Leadership in Quality Improvement and Data Collection, Improving Communications and Readmissions (iCARE)

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Abstract: The iCARE Initiative's focus is on reducing costly hospital readmissions among our state's Critical Access Hospitals (CAHs). Readmission is often considered to be only an urban problem. While it's true that the smaller medical care systems don't struggle as much with hospital readmission as larger ones, systems large and small can improve on this front. The iCARE Initiative is an opportunity to engage CAHs in a statewide improvement initiative aligning with national trends, funding priorities, and with a rural focus. Eleven CAHs from around Colorado volunteered to participate in the first year of iCARE. These hospitals formed project teams consisting of Quality Directors, Case Managers, Nursing Staff, and Clinic staff. Of the eleven CAHs participating, five chose to engage in web-based lean six sigma education and training to improve the Center for Medicare and Medicaid Services (CMS) measure, pneumonia vaccination.

Project Goals and Objectives: The iCARE objectives are to engage CAHs in a statewide quality improvement effort that is focused on the rural environment and community. Through this statewide effort CAHs will have the ability to share their story with the community, with the state and with national providers and funders. The iCARE Initiative is built by and for rural providers, therefore taking into consideration the rural environment. The four main goals which are in aligned with Health Resources and Services Administration (HRSA) Office of Rural Health Policy (ORHP) Medicare Beneficiary Quality Improvement Project (MBQIP) program and clinical measures reported into CMS's Hospital Compare are: 1) improve communication in transitions of care, 2) maintain low readmission rates, 3) improve clinical processes contributing to readmissions, with a focus on heart failure and pneumonia patients, and 4) data collection.

Background: Urgent concern regarding medical errors and patient safety is at the forefront in Colorado and nationally. In November 1999, the Institute of Medicine (IOM) released a report estimating that as many as 98,000 patients die as the result of medical errors in hospitals each year. Major Federal initiatives were launched to reduce medical errors and improve patient safety in federally funded health care programs, and by example and partnership, in the private sector. In 2006, the Colorado lawmakers authorized the creation of the Hospital Report Card, a web-based tool allowing customers to compare outcomes for a variety of healthcare services, taking meaningful steps toward greater transparency and encouraging patients to be more involved in decisions about their own healthcare.

In February 2008, Colorado Governor Bill Ritter issued an Executive Order establishing the Center for Improving Value in Health Care (CIVHC) to implement strategies to improve the health of Coloradans, enhance patient experiences and reduce the cost of care. Colorado's Flex program activities are closely aligned with this work. Based on the research and strategic planning conducted by CIVHC, a key component to bending the cost curve is reduction in overutilization of services. One of Colorado's long term goals is reduction of Emergency Department and hospital inpatient use, avoidable hospital readmissions, and increased access to palliative care which has been proven to reduce healthcare costs. According to research conducted by the Commonwealth Fund, improved health behaviors can lead to savings of 20% of healthcare costs.

Data shows that approximately 20% of Medicare patients discharged from the hospital are readmitted within 30 days and 34% of Medicare patients are readmitted within 90 days for a similar diagnosis. Unplanned readmissions typically last a half day longer than initial admissions and more than double the cost of treatment. The New England Journal of Medicine estimates that unplanned readmissions in cost the US $17.4 billion in unnecessary expense in 2004.

With the growing concern both nationally and locally on the rising costs of unnecessary readmissions and ER visits, CRHC provided technical assistance and leadership for a multi-hospital project to reduce readmissions, iCARE. It is likely that future reimbursement will be tied to hospital performance in these metrics, and Colorado Medicaid is developing an incentive payment for hospitals that reduce ED visits and readmission rates.

