The ability to collect and use data to improve performance is becoming an essential practice management skill.

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“Measure, improve, measure” is the mantra of most quality improvement gurus, yet most family medicine offices are not currently measuring the care they provide. The culture in medicine has been for physicians to train earnestly, follow a strong work ethic that puts patients first, complete hours of ongoing continuing medical education and assume that the result would be high-quality health care. Yet recent national studies have shown that we are not doing quite as well at delivering the recommended care as we might think. The only way to know where we stand is to regularly measure our performance.

Performance measurement is also the key to demonstrating our value to payers. Growing numbers of health plans are using pay-for-performance programs, which reward family physicians who meet quality targets (see the related article on page 69). Health plans are also experimenting with tiered provider networks, which attempt to steer patients toward more efficient physicians based on the plans’ profiling data. Currently, health plans base their assessment of physician performance largely on claims data, which can be incomplete or inaccurate. This underscores the need for physicians to measure their own performance so they can supplement the health plans’ data, if needed. In the future, physicians will likely be required to submit performance data as a condition of participation in health plan networks.

Physicians are understandably concerned about the burden that data collection can create for their practices, but good systems can keep the extra work to a minimum. This article describes the fundamentals of performance measurement as well as a way of collecting performance data as a by-product of the process of care.
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What do I measure?

Performance measures have been developed for most common chronic diseases and for preventive care. These measures generally are designed to assess the number of patients who receive recommended care compared with the number of patients who should receive that care. The list on the next page describes a “starter set” of 26 measures endorsed by the Ambulatory Quality Alliance, or AQA. The AAFP, along with the American College of Physicians, America’s Health Insurance Plans (the trade association for health plans) and the Agency for Healthcare Research and Quality, founded AQA with the goal of identifying a small set of performance measures that can be used broadly throughout the health care system. Widespread use of these measures by health plans will allow physicians to focus on a few standard indicators rather than having to track different measures for different initiatives.

If you plan to participate in a pay-for-performance initiative through a health plan or other organization, you’ll want to adopt the measures that the program requires. If you simply want to begin measuring your performance for your own internal improvement purposes, the AQA measures may provide a good starting point. It may work best to implement just a few of these initially and wait to introduce others until you’re confident that the systems you’ve put in place to capture the data are working well.

Other resources for performance measures are the National Quality Forum, which offers a set of 42 measures for ambulatory care, and the National Quality Measures Clearinghouse, which provides comprehensive information on evidence-based measures developed by multiple organizations throughout health care. These and other resources that will help you start measuring your performance are listed on page 62.

What tools do I need?

Performance measurement doesn’t have to mean sitting down with a mountain of charts and sifting through old notes to find the information you need. To minimize the extra work, data should be collected prospectively, with multiple members of the care team playing a role.

For example, fall-prevention screenings can be conducted by anyone in the office and recorded on a data sheet before or after the physician sees the patient. Similarly, when rooming patients who have diabetes, a nurse or medical assistant could record measures such as A1C, LDL and blood pressure. Of course, the physician should have the final responsibility for making sure the information is correct and for ensuring that data on medications such as ACE inhibitors, angiotensin-receptor blockers (ARBs) and beta blockers is current.

Two types of tools can be particularly helpful in performance measurement:

**Flow sheets.** The Physician Consortium for Performance Improvement convened by the American Medical Association has developed prospective data collection flow sheets for 16 clinical conditions that incorporate evidence-based performance measures (http://www.ama-assn.org/ama/pub/category/4837.html). These prospective data collection sheets can also serve as reminder checklists to assure that all care team members know what needs to be done when the patient is in the office.

**Registries.** A registry is essentially a list of your patients who have a particular dis-
A STARTER SET OF PERFORMANCE MEASURES

The Ambulatory Quality Alliance endorsed this set of performance measures, which includes measures developed by the AMA Physician Consortium and the National Committee for Quality Assurance. Each of the measures has also been endorsed by the National Quality Forum. For further details on each of the measures, visit http://www.aqaalliance.org/performancewg.htm.

Prevention measures
1. Breast cancer screening: The percentage of women who had a mammogram during the measurement year or year prior to the measurement year.
2. Colorectal cancer screening: The percentage of adults who had an appropriate screening for colorectal cancer.
3. Cervical cancer screening: The percentage of women who had one or more Pap tests during the measurement year or the two prior years.
4. Tobacco use: The percentage of patients who were queried about tobacco use one or more times during the two-year measurement period.
5. Advising smokers to quit: The percentage of patients who received advice to quit smoking.
6. Influenza vaccination: The percentage of patients age 50 to 64 who received an influenza vaccination.
7. Pneumonia vaccination: The percentage of patients who received a pneumococcal vaccine.

