CASE STUDY

ICHOM International Consortium for Health Outcomes Measurement

ALIGNING PAYERS AND PROVIDERS AROUND VALUE: BLUE CROSS BLUE SHIELD OF MICHIGAN'S COLLABORATIVE QUALITY INITIATIVES

JUNE 2015

WHAT YOU WILL FIND IN THIS CASE STUDY

Blue Cross Blue Shield of Michigan (BCBSM) is a non-profit mutual insurance company and the largest payer in the State of Michigan in the USA, with over 5.8 million members nationally and a local network of over 150 hospitals and 30,000 physicians. In 2002, BCBSM launched the first of over 20 Collaborative Quality Initiatives under its Value Partnerships program. This unique model formed the basis for a value-based health care ecosystem in the State of Michigan comprising a single dominant payer, an extensive network of providers, and a small number of academic medical centers. In this case study, we describe how this approach has led to improved outcomes for patients and providers and lower costs for payers, benefiting all stakeholders and vastly improving the value of health care in the State of Michigan.

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BACKGROUND

Sustainable, scalable, and replicable health care models that improve patient outcomes and reduce costs are the Holy Grail in health care. Payers and providers often struggle to collaborate even to improve patient care. In this case study, we explore a unique model in the State of Michigan where payer-provider collaboration improves patient outcomes and reduces total costs, creating a win-win-win for the payer, providers, and patients. Blue Cross Blue Shield's Collaborative Quality Initiatives (CQIs) engage a consortium of Michigan providers, a large payer, (Blue Cross Blue Shield of Michigan, or BCBSM; its Health Maintenance Organization Blue Care Network, or BCN; and third-party Coordinating Centers, frequently The University of Michigan Health System, an academic medical center; the Henry Ford Health System, a hybrid academic and community health system; and a local oncology resource management provider organization) to improve patient outcomes, implement statewide quality improvements, and generate benefit cost savings across multiple medical conditions. The CQIs are data-driven, relying on robust clinical data registries (rather than claims data) to examine links between medical processes and patient outcomes. The CQI model creates an environment for self-assessment and self-optimization through collaborative learning. The program has expanded to 22 initiatives across a wide range of medical and surgical clinical areas of focus.

FINDING ANOTHER WAY

Dr. David Share, Senior Vice President (SVP) of Blue Cross Blue Shield of Michigan, helped establish the first CQI program in 1997. A physician and public health professional, Dr. Share joined BCBSM from a community health center in 1982 with the goal of driving higher quality care. Dr. Share had observed numerous health plan-driven quality improvement and cost-reduction programs, but most had achieved limited success due to resource constraints, overly prescriptive strategies, and, most of all, a lack of trust. "We needed to find a way for the payer and providers to form a trusting, collaborative relationship and use their respective strengths to drive care improvement, relying mostly on the professional drive of providers to do the best possible for their patients. No one player could do it alone," Dr. Share explains.

In 1997, two of Dr. Share's colleagues - Dr. Kim Eagle and Dr. Mauro Moscucci, cardiologists and health services researchers at the University of Michigan – highlighted an intriguing regional collaborative between six hospitals – the Northern New England Cardiovascular Disease Study Group.[1] These providers had come together to measure and collect patient outcomes data in a centralized clinical registry, managed by Dartmouth College. After Dartmouth analyzed and confidentially reported the data to the hospitals, the physicians met regularly to review their outcomes and discuss ways to improve their practices collectively. These new "best practice" methodologies were then implemented by the six hospitals, which observed substantial improvements in patient outcomes.

Driven by their collective excitement for this unique model, Drs. Share, Moscucci and Eagle drafted a similar proposal for BCBSM's member hospitals in Michigan aimed at improving cardiovascular care – specifically, around percutaneous intervention (PCI) for coronary artery disease. While the case for improving outcomes was clear, this approach was not seen as within a health plan's typical scope of work. "They saw the model as an academic exercise, and couldn't justify investing our customers' money in it without a strong business case," explained Dr. Share.

Determined to test the model and convinced that it would demonstrate cost savings as well as improve patient outcomes, Dr. Share presented the proposal to the Blue

Cross Blue Shield of Michigan Foundation as a pilot initiative, emphasizing that this opportunity would enable the collection of large amounts of data for quality improvement around PCI. The pilot would also provide valuable insight on how best to disseminate that information through collaboration across otherwise competing providers. The Foundation saw great potential value in the approach and awarded the University of Michigan physicians and health service researchers a multi-year grant to implement the CQI model for improving PCI care in Michigan.

THE FIRST COLLABORATIVE QUALITY INITIATIVE: CARDIOVASCULAR CARE

The next challenge was to convene and engage providers who traditionally competed rather than collaborated on quality, none of whom were eager to partner with a payer. A key responsibility of Dr. Share's was to engage this initial group of providers to help foster a novel relationship both among one another and with BCBSM.

