Primary Care Practice Facilitation Curriculum

Module 13. Measuring and Benchmarking Clinical Performance

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**Suggested Citation**

Module 13. Measuring and Benchmarking Clinical Performance

Instructor’s Guide

Practice facilitator (PF) competencies addressed in this module:

- Specialized skills in data collection, benchmarking, and analysis of clinical performance

Time

- Pre-session preparation for learners: 55 minutes
- Session: 75 minutes

Objectives

After completing this module, learners will be able to:

1. Identify sources for selecting performance measures for primary care.
2. Describe the importance of the numerator and denominator in defining performance measures.
3. Describe benchmarking and its use by facilitators to support improvement work.

Exercises and Activities To Complete Before and After the Session

Pre-session preparation. Ask the learners to review the following information (55 minutes)

1. The content of the module.

During the session. Presentation (15 minutes)

1. Present key concepts from the module.

Discussion. Ask questions and explore answers with learners (15 minutes)

1. Discuss your experience developing and using performance metrics in clinical or other settings. What did you learn? How will you use this in your work with practices?

Activity for learners (30 minutes)

1. Divide into pairs.
2. Use online resources identified in this module and previous modules to develop a list of metrics for a practice to use to assess its clinical performance in primary care for diabetes mellitus and chronic kidney disease.
3. Use online resources to identify national or local external benchmarks for performance on these metrics.

Discussion. Ask questions and explore answers with learners (15 minutes)

1. What did you learn from the exercise?
2. How will you use this in your work with your practices?
Module 13.

Performance measurement involves collecting and reporting data on practices’ clinical processes and outcomes. Measuring clinical performance can create buy-in for improvement work in the practice and enables the practice to track its improvements over time. This information should also be used to identify and prioritize improvement goals and to track progress toward those goals. In addition, these data should be used to monitor maintenance of changes already made.

As a PF, it is important to understand that initially staff and clinicians in a practice may not like the idea of gathering data and doing quality reporting. You will want to be sensitive to this and prepared to support your practices in working through their concerns. The reasons for practice concerns vary. Some practices may feel threatened by the idea, worried that it may present the practice or its staff in a negative light. Others may challenge its usefulness based on the belief (often true) that the data are too messy and flawed to provide an accurate picture of their performance. Others may be concerned that metrics currently being used to evaluate quality in practices are too simplistic and do not adequately capture the care for more complex patients (also often true) or correlate with any real outcomes (also often true). Finally, others may feel gathering these data duplicates work that they are already required to do for other reasons and so is not a good use of human or data resources at the practice. Addressing these objections and helping practice members understand the importance of this work for improving care is a key part of your role.

Selecting Clinical Performance Measures

You will work with your practices to identify the areas of clinical performance they want to assess. The areas of clinical performance should connect to the improvement goals the quality improvement (QI) team has set as well as any mandates from the funder. Common sources for performance measures are the Healthcare Effectiveness Data and Information Set (HEDIS), quality indicators developed by the National Committee for Quality Assurance, and criteria selected by health plans.

In addition to selecting a set of performance measures that the practice wants to track, the QI team will need to decide how frequently to collect and analyze data. Data collection timelines should allow sufficient time for change to occur. Data also should be generated frequently enough to show progress over time through the use of run charts and other methods of comparing data collected across multiple time periods.
Refining Clinical Performance Measures: Defining the Numerator and Denominator

Many performance measures are rates with the numerator indicating how many times the measure has been met and the denominator indicating the opportunities to meet the measure. For example, let’s say your practice wants to measure how well it is complying with annual comprehensive foot exam recommendations for its patients with diabetes.

In specifying the numerator, the practice will need to define what constitutes the desired performance. Will monofilament testing alone be adequate or will it need to be combined with visual inspection, testing for sensation, or palpation of pulses? Or will any one of these approaches be deemed adequate? How accurately these events are documented will be important in determining the usefulness of the available data.

