Quality Improvement: Pulling It All Together

Topics

• Brief review of all the quality improvement (QI) components
• Example: A QI Story
• Conclusion of the QI Basics Course and tips for going forward
Starting Your QI Work

- List of possible projects
- Leadership involvement and support
- PICK Prioritization Matrix
- Organizational mission and strategy
- Quality reporting requirements (national and state)
- Patient population and current improvement efforts at the community, state, and national level
- Create the project charter
Selecting a Project

- Low performance based on data
- Potential harm to patients
- The number of patients impacted
- Multiple/broad priorities
- Alignment with national, state, or regional level quality initiatives
- Alignment with the mission at your facility
- Enthusiasm among staff for the topic

QI Story: Hypertension Improvement

National Quality Foundation 0018 measure: **Controlling High Blood pressure.** Increase the percent of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (<140/90) during the measurement year.
Teams and Facilitation:
QI Project Charter

QI Tools and Templates

- Project Charter
- Project Work Plan
- PICK Prioritization Matrix
- Team Roles and Responsibilities
- Communication Plan
- Force Field Analysis
- 5 Whys Tool
- PDSA Worksheet
- Measures Collection and Monitoring Plan
- Data Collection Plan
Quality Improvement Success

The Model for Improvement & PDCA

Teams and Facilitation
Teams and Facilitation

- Build your QI Team
- Ensure roles are filled
- Team communication
- Facilitation challenges and solutions

Teams and Facilitation: Common Group Roles

Remember:
- Not all roles are always present or necessary
- Some roles are filled by the same person
- Consider rotating roles and responsibilities

- Project sponsor
- Team leader
- Meeting facilitator
- Group contributor
- Data specialist
- Systems specialist
- Scribe/Note taker
Teams Roles and Responsibilities

QI Team Roles and Responsibilities Checklist

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
<th>Name(s)</th>
<th>Notes / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Sponsor</td>
<td>(See template...text removed)</td>
<td>Dr. Janne Polinski</td>
<td>She is a member of clinic leadership.</td>
</tr>
<tr>
<td>Team Leader</td>
<td>(See template...text removed)</td>
<td>Juan Melendez</td>
<td></td>
</tr>
<tr>
<td>Meeting Facilitator</td>
<td>(See template...text removed)</td>
<td>Juan Melendez</td>
<td>(substitute may be delegated).</td>
</tr>
<tr>
<td>Team Contributor (or SMC)</td>
<td>(See template...text removed)</td>
<td>Dr. Jane Polinski</td>
<td>(as needed for clinical expertise)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gate Vasepe (MBA)</td>
<td>(special training at AHA conferences)</td>
</tr>
<tr>
<td>Data Specialist</td>
<td>(See template...text removed)</td>
<td>Brenda Wilson</td>
<td></td>
</tr>
<tr>
<td>Systems Specialist (SMC)</td>
<td>(See template...text removed)</td>
<td>Brenda Wilson</td>
<td></td>
</tr>
<tr>
<td>Scribe / Note Taker</td>
<td>(See template...text removed)</td>
<td>This role will be rotated at each meeting.</td>
<td></td>
</tr>
</tbody>
</table>

Teams and Facilitation: Communication Plan

<table>
<thead>
<tr>
<th>Key Message</th>
<th>Medium</th>
<th>To Whom</th>
<th>From Whom</th>
<th>When</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>QI project team around hypertension improvement for ...</td>
<td>email</td>
<td>Leadership</td>
<td>Project Champion</td>
<td>At outset of project</td>
<td>TBD</td>
</tr>
<tr>
<td>Staff recruitment for roles on project team (including positions on prior QI work)</td>
<td>Bulletin board and email</td>
<td>All Staff</td>
<td>Project Champion</td>
<td>At outset of project</td>
<td>TBD</td>
</tr>
<tr>
<td>Assurance team formation</td>
<td>Bulletin board and email</td>
<td>All Staff</td>
<td>Project Champion &amp; Team Lead</td>
<td>At outset of project</td>
<td>TBD</td>
</tr>
<tr>
<td>Project team updates</td>
<td>email and all staff meetings</td>
<td>All Staff</td>
<td>Team Lead</td>
<td>Monthly</td>
<td>TBD</td>
</tr>
<tr>
<td>Monthly updates for specific providers</td>
<td>Providers list</td>
<td>All Staff</td>
<td>Team Lead</td>
<td>Monthly</td>
<td>TBD</td>
</tr>
<tr>
<td>Project data results and findings</td>
<td>All staff meeting</td>
<td>All Staff</td>
<td>Project Champion &amp; Team Lead</td>
<td>At completion of QI work and data analysis</td>
<td>TBD</td>
</tr>
</tbody>
</table>