"We needed to find a way to get the academic medical center, community hospitals, and payers to work together."

Dr. David Share, SVP at BCBSM

After many meetings assuring physicians that the individual site-specific data would not be shared with BCBSM, six hospitals agreed to participate. Dr. Share partnered closely with the Director of Interventional Cardiology at the University of Michigan and future Coordinating Center Project Director, Dr. Moscucci, to drive the development of what came to be known as the Blue Cross Blue Shield of Michigan Cardiovascular Consortium (BMC2) – the first CQI.

Between 1997 and 2002, BMC2-PCI uncovered insights relating to patient risk factors and processes of care that were modifiable and had a direct impact on patient outcomes. For instance, outcomes data revealed which patients were at greatest risk of kidney damage from the use of contrast dye for angioplasty – an agent that helps physicians identify blockages in coronary arteries on x-ray. From this, the group developed guidelines to reduce the use of these contrast dyes and advocated additional measures that would reduce the risk of kidney damage. The pilot hospitals experienced a 56-percent reduction in complications from contrast-induced kidney damage. This would eventually lead to identification of benefit cost savings (**Figure 5B**) once the program became a fully established CQI with all 33 eligible hospitals actively engaged in the collaborative learning process. See **Figures 1** and **2** for a summary of outcomes improvements resulting from the initial pilot.

These findings and others were published and presented nationally and internationally, heralding the great success of the first BCBSM CQI with clear benefits for patients, providers, and the payer. Dr. Share returned to BCBSM's executives with the results. The impact was evident, resulting in BCBSM executive leadership supporting the continued funding and expansion of the BMC2-PCI CQI. As the program's reputation and trust among providers became established, more and more Michigan providers joined. Eventually, all hospitals providing elective PCI services and all of their interventional cardiologists were contributing data to

FIGURE 1 | BMC2-PCI PILOT OUTCOMES

27% reduction in hospital deaths

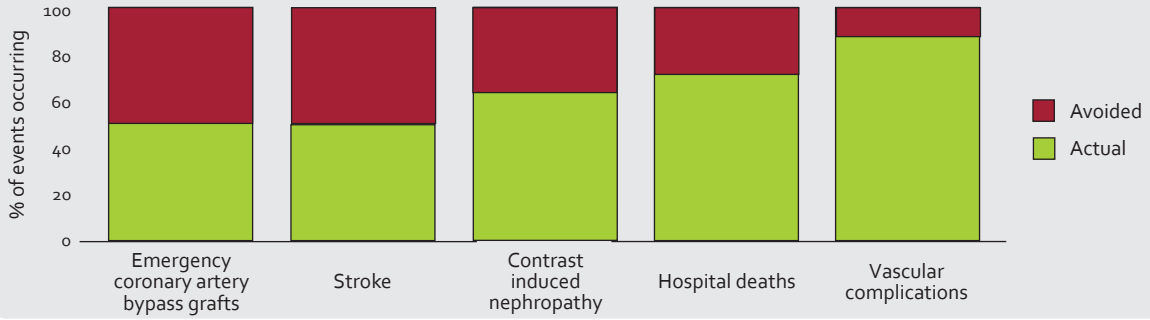
50% reduction in emergent coronary artery bypass grafts

38% reduction in contrast--induced nephropathy

11% reduction in vascular complications

50% reduction in stroke

FIGURE 2 | ACTUAL VS AVOIDED EVENTS FOR PCI - 2002 COMPARED TO 1997



the CQI and participating in its quality improvement work. BCBSM subsequently funded the development and implementation of an additional 21 CQIs across other medical conditions, including such areas as hospitalist medicine, trauma surgery, prostate cancer, bariatric surgery. See **Figure 3** for a timeline of CQI development between 2002 and 2015.

THE CQIS IN 2015

As of March 2015, there were 17 CQIs and four additional initiatives currently in the implementation phase. The CQIs are coordinated and managed administratively through BCBSM's Value Partnerships program in collaboration with the Coordinating Centers, which provide the clinical leadership and hands-on daily activities of working with the participating health systems, hospitals, and physician practices. The CQIs consist of programs aimed at care provided at the hospital or physician practice level known as "professional CQIs" (*e.g.*, the Michigan Urological Surgical Improvement Collaborative, or MUSIC). though the majority are focused on hospital care.

