

Report on a QI Project Eligible for MOC – ABMS Part IV and AAPA PI-CME

Transforming Medication Adherence: A Great Lakes Practice Project – Wave 5

Instructions

Determine eligibility. Before starting to complete this report, go to the UMHS MOC website [ocpd.med.umich.edu], click on “Part IV Credit Designation,” and review sections 1 and 2. Complete and submit a “QI Project Preliminary Worksheet for Part IV Eligibility.” Staff from the UMHS Part IV MOC Program will review the worksheet with you to explain any adjustments needed to be eligible. (The approved Worksheet provides an outline to complete this report.)

Completing the report. The report documents completion of each phase of the QI project. (See section 3 of the website.) Final confirmation of Part IV MOC for a project occurs when the full report is submitted and approved.

An option for preliminary review (strongly recommended) is to complete a description of activities through the intervention phase and submit the partially completed report. (Complete at least items 1-20.) Staff from the UMHS Part IV MOC Program will provide a preliminary review, checking that the information is sufficiently clear, but not overly detailed. This simplifies completion and review of descriptions of remaining activities.

Questions are in bold font. Answers should be in regular font (generally immediately below or beside the questions). To check boxes, hover pointer over the box and click (usual “left” click).

For further information and to submit completed applications, contact either:

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Report Outline

| Section | Items |
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| B. Plan | 7-10. Patient population, general goal, IOM quality dimensions, ACGME/ABMS competencies 11-13. Measures, baseline performance, specific aims 14-17. Baseline data review, underlying (root) causes, interventions, who will implement |
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QI Project Report for Part IV MOC Eligibility Transforming Medication Adherence: A Great Lakes Practice Project

Introduction

1. **Date** (*this version of the-report*): 4/19/18

2. **Title of QI effort/project** (*also insert at top of front page*): Transforming Medication Adherence: A Great Lakes Practice Project

3. **Time frame**

a. **MOC participation beginning date – date that health care providers seeking MOC began participating in the documented QI project** (*e.g. date of general review of baseline data, item #14c*):

See Appendix A for the overall project timeline. Five “waves” of groups of medical practices will initiate their participation in the project monthly for 5 months. **Wave 5 began in September 2017.**

b. **MOC participation end date – date that health care providers seeking MOC completed participating in the documented QI project** (*e.g., date of general review of post-adjustment data, item #29c*):

Each “wave” of groups of medical practices will perform two cycles of improvement effort over six months. The final wave will be completed about February 2018. **Wave 5 finished in February 2018.**

4. **Key individuals**

a. **QI project leader** [*also responsible for confirming individual’s participation in the project*]

Name: Carley Kirk, MS
Title: Physician Engagement Lead
Organizational unit: Altarum Institute
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b. **Clinical leader to whom the project leader reports regarding the project** [*responsible for overseeing/“sponsoring” the project within the specific clinical setting*]

Name: Karen Musolf, MD
Title: Assistant Professor, Department of Family Medicine
Organizational unit: University of Michigan
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5. **Participants**

a. **Approximately how many health care providers (by training level for physicians) participated in this QI effort** (*whether or not for MOC*):

| Profession | Number for Wave 5 | Estimated Number for Entire Project |
|------------|-------------------|-------------------------------------|
| | | |

| | | |
|---|----|----|
| Practicing Physicians | 8 | 20 |
| Residents/Fellows | 0 | 0 |
| Physicians' Assistants | 7 | 10 |
| Nurses (APNP, NP, RN, LPN) | 19 | 30 |
| Other Licensed Allied Health (e.g., PT/OT, pharmacists, dieticians, social workers) | 0 | 0 |

b. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians' assistants participated for MOC?

| Profession | Specialty/Subspecialty <i>(fill in)</i> | Number for Wave 5 |
|------------------------|--|----------------------|
| Practicing Physicians | Family Medicine | 4 |
| | Pediatricians | 2 |
| | OB/GYNs | 0 |
| | Internal Medicine | 2 |
| Fellows | | 0 |
| Residents | | 0 |
| Physicians' Assistants | <i>(Specialty not applicable)</i> | 0 |

6. How was the QI effort funded? (Check all that apply.)

- Internal institutional funds
- Grant/gift from pharmaceutical or medical device manufacturer
- Grant/gift from other source (e.g., government, insurance company): Centers for Medicare and Medicaid Services: Transforming Clinical Practice Initiative
- Subscription payments by participants
- Other *(describe)*:

The Multi-Specialty Part IV MOC Program requires that QI efforts include at least two linked cycles of data-guided improvement. Some projects may have only two cycles while others may have additional cycles – particularly those involving rapid cycle improvement. The items below provide some flexibility in describing project methods and activities. If the items do not allow you to reasonably describe the steps of your specific project, please contact the UMHS Part IV MOC Program Office.

