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

Decreasing missed opportunities for HPV vaccination in Medicine Pediatrics

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:

Grant Greenberg, MD, MHSA, MA, UMHS Part IV Program Lead, 763-232-6222, ggreenbe@med.umich.edu
R. Van Harrison, PhD, UMHS Part IV Program Co-Lead, 734-763-1425, rvh@umich.edu
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</tr>
<tr>
<td>L. Organization affiliation</td>
<td>42. Part of UMHS, AAVA, other affiliation with UMHS</td>
</tr>
</tbody>
</table>
A. Introduction

1. Date (this version of the report): 9/26/2016

2. Title of QI effort/project (also insert at top of front page): Decreasing missed opportunities for HPV vaccination in Medicine Pediatrics clinics at UMHS.

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 #14): 7/1/2015
   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 #33): 9/10/16

4. Key individuals
   a. QI project leader [also responsible for confirming individual’s participation in the project]
      Name: Linda Balogh, MD
      Title: Clinical Assistant Professor
      Organizational unit: General Medicine Pediatrics
      Phone number: 734-844-5371
      Email address: lbalogh@med.umich.edu
      Mailing address: 1051 N. Canton Center Dr., Canton, MI 48187

   b. Clinical leader to whom the project leader reports regarding the project [responsible for overseeing/”sponsoring” the project within the specific clinical setting]
      Name: Connie Standiford, MD
      Title: Executive Medical Director
      Organizational unit: Ambulatory Care
      Phone number: 734-647-9000
      Email address: cstandif@med.umich.edu
      Mailing address: 325 Briarwood Circle, Ann Arbor, MI 48108

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

<table>
<thead>
<tr>
<th>Profession</th>
<th>Number (fill in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing Physicians</td>
<td>11</td>
</tr>
<tr>
<td>Residents/Fellows</td>
<td></td>
</tr>
<tr>
<td>Physicians’ Assistants</td>
<td></td>
</tr>
<tr>
<td>Nurses (APNP, NP, RN, LPN)</td>
<td></td>
</tr>
<tr>
<td>Other Allied Health</td>
<td></td>
</tr>
</tbody>
</table>
b. Approximately how many physicians (by specialty/subspecialty and by training level) and physicians’ assistants participated for MOC?

<table>
<thead>
<tr>
<th>Profession</th>
<th>Specialty/Subspecialty (fill in)</th>
<th>Number (fill in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing Physicians</td>
<td>Medicine/Pediatrics</td>
<td>11</td>
</tr>
<tr>
<td>Fellows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians’ Assistants</td>
<td>(Not applicable)</td>
<td></td>
</tr>
</tbody>
</table>

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)
☐ 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 11-26 seen at UMHS Department of General Medicine/Pediatrics

8. General goal

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

The Advisory Committee on Immunization Practices (ACIP) currently recommends routine vaccination of youth ages 11 – 26 with 3 doses of human papilloma virus (HPV) vaccine (1). Several factors have been associated with low HPV vaccination rates. A critical barrier reported by parents is not receiving a recommendation for the HPV vaccine from a health care professional (2). A prior study done at UMHS with an electronic prompt has demonstrated increased HPV initiation and timely completion (3). In 2014, 26.4% of females and 16.7% of males (averaged amongst clinics) completed the HPV vaccine series. Decreasing missed opportunities to provide HPV vaccination will significantly improve vaccination rates.

Physicians are missing opportunities to counsel patients on the benefit, and to offer HPV vaccination at ambulatory care clinic appointments.
d. 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.)

Decrease missed opportunities to provide HPV vaccination.

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


☒ Effectiveness ☐ Equity ☐ Safety
☒ Efficiency ☒ Patient-Centeredness ☒ Timeliness

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

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

☒ Patient Care and Procedural Skills ☒ Medical Knowledge
☒ Practice-Based Learning and Improvement ☒ Interpersonal and Communication Skills
☐ Professionalism ☒ 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:** Percent of visits with missed HPV opportunity

- **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 visits where a patient was eligible to receive the HPV vaccine.

