Ever since 2001, when the Institute of Medicine recommended that public and private purchasers of health care build stronger incentives to enhance quality, there has been a proliferation of pay-for-performance (P4P) demonstrations. But despite this growth in new initiatives for quality-based incentive programs for hospitals, physicians, nursing homes and home health providers, there is limited evidence of the effectiveness of early private-sector demonstration projects. As efforts to link reimbursement and performance continue to increase, a careful review of the lessons learned from early initiatives should be an important component of the design, implementation and evaluation of any new P4P initiatives.

On December 15, 2006, the Rewarding Results (RR) National Evaluation Team convened leaders from the demonstration projects to meet with Centers for Medicare and Medicaid Services (CMS) staff and demonstration implementation and evaluation contractors to discuss the extent to which lessons learned from their early demonstrations were transferable to the Medicare environment. The Robert Wood Johnson Foundation and the Agency for Healthcare Research and Quality funded the event. The meeting goals and objectives were to:

- Identify major design, implementation and evaluation challenges and lessons learned in P4P
- Discuss what could be done differently with respect to design, implementation and evaluation strategies based on what has been learned
- Discuss implications and design consideration in implementing P4P systems for the Medicare program and its beneficiaries.

CMS participants included 44 CMS contractors and CMS staff responsible for Medicare P4P initiatives. Twelve experts from the Rewarding Results demonstrations were assembled by the National Evaluation Team to identify and report crosscutting themes from the three years of demonstrations.

History of Rewarding Results

In 2002, the Robert Wood Johnson Foundation, California HealthCare Foundation and the Commonwealth Fund sponsored seven Rewarding Results demonstration projects. These demonstrations provided early, hands-on experience in the design, implementation and evaluation of P4P initiatives. The seven initiatives were selected from 151 applications submitted by health plans, employers, unions and state agencies, as well as collaborative efforts between employers, providers and plans. These locally designed demonstrations made providers eligible for financial and nonfinancial rewards upon achievement of specific quality goals linked to clinical performance and medical outcomes. The Rewarding Results demonstration projects offered a variety of approaches to employing incentives to achieve higher quality health care. They included the following:

- Blue Cross of California (BCC) piloted financial and nonfinancial incentives for preferred provider organization (PPO) network physicians practicing in family practice, general practice, internal medicine, obstetrics/gynecology, pediatrics, cardiology and endocrinology in the San Francisco area. Physician incentives included Web-based performance scorecards and annual increases in the standard PPO fee schedule. Measures included evidence-based preventive care, chronic care management, formulary compliance, timely electronic claims submission and continuity of access.

- Blue Cross Blue Shield of Michigan (BCBSM) offered opportunities for diagnostic related group (DRG) payment increases to all of its 86 contracted acute care hospitals. Hospital incentives for the care of plan members amounted to an up to 4 percent DRG increase in the following year for scoring at or above threshold standards for selected all-payer, self-reported Joint Commission (formerly JCAHO) measures; medication safety; a community health project; and efficient utilization.

- Bridges to Excellence (BTE) designated per member, per year bonus payments to physicians for meeting the requirements of its Diabetic Care Link, Cardiac Care Link and Physician Office Link programs. The demonstration occurred in Boston, Cincinnati, Louisville and upstate New York. Clinical performance scores for the clinical measures were based on National Committee for Quality Assurance (NCQA) measures. In addition, bonuses were linked to the innovative use of information technology. Bonus payments were designed to share the actuarial expected savings to employers with accredited physicians.
Integrated Healthcare Association (IHA) created a single, multi-health plan set of measures which included clinical quality (50 percent), patient satisfaction (30 percent) and information technology investment (20 percent) measures for physician groups. Financial incentive payments were paid directly from seven health plans to contracted groups in accordance with individually designated and independently operated health plan P4P programs. The demonstration included a widely disseminated public scorecard displaying comparable physician group performance, which served as a major nonfinancial incentive.

The Center for Health Care Strategies’ (CHCS) Local Initiative Rewarding Results (LIRR) used incentives to improve child and adolescent access, service, and Health Plan Employer Data and Information Set (HEDIS®) scores in seven Medicaid health plans in California. The health plans also sought to improve the collection and transmission of encounter data from capitated provider groups. Individual health plans’ financial incentives included performance-based risk pool distributions, tiered capitation increases and bonus payments for guideline adherence. Incentives were designed to provide specific dollar amounts per child that met the measure. Several plans offered nonfinancial, age-appropriate incentives for adolescents upon completing a well visit.

Massachusetts Health Quality Partners (MHQP) developed a statewide data infrastructure to enable six major health plans to aggregate HEDIS clinical effectiveness measures across health plans at the physician, group and integrated delivery system levels. Aggregated profiles were used to create a new program of performance feedback and public release of comparable, trended quality performance information. These profiles were designed to overcome the fragmented, multiple, incomplete and sometimes conflicting performance profiles provided by individual health plans. The aggregated data could also be used to evaluate the six health plans’ uniquely designed and operated financial and nonfinancial incentives.

Rochester Independent Practice Association (RIPA) and Excellus Health Plan collaborated to develop a physician reimbursement program based on locally developed care quality guidelines for chronic conditions, cost efficiency measures and patient satisfaction. Patient registries and patient-specific physician notification systems were developed. Each physician’s adherence to guidelines was ranked to determine the annual distribution ranging from 50 percent to 150 percent of a physician’s 10 percent withhold of HMO fees.

Lessons Learned from Rewarding Results and Crosscutting Themes

The design and implementation challenges expressed in these seven demonstrations provide an opportunity to identify lessons learned and implications for Medicare P4P. Six crosscutting programmatic themes emerged from discussions during the December 2006 learning session with CMS: stakeholder engagement, infrastructure, incentive methodology, continuous quality improvement, transparency, and measuring and evaluating impact. The Rewarding Results lessons and implications for Medicare P4P in each of these thematic areas are discussed below.

“Pay for performance is not simply a mechanism to reward those who perform well; rather, its purpose is to encourage redesign and transformation of the health care system to ensure high-quality care for all. In such a system, all participants, providers, purchasers, and beneficiaries can potentially benefit.”

—Institute of Medicine, Rewarding Provider Performance: Aligning Incentives in Medicare, National Academies Press, August 2006.

I. Stakeholder Engagement

Purchasers, providers, consumers and health plans are all important stakeholders in P4P initiatives. Providers are central, as the care they provide is measured for quality by both payers and patients. Their role in the health care system makes provider engagement in any process reform invaluable to the longevity of changes made.

Because of their financial interest, purchasers have historically had a significant interest in assessing the value of health care services. Although their interest was initially focused on appropriate pricing, purchasers have had a significant role in assessing whether the services they were purchasing were of high quality and were consequently of sufficient value to justify the expenditure.