B. Plan

7. Patient population. What patient population does this project address (e.g., age, medical condition, where seen/treated):

Patients aged 18 and older taking at least one medication who are treated in practices in Ohio and Michigan that are not part of an Accountable Care Organization (ACO).

8. General goal

a. Problem/need. What is the problem (“gap”) in quality that resulted in the development of this project? Why is important to address this problem?

Adherence to a medication regimen is generally defined as the extent to which patients take medications as prescribed by their health care provider. Often patients do not follow their

medication regimen as prescribed. In the United States only 50% of prescriptions are taken as prescribed, and approximately 20-30% of prescriptions are never filled. Failure to adhere to a medication regimen can have a negative impact on a patient’s health, health care costs, and the physician’s ability to adequately monitor and anticipate a patient’s health care needs. Medication nonadherence is responsible for one-third to two-thirds of all medical hospital admissions, over 10 percent of hospital readmissions, and nearly one-third of preventable ER visits. According to the American Medical Association (AMA), many physicians are surprised that their patients are not open about their medication-taking behavior. Physicians and health systems alike are concerned by the increasing evidence of patient nonadherence with a medication regimen because of the correlation of noncompliance with adverse outcomes.

One component of addressing patient nonadherence is to provide physicians with education and technical assistance regarding how to monitor medication adherence and, when nonadherence is identified, how to provide effective counseling to patients. A national standard of care is that physicians document a patient’s current medications in the medical record. However, some practices do not have a routine way of documenting this information, and don’t know how to fully utilize the capabilities of their Electronic Medical Record (EMR) systems. In some cases, obtaining accurate information from the patient can be difficult. Additionally, physicians are not well equipped to provide medication adherence questionnaires to assess a patient’s medication taking behavior, and provide counseling to patients who are identified as low adherers.

b. Project goal. What general outcome regarding the problem should result from this project? (State general goal here. Specific aims/performance targets are addressed in #13.)

The general goal is to increase medication adherence. This will be achieved by improving three aspects of care:

- Increase documentation of current medications.
- Increase identification of medication nonadherence among patients
- Increase identification of causes of nonadherence, and provide medication adherence counseling tailored to individual patient needs.

9. Which Institute of Medicine Quality Dimensions are addressed? [Check all that apply.]

(<http://www.nationalacademies.org/hmd/~media/Files/Report%20Files/2001/Crossing-the-Quality-Chasm/Quality%20Chasm%202001%20%20report%20brief.pdf>)

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Effectiveness | <input checked="" type="checkbox"/> Equity | <input checked="" type="checkbox"/> Safety |
| <input checked="" type="checkbox"/> Efficiency | <input checked="" type="checkbox"/> Patient-Centeredness | <input type="checkbox"/> Timeliness |

10. Which ACGME/ABMS core competencies are addressed? (Check all that apply.)

(<http://www.abms.org/board-certification/a-trusted-credential/based-on-core-competencies/>)

- | | |
|---|--|
| <input checked="" type="checkbox"/> Patient Care and Procedural Skills | <input checked="" type="checkbox"/> Medical Knowledge |
| <input checked="" type="checkbox"/> Practice-Based Learning and Improvement | <input checked="" type="checkbox"/> Interpersonal and Communication Skills |
| <input type="checkbox"/> Professionalism | <input checked="" type="checkbox"/> Systems-Based Practice |

11. Describe the measure(s) of performance: (QI efforts must have at least one measure that is tracked across the two cycles for the three measurement periods: baseline, post-intervention, and post-adjustment. If more than two measures are tracked, copy and paste the section for a measure and describe the additional measures.)