  Numerator (e.g., for percent, often the number of those in the denominator who also meet the performance expectation): number of these visits where HPV vaccine was not given (missed opportunity). This includes when the vaccine is declined, and when the physician does not offer vaccine.

- **The source of the measure is:**
  
  ☒ Internal to our organization and it was chosen because (describe rationale): Based on consensus from UMHS pediatric QI committee.

  ☐ An external organization/agency, which is (name the source):

- **This is a measure of:**
  
  ☒ Outcome – health state of a patient resulting from health care
  
  ☐ Process – activities of delivering health care to patients

12. Baseline performance

- What were the beginning and end dates for the time period for baseline data on the measure(s)?
  
  August 1, 2015 – October 31, 2015
f. **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.)

72% of the time HPV vaccine was NOT given to eligible patients during clinic visits.

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].”

   In patients aged 11-26 seen at UMHS Medicine Pediatrics ambulatory clinics, to improve rates of completed HPV vaccination from baseline 72% to 50% or better, and to decrease missed opportunities to give HPV vaccine after two intervention cycles by August 31, 2016.

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

   Based on consensus in the UMHS pediatric preventive care QI committee.

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.)

   - **Who was involved?** (e.g., by profession or role) All participating physicians.
   - **How?** (e.g., in a meeting of clinic staff) During discussion at faculty meetings and via email reminders.
   - **When?** (e.g., date(s) when baseline data were reviewed and discussed) November 1, 2015 – December 15th, 2015

   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](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:

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

<table>
<thead>
<tr>
<th>15. What were the primary underlying/root causes for the problem(s) at baseline that the project can address?</th>
<th>16. What intervention(s) addressed this cause?</th>
<th>17. Who was involved in carrying out each intervention? (List the professions/roles involved.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians don’t notice or choose to ignore the point of</td>
<td>Clinics will pilot having MAs print MCIR immunization reports</td>
<td>Physicians, MAs, and clinic managers will institute this workflow as another method</td>
</tr>
</tbody>
</table>
**University of Michigan Health System Part IV Maintenance of Certification Program**  

<table>
<thead>
<tr>
<th>Care Alert</th>
<th>(Michigan Care Improvement Registry)</th>
<th>To Increase Physicians Offering the Vaccine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians find it difficult to counsel on the HPV vaccine during urgent visits</td>
<td>A standardized education sheet will be placed in the exam rooms for MAs and docs to give the family whenever the BPA fires</td>
<td>The education sheet was approved by physicians and clinic staff at the population management group meeting.</td>
</tr>
<tr>
<td>Physicians have varying success in encouraging families and patients to consent for the vaccine. Some of our physicians also prefer not to give HPV vaccine to younger teens.</td>
<td>Best practices in “pitching” the vaccine were reviewed at faculty meetings and over e-mail. Discussions about the importance of giving HPV vaccine at ages recommended by the ACIP were instituted.</td>
<td>Physicians with the highest vaccine rates gave strategies to participating physicians.</td>
</tr>
<tr>
<td>Patients and families decline the vaccine</td>
<td>Education will be standardized via the education sheet, physicians will work to recommend the vaccine with the same enthusiasm as they do all other vaccines.</td>
<td>Participating physicians and clinic staff.</td>
</tr>
<tr>
<td>MAs don’t always pend the vaccine order to make it easier for the clinician to sign the order despite the BPA firing</td>
<td>Clinic managers will reinforce that the MAs should pend the vaccine order whenever the BPA fires and give standardized handouts. Staff made aware of new HPV standing order.</td>
<td>Clinic managers and MAs, to be reinforced by physicians.</td>
</tr>
</tbody>
</table>

*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.)*  
   December 16th, 2015.

**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)?** December 16th, 2015- March 15th, 2016

   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.)*

   c. **Did the intervention(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)?**
No. Surprisingly, the percentage of visits with HPV not given increased by 3 percentage points (see data table page 10).

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.)

- **Who was involved?** (e.g., by profession or role)
  - ☒ Same as #14?  ☑ Different than #14 (describe):

- **How?** (e.g., in a meeting of clinic staff)
  - ☒ Same as #14?  ☑ Different than #14 (describe):

- **When?** (e.g., date(s) when post-intervention data were reviewed and discussed)
  
  During faculty monthly meetings and via emails completed April 2016.

