Quality Improvement Roadmap

The Mayo Clinic Experience

ABMS Conference 2017

Thomas Thacher, MD, Mayo Clinic
Peggy Paulson, MS, Mayo Clinic
Disclosure

• Thomas Thacher, MD
  • Nothing to disclose

• Peggy Paulson, MS
  • Nothing to disclose
Learning Objectives

• To review the development of quality improvement at Mayo Clinic

• To describe the DMAIC framework for evaluating quality improvement projects at Mayo Clinic

• To score a sample quality improvement project to determine if it is eligible for credit
ABMS Multi-Specialty Portfolio Program

Sponsor

- Mayo Clinic Dean, Dr. Richard Berger, worked to develop the ABMS Multi-Specialty Portfolio Program (MSPP) in 2009

- MSPP created a common methodology and pathway for sponsor organizations to provide physician credit for quality and practice improvement activities to fulfill MOC Part IV requirements

- After a pilot project with the largest “Tri-Boards” (Internal Medicine, Pediatrics, and Family Medicine), the MSPP has been expanded to approve credit for 22 of the 24 ABMS Specialty Boards
Quality Improvement at Mayo Clinic

• **Aim:** to provide the best outcomes, safety, and service for our patients

• **Mayo Quality Review Board (QRB)**
  • Mission: to assist board certified staff to obtain MOC credit for quality improvement work being done
  • As an ABMS Portfolio sponsor, approves for MOC and PI-CME credit and reports completion to ABMS

• **Mayo Quality Fellows program** – Bronze, Silver, Gold levels

• **Scholarly presentation and publication**

• **Academic advancement**
Process

• Project team submits quality improvement project for credit
• 2 reviewers (at least 1 physician) assigned to score the project
• Project reviewed at QRB (2 meetings per month)
  • If approved, team is notified and project submitted to ABMS through MOCAM
    • Team members complete attestations & reflections
    • Team member names submitted to ABMS
  • If project needs revision, the team is offered opportunity to correct deficiencies
• If project denied credit, the team is informed of reasons
Mayo Diplomates Awarded Credit

Total 729 projects
2744 diplomates

- 2010: 291
- 2011: 286
- 2012: 302
- 2013: 305
- 2014: 540
- 2015: 672
- 2016: 348
Project Review Times

![Bar chart showing the number of projects based on review time (minutes):]

- <30 minutes: 40 projects
- 31-60 minutes: 140 projects
- 61-90 minutes: 60 projects
- >90 minutes: 40 projects
DMAIC framework for evaluating quality improvement projects at Mayo Clinic
QUALITY IMPROVEMENT PROJECTS
Basic Components (DMAIC)

Define
What is the problem (gap) and why is this important?

Measure
What is the process and how is it performing?

Analyze
What are the biggest causes of the problem?

Improve
How do we address the causes of the problem?

Control
How can we maintain the improvements?
1. Define

Define what you want to improve and why

- What is the gap in quality?
  
  Optimal diabetes care reduces the risk of cardiovascular events. The statewide rate of meeting goals for diabetes care (D5) is 50%. The gap is that our clinic’s rate is 43%.

- What is your target improvement?
  
  Our project target was to improve the rate of optimal diabetes control to 50% within 12 months.

<table>
<thead>
<tr>
<th>Define</th>
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<th>2</th>
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<tbody>
<tr>
<td>Aim statement is not defined and/or does not include gap, target improvement or timeline</td>
<td>o 1</td>
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<tr>
<td>Gap in quality:</td>
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<td>Numeric target improvement:</td>
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<tr>
<td>Timeline (start and stop dates of project):</td>
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2. Measure

Measures used to evaluate your outcome of interest

- Sources of data
- Baseline measure
  - The outcome you plan to improve
    *Our rate of optimal diabetes control (D5) was 43% in January 2016.*
- Sample size
  - Minimum of 25 at each assessment or entire available population

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<tr>
<th>Measure</th>
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<tr>
<td>Data source(s):</td>
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<td>Numeric baseline measurement of the target:</td>
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<tr>
<td>Sample size:</td>
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- Data sources, baseline measure and/or sample size is not defined
- Data sources, numeric baseline measure, and sample size are defined
3. Analyze

Analysis of factors that contribute to the gap in quality

• Factors contributing to the gap

The following factors were identified as contributing to poor diabetes control: 1) failure to follow up with ordered tests; 2) patient’s not understanding diabetes goals; and 3) lack of social services to assist patients with needed interventions.
4. Improve

• Intervention
  • Based on the factors contributing to the gap
    We implemented the following interventions to improve diabetes care: (a) a care manager was assigned diabetic panels; (b) care manager was trained in motivational interviewing and called all patients to assess goals and barriers; (c) a social worker mobilized community resources for patients who could benefit.

• Remeasure target outcome
  • At least two post intervention measurements
    Remeasurement of D5 showed that the rate of optimal diabetes control improved to 52% and was sustained at 54% after 6 more months.
4. Improve

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<th>Improve</th>
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<th>Intervention(s), re-measurement, graphical display, and/or comparison group are not defined</th>
<th>o 2</th>
<th>Intervention(s), re-measurement of target goal, graphical display of pre/post target goal data are defined. Re-measurement sample sizes and comparison group are additionally defined</th>
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<tr>
<td>Interventions:</td>
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<td>First numeric re-measurement of the target (sample size &amp; date):</td>
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<tr>
<td>Second numeric re-measurement of the target (sample size &amp; date):</td>
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<tr>
<td>Graphical display of target measurements/data (identify location of graph in application):</td>
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5. Control

Project learning, communication, and sustaining improvements

• Intervention implemented in routine care

• Lessons learned
  • We *learned* the importance of involving non-physician stakeholders like pharmacists, nurses, and social workers to understand the problem, potential causes, and to design and implement the interventions.

• Communication with stakeholders
  • We have *communicated* these results to our Department Chair and Clinical Practice Committee
## 5. Control

| Control | |  
|---|---|---|
| | o 1 | o 2 |
| | Interventions were not implemented, lessons learned not defined, and/or project findings not communicated to stakeholders | Interventions were implemented, lessons learned listed, and project findings communicated to stakeholders |

### Interventions implemented in practice:

### Lessons learned:

### Project results communicated to stakeholders:
MOC Part IV / CME Credit

Maintenance of Certification (MOC Part IV/CME) Credit Checklist

The project must be all 2’s above for MOC credit plus:
1. Align with goals for improving patient care, experience or safety in actual practice (not financial only)
2. Include appropriate prospective and repetitive data collection and reporting of performance data so that diplomates access, reflect on, and act upon project data at least three times (including at baseline and at the conclusion of the activity) during the course of their meaningful participation in a quality initiative designated for MOC part IV credit (e.g. one pre-intervention measurement sample size, then two additional PDSA cycles with measurement)
3. Include data measurement within past 12 months of applying for credit
4. Have a minimum sample size for baseline measurement and at least two post intervention measurement of 25 each or include 100% of cases when entire population is less than 25
Sample Quality Improvement Project

- Preventing Recurrent Fragility Fracture
- 5 groups, each score one section of project
  - Define
  - Measure
  - Analyze
  - Improve
  - Control
Activity

• Scoring of sample project – 10 min
• Report out – 15-25 min
  • 3-5 min per scoring section