Measure 1

Name of measure: Documentation of Current Medications

- **Measure components** – for a rate, percent, or mean, describe the:
 Denominator (e.g., for percent, often the number of patients eligible for the measure):
 Number of patient charts pulled, excluding patients without a current medication prescription.

Numerator (*e.g., for percent, often the number of those in the denominator who also meet the performance expectation*):

Number of patients who had current medications documented.

• **The source of the measure is:**

- An external organization/agency, which is (*name the source*): Documentation of current medications- This is based on the National Quality Forum (NQF) measure #130: Documentation of Current Medications in the Medical Record.
- Internal to our organization and it was chosen because (*describe rationale*):

• **This is a measure of:**

- Process – activities of delivering health care to patients
- Outcome – health state of a patient resulting from health care

Measure 2

Name of measure: Medication Adherence Questionnaire

• **Measure components** – for a rate, percent, or mean, describe the:

Denominator (*e.g., for percent, often the number of patients eligible for the measure*):

Number of patient charts pulled, excluding patients without a current medication prescription.

Numerator (*e.g., for percent, often the number of those in the denominator who also meet the performance expectation*):

Number of these patients who have a completed medication adherence questionnaire documented.

• **The source of the measure is:**

- An external organization/agency, which is (*name the source*): Medication adherence questionnaire- This is based on the AMA guidelines recommending the use of standardized tools to determine medication taking behavior.
- Internal to our organization and it was chosen because (*describe rationale*):

• **This is a measure of:**

- Process – activities of delivering health care to patients
- Outcome – health state of a patient resulting from health care

(If more than two measures are tracked across the two cycles, copy and paste the section for a measure and describe the additional measures.)

Measure 3

Name of measure: Medication Adherence Counseling – calculated for all eligible patients.

• **Measure components** – for a rate, percent, or mean, describe the:

Denominator (*e.g., for percent, often the number of patients eligible for the measure*):

Excluding patients identified as being adherent to their medication regimen, number of eligible patient charts selected

Numerator (*e.g., for percent, often the number of those in the denominator who also meet the performance expectation*):

Number of these patients who received counseling documented in the medical record

• **The source of the measure is:**

- An external organization/agency, which is (*name the source*): Medication Adherence Counseling- This is based on the AMA guidelines recommending medication adherence counseling for patients that are identified as low adherers to their medication regimen.
- Internal to our organization and it was chosen because (*describe rationale*):

- **This is a measure of:**

- Process – activities of delivering health care to patients
- Outcome – health state of a patient resulting from health care

(If more than two measures are tracked across the two cycles, copy and paste the section for a measure and describe the additional measures.)

12. Baseline performance

a. What were the beginning and end dates for the time period for baseline data on the measure(s)?

For Wave 5, it was for August 1 - 31, 2017.

General baseline data were derived from the Centers for Medicare and Medicaid Services (CMS) Physician Quality Reporting System (PQRS) benchmark data. In 2014, of the physicians that reported PQRS measure #130 Documentation of Current Medications in the Medical Record. The performance mean was 84% with a standard deviation of 25.09. However, baseline data were not available for the frequency of use of Medication Adherence Questionnaires or of Medication Adherence Counseling. Anecdotal information was that performance related to these measures is much lower. These initial data and information were reported to participating providers as the baseline assumption at the initial meeting (month 1) of their participation group.

A retrospective confirmation of actual baseline data within each participating provider's practice was performed as the provider initiates participation in the program.

b. What was (were) the performance level(s) at baseline? *(E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.)*

See Appendix B, first column of data, for the baseline percent of patients with service performed by Wave.

13. Specific performance aim(s)/objective(s)

a. What is the specific aim of the QI effort? *“The Aim Statement should include: (1) a specific and measurable improvement goal, (2) a specific target population, and (3) a specific target date/time period. For example: We will [improve, increase, decrease] the [number, amount percent of [the process/outcome]] from [baseline measure] to [goal measure] by [date].”*

By the end of the second cycle of improvement effort (February 2018 for this wave):

- 90% of eligible patients will have current medications documented
- 50% of eligible patients will complete a medication adherence questionnaire
- 50% of eligible patients identified as low adherers will have medication adherence counseling completed

b. How were the performance targets determined, e.g., regional or national benchmarks?

The performance targets were determined locally by project leaders, based on feasibility of amount of increase over the time of two short cycles.

