through the Colorado Department of Public Health and Environment’s (CDPHE) Cancer, Cardiovascular Disease and Pulmonary Disease (CCPD) Grant Program. With this additional funding the program was expanded beyond the CAHs to provide iCARE resources to RHCs affiliated with the hospitals in several communities that were already
participating. The iCARE program goals are to eventually support the full spectrum of rural providers and communities, such as emergency medical service, public health, long-term care providers, schools, businesses and community members. The iCARE program allows Colorado’s rural providers the opportunity to participate in a statewide initiative while at the same time offering tools, resources, and technical assistance to implement the changes they would like to see in their facilities and communities.

The aim of this project is to engage CAHs and RHCs in a statewide initiative focusing on three primary goals.

1. Improve communication in transitions of care,
2. Maintain low readmission rates, and
3. Improve clinical processes contributing to readmissions, particularly for heart failure, pneumonia and diabetic patients (three of the most prevalent conditions in the patient populations of CAHs and their clinics).

The iCARE teams participate in monthly webinars which provide a forum to bring the geographically separate participants together for education and sharing of hospital and clinic challenges, successes and best-practices. The webinars cover topics such as patient transfer processes, communication techniques, patient education practices, and heart failure, pneumonia, and diabetes clinical processes. Each team submits a project plan and is asked to define and identify a goal/s for the project. CAHs submit data for heart failure, pneumonia, and readmissions to facilitate trending and measurement, and drive quality improvement efforts.
These measures also align with the Federal Office of Rural Health Policy’s (ORHP) Medicare Beneficiary Quality Improvement Project (MBQIP) as well as the Center for Medicare and Medicaid Services (CMS) Hospital Compare.

RHCs submit a series of thirteen core diabetic data measures acquired from the National Center for Quality Assurance (NCQA). Aggregated data is shared and discussed during the monthly project webinars. Participants are given access to the CRHC iCARE portal, a password-protected website containing links to resources, templates, past webinars and other relevant project information.

<table>
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<tr>
<th>Diabetes Related Death rate, per 100,000 people, 2014</th>
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<tr>
<td>Colorado: 18.24</td>
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<tr>
<td>Rural Colorado: 19.5</td>
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<td>iCARE catchment area: 20.0</td>
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CRHC also offers free technical assistance in the form of process mapping for workflow improvement and quality improvement webinars. In addition, diabetic self-management guides are distributed to all RHCs to provide education to the patients while giving providers baseline assessment tools to gauge individual patient health management knowledge.

The ultimate goal of HIT is to improve the quality and efficiency of patient care, so it is worthy to note that all participating CAHs and all but one RHC have implemented electronic health records (EHR).

More than 20 rural communities are currently participating in iCARE representing all parts of the state from the Eastern Plains to the Western Slope.
The Solution

The iCARE program utilizes the following measurements for program evaluation:

1. iCARE participation,
2. 30-Day readmission measure,
3. Pneumonia immunization measure, and
4. NCQA core diabetes measures (13).

Tracking these clinical quality measures allows participants to identify areas where process improvements can benefit their patients. The average 30-day readmission rate for iCARE hospitals is four percent. The 30-day hospital readmission rate among Medicare fee-for-service beneficiaries was approximately 17.5 percent in 2013, translating into an estimated 150,000 fewer hospital readmissions between January 2012 and December 2013.6
The average pneumonia immunization rate for iCARE hospitals (84.3 percent) has continued to be above the state average (74.6 percent).

One of the process measures being collected at RHCs is diabetic patients with an A1c>9%, which decreased by an average of 3 percent and a percent change of 26% from 2013 to 2014.
Conclusion

Many national intervention strategies have shown statistically positive benefits on readmissions rates with many leading to better patient outcomes. iCARE is one of these nationally recognized strategies. In Colorado, the iCARE program relies on the nature of CAHs as the hub of healthcare in their rural communities, and well-positioned leaders in facilitating improvements to enhance care transitions into and out of their facilities.

Similarly, RHC’s have a significant impact on the communities they serve as they are often the only health clinic in the county providing primary care services. Consequently, they face challenges related to adequate staffing to meet the needs of the practice, 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 screening and preventive measures have improved through iCARE participation, there is still progress to be made to obtain overall population health improvement. This, in turn, strengthens the need for the continuation of iCARE 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 Coloradans 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.
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Cancer, Cardiovascular, and Pulmonary Disease Grant Program.

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6 New HHS Data Shows Major Strides Made in Patient Safety, Leading to Improved Care and 

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