**Members Present:** Sue Knudson, Rahshana Price-Isuk, Barb Anderson, Janet Avery, Lori Bethke, Joe Bianco, Karolina Craft, Sue Gentilli, Stefan Gildemeister, Greg Hanley, Jordan Kautz, Deb Krause, Chris Norton, Christopher Restad, Jonathan Rose, Allan Ross, Laura Saliterman, David Satin, Mark Sonneborn, Dan Trajano  
**Absent:** Cara Broich, Matt Flory, Jess Wheeler  
**Guests:** Howard Epstein, Paul Johnson  
**MNCM Staff:** Jess Amo, Collette Pitzen, Anne Snowden, Julie Sonier

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<th>Topic</th>
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<td>Welcome &amp; Introductions</td>
<td>Rahshana Price-Isuk called the meeting to order and introduced herself as MARC co-chair. Rahshana expressed a special thank you to retiring MARC co-chair, Howard Epstein, who served as co-chair for many years. Rahshana then introduced, Sue Knudson as the new MARC co-chair. Rahshana welcomed and introduced two new MARC members: Lori Bethke, MD and Clarissa Cox. After introductions, MARC members introduced themselves. Rahshana also welcomed members of the Total Knee Replacement workgroup and observers.</td>
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<td>Approval of Minutes</td>
<td>The committee reviewed minutes from the March 13, 2019 meeting. Greg Hanley made a motion to accept the minutes; Dan Trajano seconded the motion. Motion passed.</td>
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**Total Knee Replacement Measure Redesign Workgroup Recommendations**  
**Background:**  
The Total Knee Replacement (TKR) measures were originally developed in 2011. The primary focus of the re-design was the functional status measure which uses the Oxford Knee Score (OKS) tool- a patient-reported outcome (PRO) tool. In 2016, the Average Change in Functional Status Following Total Knee Replacement Surgery measure was submitted to the Centers for Medicare and Medicaid Services’ (CMS) Call for Measures. It was accepted for consideration and subsequently included in the Quality Payment Program (QPP) for 2019 along with six additional orthopedic patient-reported outcome (PRO) measures. 
While CMS liked these PRO measures, they provided some feedback regarding the measure construct of MNCM’s orthopedic measures. They suggested changing the construct from an average change to a target-based measure in order to allow for benchmarking and prevent denominator self-selection. That is, if a patient is not doing well postoperatively, a provider could simply do not administer the tool. While not a concern for all providers, the average change construct does not protect against this. 
The workgroup was tasked with four items:  
- Consider changing the measure construct from an average change to a target-based measure and also consider inclusion of the KOOS JR tool  
- Consider discontinuing collecting the three-month post-operative measures  
- Consider discontinuing collection of TKR revision procedures  
- Discuss usability and value of the quality of life tool, PROMIS Global-10  

**Task 1: Consider changing measure construct to target-based**  
There are two functional status measures that assess average change in OKS at two points in time – one at one year (9 to 15 months) post-operatively and one at three months (9 to 20 weeks) post-operatively. To calculate the average change, the average pre-operative OKS score is subtracted from the average post-operative OKS score for each medical group. As a result, a pre- and post-operative OKS score is needed for patients in order to calculate the average change. 
During measure development, the original workgroup had good intentions by suggesting the average change construct. The workgroup estimated that approximately 70 percent of their patients returned for a one-year post-operative visit.
However, using three years of data, only approximately 37 percent of patients actually completed a one-year post-operative PRO assessment (N = 38,265). Since the average change construct requires both a pre- and post-operative PRO assessment, approximately 74 percent of the denominator is lost. By losing over half of eligible patients in the denominator, the current construct is not representative of the total population and opens the door for potential bias. Additionally, the average change measure construct does not provide incentive among medical groups to implement PRO-based assessments into clinical workflows.

While the average change in functional status at one-year measure was accepted in the 2019 QPP program, CMS placed an additional stipulation on submission – medical groups must have a completed pre- and post-operative assessment on at least 50 percent of their patients in order to submit outcome rates. Currently, many Minnesota medical groups are not meeting this requirement.