In recent years, there has also been a push to motivate consumers to become more actively involved in their health care. Getting consumers involved is vital to the success of P4P initiatives because a significant portion of health care takes place outside the provider’s office. In addition, consumers can play a role in P4P by actively seeking high-quality providers and making informed health care decisions.

Research has not found the best way to present information to consumers to get them fully engaged in their health care, yet evidence has shown that information must be presented in an easy-to-understand format. In their work on consumer activation, Judith Hibbard, Dr.P.H. and colleagues note that although the need for informed and activated consumers is widely accepted, a central theory to guide activation is “underdeveloped.” Essential to the ability to engage consumers in their health care and P4P programs is an understanding of what will activate them, including how best to leverage the physician-patient relationship. Much more research is needed in this area.

Lessons From Rewarding Results – Stakeholder Engagement

A consistent lesson from the Rewarding Results demonstrations is that stakeholder engagement must be factored into every step of the design and implementation of a P4P initiative in order to maximize impact. In addition, methods for measuring stakeholder engagement (e.g., surveys, focus groups, expert panels) should be identified as part of the first step in P4P efforts. Opportunities to accelerate quality performance are forfeited when stakeholders are not engaged in the initiative. The absence of effective strategies to engage key stakeholders can result in

Rewarding Results Experiences: Stakeholder Engagement

Involving recognized local champions and other stakeholders in the evaluation and selection of measures enhanced provider acceptance and engagement in RR sites. For example, both IHA and MHQP developed large and representative stakeholder councils to provide advice about increasing engagement. Public hearings were held and provider input was received before quality measures were selected. RIPA developed several locally approved measures based on community standards.
program failure for reasons such as lack of participation, misunderstanding, distrust over actual costs and who benefits, and lost opportunities for stakeholder-initiated redesign of clinical systems.

Provider Engagement
Based on extensive literature review and research, the Rewarding Results National Evaluation Team developed a conceptual framework identifying dimensions of provider attitudes that influence the effectiveness of financial incentives for quality. The specific dimensions are provider awareness of the quality incentive, size and structural salience, clinical relevance of quality targets, accountability for targets as measured by provider control and required cooperation, and unintended consequences.

A recent article by Mark Meterko, Ph.D. and colleagues noted that providers must be motivated to initiate changes to their practice style, and this motivation is likely affected by their understanding of the incentives and measures being used. Providers must also feel that they have control over outcomes and quality targets, such as the ability to cooperate with other physicians or specialists involved with a patient. A study examining performance-based quality improvements for diabetes care noted that engaging providers from the beginning of P4P systems is critical. When developing measures, for example, eliciting the expertise of providers helps to eliminate skepticism among the provider community.

Translation to the Medicare Environment – Stakeholder Engagement
Providers
Medicare has the unique ability to make significant strides toward improving the health care system through P4P because it contracts with nearly all providers and has the largest market share in the health insurance industry. Medicare’s more than 42 million beneficiaries account for the bulk of payments to providers. However, market share alone may not be sufficient to motivate change among its providers. Significant efforts may be needed to engage providers, which will be vital to the development and implementation of a performance-based system. As shown in the Rewarding Results sites, engagement of providers is necessary to overcome barriers to program success.

There are several specific actions that Medicare can take to promote engagement among providers:

- Design programs that can be tailored to local provider preferences and behavior.
- Involve providers in the development and selection of performance measures.
- Facilitate discussion and communication between different provider types and encourage the sharing of performance information to inform referrals and improve professional responsibility.
- Solicit feedback on performance reporting, such as what format of performance reports is most helpful in determining what needs to be improved.
- Personalize communication with providers. (While this will be difficult because of the number of providers working with Medicare and the potentially high costs, it will likely prove substantially important to the success of the program).

Consumers
Medicare beneficiaries may prove more challenging to engage than consumers in Rewarding Results due to their advanced age and poorer health status on average. However, early results from Medicare Advantage and the implementation of Medicare Part D have shown that it is possible to engage consumers to make informed choices. There are a number of steps Medicare can take to encourage consumer engagement in P4P:

- Implement mechanisms that help providers engage patients in their care and provide reminders based on medical records of when services or treatments are needed. (This is especially helpful in the Medicare population due to the prevalence of chronic illnesses, which require continuous care.)
- Inform patients about any changes being implemented (e.g., local information sessions).
- Provide patients with easy-to-understand performance information on their providers or providers in their area so that they can make decisions regarding their own care if they choose.
- Ask for patient feedback at several stages during implementation so that if the changes being made administratively or clinically are negatively affecting the patients, they can be identified and remedied as quickly as possible.
- Involve community organizations, as was done with Medicare Part D, to provide personalized help to patients who want to become engaged.

Health Plans
While Medicare holds the largest market share among health plans and, therefore, drives the systems and policies that are used, it is important for all payers to work toward the same goals. Unlike Medicare, health plans rarely contract with all providers in a region, and most providers contract with more than one health plan, making it difficult for one health plan to make a significant impact on quality in a region. Stakeholder interviews have shown that providers are driven by compensation method. By working together as an industry, health plans should be able to drive providers to provide high-quality and medically appropriate care, just as they were able to control health care costs through managed care in the 1990s.

While CMS can begin to motivate change with private health plans through changes to the Medicare Advantage regulations, involving private plans in the development of changes to the Medicare system might encourage more rapid expansion of performance measurement across the entire health care system. In general, the best way to engage private health plans is to involve them in all discussions, but there are more specific actions that Medicare can take to foster industry relationships:

- Utilize best practices that have been learned through private health plans’ many P4P initiatives.
- Ensure that requirements under Medicare Advantage are consistent with those in Medicare fee-for-service so that providers are exposed to similar requirements from both programs.
- Involve health plan representatives in discussions with providers regarding performance measures so that plans use standardized performance measures, when possible.
- Work with plans to limit the administrative burdens associated with reporting performance measures across the entire health care system.

II. Infrastructure
Infrastructure refers to the physical environment in which care occurs and the systems that are in place to provide care. In P4P, infrastructure includes a variety of data and health information technology (HIT) systems that are necessary to implement the payment system. It also includes the communications activities that provide feedback to the providers and signal when improvements are necessary.

Lessons From Rewarding Results: Infrastructure
Experiences from Rewarding Results have shown that infrastructure changes are often necessary to meet the quality improvement goals of P4P. Changing the infrastructure to obtain P4P rewards is an opportunity for more effective and efficient redesign of care delivery and can result in more
accurate reporting on quality measures almost immediately. In the demonstrations, some participants questioned whether performance had really improved or whether the same level of quality had been maintained but was now being captured and reported.

While better measurement may not reflect actual changes in provider behavior, infrastructure changes are likely to increase overall quality outcomes. For example, at one BCBSM site, changes in infrastructure included changes in IT systems. The process of making IT system changes had the positive effect of opening communication channels between finance and nursing departments. Changes in infrastructure at MHQP and IHA included steps to achieve multiple payer data aggregation, uniform measurement sets, common IT systems, and return on investment calculations. Changes in provider behavior, infrastructure, and administrative data validity are generally less than for medical records. Provider acceptance of administrative data validity is generally less than for medical record data. Providers are often concerned that claims data are not adequate for measuring clinical performance.

