To answer this question, you must balance anticipated costs with potential gains.

Tracking and reporting physicians’ quality indicators, and then paying for performance, is a concept that is gaining prominence. More than 100 pay-for-performance programs exist today, and the Patient Protection and Affordable Care Act calls for even greater emphasis on quality reporting and pay for performance in the near future, including penalties for practices that do not participate. As more health plans and government agencies begin sponsoring quality-reporting programs, practicing physicians face increasing pressure to join these programs, often with little guidance regarding the pluses and minuses of participation.

Our research group recently performed a study to detail the practice-level costs for participating in these programs. This article presents some of those findings as well as lessons we learned while conducting that work.
Overview of our research project

We studied four quality-reporting programs available to primary care practices in North Carolina: the Physician Quality Reporting Initiative (PQRI), Improving Performance in Practice (IPIP), Bridges to Excellence (BTE) and Community Care of North Carolina (CCNC). Three of these programs are available in multiple states; see page 11 for a summary of the programs. The programs varied widely in terms of target patient populations, formal quality improvement focus, data requirements, availability of outside assistance and incentive structures. What all four programs had in common was a requirement that practices measure quality and report their data, with the goal of using this process to help improve care over time.

To study these programs in depth, we selected eight practices that were successfully participating in one or more programs. We assessed each practice using a team that included a primary care physician-researcher, a quality-improvement specialist, an economist and a qualitative researcher. In addition, to gather information from practice staff about their respective work environments, we administered a series of questionnaires that the staff completed and mailed back to us. We estimated program participation costs for each practice by itemizing the tasks related to the program and calculating the time and resources required to accomplish each. These methods provided us with a comprehensive picture of the programs from a practice perspective.

The major expenses related to participating in a quality-reporting program included personnel time for planning, training, registry maintenance, visit coding, data gathering and entry, and modification of electronic systems. Costs per full-time-equivalent clinician varied widely, from $133 to $11,100 during program implementation phases and from $58 to $4,329 during maintenance phases. Costs varied according to program characteristics, amount of on-site assistance provided, experience and expertise of practice personnel, and the extent of data system problems encountered. Incentive payments also varied widely.

About the Authors

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## Comparing Four Quality-Reporting Programs

<table>
<thead>
<tr>
<th>Program name</th>
<th>Physician Quality Reporting Initiative (PQRI)</th>
<th>Bridges to Excellence (BTE)</th>
<th>Improving Performance in Practice (IPIP)</th>
<th>Community Care of North Carolina (CCNC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsor</td>
<td>Medicare</td>
<td>Varies from state to state</td>
<td>State-based but nationally led and largely funded by the Robert Wood Johnson Foundation Pilot states: NC and CO</td>
<td>North Carolina Medicaid</td>
</tr>
<tr>
<td>Main requirements of practices</td>
<td>Report quality “G” codes with billing submissions on at least three clinical measures for at least 80 percent of all Medicare patients with the conditions being measured.</td>
<td>Diabetes program: Submit measures for 25 patients per physician. Physician Practice Connection program: Submit proof of existence of office systems thought to improve safety and quality.</td>
<td>Conduct quality improvement via plan-do-study-act (PDSA) cycles and population management related to diabetes and asthma measures.</td>
<td>Participate in network; attend quarterly meetings to review data.</td>
</tr>
<tr>
<td>Cost range per FTE provider* (rounded to the nearest $50) for start-up and maintenance phase†</td>
<td>Start-up: $350-$11,100 (median: $450) Maintenance: $100-$4,350 (median: $726)</td>
<td>Start-up: $500-$800 Maintenance: n/a (no maintenance phase to this program)</td>
<td>Start-up: $1,450-$3,050 Maintenance: $1,950-$4,250</td>
<td>Start-up: $150-$550 Maintenance: $50-$350</td>
</tr>
<tr>
<td>Main benefits for participation</td>
<td>Anticipation of reduced Medicare fees for non-submission of quality data starting in 2015</td>
<td>Financial incentive Population health focus Office systems enhanced for patient centeredness, quality, and error reduction</td>
<td>Learning and implementing quality improvement principles On-site consulting provided free of charge by qualified consultants Assistance with registry creation and use of electronic systems</td>
<td>Chart reviews and data reports performed and paid for by program Clinical tool provided by program</td>
</tr>
<tr>
<td>Potential financial awards§</td>
<td>For 2011, up to 1 percent of Medicare allowable charges For study practices: $0-$1,000 per year per FTE provider</td>
<td>Diabetes program: $80 per diabetic Blue Cross Blue Shield (BCBS) patient per year Physician Practice Connection program: three levels of achievement at $15, $30 or $50 dollars per BCBS patient per year For study practices: $0 to $4,642 in year one and $0 to $2,500 in year two</td>
<td>$2,000 total over time for participation and production of first data report For study practices: $333 to $2,000 per FTE provider</td>
<td>No particular payment for quality improvement work, but a $2.50 per member per month fee for case management is given to providers participating in the integrated care networks</td>
</tr>
<tr>
<td>Comments</td>
<td>Significant program evolution since 2007 designed to ease participation</td>
<td>Expanding to more states and disease tracks</td>
<td>Largely passive participation, but can catalyze practice change and participation in other quality improvement efforts</td>
<td></td>
</tr>
<tr>
<td>States involved</td>
<td>All</td>
<td>Data refers to North Carolina pilot only. BTE is currently in 23 states including the District of Columbia.</td>
<td>Data refers to North Carolina and Colorado.</td>
<td>North Carolina</td>
</tr>
</tbody>
</table>

