

U.S. Department of Health & Human Services

Development of a Plan to Transition to a Medicare
Value-Based Purchasing Program for Physician and
Other Professional Services

Issues Paper

Public Listening Session

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Overview

The Centers for Medicare & Medicaid Services (CMS) has articulated a vision for health care quality—*the right care for every person every time*. To accomplish this vision, CMS is committed to care that is safe, effective, timely, patient-centered, efficient, and equitable.

Medicare's current fee-for-service payment systems, which pay on the basis of quantity and consumption of resources, do not support this vision for quality health care. Value-based purchasing (VBP) aligns payment more directly to the quality and efficiency of care provided by rewarding providers for their measured performance across the dimensions of quality. Through a number of demonstration projects, pilot programs, and other efforts, CMS has launched VBP initiatives for hospitals, professionals, nursing homes, home health agencies, and dialysis facilities.

On July 15, 2008, Congress enacted the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA). Section 131(d) requires the Secretary of the Department of Health and Human Services to develop a plan to transition to a value-based purchasing program for Medicare payment for physician and other professional services. No later than May 1, 2010, the Secretary is required to submit a Report to Congress containing the plan with recommendations for legislation and administrative action.

In response to the MIPPA legislation, the Centers for Medicare & Medicaid Services (CMS) created an internal PVBP Workgroup (Appendix 1) that is charged with developing the required VBP Plan for Medicare physician and other professional services (hereafter referred to as the PVBP Plan). The Workgroup is organized into Subgroups to address four fundamental planning issues:

- Measures,
- Incentive Methodology,
- Data Strategy and Infrastructure, and
- Public Reporting.

The CMS Workgroup and Subgroups have prepared this Issues Paper that builds on the experience of current CMS demonstrations and private sector VBP programs to frame the key issues that must be addressed in developing the PVBP Plan. Using input gained from a December 9, 2008 public Listening Session, the Workgroup will formulate a set of design options. Subsequent steps include narrowing the set of design options to create a draft Plan and preparing the final Plan Report to Congress.

Draft PVBP Plan Goal, Objectives, Assumptions, and Design Principles

Goal

Improve Medicare beneficiary health outcomes and experience of care by using payment incentives and transparency to encourage higher quality, more efficient professional services.

Objectives

1. Promote the practice of evidence-based medicine through
 - Measurement,
 - Financial incentives, and
 - Public reporting.
2. Reduce fragmentation and duplication through
 - Health professional clinical and financial accountability across care settings,
 - Alignment of measures and incentives across providers and settings of care,
 - Better care coordination for smoother transitions, and
 - Attention to episodes of care.
3. Encourage effective management of chronic disease by
 - Improving early detection and prevention
 - Promoting the use of evidence-based care processes and improved coordination of care
 - Focusing on preventable hospital admissions, including readmissions, and
 - Emphasizing the importance of advanced care planning and end-of-life care.

4. Accelerate the adoption of effective, interoperable health information technology (HIT), including
 - Patient registries,
 - Electronic prescribing, and
 - Electronic health records (EHRs).
5. Empower consumers to make value-based health care choices and encourage health professionals to improve the value of care by disseminating transparent and useful information

Assumptions

1. The primary focus of the PVBP Plan will be performance-based payment, as required by statute.
2. The Plan will accommodate different practice arrangements, such as multi-specialty groups, single-specialty groups, small practices, and institution-based practices.
3. The Plan will recognize the contributions of the members of the health professional team.
4. The Plan will address multiple levels of accountability, including individual health professionals, teams, groups, and “accountable care entities.”
5. The Plan will be at least budget-neutral across at least Medicare Parts A and B and will seek to identify program savings. “Shared savings” options, which return a portion of savings to the Medicare program and a portion to providers, will be considered.
6. The initial focus of the Plan will be traditional (fee for service) Medicare.
7. Plan design will have short-term (1-3 years) and longer-term (beyond 3 years) timeframes, with attention to implementation transitions.

Design Principles

General

1. Engage stakeholders, including professionals and professional organizations, other payers, consumers and consumer organizations, and national quality organizations

like the National Quality Forum (NQF), National Committee on Quality Assurance (NCQA), Quality Alliance Steering Committee (QASC), and AQA Alliance.

2. Apply experience gained from other Medicare value-based purchasing initiatives—including the Physician Group Practice (PGP), Medicare Care Management Performance (MCMP), Medical Home, and various care coordination demonstrations, Physician Quality Reporting Initiative (PQRI), and the Hospital VBP Plan—and from private sector performance-based payment initiatives.
3. Consider multiple approaches to accommodate multiple practice arrangements and care settings.
4. Avoid creating additional health care disparities and work to reduce existing disparities.
5. Develop an ongoing evaluation process to assess impact, monitor for unintended consequences, and support improvement of the Plan over time.