The Medicare Payment Advisory Commission (MedPAC) has emphasized that data collection and analysis for P4P should not be unduly burdensome and should be based, where possible, on data sources from which Medicare already collects. Most Medicare data are administrative, generally meaning that they come from provider claims or discharge abstracts. Administrative data are a good source of process information but yield fewer outcome measures than medical records. Provider acceptance of administrative data validity is generally less than for medical record data. Providers are often concerned that claims data are not adequate for measuring clinical performance.

Currently, Medicare has very little access to clinical records and faces many challenges in presenting data at the patient level. While Medicare, as the largest national payer, could leverage its market share to promote increased investment in clinical data collection, the program currently faces significant challenges in acquiring clinical data in a uniform format. In addition, mechanisms to collect clinical data, such as chart abstraction, can be very labor-intensive and expensive. If CMS adjusts for differences in patient populations, data collection and analysis costs and burdens will be ever greater. This may be necessary since risk adjustment is generally less effective when administrative data are used because detailed clinical information is unavailable. In the short term, Medicare may want to consider investing in smaller-scale clinical data pilots that build off work that is already taking place in certain communities.

**Measures Selection**

Developing a robust measurement set is crucial to P4P success. Rewarding Results sites have used a wide array of performance measures in their P4P initiatives, including many process measures, as well as some structure, outcome and patient experience measures. Three RR sites—BCBSM, IHA and RIPA/Excellus—implemented efficiency measures. Some measures used in RR sites were nationally developed (e.g., HEDIS or Joint Commission measures), while many others were developed locally (i.e., “homegrown” measures). As CMS continues to develop and refine its Medicare P4P programs, several questions related to measures selection will be dominant:

How should performance measures be selected? It is important to start by narrowing down the most relevant types of measures to concentrate on, then defining the criteria. Measures need to be valid, evidence-based and clinically relevant. Many providers may already be deluged with multiple performance measures from different payers. Therefore, coordination and alignment of measures with other key national organizations can decrease data collection and reporting burdens. There are, however, relatively few nationally accepted measures at present.

What types of measures should be included? Measure types include structure, process and outcome. Based on a 2005 Medvantage survey,

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**Spotlight on Rochester Individual Practice Association/Excellus Health Plan**

RIPA/Excellus was able to achieve system change using timely and accurate provider feedback. They collaboratively developed an infrastructure so that physician-level reporting could be distributed three times per year. Patient registries were provided to identify missing quality services. In addition, provider relations personnel were hired to increase contact and communication with providers when reports needed clarification.

**Rewarding Results Experiences: Infrastructure and Return on Investment**

A common complaint in the demonstration projects has been that the incentives are not large enough to offset the cost of required infrastructure changes. Some administrative costs are reduced when a stable, common set of evidence-based quality measures are identified by multiple payers. It is recommended that the cost of infrastructure change be estimated, measured and included in the calculation of return on investment to help identify opportunities for greater efficiency.
91 percent of P4P programs target clinical quality measures, 50 percent target cost efficiency, 42 percent target HIT, and 37 percent include patient satisfaction measures.

Efficiency measurement is an emerging area of focus. While cost efficiency has not been a focus heretofore, many purchasers are recognizing that efficiency and quality must be measured together. However, there is a lack of agreement on how to measure provider efficiency. The IOM defines efficiency as avoiding waste. Other definitions include relative level of resource consumption and associated costs in the production of health care services, and the relationship between resource inputs and care outputs. The science behind efficiency measurement is currently weaker than most clinical quality measures. To the extent CMS considers including efficiency measures in its P4P demonstrations, it has an opportunity to significantly influence how efficiency measurement is defined.

How many measures should be included? If the principal focus of the P4P initiative is on quality improvement, a small set of measures should be identified. If the focus is on rewarding quality and/or efficiency, a larger set of measures is more appropriate in order to get the “big picture.” Because most P4P programs aim to support quality improvement as well as reward strong performance, Medicare may want to consider a middle ground that includes a manageable set of measures that are most representative of provider performance.

HIT Adoption
A 2005 survey of P4P initiatives showed that 42 percent of P4P programs incorporated specific HIT requirements. These initiatives include electronic health records (EHRs) and electronic patient registries. For several Rewarding Results sites, HIT adoption has been a significant part of their experience, and the intersection of HIT and P4P has manifested itself in several ways.

Many experts think that providers’ ability to report data for P4P and other quality initiatives hinges on widespread adoption of HIT, and P4P has the potential to transform HIT into a tool for quality improvement rather than simply the translation of medical records into electronic format. CMS is in a unique position to significantly influence widespread HIT investment because of its dominant market share. For example, Medicare could incent electronic medical record adoption by paying for outcomes, helping incorporate lab data into electronic databases, or promoting the use of patient registries for quality improvement as a step toward more widespread adoption of electronic health records. However, some argue that without significant additional investment, only the best-resourced providers can invest in and redesign workflow processes to incorporate these technologies. Many health care providers still do not use HIT, and those who do have HIT systems may have systems that are incompatible with others and have difficulty transferring and translating data.

Communications
Many P4P sponsors have found that important infrastructural changes need to be made to facilitate provider feedback and communications. In particular, while it can be challenging to attract providers’ attention, giving frequent, clear and actionable feedback to providers has been found to be extremely important to improving performance. Tools to raise provider awareness of P4P, as well as infrastructure to facilitate regular communications between providers (e.g., patient registries), must be considered.

Medicare faces certain unique challenges in providing actionable feedback to providers. In particular, there are implicit challenges in providing patient-level feedback to providers and promoting patient-level data sharing among providers in a fee-for-service environment. Each provider will have different systems of communication. Furthermore, targeting providers within organizations such as integrated delivery systems or other groups may add additional challenges. Consideration should be given for using QIOs, claims processing contractors or local medical societies, which already have established vehicles for communication.

In addition to considering communications infrastructure for providers, Medicare P4P programs must also consider beneficiary engagement. For example, Excellus has extensive experience with providing reports to patients. However, given Medicare’s many rules to protect beneficiary-level data, there may be significant challenges with CMS providing beneficiaries access to their individual data.

III. Incentive Methodology
Incentives can be financial or nonfinancial. Nonfinancial incentives are generally reputational in nature, but they may drive referrals to or from providers. Financial incentives can include a reallocation of existing payments or additional new payments.