14. Baseline data review and planning. Who was involved in reviewing the baseline data, identifying underlying (root) causes of problem(s) resulting in these data, and considering possible interventions (“countermeasures”) to address the causes? *(Briefly describe the following.)*

- a. **Who was involved?** (e.g., by profession or role)
Participating physicians and any relevant nurse practitioners, physician assistants, and clinical support staff in the practice.
- b. **How?** (e.g., in a meeting of clinic staff)
During clinical staff meetings.
- c. **When?** (e.g., date(s) when baseline data were reviewed and discussed)
Before the end of month 1 of the "Wave." For Wave 5, it was before the end of September 2017.

Use the following table to outline the plan that was developed: #15 the primary causes, #16 the intervention(s) that addressed each cause, and #17 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a. As background, some summary examples of common causes and interventions to address them are:

| Common Causes | Common Relevant Interventions |
|--|--|
| Individuals: Are not aware of, don't understand. | Education about evidence and importance of goal. |
| Individuals: Believe performance is OK. | Feedback of performance data. |
| Individuals: Cannot remember. | Checklists, reminders. |
| Team: Individuals vary in how work is done. | Develop standard work processes. |
| Workload: Not enough time. | Reallocate roles and work, review work priorities. |
| Suppliers: Problems with provided information/materials. | Work with suppliers to address problems there. |

| 15. What were the primary underlying/root causes for the <u>problem(s) at baseline</u> that the project can address? | 16. What intervention(s) addressed this cause? | 17. Who was involved in carrying out each intervention? (List the professions/roles involved.) |
|---|---|--|
| <p><u>Clinical education</u></p> <p>Providers may not be aware of recommendations on improving medication adherence, as well as effective interventions and the basis for them. Providers often lack the training needed to be able to implement standardized tools to identify medication nonadherence, and to implement strategies for improving adherence among patients.</p> <p>Providers were not well aware of the standardized tools (e.g., Morisky Scale)</p> | <p>Direct-to-provider education on:</p> <ul style="list-style-type: none"> • Medication adherence and recommendations for management of nonadherence. • Understanding standardized tools and how to use them. • Making operational changes in patient care and clinical processes. | <p>Quality Improvement Analysts (central program personnel) will provide local office champion and all clinic personnel (e.g., physicians, nurse clinicians, physician assistants, and office staff) with educational materials.</p> |
| <p><u>Routine office processes</u></p> | <ul style="list-style-type: none"> • Local provider groups determine specific operational changes based | <p>Central program personnel, local office champion and all clinic personnel (e.g.,</p> |

| | | |
|---|---|---|
| <p>Processes do not systematically and reliably incorporate recommended activities to improve medication adherence.</p> <p>No routine processes to coordinate office staff in delivering the care, and documenting service.</p> | <p>on the general recommendations for improving care.</p> <ul style="list-style-type: none"> • Technical assistance provided to help improve the management of patients that are not adherent to their medication regimen, incorporating related AMA and PQRS clinical performance expectations and measures. Training includes how providers can incorporate standardized medication adherence patient questionnaires, patient counseling, and documentation of current medications into clinical workflow. | <p>physicians, nurse clinicians, physician assistants, and office staff).</p> |
| <p><u>Resources</u></p> <p>Resources for managing patients not adhering with prescriptions are unknown or are unavailable and/or not easily accessible.</p> | <ul style="list-style-type: none"> • Local solutions and resources (e.g., pill counters, pill splitters, and call reminders) are identified to manage and counsel patients not adhering to medications. | <p>(Same as above.)</p> |
| <p><u>Documentation</u></p> <p>Even when activities are performed, they may not be documented because the expectations for documentation are not clear or time to make entries in the medical record is limited.</p> | <ul style="list-style-type: none"> • Training includes how providers can efficiently incorporate documentation into the workflow for: <ol style="list-style-type: none"> 1) medication adherence, 2) patient counseling for those patients identified as low adherers, and 3) current patient medication lists. | <p>(Same as above.)</p> |

Note: If additional causes were identified that are to be addressed, insert additional rows.

C. Do

18. By what date was (were) the intervention(s) initiated? (If multiple interventions, date by when all were initiated.)

Before the end of month 1 of the group’s participation. For Wave 5, before the end of September 2017.