The most established CQI programs collectively involve over 160 provider entities of various profiles (including academic medical centers, community hospitals, and outpatient centers) from across Michigan. Ninety-five-percent of large and acute care hospitals that are eligible participate in the five most established CQIs. Over 75 mid-and large-size acute care hospitals across Michigan participated

FIGURE 3

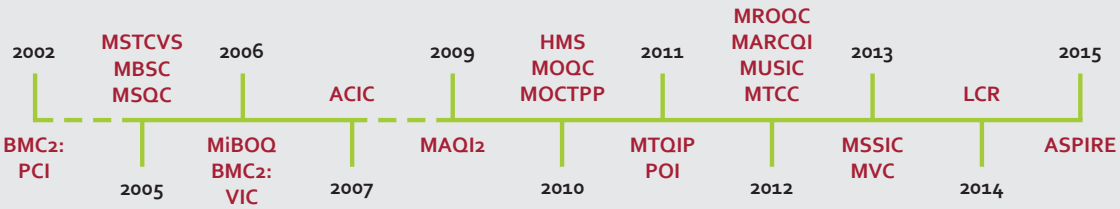


Figure 3: CQIs launched since 1997. Blue Cross Cardiovascular Consortium PCI: Percutaneous Coronary Intervention, MSTCVS: Michigan Society of Thoracic and Cardiovascular Surgeons Quality Collaborative, MBSC: Michigan Bariatric Surgery Consortium, MSQC: Michigan Surgical Quality Collaborative, MiBOQI: Michigan Breast Oncology Quality Initiative, Blue Cross Cardiovascular Consortium VIC: Vascular Interventions Collaborative, ACIC: Advanced Cardiac Imaging Consortium (retired January 2014), MAQI2: Michigan Anticoagulation Quality Improvement Initiative, HMS: Hospital Medicine Safety Consortium, MOQC: Michigan Oncology Quality Consortium, MTQIP: Michigan Trauma Quality Improvement Program , Pathways: Michigan Oncology Clinical Treatment Pathways Program, POI: Peri-Operative Outcomes Initiative (retired March 2015), MROQC: Michigan Radiation Oncology Quality Consortium, MARCQI: Michigan Arthroplasty Collaborative Quality Improvement, MUSIC: Michigan Urological Surgery Improvement Collaborative, MTC2: Michigan Transitions of Care Collaborative (retired in December 2014), MSSIC: Michigan Spine Surgery Improvement Collaborative, MVC: Michigan Value Collaborative, LEAN: Lean For Clinical Redesign, ASPIRE: Anesthesiology Performance Improvement and Reporting Exchange. Approved for launch in 2015: GTRQC: Genetic Testing Resource Quality Collaborative, I-MPACT: Integrated Michigan Patient-centered Alliance Care Transitions, MEDIC: Michigan Emergency Department Improvement Collaborative, MPTCQ: Michigan Pharmacists Transforming Care and Quality

in at least one CQI.[3] Collectively, the CQIs analyze care provided to nearly 200,000 Michigan patients each year.[4] The CQIs are "all-patient, all-payer," meaning they also include patients that are not covered by BCBSM/BCN but are covered by government, other commercial payers, or self-payment. Participant rates of eligible centers can be found in **Item 1** of the Appendix.

BMC2-PCI IN 2015

Since the implementation of BMC2-PCI, the program continues to advance the quality initiative (QI) agenda. All of the 33 eligible facilities performing elective angioplasties are participating in the BMC2-PCI program.[2] Since program inception, the BMC2-PCI registry has collected data on over 400,000 patients[4] and yielded several improvements in outcomes (see **Figure 4**)

The BMC2-PCI CQI continues to evolve, with PCI appropriateness emerging as a key theme across the network in the last few years. In 2011 BMC2-PCI ventured into the uncharted territory of physician review and compliance with nationally recognized appropriateness guidelines. In 2010, potentially inappropriate cases were an estimated nine-percent of all Michigan PCI cases2. By 2013 potentially inappropriate cases dropped to two-percent. In addition, the number of PCI procedures in the state has dropped by eight-point-six-percent from 2010 (28,117 at baseline year) to 2014 (25,710). [5]

IMPACT: IMPROVEMENTS IN OUTCOMES AND REDUCTIONS IN COST

The CQIs have achieved significant improvements in outcomes through modifications of care processes (*e.g.*, improving the safety and effectiveness of specific procedures and the processes associated with them, and assuring the appropriateness of interventions themselves) and have demonstrated significant benefit cost savings that far exceed their operational costs. From 2008 through 2012, five of the longest-running CQIs have accumulated benefit cost savings of approximately 597 million U.S. dollars statewide and 152 million dollars for BCBSM.[3] Specific examples of outcomes improvements and benefit cost savings can be found in **Figure 5**.

HOW THE CQI MODEL WORKS

The CQI model is made up of three types of players: participating providers, the payer (BCBS/BCN), and the Coordinating Centers (see **Figure 6**). Each plays a unique role in the model.