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*To facilitate program comparisons, cost data are expressed as cost per full-time-equivalent (FTE) provider.

†Start-up phases were generally the first three to six months of program participation. Maintenance costs were annualized and refer to minor changes in office systems.

‡The median is provided in this example because the high end of the range was influenced by one practice’s data.

§Award structures for some programs have greater complexities than described in this table and may have changed since this study was performed.
Costs per full-time-equivalent clinician varied widely, from $0 to $4,642 annually per full-time-equivalent clinician. (For a more complete list of costs and benefits, see “Comparing four quality-reporting programs,” page 11.)

Five keys to success

Given the potentially high costs currently associated with quality-reporting programs, the following actions are key to successful participation.

1. Demonstrate consistent commitment from practice leadership. System changes are difficult, and some individuals may be resistant, but it is important that providers and staff be decidedly on board. Strong, committed leaders are vital to making this happen. A committed leadership should do the following:
   • Formalize the quality-improvement process, making quality-improvement work a standard component of job descriptions and staff evaluations and providing compensated time for training, planning and process change.
   • Support and participate in practice-wide meetings; inform, involve and empower all staff; and overcome barriers and roadblocks.
   • Establish small, efficient work groups to carry out specific tasks.
   • Foster shifts in the practice culture, such as training medical assistants to conduct diabetic foot exams and to assist patients in setting and reviewing self-management goals.

   It helps to designate someone to serve as the champion or quality-improvement coordinator, particularly someone with prior experience in quality improvement. In one of the particularly successful practices we visited, the catalyst was a nurse manager who had done hospital quality improvement. Other practices had administrative staff with non-medical quality improvement experience. These leaders helped train and guide the others. If your practice does not have staff with quality improvement backgrounds, you may want to look specifically for quality-reporting programs that offer this service to the practice.

2. Reallocate time to accomplish the necessary tasks. Most practices in our study needed to create new quality-improvement processes. Staff meetings initially required at least an hour or two per month. However, over time, program-related information such as performance reports could be addressed in just 10 to 15 minutes per month. Programs that required data entry or data submission took one half-day per week of at least one staff member’s time. In one practice, other clinical staff felt resentful of the protected time given to this staff member for data management, but once practice leadership emphasized the importance of quality improvement work to the entire staff, such attitudes dissipated. Other practices used primarily non-clinical staff time to perform much of the work. In such situations, practices should consider including the administrative team in any incentive sharing plans as they often do the lion’s share of the work.

3. Explore ways to obtain data while avoiding added costs. Most quality-reporting programs require documentation of guideline-based laboratory results or office procedure results that are part of routine care (e.g., A1C results for all patients who have diabetes). For some of the study practices, this added significantly to testing volume. A few practices tried to deal with this by doing more point-of-care testing but ultimately found that to be too costly. One practice, for example, purchased new lab equipment but soon learned that they also needed to purchase a “higher complexity” laboratory license and that the need for daily calibration made office testing cost-prohibitive.

   Getting data from referral providers can be especially challenging. Most study practices concentrated on diabetes and had problems documenting retinal exam results. Several
approaches were taken to improve data capture: 1) having an LPN call patients and practices to complete the information loop; 2) leasing an in-office retinal scanner with digital interpretations done by an out-of-state ophthalmology group; 3) developing a fax process whereby the referral provider could enter data directly on the primary care office referral form and transmit it electronically to the practice; 4) meeting personally with referral providers to explain the need for information; and 5) letting referral providers know that referrals would cease if high-quality results were not sent back in a timely manner.

4. Anticipate information systems problems. The inability of different electronic office systems to “talk” to each other was a profound problem for many practices. Time-consuming work was often required to gather data elements from office systems dedicated to practice management, clinical management, laboratory data and billing functions, and at times from vaccine registries, insurance companies, data warehouses, and billing and practice management organizations. For example, one practice found that using disease registry software negatively impacted its practice management system’s efficiency and interfered with the patient scheduling functions. Ultimately, they had to separate the disease registry and use it as a stand-alone system on an office laptop, thereby creating other inefficiencies.