Measures

6. Measure key dimensions of quality, with attention to outcomes, cost of care, patient experience, care coordination, prevention, and adoption and use of HIT.
7. Accommodate the continued evolution and incorporation of measures.
8. Align measures across providers and settings of care.
9. Adjust measurement data for fairness, where appropriate.

Incentives

10. Align incentives across providers and settings of care.
11. Reward both attainment and improvement to engage professionals performing at all levels.
12. Provide large enough incentives to encourage voluntary participation and drive improvement.
13. Make timely payments to maximize the effectiveness of the incentive.

Data

14. Minimize the burden of data exchange.

15. Provide for efficient data validation and review.
16. Give timely and meaningful feedback for performance improvement.
17. Consider use of all payer data.

Public Reporting

18. Include a transparency component to provide information for consumers and to serve as an incentive for performance improvement.

Design Issues for Public Comment

At this initial stage of PVBP Plan development, CMS is inviting comments and input from stakeholders on a number of design issues. The questions are organized into sections that address overarching questions for the Plan as a whole and then issues specific to measures, incentive methodology, data strategy and infrastructure, and public reporting.

In each section, we identify basic principles that are expected to frame the initial design and operation of a Medicare VBP program for physicians and other professionals, list the questions on which CMS is seeking input, and highlight potential advantages and disadvantages of possible approaches.

In structuring the final Plan design, CMS will seek to balance an array of factors, such as potential effects on quality and cost of care, overall burden on physicians and other professionals, and operational feasibility. CMS is soliciting public input to better understand potential impacts and tradeoffs of design decisions.

Refer to Appendices 2 and 3 for summary information on relevant features of the CMS demonstrations and illustrative private-sector programs, respectively, that have helped to identify key design issues.

Overarching Questions

1. Will the stated objectives, assumptions, and principles support higher quality of care for Medicare beneficiaries and better value from Medicare spending?

What other planning parameters should be considered?

2. Is it desirable to have several different approaches to accommodate different practice arrangements across various care settings? If so, how should this be accomplished?

The assumptions and design principles indicate that the Plan will accommodate different practice arrangements, such as multi-specialty groups, single-specialty groups, small practices, and institution-based practices. One possible approach would be to have multiple parallel tracks: a track appropriate for participation by virtually all physicians and other professionals, a track focused particularly on primary care for the management of beneficiaries with multiple chronic diseases, and a track focused on medical groups and entities that link professionals and institutional providers with the scope of practice broad enough to achieve cost savings. Incentives available within each track could be consistent with its potential to improve quality and impact resource use.

3. What steps can CMS take in the design and implementation of the PVBP Plan to reduce health care disparities or, at a minimum, to avoid exacerbating existing disparities?

The benefits that can be achieved by attention to clinical quality and value should be available to the whole Medicare population and all providers that serve it. CMS is, therefore, particularly interested in steps that could be taken to assure that providers serving disadvantaged populations can participate fully in the value-based purchasing program.

Measures

Measurement is the foundation of value-based purchasing. An essential step in developing the PVBP Plan is to define the measures to be used and to whom the measures should apply. With hundreds of thousands of physicians and other health

professionals practicing in a broad array of specialties and settings, VBP planning is a complex undertaking. While complex, this breadth of practice also presents enormous possibilities to affect patient care, as professionals and their decisions are integral to improving the quality and efficiency of care in the Medicare program and in the country.

Regarding measures, the fundamental assumptions are that the PVBP Plan will:

- Incorporate both quality and resource use measures
- Build on the current foundation of measures
- Balance the precision of a measure with the manner in which the measure is used
- Encourage coordination with other providers to the extent feasible
- Seek to align Medicare efforts with those of other payers

This section presents the key questions on which CMS is seeking public comment, with emphasis on identifying which measures to use, the unit of accountability for applying the measures, and the manner in which different types of measures could be combined.

1. Which quality measures should be used in the PVBP Plan?

A variety of different types of quality measures are currently available, including:

- Clinical effectiveness process measures
- Outcomes measures, including intermediate outcome measures, such as HgbA1c levels, and longer term outcomes, such as potentially preventable admissions (including readmissions) and potentially preventable patient safety events
- Structural measures, such as the use of HIT, EHRs, and e-prescribing
- Patient perception of care using the ambulatory CAHPS tool

2. Should the PVBP Plan include measures that are applicable to all professionals?

Should it include measures that are only appropriate for selected categories?

Should measures be included that encourage professionals and other providers to work together to improve care?