Payment changes, whether attached to performance measures or not, have been shown to have significant effects on provider performance. Questions still remain as to how payment incentives will improve health care quality and how they will interact with the underlying payment methodology. It is also important to note that payment incentives do not always reach their intended target. Physician groups have been shown to change the structure of the payments to individual physicians, which could reverse or change the effects of the intended incentives or disincentives.
While payment changes have been shown to change the usage patterns of providers, they must be significant in order to have an impact. An evaluation of a performance-based reward system in upstate New York noted that reward programs have traditionally not been designed to produce real results in quality of care, stating that most do not use financial incentives that are significant to physicians. A recent literature review of P4P initiatives found that, in general, “small-scale interventions do not appear to capture the attention of physicians.”

Meredith B. Rosenthal and Richard G. Frank also noted that because of the multipayer system, any incentive by a single payer “must be a relatively large percentage of total reimbursement by that payer to justify any quality improvement effort with substantial fixed costs.” The good news for Medicare is that prior research has indicated that physicians change their behavior based on the dominant payer.

The timing of incentives must be considered in a performance-based system, as it can affect behavior as much as the size of the incentives and efficacy of the measurements. Behavioral psychology has shown that in order to change behaviors, rewards must be provided in a timely and regular fashion. A literature review done by Laura A. Peterson, et al. suggests that intermittent payments have more of an effect than “end-of-year” type incentives because of time delays between the actions being performed, their measurement and the reward. Because of the variability of the health care system, it is nearly impossible to determine an exact number of incentive payments per year to best instigate change among providers.

Payers have several options when considering payout criteria. In the early stages of an initiative, payments for participation—especially reporting—are common. Key to this stage of P4P is the provision of timely and accurate information. Once the data are considered valid and reliable, then the accumulation of points for meeting pre-specified criteria must be developed. There are several options for payout criteria, including meeting certain thresholds, improvement or rankings.

Each method for determining payout criteria has advantages for a provider at a specific level of performance. Threshold performance distributions tend to favor existing high performers, since they are near the top to begin with. On the other hand, percent improvement distribution criteria tend to favor low performers, since they have more room to improve. Finally, distributions based on ranking by individual relative score tend to result in greater competition among providers.

One of the major critiques of performance-based payment systems lies in determining what part of the health care system affected a particular outcome. For example, how do you account for a physician...
who provides additional preventive or monitoring services and therefore keeps a patient out of the hospital. While the physician is utilizing additional services, they likely cost less than the avoided hospitalization. In some cases, the physician may consult over the phone or by e-mail and, therefore, is not traditionally compensated for the time being spent or for helping to avoid a costly hospitalization. Recently, work has been done exploring the use of various methods of physician profiling and their ability to effectively attribute care to an individual provider level. In June 2006, MedPAC reported that episode groupers could link quality indicators to responsible physicians the majority of the time, and that in most cases a single physician was responsible. These groupers, however, determine attribution between physicians and do not account for differences in costs and savings for hospitals, skilled nursing facilities, hospice or any other provider.

Lessons From Rewarding Results – Incentive Methodology

Nonfinancial incentives appeal to both providers’ competitive nature and professional ethos to excel. At this early stage, it is unclear whether this method affects a provider’s market share. However, payers in the MHQP and IHA markets are designing incentives for consumers to select providers with higher-quality scores. Consumer incentives have included reduced co-pay requirements and lower deductibles.

Rewarding Results methods to provide financial incentives include placing a percentage of financial withhold at risk, a direct bonus or a combination of both approaches. At RIPA, 10 percent of providers’ HMO fees were set aside as withhold to be at risk. Between 50 percent and 150 percent of this withhold amount could be returned to the provider depending upon their ranked score. At BCBSM, hospitals were offered a direct 4 percent bonus in DRG payments for meeting quality measures. BTE offered physicians a $100 bonus per member per year for obtaining NCQA recognition for excellence in diabetic care.

Other projects found that their initial incentive methodology may not have generated the outcomes expected. Although, as noted in the MHQP slide, there are a number of things that could mitigate incentive efforts. BTE, for example, learned that offering incentives at 5 percent to 10 percent of physician revenue (roughly $10,000 to $15,000 per physician) provided meaningful encouragement to engage in performance improvement efforts.

MHQP Lessons Learned

- Incentives may have been too small
  - > $100,000 per group and/or > $1,000 per PCP across all health plans for that measure, except summed for DM
  - Across all 11 HEDIS targets of HI groups showed improvement 2001-2003 comparable – but not superior --- to controls.
- Type of incentives may not have been effective
- It may take longer than 2 years to see the impact
- P4P effect may be masked by other secular trends including public reporting.

For an incentive methodology to be effective, providers must understand and be in control of the services that are included in the quality measurements. Payers must know that payments are justified. In general, the available pool for payments is usually determined by the strategy self-interest of the payers without reliable cost-to- implement information from providers.

Reallocating or redistributing existing fee payments based on new quality criteria weakens the power of payers’ financial incentives. Additional payments based on new quality criteria strengthen the power of financial incentives. The distinction between financial incentives from new money and old money is not lost on providers. When total incentive payments do not fully compensate for the cost of changes required in provider behavior, it is not likely that provider engagement will be sustained. In addition, as the methodology for measurement, calculation and reporting incentives becomes more complex, the understanding and acceptance of incentives is weakened.

The more the payout is directly related to the quality of service and the shorter the timing between the two, the better. One demonstration shifted from an annual payout to a rolling fee schedule enhancement and increased the potential incentives to 14 percent for PCPs and 12 percent for specialists. Another demonstration changed its annual physician feedback to three times per year to increase provider’s opportunities to improve their quality of care.
Translation to the Medicare Environment – Incentive Methodology

Size of Incentives
Medicare could have a significant impact on provider behavior because, in most cases, it is the dominant payer, and other payers follow its payment lead. Medicare can take the following specific actions to help ensure that quality changes occur:

- Use large-scale financial incentives based on the fixed costs of services to elicit a change in usage behavior by providers.
- Work with other payers to align financial incentives collectively so that the incentives do not work against each other.
- Scale financial incentives based on the “additional” work being done or time spent by the provider.
- Utilize both financial incentives and withholdings on top of base payments.

Timing of Incentives
As several of the Rewarding Results sites have reported, frequent payments and feedback encourage greater change among providers. But providing payments and feedback often, without being an overwhelming administrative burden to either Medicare or the providers, will prove a challenge. To execute a frequent payment and reporting system, an infrastructure must exist to support rapid data analysis and accounting mechanisms. There are several actions that Medicare can take to ensure that the timing of financial incentives is appropriate for a P4P system:

- Improve data sharing within CMS and its contractors so that available data can be used by multiple offices at the same time, allowing performance data to be evaluated more quickly and incentive payments to be paid out closer to the time of service.
- Establish incentive payments to occur several times a year.
- Set explicit goals for timelines of incentive payments as the initiative is put into place, with timelines becoming closer to the time of service as time goes on.