1. **Participating providers**
Providers routinely collect and abstract patient data (including procedural and outcomes data) and submit this to the clinical registry managed by the Coordinating

FIGURE 4 | BMC2-PCI CONSORTIUM OUTCOMES

59.3% reduction in emergent coronary artery bypass grafts
57.9% reduction in transfusions
27.7% reduction in vascular complications
46.2% reduction in all CABG procedures

FIGURE 5A | ACTUAL VS AVOIDED EVENTS - 2012 COMPARED TO 2007

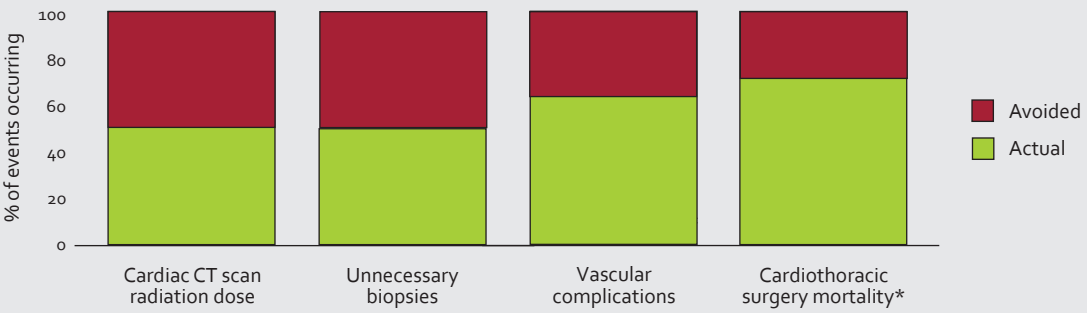


FIGURE 5B | ACTUAL VS AVOIDED EVENTS - 2012 COMPARED TO 2007

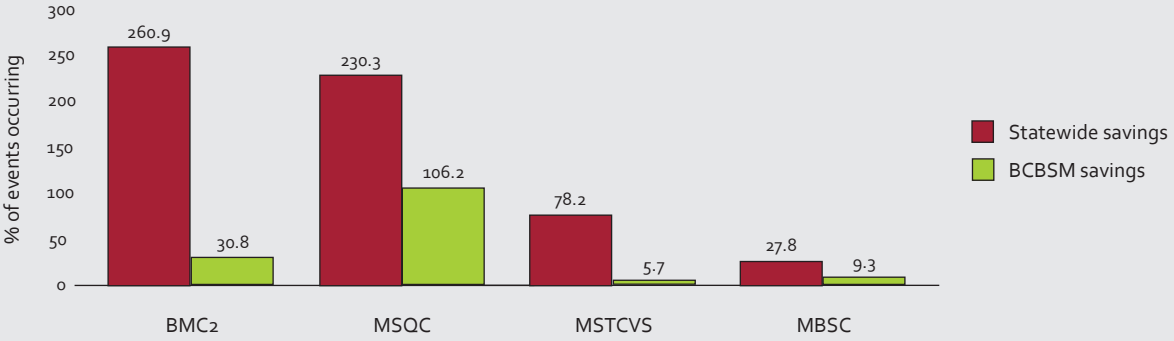


Figure 5A: Examples of outcomes improvements represented as actual vs avoided events between 2007 and 2012. **Figure 5B**: Examples of benefit cost savings estimates for BCBSM (includes BCBSM, BCN, BCBSM/BCN Medicare Advantage, and statewide for five CQIs3: MBSC (bariatric surgery), MSTCVS (cardiothoracic surgery), MSQC (general surgery) and BMC2 PCI (angioplasty) and VIC (peripheral vascular interventions).

Center on a regular basis. The providers also participate in consortium-wide quality improvement activities (*e.g.*, establish and act on quality improvement goals, attend regular collaborative meetings) to share their experiences, learn from others, and identify best practices to implement in their care delivery.

2. Payer

BCBSM funds both the data-collection infrastructure at the participating providers and the Coordinating Center infrastructure. It provides administrative oversight of the CQI while helping to establish a neutral ground for collaboration for participating providers, and analyzes and shares the population-level outcomes and improvements through their website (www.valuepartnerships.com) and social mission report. They also work with the Coordinating Center to identify benefit cost savings. As part of the Hospital-based CQI program, BCBSM also provides a hospital pay-for-performance opportunity to reward providers on achieving performance and participation goals set by the respective CQI consortium.

3. Coordinating Center

The Coordinating Centers provide clinical leadership in quality improvement and explore links between processes and outcomes from the data. All participating providers submit their data to their CQI's Coordinating Center, which performs the necessary risk-adjustment and comparative performance analysis. The Coordinating Center shares performance data with participating providers confidentially and

reports de-identified data to BCBSM on a periodic basis to demonstrate CQI program impact. Based on the results, the Coordinating Center identifies and shares best practices and opportunities for improvement with the participating providers. Each Coordinating Center is led by one or more Michigan-based physicians who are well-respected in the particular clinical area of focus, to guide the quality-improvement agenda. The Coordinating Center convenes regular meetings between the providers to share data and engage participants to discuss best practices and progress with all stakeholders. Some program efforts focus on disseminating new knowledge about "what works" from the data registry and through dialogue among participants. Other program efforts focus on optimizing processes so that they are consistent with what is already known about evidence-based care.