Potential considerations in answering these questions include how well established the measures are in terms of experience with collection and calculation; the data source for

measures, particularly the degree to which measures can be calculated from claims data alone; the relationship of the measures to priority health and healthcare goals for Medicare beneficiaries; and the relationship to measures used in other Medicare payment settings:

- Process measures related to prevention and ambulatory and chronic care are the most established. As a result there is significant experience with the collection and calculation of these measures, and benchmark data exists. In the private sector this is the emphasis for most pay-for-performance programs. Similarly, such measures form the basis for assessing quality in the PGP and several other Medicare demonstrations. Several (12-15) such measures can be calculated using claims data alone; for those requiring additional information, an existing tool has been developed for the PGP and other demonstrations.
- PQRI contains many additional measures (153) that address a much broader scope of professional practice, covering services rendered by virtually all types of professional practices. These measures are much newer, and there is limited experience in collecting data and calculating performance rates for PQRI measures. Benchmark data is not yet available, and the degree to which a quality gap exists for these services is often uncertain. These measures all require quality data reporting by professionals. PQRI data is currently being collected primarily through the claims system, which may not be optimal for the long-run collection of quality information, although PQRI now includes the opportunity to report measures from patient registries. In 2008 and 2009, reporting from EHRs is being tested for future implementation.
- Many measures used in hospital pay-for-reporting programs depend on professional services to achieve the desired process of care. As currently reported, however, the relevant professional(s) involved are not identified. The attribution to professionals may provide another source of measurement for

hospital and professional clinical quality, but this opportunity has not yet been addressed to any significant extent.

- 3. Who/what should be the accountable entity—individual professional, group practice, or broader care system? How should accountability be applied?**
 - a. Would some combination of these levels of accountability achieve the most effective measurement of quality and provision of incentives?**
 - b. Should some measures be used for one level of attribution while other measures would apply to another level?**
 - c. Should measures be attributed to multiple providers who meet a certain threshold of involvement in a patient’s care or to the single individual who has the plurality of involvement, measured by percentage of transactions, costs, or some other metric?**

Assignment of accountability is essential to value-based purchasing. However, incorporating individual professional accountability into measurement (i.e., attributing care to specific providers) often limits what can be measured because of methodological difficulties in identifying the relevant provider(s). In some cases, it may be desirable to measure at the population or patient level, rather than measure only care that can be attributed to specific individuals or groups of professionals. On the other hand, providing actionable results for quality improvement often requires focusing at the individual or group level. These are tradeoffs that need to be considered in determining the appropriate level of accountability for value-based purchasing

Different levels of accountability present different opportunities and challenges.

Individual professional: At the individual level, it is often difficult to accumulate large enough numbers of patients for given process and outcome measures to achieve statistical validity for comparing performance among professionals or for identifying a significant change in performance. Small numbers may, therefore, limit the ability to establish an appropriate basis for differential financial rewards. Additionally, professionals’ services vary greatly in the appropriateness of assigning individual, as opposed to group,

accountability for particular processes of care. Nevertheless, accountability at the individual provider level may make information more actionable.

Group practice: Accountability at this level advances the concept that groups of providers play an important role in achieving higher quality care. Further, as is being tested in the PGP Demonstration, accountability at the practice level allows Medicare to identify the population of beneficiaries being served, measure both cost savings and quality improvement for this group of beneficiaries, and share a portion of these savings if the practice achieves a certain threshold of savings and quality performance. Accountability at the practice level also addresses the problem of small numbers and attribution of patients to individual professionals.

System or geographic region: Another option might be to establish accountability in a system or a geographic or other area, such as a hospital service area. All professionals and potentially other providers could be held jointly accountable for a broad set of combined quality and resource use measures and could have a small percentage of payment adjusted based on their performance. Alternatively, professionals whose care would be relevant to the measures and who participate in the care rendered in the system or geographic area could be rewarded, potentially without establishing specific individual or group accountability. This level of measurement may also encourage care coordination for the Medicare population. In this model, quality measurement would be at the population level, financial reward would be based on performance of all providers in the system or small geographic region, and distribution of the incentive would be based on the providers' degree of relationship to the system or region of care.

4. Which resource use measures should be used?

- a. At what level should resource use measures be attributed?**
- b. How should resource use measures interact with clinical quality measures?**
- c. What are the most informative resource use measures if the choices are episodes of care or per capita comparisons? Should both be used? Are there other types that should be considered?**
- d. What issues are unique to accurate measurement of relative resource use?**

CMS is currently exploring two approaches to measuring resource use for professional services: per capita calculation of expected versus actual costs (for example in the PGP Demonstration) and measures of relative resource use during episodes of care.

Both types of resource use measures are difficult to assign to a single professional, but help to capture the coordination of care across settings. The actual versus expected calculation of cost per capita in the PGP Demonstration is used to quantify any savings in Medicare expenditures resulting from better care management and to allow a portion of these savings to be shared with the practice if the savings exceed a minimum threshold. The Medicare program retains the remainder of these savings.

Episode measurement could be used in a similar fashion. If the accountable entity were able to provide care for a particular episode or set of episodes with fewer resources and achieve a certain threshold level of quality, then perhaps this entity could be eligible for some share in the savings that might be generated for the Medicare program.