Attribution
The attribution of care and savings is extremely important for Medicare because the payment structures and financing for Part A and Part B are distinctive. The Physician Group Practice (PGP) demonstration has broken new ground in compensating large physician groups for realized savings in hospital and other Part A services. In addition, Section 5007 of the Deficit Reduction Act of 2005 (DRA) called for Medicare to establish a demonstration project that would share financial gains between hospitals and physicians that work together to improve the quality and efficiency of care.7 These demonstrations should serve as a model for attributing savings between different provider groups.

Although significantly more research needs to be done in this area, Medicare can begin to distribute incentives accordingly by:

- Aligning incentives for providers to effectively provide preventive and maintenance care to avoid hospitalizations across all providers.
- Encouraging partnerships among providers, enabling smooth tracking of patients and attribution of savings.
- Promoting accountability by linking providers to the patient populations they serve when measuring quality.
- Establishing and evaluating acknowledged quality measures for transitions between settings.

IV. Continuous Quality Improvement
One of the most important goals of P4P is to motivate providers to improve quality. In order to achieve reliable improvements in quality outcomes, the processes of care need to be carefully examined and reengineered to make it easier for physicians to do the right thing. Identifying the processes of care that need to be reengineered is an intensive activity that cannot be dictated from a payer or a central source but must be undertaken locally. In many cases, local expert panels or medical specialty societies have been used successfully to set standards, but providers within the organization must then examine current performance compared to the standard and identify a pathway for improvement. Within organizations, blinded peer comparison has been a helpful tool.

The process of taking quality measures, identifying care process systems that impact those measures and systematically examining those processes for potential improvement is a time-intensive, laborious activity, but it is essential to identify points of weakness in the system. Data are crucial for this activity and need to be timely so that they can truly impact performance.

While systematic quality improvement is the ultimate goal, continuous quality improvement and care process redesign require a deep focus on a small number of measures rather than a large data set. Each measure needs to be taken apart: examination of the patient population, what services were or were not provided, and by whom. Once sustained improvements have been obtained, new measurement sets can be updated and new goals can be set. This may require more customization of measures to particular providers.

Patient Registries
Patient registries are a way of organizing patients by relevant clinical information, such as diagnosis. Registries can be simple lists or more interactive components of an electronic health record. Registries are an important tool in care process redesign because they allow for like cases to be grouped together to facilitate similar care being provided to each patient. In addition, care can be analyzed at the patient or practice level rather than at the visit or service level. Patient registries can also be used to bring patients into the office for recommended follow-up care or preventive services to increase the likelihood of improved quality.

Electronic Health Records
Electronic health records (EHRs) are an important quality improvement tool because they facilitate the collection and analysis of data. In addition, they can be developed to incorporate reminders and pathways that make it easier for providers to give the appropriate care to patients. For example, EHRs can be designed with reminders that pop up when routine or preventive care is due and can warn physicians before prescribing contraindicated medications (i.e., medications that will interact with existing medications). While EHRs are a useful tool and will significantly reduce data collection and analysis costs, it is possible to implement quality improvement without EHRs.

Other types of technology that can be utilized to improve care include electronic prescribing tools that link physician offices with pharmacies and tools that link physician offices with laboratories for faster reporting of results.

Technical Assistance
Technical assistance is an important tool for care process redesign, especially for smaller practices that may not have sufficient staff or sophistication to analyze data and map measures to processes and outcomes. Some technical assistance methods that have proven useful include facilitating discussion among providers and case study analysis of high performers to identify any successful processes that are transferable to other settings.
Changes to the measurement set to reflect progress and facilitate improvement must be made with care. IHA’s Technical Committee proposes changes to its uniform measurement set annually to reflect progress and continuous quality improvement initiatives. Public review and comment periods are offered to all stakeholders, followed by rigorous testing of measurement specifications and distribution of sample results. During a normal two-year process, new standards for P4P are formalized. This consultative process ensures that changes are agreed upon by all stakeholders and facilitates their implementation.

Data challenges related to billing codes and data collection and aggregation are frequently a barrier to continuous quality improvement. While new data collection via chart review was feasible in the BTE demonstration, all the other demonstrations relied upon administrative claims data, so inaccuracies in data must be factored into expectations. For example, at health plans participating with IHA it was anticipated that data collection inaccuracies would make 100 percent compliance with quality improvement goals unrealistic. One health plan paid 100 percent incentives for clinical and service quality if the group scored at or above the 75th percentile. Until data accuracy improves, P4P initiatives favor payer-provider negotiation on selected quality targets and reasonable expected ceilings for improvement rates. It is anticipated that expanding HIT, including the EHR, will improve data accuracy and make 100 percent compliance feasible.

Accurate and timely performance feedback tools should precede annual performance measurement. At MHQP, provider groups received condition-specific patient registries and timely patient-level actionable information. At RIPA, a medical director was charged with providing training opportunities and technical assistance to identify patient-level interventions. Provider-specific, blinded, peer comparison of adherence to quality measures proved an excellent motivator for quality improvement.

BCBSM suggested that incentives should focus on chronic care management and prevention and that rewards should be given to physicians who participate in collaborative approaches to identify new process and outcome measures. IHA demonstrated that limiting data collection to electronic efforts limits the capabilities, but it recognized that forcing the collection of electronic data through EHRs would improve data collection and exchange. Noting that administrative data is not sufficient for meaningful measurement, IHA recommended utilizing patient registries as a source of quality improvement efforts.

While data are the key to quality improvement, various tools have been used by other organizations to organize the data in a way that facilitates understanding of existing limitations and potential for change. Some demonstration sites, such as LIRR, have seen initial success with P4P initiatives but believe that further improvement may require technical assistance and quality improvement supports to improve impact.

While formal facilitation of quality improvement activities—where knowledgeable staff provides benchmarks, analytic support and guidance to initial activities—is particularly beneficial, providers sitting down together informally to discuss baseline measures and identify potential paths to improvement can also be helpful. According to the RIPA project: “There was an observed tension between primary care and specialists…RIPA put everyone in the same room to make them discuss things together.”

A number of sites suggested that engaging consumers in the process would be an important addition to any program and one way of doing this is to foster increased relationships with patients outside of the office. This could include a range of improvements, such as encouraging the use of personal health records that can be updated by any provider or implementing a nurse outreach program to contact patients in need of chronic care by phone or e-mail between office visits.

Spotlight on Local Initiative Rewarding Results (LIRR)

Through provider interviews, LIRR realized that P4P had helped change the way well-baby care was provided. In many instances, providers reported increased outreach to schedule visits; others reported greater follow-up to their usual reminders. In a small number of instances, providers utilized sick visits to also perform well-baby care for those who had not scheduled it previously or were overdue.

Lessons From Rewarding Results – Continuous Quality Improvement

An important lesson learned from Rewarding Results is that care process redesign and continuous quality improvement methods are compatible with P4P initiatives because these initiatives are often data driven and designed to help physicians improve their work. For example, BCBSM did not pay out any incentives to hospitals unless performance met or exceeded the highest mean since the inception of the program. Continuous improvement was both expected and required.