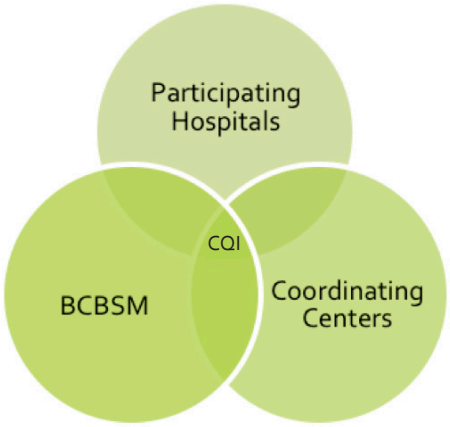


Figure 6: A CQI involves continuous collaboration between these three players.

The regularly scheduled collaborative-wide meetings are critical to each initiative's effectiveness and success. These typically take place three or four times per year and bring together the Coordinating Center and participating providers for a collaborative discussion of the results and the quality improvement aims of new initiatives. In **Item 2** of the Appendix, you will find information on the Michigan Urological Surgery Improvement Collaborative (MUSIC), a CQI focused on improving the quality and cost efficiency of prostate cancer care in Michigan. This illustrates how a CQI may set its agenda, define its scope of work, and conduct meetings.

KEY SUCCESS FACTORS OF THE CQI MODEL AND RECOMMENDATIONS

1. AN OPPORTUNITY FOR EDUCATION, NOT FOR PUNITIVE EVALUATION

CQIs reward participation and improvement rather than ranking or being "best in class." Presentations and discussions at meetings are framed entirely around identifying positive outliers in outcomes and identifying targeted goals to drive quality improvement. Identified data is not shared or reported publicly and the payer only sees de-identified data. Participating sites are provided funds to support the majority of data abstraction costs. In addition, the Hospital CQIs have reward opportunities tied to active participation and meeting quality improvement goals as defined by the consortium.

"At our collaborative-wide meetings, we laud participation and improvement rather than overall performance."

Dr. David Miller, Project Director of MUSIC CQI

"Clinicians see that the data will be used to drive performance improvement rather than punish them with penalties, and this drives cultural change."

Dr. Michael Grossman, Project Director of VIC CQI

"BCBSM doesn't know whom the best or worst hospital is - this anonymity is written into the contracts. You must 'have the appropriate firewalls,' so to speak."

Dr. Darrell Campbell, CMO of the University of Michigan Health System and Project Director of MSQC CQI

"Providers initially thought 'Why would we report our poor outcomes and problems?' The key is to start by de- identifying reports. Today, some of the more mature CQIs have completely transparent and identifiable reports because the culture is advanced enough. The participants are the teachers – they are happy to come out and say 'We've learned this.' There is a real feeling of trust and collaboration."

Dr. David Share, SVP at BCBSM

In establishing a CQI, it is essential that the reporting structure fosters open communication and candid discussion to identify opportunities for improvement, and that there is no incentive to hide performance data. Once trust is established and it is clear that the providers won't be judged by the payer for performance, providers may then voluntarily choose to share identified data or make them visible to each other for the purpose of increasing learning opportunities. An additional level of trust is shared among the providers and payer with the Coordinating Center reporting blinded aggregate and site-specific data. The role of BCBSM is to validate that the CQI programs are improving quality of care both at the member and statewide level.

2. BOTTOM-UP AND CLINICIAN-LED

Utilizing the registry data, participating clinicians work with the Coordinating Center to identify quality improvement opportunities firsthand. QI opportunities are then prioritized with participating clinician input to align on a subset for focus. This ensures that clinicians understand the clinical context, have a sense of ownership for the results of the effort, and buy in to the program. Along with the Coordinating Center clinical leadership, participating clinicians also have the opportunity to lead QI efforts voluntarily, which several do.

"Because this is physician-owned and physician-led, it is readily accepted and adopted. Those who will employ it are developing it, which makes the most sense."

Dr. Michael Grossman, Project Director of VIC CQI

"Clinician-led meetings at venues and times that are convenient to them makes them feel like they are in the right place, and this is a valuable use of their time. Developing protocols with a clinician audience ensures adoption."

Andrea Jensen, Senior Research Supervisor for PCI and VIC CQIs

Clinicians and data abstractors need to feel ownership over the improvement opportunities the consortium focuses on, or they won't feel motivated to implement them. Coordinating Centers must create a clinical, consensus-driven approach to identifying improvement initiatives in order to drive participation and adoption. This requires getting participants to engage in the quality initiative selection process, identification of pertinent data elements, to share feedback and concerns, and commit to the initiative in focus.