To determine an appropriate OKS target score, MNCM staff conducted a literature review. In a 2014 article by Kuertjes and Van Tol, an OKS target was explored by determining correlation between the OKS and a Patient Acceptable Symptom State (PASS). The PASS is the highest level of symptom beyond which patients consider themselves well. The study found that an OKS target of greater than or equal to 37 achieves an acceptable symptom state and a higher rating of patient satisfaction.

Using information found in the literature review, MNCM conducted an analysis for the workgroup using three years of data submitted to MNCM (2016 – 2018) calculating blinded medical group rates of the proposed construct to enhance decision making and evaluate the distribution of one-year post-operative OKS scores. Among patients with valid post-operative OKS scores (n = 13,549 or 38% of eligible population), approximately 60.6 percent had an OKS score between 40 and 48 (satisfactory knee function). The workgroup requested additional analysis be completed to determine the success rate of meeting the proposed target for patients who start with a lower (worse) pre-operative OKS score. Of patients who had a severe or moderate-severe pre-operative OKS score (n = 7,966), 59.0 percent and 75.2 percent met the OKS target of greater than or equal to 37, respectively. Additionally, while the target-based construct relies on the post-operative assessment, collection of pre-operative assessment is strongly encouraged as the pre-operative scores are used in MNCM’s risk adjustment model for the measure.

In addition to finding an appropriate OKS target score, the redesign workgroup was tasked with exploring inclusion of additional PRO tools for the functional status measure. After review of several PRO tools, the KOOS JR was found to be a possible candidate for inclusion. The KOOS JR is a short, seven-item joint replacement adaptation of the 42-item KOOS tool. Developed by the Hospital for Special Surgery, the KOOS JR tool was validated in 2016 and copyrighted in 2017. Currently, the KOOS JR is included in the American Joint Replacement Registry (AJRR), the Joint Commission’s Advanced Certification for Total Hip and Total Knee Replacement and Medicare’s primary total joint replacement bundled payment program. Because the tool is relatively new, there are currently no published studies describing the knee function outcome results as a means for determining a best target score. To determine an appropriate outcome score for the KOOS JR tool, MNCM staff consulted with the tool developer contact, Stephen Lyman, PhD. Dr. Lyman generously provided an unpublished crosswalk between OKS scores and the corresponding KOOS JR scores. While not yet published, the crosswalk illustrated that an OKS score of 37 corresponds with a KOOS JR score of 71.

After thoughtful and thorough discussion, the Workgroup Chair discerned that consensus on the proposed measure construct had been achieved. However, after the meeting, concerns were raised surrounding the understanding of the denominator definition. To ensure clarity of the proposed measure construct among workgroup members, a formal vote was taken. Of ten voting members, the majority (80%) voted in favor of the proposed construct.

As a result, the recommendation from the workgroup is that the measure construct changes from an average change to a target-based measure. Benefits of changing to this construct include:

- Measure becomes a target (met or not met)
• All eligible patients remain in the denominator
• Provides incentive to increase tool administration
• Allows benchmarks to be set
• Includes two different tools: OKS and KOOS JR
  o KOOS JR aligns with AJRR and Joint Commission
• Only requires post-operative assessment
  o Pre-operative assessment is strongly encouraged as it is used for risk adjustment

Task 2: Discontinue collection of the three-month measures
During measure development, the workgroup recognized that a three-month timeframe (nine to 20 weeks) was too soon after surgery to assess function but felt that it was important to understand the differences between treatment/therapy. These measures have not been adopted by the Minnesota Department of Health (MDH) for the Statewide Quality Reporting and Measurement System (SQRMS) and the measures have not been publicly reported.

As part of this redesign effort, staff recommended discontinuation of the three-month measures. In addition to the reasons provided above, a key benefit of discontinuing these measures is reducing burden for medical groups.

The MNCM workgroup reached consensus to discontinue collection of the three-month measures.

Task 3: Discontinue collection of total knee replacement revision procedures
Since the start of data collection for TKR revision procedures in 2016, there has been a relatively low volume of revision procedures submitted – approximately eight percent. Additionally, the revision procedure data is not currently publicly reported and is not included in the QPP – only primary procedures are specified in the QPP measure specifications.

As part of this redesign effort, MNCM staff recommended that collection of TKR revision procedures be discontinued. Additionally, this will reduce burden for medical groups.