When sufficient improvement is made, it may be appropriate to retire measures to focus on other aspects of care. However, this must be done carefully to avoid too many changes that may result in unsustainable quality improvement and wasted time and costs for providers to reach quality goals.

Spotlight on Bridges to Excellence

BTE structured its rewards so that offices will reinvest the money they get from the rewards. If providers can be encouraged to invest the money into structural improvements to sustain quality improvement, the demonstration has the potential to have impact far beyond the demonstration period.

Spotlight on Blue Cross Blue Shield of Michigan

In the BCBSM demonstration, several successfully engaged hospitals reported that redesigned care systems enabled improved scores. For example, facilitating the discharge planning process made it easier for physicians to comply with quality measures and achieve higher-quality scores.
Translation to the Medicare Environment

Care Process Redesign
Making timely data available to inform quality improvement activities has the potential to be challenging under Medicare, given the volume of data to be collected and analyzed and depending on the type of data to be used. To the extent that claims are used for quality measurement, providers may need to develop the capability to measure and track their own performance or special arrangements may need to be made with a contractor to provide early feedback. If other data are used, such as clinical data from chart reviews or other sources, arrangements may need to be made for providers to retain access to their own data upon collection and submission to CMS.

Medicare can foster continuous quality improvement and process redesign in a number of ways:

- It can allow and encourage some customization of measures by provider groups or organizations so that local providers can identify quality improvement targets that are most relevant to them. This might require a standardized set of measures and an optional list of measures that local providers could choose from.
- It can encourage solo practitioners and small groups at a local level to organize into collaboratives. QIOs might provide technical assistance and an infrastructure for these local groups to analyze data, map data to processes and identify potential process changes.
- It can document successful local efforts through case studies and disseminate them widely. These case studies provide concrete examples for other providers contemplating change and have proven useful in some demonstrations.

Tools
There are a number of tools that CMS could provide to facilitate quality improvement:

- CMS could encourage the use of registries within large provider groups and regionally in rural areas or among solo and small group practices. Software and training could be provided free to practices, or incentives could be built into the system to reward providers who use registries. Since most registries are disease specific, care must be taken to incorporate the recognition that patients—especially Medicare beneficiaries—may have multiple chronic diseases, otherwise, these registries can promote fragmentation.
- While EHRs and other HIT are not a necessary component of quality improvement, they make data collection and analysis easier. CMS could incent the acquisition of EHRs and other HIT by making HIT acquisition and use one of the performance metrics.
- The QIOs or other contractors could provide technical assistance, especially for small practices.

V. Transparency
Transparency involves providing detailed, reliable, comparable cost and quality information to all stakeholders. Some of the information required for transparency includes explicit quality standards, comparable payout standards and the amount of rewards for high-quality health care.

P4P and public reporting are often viewed as complementary initiatives. Public reporting is sometimes used as a phase-in strategy for P4P, giving purchasers and providers time to focus on data collection and measurement before there is a financial stake. While many public reporting or “honor roll” programs are used as incentives in P4P, few studies have looked at the effects of report cards relative to P4P, and the value of public reporting remains undemonstrated. One study of facilities enrolled in the Premier demonstration did find that Premier facilities experienced more quality improvements than those hospitals participating only in a public reporting program.29

Advocates for public reporting argue that it injects competition, helps providers benchmark their performance, encourages purchasers to reward quality and efficiency, and helps patients make informed choices.30 There is general agreement that public reporting must be timely, relevant and intelligible. Critics of public reporting commonly cite that cost and charge information are complicated to present, results may not be comparable, data accuracy and validity are difficult to assess, sample sizes may be insufficient, and risk-adjustment may not be applied appropriately. Public reporting may also have some unintended and negative consequences on health care.31 For example, providers may avoid sicker patients in an attempt to improve their quality rankings, or they may be encouraged to achieve “target rates” for certain interventions even when it may be inappropriate for certain patients.

Translation to the Medicare Environment - Transparency
As a government program, Medicare must operate in complete transparency. In addition, there is a tremendous push towards more transparency across the health care system. The Bush administration’s Value-Driven Healthcare agenda promotes public reporting and transparency. In February 2007, CMS announced plans to make physician performance data available to all stakeholders. Some of the information included in these demonstrations and EHRs become more common, there will be increasing opportunity to provide transparent overall cost and quality information. MHQP and IHA learned that initial measurement, payment and reporting is statistically more reliable at the highest organizational level (physician group vs. individual physician) and with the largest population (multiple payers vs. individual plan). Meanwhile, comparable group, regional or national averages can serve to overcome statistical issues when physician profiling is based upon limited patient encounters.

Spotlight on Massachusetts Health Quality Partners
MHQP’s explicit, multiyear, public reporting plan designed to progressively report from the highest organizational level toward the individual provider motivates greater provider participation.
Medicare beneficiaries through the Better Quality Information to Improve Care for Medicare Beneficiaries (BQI) Project. Regional collaboratives will combine Medicare claims data with other insurers’ data to produce comprehensive information on health care providers. The goals are twofold: to help physicians assess and improve their performance and to help beneficiaries make more informed decisions.

Medicare has a long history of reporting initiatives. In 1984, HCFA (now CMS) began publicly reporting hospital mortality rates for Medicare; however, these reports were controversial and short-lived. More recently, Medicare developed a number of public reporting initiatives for different provider settings. In June 2006, CMS began posting hospital-specific charge and payment information for 30 common procedures. In addition, Medicare payment information is now available at the county level for physician services, ambulatory surgery centers and hospital outpatient departments.

As Medicare considers public reporting investments for the future, it will be important to think about how public reports like Hospital Compare can provide a feedback loop for quality improvement at the provider level. CMS may want to consider a hybrid reporting arrangement in which public reports are available at the group level and private reports are available for individual providers for quality improvement purposes.

VI. Measuring and Evaluating Impact

Although there is much interest in the potential for P4P to improve quality, and CMS is committed to implementing this approach, it is not a foregone conclusion that P4P will yield quality improvement.32 Measuring and evaluating impact is critically important to ensure that scarce resources are used appropriately and the intervention is having the desired impact.

Measuring and evaluating impact from P4P should ideally occur at two levels: at the level of the provider that is being assessed to ensure that quality is being improved and at the programmatic level to ensure that program resources are being used appropriately and effectively. While this discussion is mostly focused on evaluating impact at the provider level, many of the aspects will also be relevant to programmatic evaluation.

In general, evaluation of impact can be complicated by a number of factors:

- Timelines can impact the potential for success. Some measures could result in improvement more quickly, while others may take some time to become apparent. Selecting the right measures and having appropriate expectations about when effects are likely is important.
- Impact can vary by population or disease group. Some provider groups may have a more difficult time showing improvement because of their patient population. However, risk adjusting the population by disease status or other factors may be somewhat controversial. Should providers that treat a more challenging population be held to a lower standard?
- Data quality may vary by provider. Steps to ensure complete reporting and audits to ensure accuracy are important to be certain that observed changes are due to changes in quality and not changes in reporting or data accuracy.