D. Check

19. Post-intervention performance measurement. Are the population and measures the same as those for the collection of baseline data (see items 10 and 11)?

Yes No – If no, describe how the population or measures differ:

20. Post-intervention performance

a. What were the beginning and end dates for the time period for post-intervention data on the measure(s)?

From the beginning to the end of month 3 of the cycle. For Wave 5, during November 1 - 30 2017.

- b. **What was (were) the overall performance level(s) post-intervention?** (E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.)

See Appendix B, middle column of data, for the post-intervention percent of patients with service performed and documented within and across the practice.

- c. **Did the intervention(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)?**

On average, there was no improvement, however performance remained above goal. For Measure 1, documentation of current medications, average performance dropped slightly from 100% at baseline to 98% post-intervention, although still exceeding the goal of 90%. Measure 2, medication adherence questionnaires, performance dropped from 74% at baseline to 68% post intervention. Although still exceeding the goal of 50%. Measure 3, patients identified as not adhering receiving counseling, performance dropped slightly from 100% at baseline to 96% post intervention. The major cause for this drop in performance was due to documentation issues related to several changes in staff.

E. Adjust – Replan

21. **Post-intervention data review and further planning. Who was involved in reviewing the post-intervention data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions (“countermeasures”) to address the causes?** (Briefly describe the following.)

- a. **Who was involved?** (e.g., by profession or role)

Same as #14? Different than #14 (describe):

- b. **How?** (e.g., in a meeting of clinic staff)

Same as #14? Different than #14 (describe):

- c. **When?** (e.g., date(s) when post-intervention data were reviewed and discussed)

Before the end of month 4 of the group’s participation. **For Wave 5, during December 2017.**

Use the following table to outline the next plan that was developed: #22 the primary causes, #23 the adjustments/second intervention(s) that addressed each cause, and #24 who carried out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a.

Note: Initial intervention(s) occasionally result in performance achieving the targeted specific aims and the review of post-intervention data identifies no further causes that are feasible or cost/effective to address. If so, the plan for the second cycle should be to continue the interventions initiated in the first cycle and check that performance level(s) are stable and sustained through the next observation period.

| 22. What were the primary underlying/root causes for the <u>problem(s) following the intervention(s)</u> that the project can address? | 23. What adjustments/second intervention(s) addressed this cause? | 24. Who was involved in carrying out each adjustment/second intervention? (List the professions/roles involved.) |
|--|---|--|
| <u>Patients.</u> | Clinicians and staff educated patients about the questionnaire, | Central program personnel, local office champion and |

| | | |
|--|---|--|
| <p>Patients did not understand how to use the questionnaire addressing their current medications. This resulted in providers spending too much time going through each medication listed on the EHR system.</p> | <p>specifically asking about all current medications in order to save time during the appointment.</p> | <p>all clinic personnel (e.g., physicians, nurse clinicians, physician assistants, and office staff)</p> |
| <p><u>Office workflow.</u></p> <p>Staff turnover hindered smooth workflow for data collection.</p> <p>Office Champion was in the office one day a week, making communication difficult</p> | <p>Identifying and training a new data collection lead to take over reporting duties</p> <p>Having the office champion train others in the intervention procedures alleviated the problem. Using positive reinforcement aided quicker adoption.</p> | <p>(Same as above.)</p> |
| <p><u>Documentation.</u></p> <p>Clinicians and staff found it challenging to identify when to administer medication adherence questionnaire to patients.</p> <p>Clinicians had issues with documenting information correctly and consistently on charts/EHR systems.</p> | <p>Continued training and reminders to establish consistent documentation</p> | <p>(Same as above.)</p> |

Note: If additional causes were identified that are to be addressed, insert additional rows.

F. Redo

25. **By what date was (were) the adjustment(s)/second intervention(s) initiated?** (If multiple interventions, date by when all were initiated.)

Before the end of month 4 of the group’s participation. For Wave 5, before the end of month 4, December 2017.

G. Recheck

26. **Post-adjustment performance measurement. Are the population and measures the same as indicated for the collection of post-intervention data (item #21)?**

Yes No – If no, describe how the population or measures differ:

27. **Post-adjustment performance**

- a. **What were the beginning and end dates for the time period for post-adjustment data on the measure(s)?**

During month 5 of the group's participation. **For Wave 5, during January 1 - 31 2017.**

- b. **What was (were) the overall performance level(s) post-adjustment?** (E.g., for each measure: number of observations or denominator, numerator, percent. Can display in a data table, bar graph, run chart, or other method. Can show here or refer to attachment with data.)