*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](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.*

<table>
<thead>
<tr>
<th>22. What were the primary underlying/root causes for the problem(s) following the intervention(s) that the project can address?</th>
<th>23. What adjustments(second intervention(s) that addressed this cause?</th>
<th>24. Who was involved in carrying out each adjustment(second intervention)? (List the professions/roles involved.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>During the winter months, a higher percentage of visits in the pediatric offices are for urgent visits, than for well visits. During these visits, time to discuss immunizations is limited. Although it is generally appropriate to vaccinate despite illness, parents and teens are often hesitant to agree to HPV vaccine in particular at these visits,</td>
<td>All physicians committed to continue to try to address vaccines at urgent visits in addition to well visits to again reinforce the importance of discussing the vaccine even at urgent visits.</td>
<td>Participating physicians.</td>
</tr>
</tbody>
</table>
since they often perceive it to be an “optional” vaccine. In addition, if parents are hesitant to consent to the vaccine, there is not as much time to discuss it in a 15 minute urgent visit with a sick child in the midst of a busy clinic.

Practitioners continued to not activate or to ignore the BPA. They also argued that ordering any HPV vaccine should be the same as ordering the complete series. They felt that it would be more efficient if the practitioner could order the series once for each patient rather than have to order this vaccine three separate times for each patient.

Parents continue to decline the vaccine despite strong recommendations.

MAs are not consistently pending the HPV vaccine order when the BPA fires.

A standing order has been developed and incorporated into clinical workflow to facilitate administration of HPV vaccine for doses 2 and 3. This will allow MAs to give the remainder of the series without having to get an order from the provider.

Continue to operationalize the standardized education, consistent strong recommendation for vaccine

Medical directors, clinic managers, and lead MAs were contacted to review that each clinic had a consistent plan in place for MAs to pend HPV vaccine and give handout.

Physicians and clinic staff.

Physicians and staff.

Medical director, clinic manager, lead MAs

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.)

Second intervention began in April 2016 and was in place by April 30, 2016.
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)?
   May 1, 2016- August 31, 2016

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.)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Missed HPV Opportunity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N eligible visits (BPA fired)</td>
<td>870</td>
<td>622</td>
<td>1120</td>
<td></td>
</tr>
<tr>
<td>N HPV not given</td>
<td>625</td>
<td>466</td>
<td>611</td>
<td></td>
</tr>
<tr>
<td>% HPV not given</td>
<td>72</td>
<td>75</td>
<td>55</td>
<td>50%</td>
</tr>
</tbody>
</table>

c. Did the adjustment(s) produce the expected improvement toward meeting the project’s specific aim (item 13.a)?
   There was a notable improvement, but it did not get to the specific aim of HPV vaccine being given during 50% of eligible patient encounters.

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 – go to item 29
b. If easily possible, for each discipline:
   • Participants with data available:
     o Indicate the number participating (if none, enter “0” and do not complete rest of row)
     o if any are participating, are data on performance of individuals available? (If “No”, do
       not complete rest of row.)
   • if data on performance are available, then enter the number of participants in three
categories regarding reaching target rates (i.e. the specific aims for measures).
   (If you do not have this information or it is not easily available, leave the table blank.)

<table>
<thead>
<tr>
<th>Profession</th>
<th>Participants with Data Available</th>
<th>Number of These Participants Reaching Targets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td># Participating in QI Effort</td>
<td># Not Reaching Any Target Rate</td>
</tr>
<tr>
<td></td>
<td>(from #5.a)</td>
<td></td>
</tr>
<tr>
<td>Practicing Physicians</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>Residents/ Fellows</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physicians’ Assistants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses (APNP, NP, RN, LPN)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Allied Health</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.)

   • Who was involved? (e.g., by profession or role)
     ☒ Same as #21? ☐ Different than #21 (describe):

   • How? (e.g., in a meeting of clinic staff)
     ☒ Same as #21? ☐ Different than #21 (describe):

   • When? (e.g., date(s) when post-adjustment data were reviewed and discussed)
     9-10/2016.