Practices often had to pay for expensive expert assistance or endure long queues for available help from within their organizations. Having personal contacts in other practices that use the same computer systems or having IT help in house were generally better solutions than relying on electronic health record (EHR) vendor assistance, which often came with added fees. However, two study practices had maintenance contracts with EHR vendors that did cover this kind of work. Because the IT industry is relatively new to population management and quality-reporting programs, support groups (such as online discussion groups) of actual users may be an especially helpful resource. The influence of new mandates for the EHR vendor community to meet

<table>
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<tr>
<th>Issue</th>
<th>Considerations</th>
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| CAPITAL COSTS | • Application fees (where applicable)  
• Cost of written program materials (where applicable)  
• Software or software upgrades  
• Hardware  
• Data backup and security  
• New clinical equipment (e.g., spirometer) or extra supplies (e.g., to calibrate lipid panel tests)  
• New systems needed to accomplish specific tasks (e.g., open-access scheduling, referral tracking and e-prescribing)  
• Out-sourced IT support |
| STAFF TIME COSTS | • Educating leaders and staff about program requirements (webinars, conferences, teleconferences, etc.)  
• Planning participation  
• Deciding on measures  
• Informing practice staff of expectations, requirements, changes in staff roles and duties  
• Developing, improving and adding new process to capture and document data items  
• Providing information technology support  
• Improving interoperability of electronic systems for data capture, submission and communication  
• Obtaining assistance from program staff regarding program compliance  
• Generating and reviewing reports  
• Entering and uploading data  
• Developing and maintaining a list of active patients for whom a measure applies  
• Keeping the registry up-to-date (e.g., updating the list of patients with a given disease, recording their key measures and notifying patients who have not been seen in the office for a certain time interval)  
• Auditing charts and abstracting data |
| POTENTIAL BENEFITS | • Improved care for patients (through systems development)  
• Confidence in the provision of chronic care  
• Initial work may ease entry into other quality-reporting programs  
• Financial rewards (rarely recoup costs)  
• Office camaraderie  
• Participation in regional networks with other practices  
• Meeting CME, CEUs or board certification requirements  
• Improved reputation and marketing potential  
• Improved office staff computer skills  
• Increased patient involvement in care due to consistent and repetitive attention to chronic disease elements |
Programs may provide access to quality improvement consultants, whose assistance can be invaluable.

As physicians move past initial skepticism about the data and start using it to change their processes, patient care will likely improve.

Improvements in staff morale, provider efficiency and patient engagement shifted the balance in favor of participation in quality-reporting programs.

meaningful-use requirements will most likely reduce this burden once the practices have gone through the necessary upgrades to their software. However, these software upgrades may require much time and effort.

The practices that joined the IPIP program found the program’s quality improvement consultants to be invaluable for helping with electronic systems. The hands-on assistance offered in the IPIP program helped the practices avoid spending hundreds of employee hours on figuring out complex systems on their own.

5. Use the data to improve practice.

Most practices reported feeling humbled when they first reviewed their performance data. The quality, timeliness and validity of the data were often initially challenged. For example, physicians may question whether the data being tracked and reported are truly relevant to improving clinical outcomes or whether they are just the easiest to measure. Similarly, they may argue that while some data points are solely under the control of the provider (e.g., prescribing an ACE inhibitor), other data points rely solely on the patient (e.g., how often they check their blood sugar).

However, once the clinicians accepted the measures and the results, practices started making changes that improved care processes, such as using disease-specific flow sheets, patient registries or patient goal-setting techniques. These changes then contributed to team building and office esprit de corps.

Practices can review national benchmarks from the National Committee for Quality Assurance web site (http://www.ncqa.org/tabid/334/Default.aspx) and compare them to office-level performance data. Several practices in our study actually posted their quality data in their waiting rooms for patients and staff to see.

The bottom line: Should you participate?

To answer this question you must balance anticipated costs with potential gains. The principal issues to consider are presented in the table on page 13.

Most of the practices studied felt that despite some disadvantages, particularly in the early phases of participation, the improvements in staff morale, provider efficiency and patient engagement shifted the balance in favor of participation in quality-reporting programs. This was true even though program costs tended to exceed reimbursements and workloads were higher than anticipated. The one program that a few practices opted to discontinue was PQRI, as the work and frustration associated with participating did not pass the “worth it” test. However, this program has evolved since its inception in 2007 and has simplified and expanded its data reporting options based on provider feedback. Given these changes, and the fact that providers who do not participate in the PQRI program by 2015 will face a penalty equal to 1.5-percent of their Medicare charges, it is likely that these study practices will renew their participation in the future.

As medical-board-certification requirements change, health information technologies continue to develop, and the patient-centered medical home and improved financing systems gain traction, the benefits of participating in quality-reporting programs – and the penalties for nonparticipation – are likely to increase. If your practice has not yet considered joining the movement, perhaps the time is now.

Send comments to fpmedit@aafp.org.