Coronary artery disease (CAD)
8. Drug therapy for lowering LDL cholesterol: The percentage of patients with CAD who were prescribed a lipid-lowering therapy.
9. Beta-blocker treatment after heart attack: The percentage of patients hospitalized with acute MI who received an ambulatory prescription for beta-blocker therapy (within 7 days discharge).
10. Beta-blocker therapy, post MI: The percentage of patients hospitalized with acute MI who received persistent beta-blocker treatment (6 months after discharge).

Heart failure
11. ACE inhibitor/ARB therapy: The percentage of patients with heart failure who also have LVSD who were prescribed ACE inhibitor or ARB therapy.
12. LVF assessment: The percentage of patients with heart failure with quantitative or qualitative results of LVF assessment recorded.

Diabetes
13. A1C management: The percentage of patients with diabetes with one or more A1C test(s) conducted during measurement year.
14. A1C management control: The percentage of patients with diabetes with the most recent A1C level greater than 9 percent (poor control).
15. Blood pressure management: The percentage of patients with diabetes who had their blood pressure documented in the past year at less than 140/90 mm Hg.
16. Lipid measurement: The percentage of patients with diabetes with at least one LDL cholesterol test (or all component tests).
17. LDL cholesterol level (<130 mg/dL): The percentage of patients with diabetes with the most recent LDL at less than 100 mg/dL or less than 130 mg/dL.
18. Eye exam: The percentage of patients who received a retinal or dilated eye exam by an eye care professional (optometrist or ophthalmologist) during the reporting year or during the prior year if patient is at low risk for retinopathy.

Asthma
19. Use of appropriate medications for people with asthma: The percentage of individuals who were identified as having persistent asthma during the year prior to the measurement year and who were appropriately prescribed asthma medications (e.g., inhaled corticosteroids) during the measurement year.
20. Asthma: pharmacologic therapy: The percentage of all individuals with mild, moderate or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment.

Depression
21. Antidepressant medication management (acute phase): The percentage of adults who were diagnosed with a new episode of depression and treated with an antidepressant medication and remained on an antidepressant drug during the entire 84-day (12-week) acute treatment phase.
22. Antidepressant medication management (continuation phase): The percentage of adults who were diagnosed with a new episode of depression and treated with an antidepressant medication and remained on an antidepressant drug for at least 180 days (6 months).

Prenatal care
23. Screening for human immunodeficiency virus (HIV): The percentage of patients who were screened for HIV infection during the first or second prenatal visit.
24. Anti-D immune globulin: The percentage of D (Rh) negative, unsensitized patients who received anti-D immune globulin at 26 weeks to 30 weeks gestation.

Quality measures addressing overuse or misuse
25. Appropriate treatment for children with upper respiratory infection (URI): The percentage of patients who were given a diagnosis of URI and were not dispensed an antibiotic prescription on or three days after the episode date.
26. Appropriate testing for children with pharyngitis: The percentage of patients who were diagnosed with pharyngitis, prescribed an antibiotic and who received a group A streptococcus test for the episode.
The key tools of performance measurement are flow sheets and registries that help you track patients and identify those who need particular services.

Many EHRs have this functionality or will in the near future; in some cases, it’s just a matter of modifying existing templates.

Health plans will increasingly expect physicians to measure their own performance and report the data using Web portals or other tools.

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With any measurement there must be a numerator (how many patients received the recommended care) and a denominator (how many patients should have received that care), and a registry helps establish these. It also helps office staff identify patients who are overdue for recommended services, and it facilitates contacting them and arranging for office visits, lab monitoring, referrals or other needed care. Registries can be developed using readily available software. The FPM Toolbox includes a ready-made spreadsheet developed with Microsoft Excel; it can be downloaded at no charge from http://www.aafp.org/fpm/20060400/diabetesregistry.xls.

EHRs and performance measurement

If you use an electronic health record (EHR), performance measures will need to be built into the templates you use to record office visits or document the care of chronic conditions. EHR vendors are well aware of the need for this functionality, so it is likely to be available soon in new products and enhancements to existing systems. Many systems already offer registry functions; however, some programming may be necessary to incorporate the performance measures you have adopted.