Determining attribution is difficult. Most patients are seen by a number of providers, and holding individual providers responsible for care may pose problems. In addition, the current fragmented environment in which different providers are reimbursed in silos offers little incentive or ability to recognize improvements in quality implemented by one provider group that impacts care in another setting (e.g., improvements in outpatient care may reduce hospitalizations). Despite these challenges, attribution is critical to defining denominators from which to measure performance for either quality or efficiency.

Lessons From Rewarding Results – Measuring and Evaluating Impact

Rewarding Results and other programs demonstrate the potential for improvement, but there are numerous design and implementation features that could facilitate success or result in no impact. In spite of the potential for confounding effects, a systematic evaluation of P4P initiatives is required to inform senior decision makers about the role and value of incentives to improve quality. However, because of the complexity, experts in evaluation and attribution need to be involved as early as feasible in P4P programs.

In the absence of a randomized control trial, well-designed natural experiments and before-and-after observations provide opportunities to evaluate the impact of P4P in general and the impact of potential design and implementation options. RR evaluators have found that maintaining the continuity of the same providers, measured with the same evidence-based quality standards, and using the same reward calculation throughout the project make for a cleaner evaluation.

Demonstrations used multiple approaches to address the statistical concerns for a provider with a small number of patient encounters. At RIPA, the plan was to substitute the medical specialty or group average quality score. At BCC, individual measures are combined into composite scores and ranked as above, at or below peer mean scores. These composite scores include clinical quality, generic prescribing and administrative compliance, and efficiency categories. Efficiency measures often include radiology and imaging utilization and hospital length of stay.

There were some early lessons about calculating an all-stakeholder return on investment (ROI). Efforts at BCBSM, RIPA and BTE have resulted in P4P being used as a method to evaluate the investment and return to the payers and providers from specific initiatives. Early results indicate that incentives may not cover the cost of required interventions for each of the stakeholders and benefits may not flow equitably. One approach to deal with the inequitable returns on investment is to evaluate the ROI across all stakeholders, in aggregate, rather than by a plan or provider, and consider apportioning returns to each stakeholder to cover the required costs for sustaining quality enhancing interventions.

Translation to the Medicare Environment – Measuring and Evaluating Impact

Evaluation of impact in the Medicare environment poses its own challenges over and above the challenges experienced in RR. However, the experiences of RR can provide some insights into possible options for Medicare.

Comparison Groups

Measuring the impact of P4P is difficult because often there is no real comparison group. Evaluation of impact usually involves before and after comparisons, but temporal trends, differences in providers and/or patients, changes to data collection, and other external factors can influence outcomes and result in an over or under assessment of the true impact.

RR sites have used creative ways of identifying comparison groups, including comparing performance among different regions and comparing the different levels and types of incentives for improved performance of different models. As P4P is implemented in demonstration sites, care should be taken to identify appropriate comparison groups. While regional variation in intensity and costs may make comparison of different regions difficult, because of Medicare’s large market share it may be possible to randomize within a region to create comparison groups.
Patient Identification and Targeting
Quality measures used in P4P may not be applicable to all patients, and identifying the right patients may be difficult, especially when claims are used. This is because claims data may not include sufficient clinical detail to identify the appropriate subgroup for which measures can be applied. Care needs to be taken so that patient identification is specified in detail and records are audited to ensure that comparable patients are enrolled, measured and reported on accurately. Data collection for HEDIS provides a good model for P4P activities.

Small Sample Sizes
Accurate measurement requires sufficient sample size so that results can be attributed to differences in quality and not random fluctuations in population risk or data collection problems. Although Medicare’s large market share makes small sample sizes less of a problem than for RR sites, sufficient sample size may be a significant problem in small or solo practices and for measures that are disease specific. One solution is the aggregation of data to larger units, such as regions. Elliot Fisher and colleagues have recommended that data for P4P be collected on a regional basis—based on hospital catchment areas—to alleviate the problems of small sample sizes.33 There may be other levels of aggregation that are possible.

Attribution
On average, Medicare beneficiaries see two primary care physicians and five specialists in four different practices a year. Attributing outcomes to a particular provider may be difficult when the patient may have seen numerous providers.34 In the past, CMS has used algorithms to determine attribution, and MedPAC has been examining the utility of different groupers for attribution.35 Recently published research findings substantiate earlier indications that no more than half of beneficiaries’ visits would be accurately assigned under current models.36 Further research is needed in this area to determine how to best attribute beneficiaries’ care so that financial incentives can accurately motivate physicians based on the care they provide.

However attribution is determined, most methods make determinations retrospectively and may be difficult to feed back into a quality improvement process at the provider level and create opportunities for providers to standardize care and improve quality for all populations (e.g., diabetics) and payers (e.g., commercial and Medicare).

Also, attribution generally reduces sample sizes since the unit of analysis becomes the individual physician rather than the group, potentially exacerbating the small sample size problem.

Return on Investment
There are two levels for considering ROI:

- At the provider level, does the potential reward provide sufficient return on investment for infrastructure and other changes that are needed to achieve the reward?
- At the payer level, does the benefit achieved—in reduced expenditures or improved quality—exceed the investment in additional incentive payments?

For providers, the determination depends on the type of behavior that is being incented. For certain types of behaviors—especially preventive screenings—the level of investment to achieve a bonus may be relatively low. Other types of improvements may require relatively large investments, such as in infrastructure when HIT is involved.

Evolution in Strategies
As Medicare moves forward with P4P initiatives, recognizing emerging trends and challenges and incorporating new knowledge will be extremely important in designing and implementing these initiatives.

Summary of Recommendations
Previous P4P demonstrations, like Rewarding Results, provide important lessons for future Medicare P4P efforts. This section provides a summary of recommendations that CMS may want to consider as it moves forward with designing, implementing, evaluating and refining its Medicare P4P programs. These recommendations are discussed in more detail in the sections above.

Stakeholder Engagement
There are several specific actions that Medicare can take to promote provider engagement in P4P:

- Design programs that can be tailored to local provider preferences and behavior.
- Involve providers in the development and selection of performance measures.
- Facilitate discussion and communication between different provider types and encourage the sharing of performance information to inform referrals and improve professional responsibility.

- Solicit feedback on performance reporting, such as what format of performance reports is most helpful in determining what needs to be improved.
- Personalize communication with providers.

There are a number of steps Medicare can take to encourage consumer engagement:

- Implement mechanisms that help providers engage patients in their care, such as providing reminders based on medical records of when services or treatments are needed.
- Inform patients about any changes being implemented (e.g., local information sessions).
- Provide patients with easy-to-understand performance information on their providers or providers in their area, so that they can make decisions regarding their own care if they choose.
- Ask for patient feedback at several stages during implementation.
- Involve community organizations in providing personalized assistance to patients who want to become engaged.