Methodology: CRHCs Director of Programs developed the vision and in collaboration with the CAH Project Manager developed an aim statement, workplan, goals, objectives, intervention strategy, recruitment plan and evaluation plan. The aims of this project were to engage CAHs in a statewide initiative, between September 2010 and August 2011, focusing on four 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 and pneumonia patients, and 4) data collection. Although there is the potential for loss of revenue related to reducing ER admissions and readmissions, CRHC will use quality improvement technical assistance to help CAHs improve system efficiency through the use of lean six sigma methods. Access to benchmarking data remains a challenge in the rural environment and CRHC is focused on activities that provide benchmarking opportunities. For example, CRHC pays for CAHs to have access to the QHi data collection tool that currently has thirteen states participating in to collect a common set of measures. We also engage with our state QIO to ensure CAHs have benchmarking data reports from CMS's Hospital Compare measure set.

All iCARE hospitals participated in monthly webinars which provided a forum to bring the geographically scattered participants together for education, and sharing of hospital challenges, successes, lessons learned and best-practices. The webinars covered topics such as patient transfer processes, communication techniques, patient education practices, and heart failure and

pneumonia clinical processes. CAHs were asked to define an individual goal related to one of the primary iCARE goals and were encouraged to submit data for heart failure, pneumonia, and readmissions to facilitate trending and measurement. Aggregate data was shared and discussed during the monthly webinars. CRHC set up the iCARE Portal, a password-protected website for participants containing links to resources, templates, and other relevant project information. Participating iCARE hospitals were offered free technical assistance in the form of a Lean Six Sigma training series to provide them a framework for improvement. To overcome the barriers of travel expense, and limited hospital staff time and resources, the lean six sigma training was conducted remotely through webinars, individual conference calls, and online training modules. The training focused on applying lean six sigma concepts to an iCARE-related improvement goal decided upon by the hospitals: improving the pneumonia immunization process.

iCARE offered Colorado's CAHs an opportunity to:

- Participate in a statewide project geared towards CAHs
- Demonstrate outcomes and showcase the work you are doing to improve patient care and quality
- Network and gain skills that can be applied broadly throughout your facility
- Participate in an effort aligned with numerous state, national, and funding priorities
- Monthly webinars focused on data, resources, and best practices
- Lean six sigma technical assistance was offered to all iCARE participating hospitals.

Measurement: Three measures were used to evaluate success of the iCARE Initiative: 1)iCARE Participation, 2) 30-Day Readmission Measure, and 3) Pneumonia Immunization Measure. Although all iCARE hospitals were asked to submit all HF and PN measures the hospitals chose to work on the pneumonia immunization measure as a focus during year one of the initiative.

Findings: The iCARE initiative was slow to take-off in terms of focus on goals and measurement due to spending a number of months focused on team and leadership buy-in, team work development, communication training such as SBAR (Situation, Background, Assessment, Recommendation), Handover (Responsibility, Accountability, Uncertainty, Verbal Structure, Acknowledged, Opportunity), IPASS The Baton (Introduction, Patient, Assessment, Situation, Safety Concerns, Background, Actions, timing, Ownership, Next), Teach-Back, and other standards of effective communications within the team and with patients and families.