If you don’t have an EHR yet but anticipate purchasing one, it may be tempting to wait until then to start measuring your performance. However, a better approach would be to take the time now to put in place office routines to collect and report clinical performance measures, so the habit will be established before you implement an EHR.

How do I report the data?

Although health plans currently rely mostly on claims data to measure physician performance, in the future they will expect physicians to report their own data as well. Of the various systems that have been proposed to facilitate physicians’ reporting of clinical data to

RESOURCES FOR PERFORMANCE MEASUREMENT

The organizations listed below provide tools that facilitate data collection, analysis and improvement.

**AAFP data collection tools for Centers for Medicare & Medicaid Services Physician Voluntary Reporting Program (PVRP)**
http://www.aafp.org/pvrptools.xml
Forms for use by physicians and coding and billing staff that collect data on the seven measures included in the PVRP program.

**Ambulatory Quality Alliance**
http://www.aqaalliance.org/performancewg.htm
A starter set of 26 performance measures for ambulatory care.

**National Quality Forum**
http://www.qualityforum.org
A set of 42 performance measures for ambulatory care.

**The National Quality Measures Clearinghouse**
http://www.qualitymeasures.ahrq.gov
A database of evidence-based measures developed by multiple organizations throughout health care.

**The Physician Consortium for Performance Improvement**
Prospective data-collection flow sheets for 16 clinical conditions that incorporate evidence-based performance measures.
health plans or other parties, two systems seem most likely to be developed for this purpose:

1) Payers could create Web portals where physicians or their staff members would log on and simply input data drawn from patient records.

2) Payers could create additional codes that would be integrated into the claims submission process. The Centers for Medicare & Medicaid Services (CMS) is already taking this approach with its Physician Voluntary Reporting Program, which uses supplemental G codes to collect performance data from physicians on seven measures (see the box above for more information).

The AAFP has designed a one-page prospective data collection sheet to lighten the burden as much as possible and help assure that Medicare patients with the appropriate criteria have the required data collected at the time of the visit. The data collection sheet can be inserted in the chart by the front desk person at the time of check-in or by the nurse as he or she records the reason for the visit and vital signs. In offices that already have electronic health records, this same function can be incorporated into a template and attached to the visit for the day.

In either case, the information collected from the patient visit must be available to the coder when the bill is prepared for submission to the Medicare carrier, as the PVRP program requires the submission of G codes. The Academy has provided a separate data-collection sheet that can be used by the coding and billing staff to match the physician’s data-collection sheet to the correct G code and to verify documentation.

Download PDF versions of both data-collection forms from http://www.aafp.org/pvrptools.xml.

Where do I begin?

You and your office team are probably asking, “What do we do next?” Here is a guide to get you started:

1. Pick a condition that is prevalent in your office and offers an opportunity for substantial improvement in care (e.g., diabetes, asthma or preventive services).

2. Go to the AMA Physician Consortium for Performance Improvement Web site (http://www.ama-assn.org/ama/pub/category/4837.html) and download the prospective data collection form.

3. Assemble a small, task-oriented work team to analyze office flow and look at individual care team member responsibilities for completing the flow sheet.

4. Collect the data. Keep one copy for the chart and save one copy for data analysis or reporting. If you are using an EHR system, this same function can be accomplished using additions or modifications to your existing templates.

5. Look at the data and feed it back to the office care team. In most cases it will be obvious what needs to be done to improve the numbers.

6. Modify office routines to improve the results, and keep track of the data so you can tell if things are getting better.

7. Compare your performance with that of other physicians in your practice or community and with national norms. For example,
Comparative data will be easier to come by as pay-for-performance programs grow.

Physicians will be well served by having their own performance data in the future.

Although health plans currently rely on administrative data to measure performance, in the future they will expect physicians to report their own data.

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You now have in place the basics of your performance improvement machine. Why wait?

It is clear that collecting and reporting clinical performance data is becoming more important for family medicine practices—both for guiding quality improvement efforts and for enabling participation in programs that offer enhanced payment. Health plans will increase their use of claims data to assess physician quality and efficiency while looking for ways to collect clinical data. In practices that have well-designed systems and processes, the burden of data collection and reporting can be held to a minimum using tools and processes like the ones described in this article. The time is now to see how your practice will “measure up.”

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