See Appendix B, last column of data, for the post-adjustment percent of patients with services performed within the practice.

- c. **Did the adjustment(s) produce the expected improvement toward meeting the project's specific aim (item 13.a)?**

Yes, performance improved and goals were substantially surpassed for all three measures. Measure 1 improved from 98% to 100% post-adjustment, Measure 2 improved from 68% to 98%, and Measure 3 improved from 96% to 100%.

28. Summary of individual performance

- a. **Were data collected at the level of individual providers so that an individual's performance on target measures could be calculated and reported?**

Yes No

H. Readjust

29. **Post-adjustment data review and further planning. Who was involved in reviewing the post-adjustment data, identifying underlying (root) causes of problem(s) resulting in these new data, and considering possible interventions ("countermeasures") to address the causes?** (Briefly describe the following.)

- a. **Who was involved?** (e.g., by profession or role)

Same as #21? Different than #21 (describe):

- b. **How?** (e.g., in a meeting of clinic staff)

Same as #21? Different than #21 (describe):

- c. **When?** (e.g., date(s) when post-adjustment data were reviewed and discussed)

Before the end of month 6 of the group's participation. **For Wave 5, by the end of February 2018.**

Use the following table to outline the next plan that was developed: #30 the primary causes, #31 the adjustments(s)/second intervention(s) that addressed each cause, and #32 who would carry out each intervention. This is a simplified presentation of the logic diagram for structured problem solving explained at <http://ocpd.med.umich.edu/moc/process-having-part-iv-credit-designation> in section 2a.

Note: Adjustments(s) may result in performance achieving the targeted specific aims and the review of post-adjustment data identifies no further causes that are feasible or cost/effective to address. If so, the plan for a next cycle could be to continue the interventions/adjustments currently implemented and check that performance level(s) are stable and sustained through the next observation period.

| | | |
|---|--|---|
| <p>30. What were the primary underlying/root causes for the <u>problem(s)</u> following the <u>adjustment(s)</u> that the project can address?</p> | <p>31. What further adjustments/ intervention(s) might address this cause?</p> | <p>32. Who would be involved in carrying out each further adjustment/intervention? <i>(List the professions/roles involved.)</i></p> |
| <p><u>Clinic personnel.</u> New staff are not familiar with the medication adherence questionnaire</p> | <p>Training new staff and promoting good communication about intervention and workflow</p> | <p>Central program personnel, local office champion and all clinic personnel (e.g., physicians, nurse clinicians, physician assistants, and office staff)</p> |

Note: If additional causes were identified that are to be addressed, insert additional rows.

33. Are additional PDCA cycles to occur for this specific performance effort?

- No further cycles will occur.
No formal additional PDCA cycles are planned for this wave of participants. Project leaders will remain an available resource until the end of the grant period (September 2019).
- Further cycles will occur, but will not be documented for MOC. *If checked, summarize plans:*
- Further cycles will occur and are to be documented for MOC. *If checked, contact the UM Part IV MOC Program to determine how the project's additional cycles can be documented most practically.*

I. Reflections and Future Actions

33. Describe any barriers to change that were encountered during this QI effort and how they were addressed.

The most significant barrier that was faced by participants is:

- Patients had difficulty understanding questionnaire. Central program personnel and Office Champion worked with clinic staff to have all office staff oriented to the standardized workflow process. Clinicians found reviewing the patients' full medication list was a simpler way to move through the questionnaire in a way the patients could easily understand.

34. Describe any key lessons that were learned as a result of the QI effort.

- Include clinical support staff. Including all clinical support staff in the training significantly increases the practice's level of readiness to implement medication adherence questionnaires and counseling.
- Office champion and physician collaboration. Quality Improvement Analyst (QIA) central program staff work to make sure that the physician at the participating practice was engaged with the Office Champion throughout the project period to support swift implementation of local level practice changes.
- Regular reinforcement to aid standardization. Having an engaged office champion that can reinforce workflow procedures during the first few months of the intervention can help a practice to maintain and improve their performance.
- Staff instability. It's difficult to make and sustain improvements during periods of staff turnover.