Specific actions that Medicare can take to foster health plan engagement include:

- Utilize best practices that have been learned through private health plans’ many P4P initiatives.
- Ensure that requirements under Medicare Advantage are consistent with those in Medicare fee-for-service.
- Involve health plan representatives in discussions with providers regarding performance measures so that plans use standardized performance measures, when possible.
- Work with plans to limit the administrative burdens associated with reporting performance measures across the entire health care system.

Infrastructure
Medicare can take several steps to improve data management:

- Facilitate the aggregation of Medicare data with other payers’ data sources in a P4P initiative.
- Promote increased investment in clinical data collection, such as investing in smaller-scale clinical data pilots that build off work that is already taking place in some communities.
In order to improve the measures selection process, Medicare could:

- Coordinate and align measures with other key national organizations to decrease data collection and reporting burdens on providers.
- Monitor and influence how efficiency measurement is defined.
- Use a manageable set of measures that can both support quality improvement and reward strong performance.

To influence widespread HIT investment, Medicare could:

- Incent electronic medical record adoption by paying for improvements in care coordination and quality performance.
- Assist with incorporating lab data into electronic databases.
- Promote the use of patient registries on the path toward more wide-scale adoption of electronic medical records.

To improve communications with providers and beneficiaries, Medicare should:

- Consider using QIOs, claims processing contractors or local medical societies to provide actionable feedback to providers.
- Consider ways to improve communications with beneficiaries and increase their engagement in quality improvement.

Incentive Methodology
Medicare can take specific actions to help ensure that incentives lead to quality improvements:

- Use large-scale financial incentives based on the fixed costs of services to elicit a change in usage behavior by providers.
- Work with other payers to align financial incentives collectively so that the incentives do not work against each other.
- Scale financial incentives based on the "additional" work being done or time spent by the provider.
- Utilize both financial incentives and withholding on top of base payments.

There are several actions that Medicare can take to ensure that the timing of financial incentives is appropriate:

- Improve data sharing within CMS and its contractors so that available data can be used by multiple offices at the same time.
- Establish incentive payments to occur several times a year.
- Set explicit goals for timelines of incentive payments as the initiative is put into place, with timelines becoming closer to the time of service as time goes on.

Although significantly more research needs to be done on how outcomes are attributed, Medicare can begin to distribute incentives accordingly:

- Align incentives for providers to effectively provide preventive and maintenance care to avoid hospitalizations across all providers.
- Encourage partnerships among providers, enabling smooth tracking and attribution of savings.
- Establish and evaluate acknowledged quality measures for transitions between settings.

Continuous Quality Improvement
Medicare can foster continuous quality improvement and process redesign in a number of ways:

- Allow and encourage some customization of measures by provider groups or organizations so that local providers can identify quality improvement targets that are most relevant to them.
- Encourage solo practitioners and small groups to organize into collaboratives at a local level, with QIOs possibly providing technical assistance and an infrastructure for these local groups to analyze data, map to processes and identify potential process changes.
- Document successful local efforts through case studies and disseminate them widely.

There are a number of tools that CMS could provide to facilitate quality improvement:

- Encourage the use of registries within large provider groups and regionally in rural areas or among solo and small group practices, with software and training being provided free to practices or incentives being built into the system to reward providers who use registries.
- Incent the acquisition of EHRs and other HIT by making HIT acquisition and use one of the performance metrics.
- Have QIOs or other contractors provide technical assistance, especially for small practices.

Next Generation Pay-for-Performance
As P4P initiatives mature and become more common in different care settings, the next generation of P4P will likely include new types of measures, shared savings and gain-sharing arrangements, a focus on underserved populations, and consumer incentives. In order to sustain quality improvement, P4P programs need to evolve and be refreshed as goals change and targets are achieved.

New Areas of Focus
In addition to paying for performance on quality and efficiency measures, there will likely be new incentive arrangements that reward data collection and reporting functions or pay more for preventive care. In addition, initiatives to incent care coordination and chronic care management of populations that are underserved or more complex may become more common. Incentives could include larger, incremental payments for more complex care, or capital grants, technical assistance or special trainings to support care management.

New Measures
Evolving P4P programs will adopt new measures, update old measures as clinical evidence changes, and potentially retire measures that are no longer useful. P4P sponsors may find that new measures will be needed to support changing priorities and increase emphasis on certain areas.
Care Coordination
Care coordination is intended to improve the patient care process and outcomes for those with chronic illness and co-morbidities. Coordination of care can be a complex process requiring significant infrastructure. In the future, care coordination strategies will likely evolve to better align incentives between purchasers, health plans, providers, and insurers. P4P has the potential to motivate providers and insurers to take a more active role in chronic care management and improve care coordination across settings and over time.

Strategies for Reducing Fragmentation
P4P offers some promise for reducing fragmentation in care. For example, MedPAC has recommended that Medicare consider adding P4P measures such as quality of transfers across settings and patient functioning a year after hospitalization.

Co-morbidities Management
Many Medicare beneficiaries suffer from co-morbidities. It is important that Medicare avoid measuring and reporting on metrics that are not clinically relevant to the population. To date, however, there has been little focus on developing co-morbidities measures.

Point of Care Transformation
P4P is an important mechanism to achieve transformation at the point of care. The appropriate use of data is a key element in successful efforts to transform care. Data requirements under P4P can be a valuable mechanism for providers to set priorities, make changes, measure improvement and ensure sustainability. However, providers need to move beyond “practicing to the measures.” This can be achieved by balancing small, focused initiatives and broader organizational initiatives.

Outcome measures need to be defined around clear, concise and measurable goals. This may require sharing data across settings, since actions in one setting may affect outcomes in another. This is particularly difficult in our current fragmented fee-for-service system, where providers may not see the ultimate outcomes resulting from their actions. This is at odds with the inclination to incorporate measures that providers have control of, since providers tend to have control of more narrow processes of care. More research is needed to create linkages and make providers accountable for their actions. Perhaps incentives need to be developed that drive improvement to larger systems of care rather than specific clinical processes.

Networks and Physician Groups
It is important to keep in mind that some physicians work in group settings, and incentives that are implemented at the payer level may not always be seen at the individual provider level. However, physician groups can provide an infrastructure that may be helpful in driving change. For example, physician leadership within a group may drive quality improvement, and many examples of change involve a local change champion. Data within the group can be analyzed and relative rankings can be used as an educational tool to encourage change. Creative use of clinical, non-physician staff or other systems of care may also enhance quality.

Provider Tools
In addition to using registries, EHRs and electronic prescribing systems to improve quality, providers can also use PDFs and other tools at the bedside to minimize clinical errors. Furthermore, the proliferation of guidelines will provide benchmarks for appropriate care that providers can use to guide their clinical decision making.

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