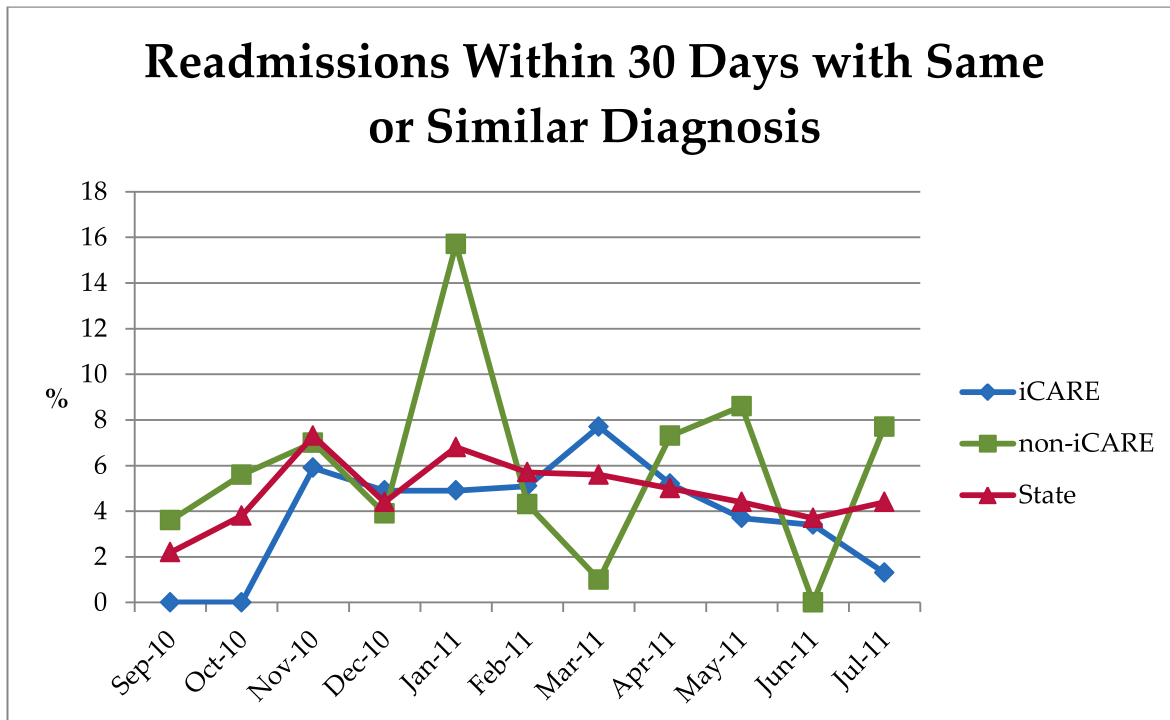
Upon completion of the basic overview of the initiative and the goals, CRHC worked with the hospitals to create a project charter and a specific measure goal. All the participating hospitals agreed to focus not only on reducing readmissions and collection of all heart failure and pneumonia measures, they specifically wanted to concentrate improvement on the pneumonia vaccination measure.

The iCARE participating hospitals achieved the following:

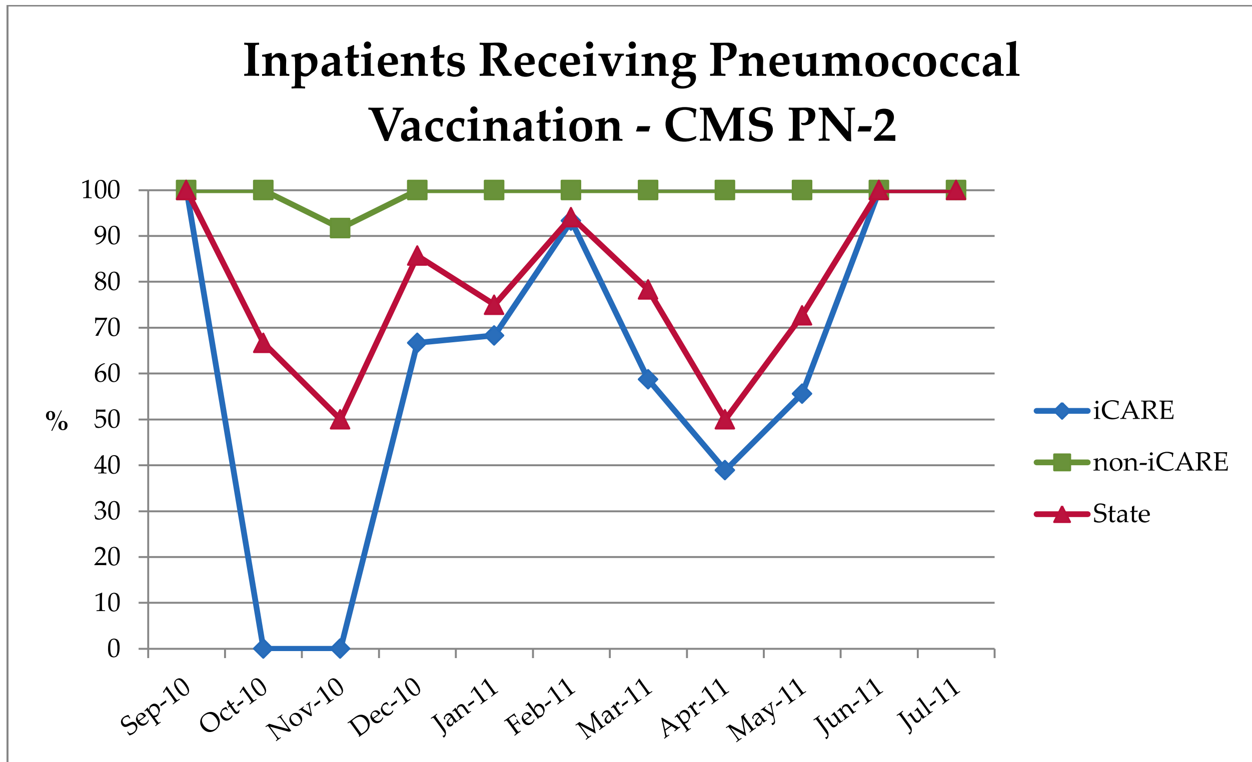
- ✓ Reduced readmission rates
- ✓ Improved pneumonia immunization rates
- ✓ Sustainable quality improvement skills
- ✓ Increased sharing of successes, lessons learned, barriers
- ✓ Increased number of CAHs collecting data
- ✓ Creating synergy for CAH, RHC, and community work