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

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.
<table>
<thead>
<tr>
<th>30. What were the primary underlying/root causes for the problem(s) following the adjustment(s) that the project can address?</th>
<th>31. What further adjustments/intervention(s) might address this cause?</th>
<th>32. Who would be involved in carrying out each further adjustment/intervention? (List the professions/roles involved.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Assistants (MAs) weren’t aware that there was a standing order for the second or third doses of the series or were confused about how to implement this into their workflow.</td>
<td>Broadly inform MAs about this change and empower them to give second or third doses while patients wait for physicians.</td>
<td>Physicians, clinic managers, lead MAs.</td>
</tr>
<tr>
<td>Families continue to decline the vaccine.</td>
<td>Continue to work on standardized patient education, such as a video, more compelling handouts, etc.</td>
<td>Physicians and clinic managers.</td>
</tr>
<tr>
<td>MAs at some sites don’t consistently pend or administer the vaccine, nor do they give out the standardized education.</td>
<td>Work with managers and lead MAs at those sites on standardization.</td>
<td>Physicians, clinic managers, lead MAs.</td>
</tr>
<tr>
<td>Minimal time to discuss vaccine during urgent visits.</td>
<td>Physicians to continue to counsel patients and families at every visit about the importance of vaccine.</td>
<td>Physicians and MAs.</td>
</tr>
<tr>
<td>All physicians lowered their rates of “missed opportunities” during the final cycle.</td>
<td>Continue to gather and share best practices in discussing the vaccine with patients and families.</td>
<td>Physicians.</td>
</tr>
</tbody>
</table>

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.
- ☑ 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.

Barriers noted included high levels of parent/guardian declination of the vaccine and inconsistent use of best practice workflows. These were addressed by attempting to standardize the education provided to parents about the vaccine, by improving provider comfort with recommendations of the vaccine, and by working with MAs and office managers on implementing standardized workflows. Additionally, we noted that several of our physicians had particularly low HPV vaccination rates at baseline. We had discussions with all of our providers regarding our practices of giving HPV and we
agreed to try to more consistently discuss HPV even with younger patient’s parents and we were motivated to improve our collective vaccination rates.

34. Describe any key lessons that were learned as a result of the QI effort.  
We discovered that this was a difficult measure to improve upon. Families were found to be very emotional about giving this vaccine to their children. Many had heard or read negative things about the vaccine and were not willing to discuss their misconceptions. Physicians did not want to take the time to educate families about the vaccine. Some of our providers were hesitant to have these discussions with parents of younger patients. Others simply didn’t feel that they had the time to discuss the vaccine during urgent visits. A multi-pronged approach to educate both the healthcare team and families was needed to make improvements.

35. Describe any best practices that came out of the QI effort.  
Physicians committed themselves to discussing the vaccine at most visits. Physicians agreed to look for the best practice alerts and to use them. Our medical assistants were trained to ask families about getting HPV during intake and pended the vaccine order for physicians. Our MA’s also kept our standardized education materials stocked in exam rooms and regularly gave those materials to families who refused the vaccine. This allowed families to read the materials while waiting for the doctor. All staff expressed the same strong recommendation for HPV vaccine as we do with all other vaccines. Last, we are now asking parents who refuse the HPV vaccine to sign a Refusal to Vaccinate form, just as they must for other recommended vaccines. This reiterates the fact that we feel this vaccine is as important as any other vaccine that we administer.

36. Describe any plans for spreading improvements, best practices, and key lessons.  
Our colleagues in Family Medicine are presenting the project as a poster at the UMHS quality improvement conference, and plan to write up the results and lessons learned in a manuscript.

37. Describe any plans for sustaining the changes that were made.  
HPV vaccination remains a key quality measure followed by our institution, and may become an internal pay for performance measure in upcoming cycles. This focus on HPV vaccination rates will encourage continued attempts to maximize HPV vaccination. Our physician staff is more consistent with recommending HPV vaccine. The best performance alert remains in place to remind us to at least discuss HPV vaccine at every visit.

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:

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): Pediatric QI Committee
      • 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):
      • 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):