TBD
**QI Work Plan**

<table>
<thead>
<tr>
<th>Task / Objective</th>
<th>Detailed Description</th>
<th>Assignee</th>
<th>Due Date</th>
<th>Completion Date</th>
<th>Status</th>
<th>Notes / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial project kickoff meeting</td>
<td>Gather initial QI team members together</td>
<td>John Koehler, Team Leader</td>
<td>Due to be set</td>
<td>TBD</td>
<td>Not started</td>
<td></td>
</tr>
<tr>
<td>Create communication plan</td>
<td>To be done as a QI team together. Template created by team leader</td>
<td>QI Team</td>
<td>Due to be set</td>
<td>TBD</td>
<td>Not started</td>
<td></td>
</tr>
<tr>
<td>Hold Process Mapping exercise to document hypertension encounters. Utilize 3 plus 1 tool</td>
<td>To be done as a QI team</td>
<td>QI Team</td>
<td>Due to be set</td>
<td>TBD</td>
<td>Not started</td>
<td>Determine any additional staff that needs to be included</td>
</tr>
<tr>
<td>Create FMEA document based on process mapping and 5 Whys analysis</td>
<td>To be done as a QI team</td>
<td>QI Team</td>
<td>Due to be set</td>
<td>TBD</td>
<td>Not started</td>
<td></td>
</tr>
<tr>
<td>Report back to leadership on QI team progress after 2nd week of work</td>
<td>Leadership has requested a bi-weekly update for the first month of our QI team project</td>
<td>John Koehler, Team Leader</td>
<td>Due to be set</td>
<td>TBD</td>
<td>Not started</td>
<td>5-10 minute project summary to be given at leadership meeting. Head to prepare remarks. Add this to communication plan</td>
</tr>
</tbody>
</table>

**Change Management**
Change Management

- Leadership commitment
- Focus on the path to your goals
- Attend to the technical and personal aspects of change
- Recognize individual adaptation approaches

Force Field Analysis

- Identify driving forces that support the specific change
- Identify restraining forces that resist the specific change
- Develop strategies and gain consensus to move to new point of equilibrium

### Force Field Analysis

**Example Force Field Driving and Restraining Factors Table**

<table>
<thead>
<tr>
<th>Driving Factors</th>
<th>Impact (High/Med/Low)</th>
<th>Assigned To</th>
<th>Notes / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poor climate that are performing higher than own</td>
<td>High</td>
<td>Team Leader (Team Leader)</td>
<td></td>
</tr>
<tr>
<td>Project sponsor who is motivated to approve our associate</td>
<td>High</td>
<td>Team Leader (Team Leader)</td>
<td></td>
</tr>
<tr>
<td>Improved analytics capability in our EHR</td>
<td>High</td>
<td>Data Analyst (Data Analyst)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Restraining Factors</th>
<th>Impact (High/Med/Low)</th>
<th>Assigned To</th>
<th>Notes / Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client has also shown high turnover for the last year</td>
<td>Medium</td>
<td>Team Leader (Team Leader)</td>
<td></td>
</tr>
<tr>
<td>Although we have expected 50% reduction, actual staff is still high</td>
<td>Medium</td>
<td>Data Analyst (Data Analyst)</td>
<td></td>
</tr>
<tr>
<td>Lack of time for QI team meetings due to constant turnover</td>
<td>High</td>
<td>Team Leader (Team Leader)</td>
<td></td>
</tr>
<tr>
<td>Noise level can be high, which can cause stress or fatigue during meetings</td>
<td>Med</td>
<td>Team Leader (Team Leader)</td>
<td></td>
</tr>
</tbody>
</table>

### Eight Steps to Change

1. Create a sense of urgency
2. Pull together a guiding coalition
3. Develop a vision and strategy
4. Communicate the “change vision”
5. Empower action
6. Generate short-term wins
7. Consolidate gains and produce more change
8. Anchor new approaches in the culture

Source: [https://www.kotterinc.com/8-steps-process-for-leading-change/](https://www.kotterinc.com/8-steps-process-for-leading-change/)
The Model for Improvement and PDSA

The Model for Improvement and Plan Do Study Act (PDSA)
The Model for Improvement
Three Questions

Example Plan-Do-Study-Act Worksheet

The example below is based on a clinic that is working to improve the identification and treatment of its patients who are hypertensive. The clinic will attempt several small-scale interventions/improvements to measure their performance on this measure.