3. STRONG PEER RELATIONSHIPS AS THE FOUNDATION FOR A LEARNING COMMUNITY

Providers convene on a regular basis, which strengthens relationships among peers and forges a strong, trusted community of collaboration. In CQI meetings, each individual is personally invited to contribute to discussions and share his or her expertise and perspective as an equal contributor. Coordinating Center project leadership regularly meet participating providers in person to create and solidify these relationships, and intervene when participation or performance lags. Contribution to the content shared at the collaborative-wide meetings (*e.g.* presentations or leading breakout sessions) is typically led by a wide range of participants (*e.g.* academic, non-academic, large and mid-size acute care urban, rural, and community hospitals and physician practices). The CQIs also have standing committees with wide involvement by participating providers to guide the scientific work of the consortium, publish findings, establish the quality improvement agenda, ensure accurate collection of data, and support prioritization of new opportunities for exploration and process improvement.

"Being on the ground meeting with people, getting to know them, building trust, and making the rounds is key before you can get off the ground with this sort of initiative."

Dr. Jack Billi, Associate VP for Medical Affairs at University of Michigan Medical School

A successful CQI must first foster a close community of peers to ensure a strong foundation of trust. This is easiest for providers in geographic proximity, but may be attempted by peers across a greater distance if there are frequent interpersonal interactions to establish strong relationships. Indeed, multiple regional communities could form and establish relationships across different geographies. In either case, these communities must also be representative of the heterogeneous clinical environments in which clinicians encounter patients, and leadership positions should reflect this representation as well.

4. COST-NEUTRAL TO PARTICIPATING PROVIDERS

Payer funding support ensures that sufficient human and financial resources are dedicated to the effort to keep it successful. At the provider level, this ensures that the CQI does not draw resources away from clinical activities or impact workflow and productivity, so providers do not have to make significant financial or resource trade-offs to participate.

"This would not happen without payer funding. It pays for a dedicated FTE and data--collection tools to ensure that high-quality data collection happens, and it pays for the Coordinating Center. Hospitals can't afford to fund this themselves."

Dr. Peter Henke, Project Director of VIC CQI

Providers will not participate If there is a significant financial trade-off, as participation would be too low to establish a strong community and the trust that is needed for success. Third-party funding can get the CQI off the ground, and this can pay for itself with the cost savings for all stakeholders associated with superior patient outcomes.

5. ROBUST DATA QUALITY AND AUDITING

The BCBSM CQIs invest substantially to ensure that what is reported is of the highest quality. The data abstractors are rigorously trained and regularly evaluated for competence in data interpretation and coding. Such rigorous auditing of data contributes to the trust that underpins the CQIs and enables collaborative-wide adoption of QI initiatives.

"Ensuring data quality is a requirement for a successful quality improvement initiative. Training, on-site data-monitoring and real time Q&A are key features of our BMC2 program."

Andrea Jensen, Senior Research Supervisor of BMC2 PCI and VIC CQIs

"There are electronic quality-check triggers. For example, if a patient has a very long length of stay with no complications, it will be flagged for investigation."

Dr. Darrell Campbell, CMO of the University of Michigan Health System & Project Director of the MSQC CQI

The CQI Coordinating Center staff regularly train and evaluate data abstractors, and rigorously audit data collection. Impeccable data quality is necessary for providers to trust the data reports and engage in learning opportunities based on conclusions made from the data. It is essential to invest in ensuring high-quality data collection.

6. INCLUDE THE PATIENT VOICE

The patient voice grounds the CQI discussion in driving improvement in outcomes that matter to patients and aligns stakeholders around that shared goal. As the CQI model is evolving, the inclusion of patient-reported outcome measures (PROMs) is emerging as an increasingly important feature.

"Having a patient voice at the meetings helps to keep a firm proxy during debates. No one can really argue with what the patient representative has to say. We are all here for patients, so this voice is in many ways the most important one in the room."

Dr. David Miller, Project Director of MUSIC CQI

"PROMs are a big new territory for us and we have achieved some great successes in the MUSIC [prostate cancer], MARCQI [hip and knee arthroplasty], and MBSC [bariatric surgery] CQIs. Bue we need to get more patients in our meetings. This increasingly needs to be patient-centric, not profession-centric."

Dr. David Share, SVP at BCBSM

The patient voice is the true north to guide quality improvement initiatives. Including patient representatives and advocates in CQI meetings ensures that this perspective is kept at the forefront and can align consortium members and build consensus. New CQI efforts should aspire to include patients in the CQI meetings to inform the selection of quality-improvement initiatives and continue to motivate and engage participating providers.