35. Describe any best practices that came out of the QI effort.

- Facilitating a kick-off call pre-training between the TA staff member and the local Office Champion. This discussion occurs a few weeks prior to the training, and assists the QIA staff member to better understand the practice's current workflow and level of motivation to change. Key topics of the kick-off call include:

- Documentation requirements for the activity
- Ability to customize the current EHR if necessary
- Comfort level of talking with patients who are nonadherent with their medications
- Current clinical workflow process for comparable interventions (e.g., other questionnaires)

36. Describe any plans for spreading improvements, best practices, and key lessons.

The local changes that were made by the previous waves of participants have been integrated through rapid cycle process improvement into the education, training, and technical assistance efforts for future waves of participants. Project leaders will continue to monitor barrier trends for consistency related to the implementation of medication adherence questionnaires and counseling for patients identified as non-adherers among subsequent waves of participants.

37. Describe any plans for sustaining the changes that were made.

Improvements that have now become part of the clinical workflow should remain self-sustaining over time. QIA staff are available to participating practices until September 2019, and during this time, central program personal will enhance support resources as needed to ensure continued sustainment of the interventions.

J. Minimum Participation for MOC

38. Participating directly in providing patient care.

a. Did any individuals seeking MOC participate directly in providing care to the patient population?

Yes No *If "No," go to item #39.*

b. Did these individuals participate in the following five key activities over the two cycles of data-guided improvement?

- Reviewing and interpreting baseline data, considering underlying causes, and planning intervention as described in item #14.
- Implementing interventions described in item #16.
- Reviewing and interpreting post-intervention data, considering underlying causes, and planning intervention as described in item #21.
- Implementing adjustments/second interventions described in item #23.
- Reviewing and interpreting post-adjustment data, considering underlying causes, and planning intervention as described in item #29.

Yes No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 40.*

39. Not participating directly in providing patient care.

a. Did any individuals seeking MOC not participate directly in providing care to the patient population?

Yes No *If "No," go to item 40.*

b. Were the individual(s) involved in the conceptualization, design, implementation, and assessment/evaluation of the cycles of improvement? (E.g., a supervisor or consultant who is involved in all phases, but does not provide direct care to the patient population.)

Yes No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 40. If "No," continue to #39c.*

c. Did the individual(s) supervising residents or fellows throughout their performing the entire QI effort?

- Yes No *If "Yes," individuals are eligible for MOC unless other requirements also apply and must be met – see item # 40.*

40. Did this specific QI effort have any additional participation requirement for MOC? (E.g., participants required to collect data regarding their patients.)

- Yes No *If "Yes," describe: Collect or oversee collection of data in the practice.*

K. Sharing Results

41. Are you planning to present this QI project and its results in a:

- Yes No Formal report to clinical leaders?
 Yes No Presentation (verbal or poster) at a regional or national meeting?
 Yes No Manuscript for publication?

L. Project Organizational Role and Structure

42. UMHS QI/Part IV MOC oversight – indicate whether this project occurs within UMHS, AAVA, or an affiliated organization and provide the requested information.

University of Michigan Health System

- **Overseen by what UMHS Unit/Group? (name):**
- **Is the activity part of a larger UMHS institutional or departmental initiative?**
 No Yes – the initiative is *(name or describe)*:

Veterans Administration Ann Arbor Healthcare System

- **Overseen by what AAVA Unit/Group? (name):**
- **Is the activity part of a larger AAVA institutional or departmental initiative?**
 No Yes – the initiative is:

An organization affiliated with UMHS to improve clinical care

- **The organization is (name):** Altarum Institute
- **The type of affiliation with UMHS is:**
 - Accountable Care Organization (specify which member institution):**
 - BCBSM funded, UMHS lead state-wide Collaborative Quality Initiative (specify which):**
 - Other (specify):** Project-specific agreement between UMHS and Altarum Institute for joint providership of activities for the Transforming Medication Adherence: A Great Lakes Practice Project funded by a Centers for Medicare and Medicaid Services.

