Quality Improvement Case Study: Improving Tobacco Use Screening and Smoking Cessation in a Primary Care Practice

EXECUTIVE SUMMARY

Organization
Miramont Family Medicine is a 17-provider primary care practice serving 4 locations, including a small rural clinic, across northern Colorado. The practice attested for MU Stage 1 years 1 and 2.

Target
Improve both tobacco screening and cessation intervention rates in appropriate patients to 90% or above for all practice providers.

Quality Improvement Strategy Highlights
- Miramont's Quality Improvement (QI) approach to identifying and decreasing tobacco use in its patient population was underpinned by a collaborative network of providers and staff working together to ensure comprehensive patient care. They analyzed and improved workflows, including automating many care process and population management activities. For example, their workflow included using an embedded clinical decision support tool, Clinical Integration Networks of America (CINA) sheet, at the time of huddle. CINA is a clinical summary that they used for every patient to identify gaps in tobacco use documentation and intervention. In addition, they used EHR templates that standardize data capture and recording among teams and detailed monthly reporting by individual teams with data trending, including posting graphs in the nurse's station area as a daily reminder of tobacco metrics.
- Miramont's protocol-driven team-based management approach empowered medical assistants (MAs) to assess for tobacco use and to document the assessment in the patient chart.
- Nursing staff used a pocket checklist as a reminder to cover all the steps they need to take, such as taking vitals, blood test, etc.
- Electronic cigarettes with instructions for use by a pharmacy technician, access to a psychologist, and group classes led by a nurse educator were provided in-house to clinic patients.

Results
2008 baseline data showed a 70% rate for assessing weight, BP, height, smoking status. It took approximately six months after QI approaches began to see improvement. From April 2011 to February 2012, average tobacco screening rates for the practice increased from 80% to 90% and smoking cessation rates over this time increased from 80% to 87%. As of spring 2013, 13 of the practice's 17 providers have achieved a 90% rate for smoking assessment and intervention.

QUALITY IMPROVEMENT DETAILS

Improvement Target

Target Selection
Tobacco screening quickly became an area of focus for Miramont after implementing its EHR in 2007 (see below). Interest was driven by Miramont's participation in the National Committee of Quality Assurance (NCQA) PPC-PCMH (Physician Practice Connections - Patient Centered Medical Home) pilot and coaching from their Quality Improvement Organization (QIO), the Colorado Foundation for Medical Care. Finally, Pay for Performance (P4P) bonuses were made available as part of a three year multi-payer patient centered medical home pilot.

Target Measure
The P4P tobacco goal was to assess and document tobacco use status in 80% of all patients between the ages of 18 and 75 and to have 80% of all identified all smokers and other tobacco users

ages 18 to 75 receive a tobacco cessation intervention. Although the P4P target was 80%, Miramont wanted to be more ambitious and set an organizational goal of 90%.

Improvement Goal
Because the P4P under the pilot project was only to be paid in the last of the 3 year projects (2009-2011), the objective was to reach goal by the beginning of year three (2011) and sustain it for one year.

QI Setup and Approach

Drivers
Miramont elected to focus on quality beginning in 2008 with the pursuit of NCQA level 3 PCMH recognition under the 2008 standard. They believed that by having this recognition and the associated policies and procedures they would gain market share, lower costs, improve outcomes, and improve patient and staff satisfaction.

QI Team
- The QI/Quality Assurance (QA) program team is headed by the Director of Quality and the Medical Director, with the full support of the practice's partners and CEO.
- Ongoing engagement of staff played a key role in Miramont's ability to improve clinical measures. A standing weekly patient medical home meeting enabled providers and staff to present QI-related problems (such as gaps in needed data) and troubleshoot them. Select staff members also participated in off-site learning collaboratives and medical education activities related to QI/QA.

QI Tools and Partners
- In 2006, Miramont recognized the need for an EHR with an integrated practice management system that would allow the organization to better serve its patient population. After careful deliberation, the practice chose and implemented a single EHR for all its practice sites. Realizing the additional benefits that advanced reporting functionality could provide, Miramont later integrated a separate quality metrics reporting tool into its quality improvement efforts (see Health IT Tools, below). In 2008, Miramont joined Colorado Primary Care Collaborative convened by HealthTeamWorks (a non-profit QI facilitator) and began participating in their PCMH pilot.
- Miramont has also engaged with other regional and national QI initiatives. For example, they received coaching and support from their quality improvement organization (QIO), the Colorado Foundation for Medical Care; Bridges to Excellence; the Colorado Academy of Family Physicians and the Colorado Children's Healthcare Access Program. In addition, they have worked with the Colorado regional extension center (REC) to exchange clinical information, and participated in the CMS Comprehensive Primary Care Initiative (CPCI).[1]
- Miramont has substantially optimized its workflow using a combination of redesign methods including lean processing, Toyota Production Model, Value Stream Mapping, 5 S, root cause analysis, PDSA (Plan, Do, Study, Act) cycles and cycle time analysis (Takt time[2]).

QI Approach to Target
- An initial step was to have MAs begin to work at the top of their license by empowering them to ask patients about smoking status, and record this information in an EHR flowsheet along with BP and height. Involvement of MAs, active flowsheet management (e.g., keeping them up-to-date, using them in patient discussions), and weekly staff meetings contributed to improvement. The quality team looks at data every month and gives provider teams a report that helps the team to see performance gaps. Poor performance would result in lower P4P payments and a consequent reduction in individual monthly production bonuses. They noticed that results started to slip when

[1] CPCI: http://innovation.cms.gov/initiatives/comprehensive-primary-care-initiative/

[2] For further information on Takt time, see http://en.wikipedia.org/wiki/Takt_time

they skipped meetings. Over time, MAs and health coaches started to practice at the top of their scope.