NEXT STEPS

BCBSM's CQIs are proven to drive better care and better outcomes and reduce costs across many procedure categories and medical conditions, benefiting patients, providers, and the payer. The CQIs also provide large quantities of data for quality improvement research, which benefits the broader academic community.

In the first quarter of 2015, the next test was to see if this model could effectively scale to new geographies. BCBSM launched the CQI model outside of Michigan with the March 2015 kickoff of the Pennsylvania Urology Regional Collaborative in southeast Pennsylvania. As word spread among the provider specialist community about the benefits realized with the CQI model, discussions have occurred with over

a dozen other US Blues plans that have expressed interest in replicating this model to forge provider partnerships and improve quality. Once established, the challenge will be for these regional CQIs to form a broader network of initiatives that can engage in collaborative learning and expand best practices on a broader geographic scale. It was expected that, to be successful, this expansion would emerge from a network of established, clinician-led, and locally-driven initiatives with support from a critical mass of regional and national payers. Dr. Share was optimistic. "Bringing other payers to the table and showing them how this model works is very powerful," he said. "They are extremely interested and are already starting to implement the CQI model. We are expecting big things in the near future."

SOURCES

Site visit to Michigan in January 2015 to conduct interviews and attend 1st Tri--Annual Meeting of MUSIC CQI, 2015.

Interviews conducted with:

- Dr. David Miller, Project Director of MUSIC CQI
- Dr. James Montie, Program Co--Director of MUSIC CQI
- Dr. Khurshid Ghani, Program Co--Director of MUSIC CQI
- Dr. Frank Burks, Urologist and MUSIC CQI Participant
- Susan Linsell, Project Manager of MUSIC CQI
- Dr. Hitinder Gurm, Project Director of BMC2-PCI CQI
- Dr. Jack Billi, Associate Dean and Associate VP for Medical Affairs at University of Michigan
- Dr. Michael Grossman, Project Co--Director of BMC2-VIC CQI, Interventionalist
- Dr. Peter Henke, Project Co--Director of BMC2-VIC CQI, Surgery
- Andrea Jensen, Senior Research Supervisor for BMC2-PCI and VIC CQIs
- Joanne Kimata, Staff Specialist at University of Michigan
- Dr. David Share, Senior Vice President of BCBSM
- Marc Cohen, CQI Manager at BCBSM
- Rozanne Darland, CQI Coordinator for CQIs at BCBSM
- Karlie Witbrodt, CQI Project Lead at BCBSM

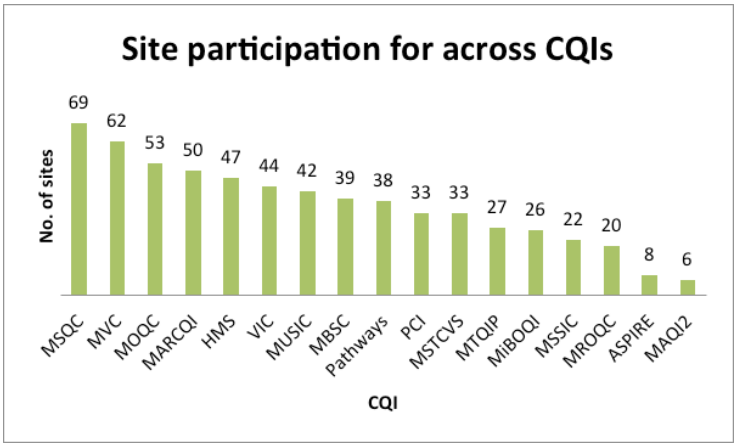
1. *How a regional collaborative of hospitals and physicians in Michigan cut costs and improved the quality of care. Share D, Campbell D, Birkmeyer N, Prager R, Gurm H, Moscucci M, Udow--Phillips M, Birkmeyer J, Health Affairs, 30, no.4 (2011):636-645*
2. *Association of a continuous quality improvement initiative with practice and outcome variations of contemporary percutaneous coronary interventions. Moscucci, Mauro, et al. " Circulation 113.6 (2006): 814-822*
3. *Value Partnerships website: www.valuepartnerships.com*
4. *Setting up Your Plan's Collaborative Quality (CQI) Program: A How-To Guide to Developing and Maintaining a Hospital CQI Program, Rozanne Darland and Marc Cohen. Blue National Summit 2012, Orlando, Florida. Sept 10-13, 2012*
5. *BCM2 PCI Coordinating Center, UMHS, Annual Report February 2015*