In specifying the denominator, the practice will need to establish what constitutes an opportunity to deliver the desired action. For this example, you might define the denominator as the number of patients with diabetes who have had a health care encounter in the past 12 months. Or you might define the denominator more broadly from a population health perspective as any patients with diabetes in a clinician’s panel regardless of the status of their most recent visit.

Denominators in particular are important in understanding and interpreting data, so it is very important that you are careful to use the appropriate denominator. For example, if you are working with a practice to determine what percentage of its patients with diabetes have hemoglobin A1c (HbA1c) values of 8 or higher, you would want to use for the denominator only those patients with diabetes who have HbA1c values available in their medical record. If you include all patients with diabetes regardless of whether they have an HbA1c value available, the percentage of patients who have elevated HbA1c values will be artificially depressed.

As you and the practice monitor progress in improving performance on this metric over time, you will need to consider how the denominator may change. For example, a monthly audit of performance on this metric might use patients with diabetes who received care in the previous month as the denominator and the number of these same patients who had received a foot exam within the past 12 months as the numerator.

It can be tricky defining an appropriate denominator. If you do not select the correct denominator, you may under- or overstate performance. For example, when calculating the percentage of patients with diabetes who have low-density lipoprotein (LDL) below 100, you would specify the denominator as the number of patients with diabetes with an LDL test, not just the number of patients with diabetes. Similarly, if you were tabulating the percentage of patients who gave the most positive response to a question on a survey, you would specify the denominator as the number of patients who answered that question, not the number who were surveyed.
You will also need to help the practice decide which, if any, subgroups they want to evaluate. For example, you may want to measure performance for patients who have had a visit in the past quarter or who have been in treatment for at least six months. You will also need to decide whether you want to stratify performance measures for different populations. For example, you might want to compare performance for patients based on age, gender, race or ethnicity, disease severity, or treatment status.

**Benchmarking**

Benchmarking is the process of comparing a practice’s performance with an external standard. Benchmarking is an important tool that facilitators can use to motivate a practice to engage in improvement work and help members of a practice understand where the practice’s performance falls in comparison to others. Benchmarking can stimulate healthy competition, as well as help members of a practice reflect more effectively on their own performance. See Figure 13.1 for an example of a benchmarked practice report card.

You will need to work with your practices to identify appropriate benchmarks. Benchmarks can be generated from similar practices in the same area or by comparing them to a larger group of practices from across the country. They can also be drawn from standards set by an authoritative body. Good sources for benchmarks include local quality collaboratives where several practices collect similar performance data and compare among themselves. Community clinic associations often host this type of local effort, typically through multi-organization QI projects on a particular condition such as asthma, and may benchmark across the participating sites as part of their work with their members.

Other sources for benchmarks include required data reports to Federal agencies and funders, such as the Health Resources and Services Administration’s Uniform Data System reports required from Federally Qualified Health Centers. National associations and the National Committee for Quality Assurance are other potential resources for benchmarking, as well as State and local health and public health agencies.

Health information technology vendors are emerging as a source of benchmarks when they allow comparison across organizations using their systems. Large data networks such as [DARTNet](#) and [SAFTINet](#) funded by AHRQ may also become a resource for both local and national benchmarking. Figures 13.1–13.3 are examples of the types of reports produced by these organizations.

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**Pay attention to numerators and denominators when benchmarking.** It is important to ensure that you are making “apples to apples” comparisons.
### Figure 13.1. Sample benchmarked practice report card