The TKR workgroup reached consensus to discontinue collection of revision TKR procedures.

Task 4: Discussion of Quality of Life Tool and Results
The original spine surgery and TKR workgroups were tasked with developing measures of functional status for patients undergoing orthopedic surgery; however, they both expressed a desire to also include measures of health-related quality of life (QoL). The original workgroups selected the EQ5D, which was replaced with PROMIS Global-10 in 2015 due to increasing restrictions on the electronic administration and ownership of the data. Although PROMIS Global-10 is sponsored by the NIH and is gaining traction as a tool that is used, many entities that are administering the tool are having difficulty analyzing, using and reporting these measures. Currently, the results of the tool are to be converted using t-scores.

A survey was conducted via email among the redesign workgroup members to gain a sense of the usability and value of these measures. Most of the members felt that the PROMIS Global-10 tool was useful in everyday practice as well as in research. The redesign workgroup chair shared that the American Joint Replacement Registry (AJRR) uses this tool and felt that medical groups should also collect this information. Several workgroup members also felt that the use of t-scores for measuring change is useful. A literature review revealed only validation studies, with no reported outcome results for spine surgery or total knee replacement patients; however, one study of cancer patients defined poor quality of life as one standard deviation below the population mean t-score.

Currently, there is not enough published data about the use of this tool and results in the target populations and not enough experience with deriving target based PRO-PMs with these subscales. These QoL measures are not currently endorsed or included in federal programs, but workgroup members feel that it is still important to capture this information. MNCM will continue to explore the reporting of outcomes using this tool and will continue to collect the QoL measures using an average change construct.

Summary of Recommendations
1. Modify measure construct to reflect new target-based measure for 2020 report year (DOS 1/1/2018 – 12/31/2018)
   Recalculation of existing data and inclusion of KOOS JR in data elements collected
a. One-year post-operative OKS score of greater than or equal to 37 OR one-year post-operative KOOS JR score of greater than or equal to 71
b. Denominator includes all eligible procedures. Patients not assessed remain in the denominator and do not meet the target.

2. **Discontinue collection of three-month measures (for 2020 report year):** Many medical groups consider these measures optional and are not submitting this information. Discontinuing collection will reduce data collection burden.

3. **Discontinue collection of TKR revision procedures (for 2020 report year):** Low volume over three years. Discontinuing will reduce data collection burden.

4. **Continue to explore meaningful reporting of quality of life measures** (currently with an average change construct): Potential for future target-based measure with more literature and experience with tool score.

**Questions/Comments/Discussion:**

Paul Johnson, TKR workgroup chair, provided his perspective on the workgroup process and decision. Paul commented that, while it appears revision procedures are decreasing in Minnesota, the revision burden is actually increasing on a national level. Dan Trajano inquired as to whether there was any discussion about continuing to collect data on revision procedures without publicly reporting that information so that it can be studied. Paul commented that within his own practice, they are collecting that information, but have difficulty finding the value in the data when the volume of revision procedures is so low and when the population is so heterogenous.

Paul also provided more detail on the workgroup debate surrounding task #1 – changing to a target-based measure. A concern for some members was that the denominator will include everyone who had a procedure and not just those who completed an assessment tool. In addition, there were concerns about differences in patient population among medical groups (e.g., demographic factors, socioeconomic factors, etc.) and how that plays a role in being able to successfully collect assessments from patients.

Howard Epstein, a TKR workgroup member, added that the primary goal of the functional status measures is to improve the quality of life in patients receiving the procedure. Howard commented that the administration and collection of the PRO tool is like the PHQ-9 tool for the depression measures. Medical groups submitting data for the depression measures have been able to figure out how best to administer and collect those scores. As a result, Howard believes that, with time, medical groups submitting data for the TKR measure will be able to figure out a process that works for them.

Rahshana asked how risk adjustment would address additional factors that contribute to a patient’s ability to achieve a successful outcome other than pain and functional status (e.g., financial burden, food insecurity, etc.). While she is in support of the proposed construct, she cautioned against medical groups denying surgery to patients because of these additional circumstances. Paul responded by saying that risk adjustment should pacify some of those factors in terms of the numerator. Risk adjustment may not address the concerns with the denominator. However, Paul agreed with Howard and added that it should incent groups to figure out how to incorporate the tools into clinical workflows.