Appendix A. Timeline for Waves of Groups of Participating Medical Practices

Five “waves” of groups of participating medical practices are included in the project. Each “wave” starts a month after the previous “wave” starts. A “wave” participates in two cycles of data-guided improvement over six months. The first “wave” starts May 1, 2017 and the last “wave” finishes February 28, 2018.

| Transforming Medication Adherence: A Great Lakes Practice Project | | | | | | | | | |
|---|-------|-----------|-----------|-----------|-----------|-----------|----------|----------|--|
| Performance and Quality Improvement CME.MOC Cycles | | | | | | | | | |
| Cycles (by training month) and Participant Requirements | | | | | | | | | |
| 2017 | Cycle | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 | Legend: | |
| May | 1 | May | June | July | August | September | October | 2017 | |
| June | 2 | June | July | August | September | October | November | 2018 | |
| July | 3 | July | August | September | October | November | December | Data Due | |
| August | 4 | August | September | October | November | December | January | | |
| September | 5 | September | October | November | December | January | February | | |

Appendix B. Performance for Wave 5 of Practices for Percent of Patients with Service Performed

| Service | Baseline Month -1 % (n) | Post-Intervention Month 3 % (n) | Post-Adjustment Month 5 % (n) | Goal |
|--------------------------------------|-------------------------------|---------------------------------------|-------------------------------------|------|
| <u>Site A</u> | | | | |
| Documentation of current medications | 100% (20) | 100% (20) | 100% (19) | 90% |
| Medication adherence questionnaire | 65% (20) | 85% (20) | 100% (7) | 50% |
| Medication adherence counseling | 100% (1) | 100% (4) | 100% (2) | 50% |
| <u>Site B</u> | | | | |
| Documentation of current medications | 100% (9) | 100% (7) | 100% (20) | 90% |
| Medication adherence questionnaire | 100% (9) | 71% (7) | 100% (16) | 50% |
| Medication adherence counseling | 100% (1) | 100% (3) | 1000% (2) | 50% |
| <u>Site C</u> | | | | |
| Documentation of current medications | 100% (31) | 100% (20) | 100% (20) | 90% |
| Medication adherence questionnaire | 58% (31) | 85% (20) | 100% (20) | 50% |
| Medication adherence counseling | 100% (1) | 75% (4) | 100% (3) | 50% |
| <u>Site D</u> | | | | |
| Documentation of current medications | 100% (20) | 100% (20) | 100% (20) | 90% |
| Medication adherence questionnaire | 50% (20) | 85% (20) | 100% (12) | 50% |
| Medication adherence counseling | 100% (1) | 100% (3) | 100% (3) | 50% |
| <u>Site E</u> | | | | |
| Documentation of current medications | 100% (15) | 81% (16) | 100% (20) | 90% |
| Medication adherence questionnaire | 27% (15) | 44% (16) | 86% (7) | 50% |
| Medication adherence counseling | N/A | 100% (3) | 100% (1) | 50% |
| <u>Site F</u> | | | | |
| Documentation of current medications | 100% (20) | 100% (20) | 100% (20) | 90% |
| Medication adherence questionnaire | 95% (20) | 75% (20) | 100% (19) | 50% |
| Medication adherence counseling | 100% (5) | 100% (3) | 100% (1) | 50% |
| <u>Site G</u> | | | | |
| Documentation of current medications | 100% (15) | 100% (14) | 100% (20) | 90% |

| | | | | |
|--|-----------|-----------|-----------|-----|
| Medication adherence questionnaire | 100% (4) | 100% (7) | 100% (9) | 50% |
| Medication adherence counseling | N/A | N/A | 100% (1) | 50% |
| <u>Site H</u> | | | | |
| Documentation of current medications | 100% (18) | 100% (18) | 100% (20) | 90% |
| Medication adherence questionnaire | 100% (18) | 0% (18) | 100% (7) | 50% |
| Medication adherence counseling | 100% (3) | N/A | 100% (1) | 50% |
| <u>Wave 5 – Mean of 8 Practice Means</u> | | | | |
| Documentation of current medications | 100% | 98% | 100% | 90% |
| Medication adherence questionnaire | 74% | 68% | 98% | 50% |
| Medication adherence counseling | 100% | 96% | 100% | 50% |

% = percent of patients that received the service

n = number of eligible patient charts pulled

N/A = the clinic did not have any eligible patients for this measure