The Model for Improvement: Three Questions

1. What are we trying to accomplish by doing this?
   
   We are trying to improve our NQF 0010 measure and improve our clinic’s ability to properly identify and diagnose patients with hypertension. Our goal will be to improve our facilities current performance rate from 49% to 51% within 3 months starting the first day next month. We believe that we are doing well with the treatment portion of our measure and we will not focus on this as part of our PDCA cycle of improvements.

2. How will we know that change is an improvement (measures)?
   
   Here is the measure for our work:
   National Quality Foundation 0010 measure: Controlling High Blood pressure: Increase the % of patients 18-85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled (140/90) during the measurement year.

3. What change can we make that will result in an improvement?
   
   We made updates to our workflow based on our process mapping and we will start to test the new workflows with one problem team for one week. Changes will include a higher level of accuracy when taking BP’s based on American Heart Association guidelines and best practices, along with a focus on improving the accuracy of documenting them along with the BP’s getting hypertension in the problem list and entering BP’s consistently in the same fields (not as the notes field, for example).

5 Whys Worksheet

Example Five Whys Worksheet

Team Members: All QI team members that are part of the NQF0010 improvement project.

Root Cause(s): 1. Hypertension treatment not documented correctly in the electronic health record
2. Treatment for hypertension not documented within 30 days of diagnosis

To validate assumptions, ask the following: "If you reversed this root cause, would this assumption have been prevented?"
Process Mapping

- Current state – document and review existing process
- Determine changes needed
- Future state – map out desired process
- Test future state process
- Optimize the new process
Framing (Defining) the Process

- Boundaries – process input/trigger and output
- Major steps in the process, from trigger event to the end result
- Scope – What is included and what is not?
- Who are the stakeholders and customers?
- What are the process inputs (reports, data, forms, etc.)?
- Keep thinking “Who/ Does/ What/ When?” as you visually build your process
- Consider interdepartmental handoffs

Process Mapping
Identify Opportunities to Improve the Process

- Bottlenecks
- Rework due to errors
- Role ambiguity
- Unnecessary duplications
- Long cycle time

- Lack of adherence to standards
- Lack of information
- Lack of quality controls
Plan Do Study Act (PDSA)

PDSA Document: Plan

**Plan - What exactly are we going to do?** (Add rows to table below as needed.)

<table>
<thead>
<tr>
<th>Describe test of change</th>
<th>Person responsible</th>
<th>Where to be done</th>
<th>Where to be done</th>
<th>Other notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>QI team leader to present and explain implications of protocol to staff and documentation</td>
<td>Team leader</td>
<td>At next provider meeting</td>
<td>Prioritize meeting at the first meeting.</td>
<td>Nancy Y will be responsible for double checking that the process was followed and noting any deviations from workflow</td>
</tr>
<tr>
<td>Dr. X and Nurse Y will utilize the updated blood pressure workflow which will include a higher level of accuracy and documenting BP values in the EHR.</td>
<td>Dr. X and Nurse Y</td>
<td>Monday, Friday, M450: YYY, M450: TYY</td>
<td>Chair with all pertinent team by Dr. X</td>
<td>Nancy Y will be responsible for double checking that the process was followed and noting any deviations from workflow</td>
</tr>
</tbody>
</table>

**Plan - What exactly are we going to measure to evaluate the test of change?** (Add rows to table below as needed.)

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Baseline (if known)</th>
<th>Prediction</th>
<th>Outcome/Result (to be populated after the Do phase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAP 1511 Hypertension</td>
<td>47%</td>
<td>55%</td>
<td>To be determined</td>
</tr>
<tr>
<td>Number of patients with two or more BP values of greater than 140/90 who don’t have hypertension as a diagnosis to the problem list in the EHR</td>
<td>Unknown</td>
<td>Unknown, but should be close to 0% (inverse more accurate, lower is better)</td>
<td>To be determined</td>
</tr>
</tbody>
</table>
PDSA Document: Do

Do – When and how did we do it?