Dan asked what the current risk adjustment variables are. Jess clarified that the variables currently being used include insurance product, deprivation index and pre-operative OKS score. Gunnar Nelson, MNCM Health Economist, added that with the new construct, additional testing will need to occur to determine the appropriate risk adjustment variables. Collette added that in the spine surgery workgroup, members recommended using the quality of life scores from the PROMIS Global-10 tool to risk adjust for the functional status measures. As a result, the quality of life scores, in addition to BMI and tobacco status, may be tested for the TKR measure as well.

Laura Saliterman asked if changes to the measure construct might encourage orthopedic groups who have not participated in the past to submit. Jess responded it is unclear whether these groups will submit their data to MNCM. Laura questioned if there was a potential unintended consequence of denying procedures to patients based on their pre-operative score.

David Satin responded that a measure shouldn’t be built if risk adjustment is needed to “bail it out”. While David does not believe the TKR measure is this kind of measure, he encouraged committee members to remember that risk adjustment is not perfect and an evolving iterative process. David also commented that “cherry-picking” infers intentional action to get patients to drop out of the denominator (as implied in the feedback from CMS). Instead, he believes that low tool administration rates are “lemon-dropping”, which is the lack of action. Collette confirmed that “lemon-dropping” is likely the primary factor as evidenced by low pre-operative tool administration rates for a relatively captive audience (e.g., the
patient is in office planning to have procedure). Collette also added that on MNHealthScores, MNCM would clearly instruct the consumer to view both the outcome measure with the post-op tool administration rate.

Dan Trajano asked if there was a reason for picking two tools to be included in the numerator, especially when the KOOS JR is part of the AJRR and the Joint Commission. Dan also asked how it would work if a medical group was using both tools and a patient met the target on one tool but not the other. Jess commented that with the KOOS JR tool being so new, MNCM was hesitant in suggesting a complete replacement of an existing tool that works well and has been implemented into clinical practices on a statewide basis. Collette added that having a target-based measure allows for the flexibility of incorporating more than one tool, provided each tool meets selection criteria and has clear cut-points for the desired outcome (e.g. 4 asthma PRO tools all equal asthma in good control). For the depression measure, there were about 21 different tools that were reviewed but only one tool met the criteria and had clear comparable cut-points for remission of symptoms. Collette also added that MNCM would not expect groups to start collecting and reporting both tools. Instead, by including the KOOS JR, medical groups have more flexibility in which tool they decide to use.

**Dan Trajano made a motion to approve the measure changes. Laura Saliterman seconded the motion. Motion passed**

| Identifying and prioritizing new measurement needs | Sue introduced Julie Sonier, President of MN Community Measurement, who provided information about an upcoming process for identifying and prioritizing new measurement needs.  
Julie provided a brief background. The process to identify and prioritize new measurement needs was included in the 2019 priorities established by MNCM Board of Directors. One of MNCM’s key roles in the community is as a convener of stakeholders to jointly identify priorities for collaboration that drives improvement. The most recent review of measurement gaps and priorities was about five years ago. Often, stakeholders suggest measures that they believe would be useful and, with new technology, there are opportunities to measure with less burden and develop more meaningful measures.  
To start this process, the June MARC meeting will be a joint meeting with MNCM’s Health Equity Advisory Council. Some key points and considerations for this effort include:  
• Identifying measure concepts, including selecting existing measures and identifying new ideas for measure development (redesign of existing measures is out of scope)  
• May or may not include public reporting – there may be substantial value in private reporting or use for internal QI purposes  
• Effort is not related to what the state requires providers to report through SQRMS  
• Ability to implement will be contingent on resource availability, especially for new measure development  

**Questions/Comments/Discussion:**  
Laura Saliterman inquired as to whether there has been coordination of effort between MDH and other organizations. Julie confirmed that there has been coordination and that she is currently on the MDH steering committee. However, a broader conversation about measurement gaps and priorities can be gained by facilitating a multi-stakeholder discussion. |

| Meeting Adjournment | The next meeting will be Wednesday, June 12, 2019. Sue adjourned the meeting. |

Next Meeting: Wednesday, June 12, 2019