<table>
<thead>
<tr>
<th>Category</th>
<th>Metric</th>
<th>Apr 12</th>
<th>May 12</th>
<th>Jun 12</th>
<th>Jul 12</th>
<th>Aug 12</th>
<th>Sep 12</th>
<th>Oct 12</th>
<th>Nov 12</th>
<th>Dec 12</th>
<th>Jan 13</th>
<th>Feb 13</th>
<th>Mar 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel Management</td>
<td>PC Provider Panel Assignments</td>
<td>312</td>
<td>313</td>
<td>310</td>
<td>315</td>
<td>369</td>
<td>310</td>
<td>305</td>
<td>312</td>
<td>317</td>
<td>301</td>
<td>310</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>PC Patients Enrolled</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>11</td>
<td>9</td>
<td>12</td>
<td>11</td>
<td>13</td>
<td>15</td>
<td>12</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Access</td>
<td>Ratio PC Phone/Video Encounters to All Encounters</td>
<td>20%</td>
<td>32.1%</td>
<td>38%</td>
<td>29%</td>
<td>35%</td>
<td>32%</td>
<td>36%</td>
<td>19%</td>
<td>32%</td>
<td>31%</td>
<td>29%</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>Primary Care Telephone Encounters</td>
<td>57</td>
<td>99</td>
<td>85</td>
<td>74</td>
<td>79</td>
<td>59</td>
<td>42</td>
<td>25</td>
<td>59</td>
<td>42</td>
<td>30</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Total Primary Care Encounters</td>
<td>169</td>
<td>245</td>
<td>202</td>
<td>237</td>
<td>295</td>
<td>190</td>
<td>180</td>
<td>140</td>
<td>140</td>
<td>150</td>
<td>130</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>Same Day Appts/PC Provider Ratio</td>
<td>50%</td>
<td>99%</td>
<td>69%</td>
<td>70%</td>
<td>90%</td>
<td>90%</td>
<td>95%</td>
<td>70%</td>
<td>70%</td>
<td>80%</td>
<td>80%</td>
<td>75%</td>
</tr>
<tr>
<td>Email</td>
<td>Total Email Communications</td>
<td>49</td>
<td>59</td>
<td>40</td>
<td>60</td>
<td>90</td>
<td>40</td>
<td>60</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Total PC Patients Enrolling w/Email Option</td>
<td>25</td>
<td>30</td>
<td>40</td>
<td>40</td>
<td>50</td>
<td>45</td>
<td>50</td>
<td>60</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>Continuity</td>
<td>Continuity w/Care Team</td>
<td>60%</td>
<td>70%</td>
<td>60%</td>
<td>65%</td>
<td>65%</td>
<td>70%</td>
<td>90%</td>
<td>60%</td>
<td>90%</td>
<td>60%</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Coordination of Care</td>
<td>21 day Followup</td>
<td>80%</td>
<td>60%</td>
<td>90%</td>
<td>50%</td>
<td>60%</td>
<td>70%</td>
<td>90%</td>
<td>50%</td>
<td>100%</td>
<td>65%</td>
<td>90%</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Total Discharges</td>
<td>5</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td>5</td>
<td>9</td>
<td>9</td>
<td>10</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

### Figure 13.2. Sample composite practice report for patients with chronic kidney disease

![Graphs showing metric trends over time](image)

- **Ratio of PC Telephone Encounters/All PC Encounters**
  - Benchmark: 20%

- **Same Day Appts PC Provider Ratio**
  - Benchmark: 70%

- **Continuity PCP%**
  - Benchmark: 75%

- **21 Day Contact Postdischarge Ratio**
  - Benchmark: 60%
### Sample Clinic

#### Composite Timeseries Performance Report

![Composite Timeseries Performance Report](image)

Report date range: 12 months to...
Baseline = 1/15/13
Q1 = 4/15/13
Q2/Q3 (combined) = 11/15/13
Q4 = 2/15/14
Q5 = 5/15/14