Was the change implemented as expected? Note any deviations from Plan.

<table>
<thead>
<tr>
<th>What happened? Surprises? Challenges?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Over the initial test cycle, RNs were getting documented correctly and there were fewer questions after the first few days.</td>
</tr>
</tbody>
</table>

There were some hiccups for the first few days in reorganizing the standardized process to document SBPs in the EHR (challenge in keeping documentation consistent) and finding the correct spots in the EHR, but once the team was on the same page and the EHR bugs were worked out, the process went smoothly.

PDSA Document: Study

Study – What were the results?

Populate the outcome columns in the Plan section above and analyze the results. Summarize and reflect on what you learned, particularly as it can help you determine next steps.

Overall, the test was very successful. We saw an 11% increase in patients diagnosed with hypertension (NCJ 40E) who also had their documentation entered and the test was able to follow the updated workflow consistently:

- Week 1: 47% at end of week
- Week 2: 56% at end of week (70% goal after 2 weeks)
- Week 3: 58% at end of week
- Week 4: 58% at end of month (1 month test period) (70% goal at end of test period)

- The biggest issue with the EHR was addressed during the test, which was staff and provider knowledge about how to document SBP readings and confirming the diagnosis in the problem list, and we expect that this success can be spread throughout the clinic.
- The chart data analysis and super user were able to determine that our clinic had 24% of our patients with elevated SBPs (greater than 140/90) without a hypertension diagnosis in their problem list. Clean up work was done with providers and we got this down to 7% (lower is better) after the 1 month test. We expect that this will go down to 2% next year that providers are getting the documentation done correctly.
PDSA Document: Act

Act – Should we adapt, adopt, or abandon the change? Prepare a “Plan” for the next PDSA.

☐ Adapt – modify the changes and conduct another PDSA cycle. What will change in the next test?

☑ Adopt – expand changes in the organization to additional patients, staff, units, etc. How will the test be expanded in the next cycle?
  • Continue testing next week with additional MD/MA teams, to keep learning and testing under different conditions

☐ Abandon – don’t do another test on this change idea. Consider other approaches and start a new cycle

Describe what modifications to the plan will be made for the next cycle from what you learned:

We expect that we can improve the NQF#0018 metric by continuing education and ongoing training, making the new procedures part of our new hire process and recurrent annual training.

Given that we have experienced success in our first round of PDSA testing, we will discuss spreading these successes to other locations beyond our initial set of MDs and MAs. We will do additional PDSA test cycles and NQF#0018 data pulls to confirm effectiveness.
Using Data Objectives

• What story do we want to tell with our data about NQF0018?
• Include measure description
• Do we have historic data?
• What level of detail do we need?
• What data visualization tool is appropriate?

Focus on the Use of Data

• Separates what is thought to be happening from what is really happening
• Establishes a baseline for improvement
• Indicates whether changes lead to improvements
• Identifies ineffective solutions
• Allows monitoring of system changes to ensure improvements are sustained
• Allows comparison of performance across sites/groups/providers

When to Stratify

When you suspect that whatever you are measuring may differ based on some characteristic of the data

- The data may differ by age groups
- The overall quality measure might be skewed depending on individual clinician performance
- The underlying data may vary seasonally, monthly, or by some time factor

NQF0018 Data: Line Chart

Conclusion and Tips

Our NQF 0018 Story
QI in Practice: A Few Tips

- If you can’t measure it, you can’t improve it
- Manage the processes, not the health care providers
- The right data in the right hands at the right time
- Engage the people who do and understand the work

What Supports Effective QI?

- Leadership that supports learning, and drives and reinforces processes for organizational change
- Systems and process thinking
- Balancing safety and choice
- Fairness and accountability
- Engaging customers/patients and staff in quality work
- Structured method to make improvements
Words of Wisdom for Your QI Journey

“Start where you are, use what you have, do what you can.”
– Arthur Ashe

“A good plan today is better than a perfect plan tomorrow.”
– General George S. Patton

Stratis Health is a nonprofit organization that leads collaboration and innovation in health care quality and safety, and serves as a trusted expert in facilitating improvement for people and communities.

This project is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $625,000 with 0% financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official view of, nor an endorsement by, HRSA, HHS or the U.S. Government. (December/2018)