Specifically, CRHC exceeded its goal of having 10 CAHs sign up for iCARE with eleven CAHs participating. Of the eleven CAHs, five hospitals choose to take part in the iCARE lean six sigma training series.

The average 30-day readmission rate for iCARE hospitals submitting data between September 2010 and July 2011 (most recent available data) increased slightly from 0 to 1.7. That increase may be attributed to the increase in hospitals submitting this measure over that timeframe. The January 2011 to July 2011 data (when more hospitals were consistently reporting) shows an overall improvement from 4.9% to 1.7%.



The average pneumonia immunization rate for iCARE hospitals submitting data between September 2010 and July 2011 (most recent available data) was 100. The January 2011 to July 2011 data (when more hospitals were consistently reporting) shows an overall improvement from 68.3% to 100%.



Due to CAH interest in this project, its alignment with national and funding priorities, and the opportunities for further improvements, CRHC plans to continue the iCARE Initiative.

Conclusions: Successful initiatives can be created for rural providers through understanding of the unique challenges rural communities face, by offering flexibility, by building capacity of providers with skills that can be transferred both internally and externally will help ensure sustainability and success. Additionally, synergy must be created by choosing measures that are consistent with national efforts (CMS's Hospital Compare) on quality, patient safety, and cost to help avoid duplication of efforts and gain the most buy-in from all levels of the organization.

The iCARE Initiative will go on for a number of years by continuing to build upon the great work already being done and is completely in line with HRSA and CMS focus of improved quality and is also in focus with funders requirements for initiatives that are evidence and outcome based.

Personal Leadership Experience: Through the NOSORH Leadership Institute I've had the opportunity to enhance knowledge of the rural environment and my leadership skills. I believe that you never stop learning and can always glean something new through reading and actively participating in learning networks. Through the opportunities offered by the NOSORH Leadership Institute I not only increased my skill set, but I had the opportunity to meet a great people and learn from their experiences as well.

Many of the skills learned through this experience I have used by mentoring internal team members on quality improvement, designing and leading projects, appreciative inquiry, conflict resolution, and so many other areas. I've also used my leadership skills to influence the hospitals to participate in an initiative for which they do not receive extra funding. Because of my deep belief and passion for patient safety, quality and rural communities CRHC and Colorado Providers are leading the way and are on the cutting edge of quality improvement.

Most recently IHI announced that they will be speaking at their national Forum in December 2011 on web-based training in lean six sigma. CRHC and Colorado CAHs have a leg up on national trends as iCARE offered web-based lean six sigma training. This training not only earned iCARE teams a yellow-belt in lean six sigma, but implemented this training to ensure sustainability. Additionally, our internal team members including myself had the opportunity to enhance our skills by going through this training.

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