#### Key:

<table>
<thead>
<tr>
<th>Report</th>
<th>Measure Name</th>
<th>Cohort</th>
<th>Target</th>
<th>Cohort Definition</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Control Blood Pressure</td>
<td>All patients who meet stringent CKD criteria</td>
<td>140/90</td>
<td>Percentage of patients with average of last 3 BP c&lt; 140/90</td>
<td>Mean of last three systolic and diastolic BP will be based on last one or two if fewer than three available</td>
</tr>
<tr>
<td>2</td>
<td>Control LDL</td>
<td>All patients who meet stringent CKD criteria</td>
<td>&lt;100</td>
<td>Percentage of patients with average of last two LDL measures &lt; 100</td>
<td>Mean of last two LDL; last LDL if only one is available</td>
</tr>
<tr>
<td>3</td>
<td>Use ACE/ARB</td>
<td>All patients who meet stringent CKD criteria</td>
<td>Yes</td>
<td>Percentage of patients with a current ACE/ARB prescription</td>
<td>Documentation in EHR/pharmacy of prescription; yes/no for each time period</td>
</tr>
<tr>
<td>4</td>
<td>Control HbA1c</td>
<td>Patients who meet stringent CKD criteria and have a Dx code of 585*</td>
<td>&lt;7.0</td>
<td>Percentage of diabetic patients with A1c &lt; 7.0</td>
<td>Last HbA1c;</td>
</tr>
<tr>
<td>5</td>
<td>Have Not Eliminated NSAID/Cox-2 use</td>
<td>All patients who meet stringent CKD criteria</td>
<td>No</td>
<td>Percentage of patients with a current prescription for NSAID/Cox-2</td>
<td>Yes/no for each time period</td>
</tr>
<tr>
<td>6</td>
<td>Refer to Nephrologist</td>
<td>Patients with at least one GFR &lt; 30</td>
<td>Yes</td>
<td>Percentage of patients with at least one eGFR &lt; 30 who have been referred to nephrology</td>
<td>Referral documented, if applicable</td>
</tr>
<tr>
<td>7</td>
<td>Eliminate Smoking</td>
<td>Patients with smoking status documented</td>
<td>Non/Former smokers</td>
<td>Percentage of patients with a documented smoking status who are non smokers or former smokers</td>
<td>Yes/no for each time period</td>
</tr>
<tr>
<td>8</td>
<td>Diagnosis of CKD</td>
<td>Pts who meet stringent CKD criteria</td>
<td>Appropriate CKD Dx</td>
<td>Percentage of patients who meet CKD criteria who have CKD Diagnosis (ICD-9 Dx Codes (ICD-9 = 585.xx and 250.4.x))</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Annual ACR Measure</td>
<td>Pts who have ICD9 of 250.xx</td>
<td>Annual measurement</td>
<td>Percentage of patients who have MicroCR in prior year</td>
<td>Lab done</td>
</tr>
<tr>
<td>10</td>
<td>Annual LDL</td>
<td>Pts who meet stringent CKD criteria</td>
<td>Annual measurement</td>
<td>Percentage of patients who have LDL in prior year</td>
<td>Lab done</td>
</tr>
<tr>
<td>11</td>
<td>Annual A1c</td>
<td>Patients with diabetes</td>
<td>Annual measurement</td>
<td>Percentage of patients who have A1c in prior year</td>
<td>Lab done</td>
</tr>
<tr>
<td>12</td>
<td>Follow up creatinine measure</td>
<td>Pts who have 1 eGFR &lt; 60</td>
<td>Appropriate Follow Up Measurement</td>
<td>Percentage of patients who have a follow up creatinine measure &gt; 30 and &lt; 360 days after the first eGFR &lt; 60</td>
<td>Lab done</td>
</tr>
<tr>
<td>13</td>
<td>Follow up ACR measure</td>
<td>Pts who have 1 ACR &gt; 30</td>
<td>Appropriate Follow Up Measurement</td>
<td>Percentage of patients who have a follow up ACR measure &lt; 30 days and &lt; 360 days after the first ACR &gt; 30</td>
<td>Lab done</td>
</tr>
</tbody>
</table>

### Source:
Figure 13.3. Sample benchmarked practice report for patients with chronic kidney disease

Time period: 9/30/2013 - 9/30/2014
Patient totals: Stringent: 119; Stage 4: 42

1. Control Blood Pressure: All patients who meet stringent CKD criteria

2. Control LDL: All patients who meet stringent CKD criteria

3. Use ACE/ARB: All patients who meet stringent CKD criteria

Source: Sample Composite Practice Performance Report. Leawood, KS: DARTNet Institute; 2015

Note: this module is based on Module 7 of the Practice Facilitation Handbook. Available at https://www.ahrq.gov/ncepcr/tools/pf-handbook/index.html