- Central to the approach are integrated ancillary services, such as an embedded psychologist, and a pharmacy technician who offers low cost generic buproprion (a medication to support smoking cessation), electronic cigarettes and hypnotherapy CDs. These services have facilitated patient-specific and patient-centered choices for patients desiring to stop smoking.
- Using simple value stream process mapping, the staff identified opportunities for all care team members to work together in providing care more effectively and efficiently at several key points in care flow — including before, during and after patient encounters. For example, it was determined that some patients might benefit from seeing the asthma coach as part of their decision making process, and that these coaching sessions could be offered on the spot with open communication across teams. (Not every team has an asthma coach, but work could be redistributed quickly to allow one coach to perform an intervention for another team with little notice.)
- Prior to patient visits, teams take part in daily morning patient huddles to discuss interventions. Using patient summary sheets (CINA sheets) that are generated daily, the MAs can address most clinical deficiencies prior to each patient/provider encounter. The CINA sheet is a patient summary form produced by the tool that outlines key metric-related patient information, including medications and follow-up action items. Patients without documentation of tobacco status were highlighted and queried by the MA. At the end of the visit, the patient summary sheet is provided to the patient, and any remaining gaps in care, such as no tobacco cessation plan, are identified so the patient can consider addressing this in the future.
- Finally, the visit summary details the tobacco cessation plan (including community resources) when such a plan is in place, and prescription names that have been sent electronically to nearby pharmacies. In addition, the plan might include referrals to Colorado quit line (smoking cessation program) that offers smoking cessation counseling, to nurse-level education (performed by an advanced practice nurse with prescriptive authority) or to behavioral health (performed by a licensed psychologist who can do hypnotherapy and offers a CD with guidance on self-help).

Overview of Specific CDS Interventions

Protocols & Customized Order Sets

After the MA asks about smoking status, he then does a *readiness to quit assessment*. If the patient scores high enough, the physician can select prescriptions to support smoking cessation that are built into the order sets. The prescriptions include nicotine patches, varenicline, buproprion and electronic cigarettes available through an in-house dispensary.

Flowsheets

The flowsheet is filled out at each visit with smoking status, and with a result of *a readiness to quit assessment* if completed. See above *QI Approach to Target* section.

Advanced Reporting

The quality reporting tool (CINA sheet) supports population management by highlighting individual and aggregate data pertinent to quality metrics. See above *QI Approach to Target* section.

Patient Empowerment & Education

Together, Miramont's collaborative framework and reporting capabilities have helped foster a culture of patient accountability and care plan ownership. See above *QI Approach to Target* section for information about patient summary sheets.

Next Steps

Miramont will participate in an *All Payers Claims Database*. They will publically report metrics to make healthcare cost and outcomes data available to the public. They are also interested in developing a

Medical Neighborhood[3] for improved integration and health information exchange for patients requiring specialty care.

Key Lessons

- **Use your EHR to its fullest capacity.**
- **Participate in pre-planning team sessions**. Holding recurring sessions such as patient "huddles" before visits can help identify gaps in care. A pre-determined schedule for these meetings helps ensure that providers have dedicated time to address these issues.
- **Provide ongoing feedback on clinical performance**. Feedback will provide practitioners with a solid understanding of where they stand regarding clinical measures. Feedback reports reveal deficiencies, allowing providers to effectively address them.

ABOUT THE CASE EXAMPLE

Informants:

Dr. Bender is the Medical Director for Miramont Family Medicine and practices in the Fort Collins, Colorado site. He is a recognized national speaker on practice transformation and workflow redesign, with a focus on private sector innovations. Dr. Bender serves as President-Elect of the Colorado Medical Society. He also serves as one of sixteen physicians on the NCQA Review Oversight Committee (ROC) and chairs the HIMSS Davies Ambulatory Award committee.

Miramont Family Medicine has been recognized by the NCQA as a Level III PCMH and was among the first in Colorado to achieve Meaningful Use (MU). Miramont has well developed QI/ QA program for diabetes, heart and cerebral vascular disease, vaccinations, mammography, and colorectal cancer screening. In recognition of its exemplary use of EHR to improve patient care efficiencies, the practice received the HIMSS Davies Award of Excellence in Ambulatory Care in 2010. In addition, they received awards and incentive payments from private payers, Medicaid, Medicare, and private sector employers for their patient outcomes.

Providers/Staff: 8 family physicians, 1 pediatrician, 3 advanced practice nurses, 5 physician assistants, 1 psychologist, 3 pharmacy technicians, 5 X-ray technologists, 1 medical technician, 1 nutritionist, 17 medical assistants and 16 administrative and support staff.

Patients: 22% Medicaid, 25% Medicare, 50% commercial, 2% uninsured
Age range: from the cradle to the grave
Racial profile: 95% white, 3% Hispanic, 2% other

Health IT Tools (Across all 4 locations)

- EHR: e-MDs
- Quality Measure Reporting: Clinical Integration Networks of America (CINA)

Collaboration with ONC Programs: Meaningful Use Vanguard, Colorado REC.

[3] For information about the Medical Neighborhood, see the AHRQ whitepaper here: http://coloradomedicalhome.org/wp-content/uploads/2012/03/Coordinating_Care_in_the_Medical_Neighborhood.pdf