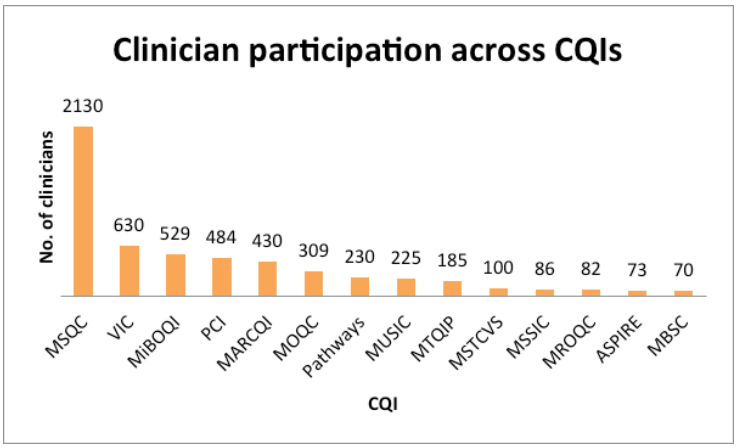
ACKNOWLEDGMENTS

We would like to thank Blue Cross Blue Shield of Michigan, the University of Michigan, and the participants of the MUSIC CQI and BMC2-PCI/VIC CQIs for their tremendous help and support in the writing of this case study.

APPENDIX

Item 1: Site participation and clinician participation across all CQIs in Michigan





Provider participation and specialty focus are shown for each CQI. Data is accurate at time of publication by BCBSM.[2]

Item 2: The Michigan Urological Surgery Improvement Collaborative (MUSIC) CQI Agenda for 2015

Adapted from 2015 Fact Sheet: Professional Collaborative Quality Initiative, MUSIC, BCBSM Value Partnerships.

Overview

- *Launched in January 2012 following successful 3-year multi-state (Michigan, Indiana, Ohio, Tennessee and Virginia) pilot, the Urological Surgery Quality Collaborative (USQC)*
- *Collected data on more than 16,000 patients*
- *PQRS Qualified Clinical Data Registry (QCDR)*
- *235 urologists, 42 participating practices*

Goals and Objectives

- *Optimize radiographic staging for newly diagnosed prostate cancer patients*
- *Reduce prostate biopsy--related complications and optimize repeat biopsy practice patterns*
- *Improve patient outcomes after radical prostatectomy through video--based technical review and patient--reported outcomes*
- *Enhance patient--centered decision making among men who are considering local therapy for early--stage prostate cancer*

Data Elements

- *Patient demographics*
- *Cancer severity (including pathology from needle biopsies)*
- *Radiographic staging studies: utilization and outcomes*
- *Patterns of care for local (e.g. radical prostatectomy and radiation) and systemic (e.g. androgen deprivation) therapies*
- *Patient--reported outcomes following radical prostatectomy at 3, 6, 12 and 24 months*

Analysis

- *Practice--level comparisons*
- *Identify specific care components associated with better patient outcomes*

Payment

- *Funding for participation occurs bi-annually to support data abstraction and reporting related activities. BCBSM covers 80% of the costs of a Full Time Equivalent (FTE) to support data abstraction. The 80% represents BCBSM, BCN, Medicare, Medicaid, uninsured/self-insured populations*
- *New participants receive startup funds equivalent to 25% of an FTE in their first year along with the data abstraction payments*
- *Funding for data abstraction is based on the projected volume of eligible patients for the first year of participation and actual volumes for all subsequent years*

Participation Criteria

Each site is expected to:

- *Actively develop and maintain organizational commitment including clinical and administrative support and adequate staff levels to support the CQI's activities*
- *Identify a clinically active urologist to serve as clinical champion, who will:*
  - *Lead the practice QI efforts*
  - *Attend at least 2 out of 3 tri--annual collaborative meetings*
  - *Serve on a QI working group focused on the CQI aims*

Evaluation

Will address how the intervention is functioning (process, structure, behavioral and knowledge--based changes) and will focus on outcomes that are affected by this intervention.

Results Achieved so Far

- *A statewide decrease in the utilization of both bone scans and CT scans for men with low-risk prostate cancer through the use of comparative performance feedback, review of current guidelines, and dissemination of best practices*
- *50% reduction in biopsy--related infectious hospitalizations*
- *Established a novel metric (MUSIC NOTES) that defines an uncomplicated early post-operative recovery, and compares these outcomes across diverse urology practices*
- *Created a statewide, electronic infrastructure for measuring and improving patient-reported functional outcomes after radical prostatectomy.*
- *Developed an infrastructure for video-based assessment of surgical technique*

Examples of Practice Modifications

- *Developed and implemented evidence-based appropriateness criteria for radiographic staging of all men with newly-diagnosed prostate cancer*
- *Implemented prostate biopsy-related process changes for antibiotic prophylaxis focused on addressing fluoroquinolone resistance*
- *5 MUSIC practices piloting a standardized electronic outcomes data collection system*
- *Invited all MUSIC urologists that perform robotic prostatectomy to submit a video of a representative case for surgical technique assessment and correlation with patient outcomes*

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