Both per capita and episode-based measures could also be used simply as measures of resource use to be calculated along with clinical quality metrics and then used in calculation of performance scores. In private sector pay-for-performance programs, health plans have used resource use measures in tandem with quality metrics. Scores are calculated on both and combined for an overall performance score. This approach assumes that, if the quality and resource use metrics are valid, the combined score represents the “footprint” of the professional or the group practice efficiency. Others suggest that the quality and resource use metrics be calculated for the same episodes or patients in order to more directly relate the two.

Similar to clinical quality measures, valid resource use measures must also be based on a sufficient sample of patients, capture the resources used for similar patients, ensure that geographic differences in price are standardized, and be benchmarked against appropriate peers.

5. How should various measure categories be combined to provide a measure set that addresses the scope of clinical quality and resource use that can fulfill the goal and objectives of the PVBP Plan?

The performance model developed for the Hospital Value-Based Purchasing Plan submitted in the November 2007 Report to Congress established domains of quality measures (initially clinical process of care, patient experience of care, and clinical outcomes) to capture the various dimensions of hospital quality performance. In the Hospital VBP model, the various measures within each domain are weighted equally to calculate a score for the domain. The domains are then combined using differential weights to determine a hospital's total performance score. The total performance score ultimately determines the percent of the financial incentive a hospital would earn each year.

A similar approach could be proposed in the PVBP Plan to combine measure categories to develop performance scores. For example, a performance score could be calculated as follows: process measures (40 percent), outcomes measures (20 percent), structural use of HIT or care management systems (10 percent), patient experience (10 percent), and relative resource use (20 percent). This approach could be applied at the individual professional, group, or geographic level. The weighting scheme could reflect the degree of difficulty in capturing different types of measures, confidence in the level of accuracy reflected by a measure type, and the degree of importance placed upon a measure category. The weighting scheme could also be modified over time as specific objectives are achieved. For example, at present when EHRs and e-prescribing are not yet widely adopted across professional practices despite their recognized value in supporting high quality cost-effective clinical care, structural measures that capture the presence of this important infrastructure could be given high weights in determining performance scores. As these technologies become more widely adopted, the weight on structural measures could be reduced.

Incentive Structure

To develop the PVBP Plan, CMS needs to consider the structure of value-based payments, including the impact on Medicare program and beneficiary costs, how payments should be distributed among professionals to achieve the goals of the program, what the basis should be for receiving a payment, and how the incentive dollars should be allocated across different types of performance measures, sites of service, types of service, and geographic areas. CMS will need to balance a variety of factors in structuring the design of the incentive payments, including operational feasibility and distributional consequences.

CMS expects to continue to work with Congress and professional associations to identify payment methods that help improve the quality and efficiency of care in a way that does not increase costs to taxpayers and Medicare beneficiaries. In fact, because of certain existing inefficiencies in the current payment systems, CMS has a strong interest in developing a VBP program for professionals that could both increase quality of care and reduce overall program costs, such as through better coordination of care and reduced hospital admissions. A VBP program for physicians and other professionals is expected to have significant impacts on other areas of the Medicare program since professionals directly or indirectly drive resource utilization for many other services (e.g., admit patients to hospitals, prescribe drugs, order diagnostic tests).

We invite comments on these key questions related to incentives:

- 1. What funding sources and payment models would be feasible and desirable to provide appropriate payment incentives, including ways that would enable professionals to share in savings achieved through value-based purchasing?**
- 2. How large does the payment incentive need to be to achieve the goal and objectives?**

3. What type of incentive bonus payment is most effective: periodic bonus or add-on to base payments? What are the advantages/disadvantages and operational requirements for each approach?

There are a variety of ways to make performance-based payment adjustments:

- One model is the current hospital pay-for-reporting model, where a portion of the inpatient hospital payment update is made conditional on specific performance activities. Medicare could adopt this model for professionals or other providers. Under this approach, the bonus payments are made on a per-service basis and affect all services. This model may not work well for all performance measures. For example, if professionals were to be measured on their ability to avoid hospital admissions, it may not be desirable to apply the performance adjustment to their hospital services. Likewise, it may not be desirable to pay a bonus on a per-service claim basis because it may inappropriately provide an incentive to increase volume of services.
- An alternative approach would be to make periodic lump-sum payments as is done for the current PQRI program. Lump-sum payments could be made, for example, for providers that achieve specific performance targets (e.g., clinical management of diabetic patients to avoid hospitalizations, or colon cancer screenings that should result in earlier detection and avoided admissions).
- Medicare could also adopt a bonus pool model, where part of the payment is withheld and placed in a pool for subsequent distribution to professionals/providers based on performance criteria.

Under each approach, we assume it would be most effective to make the incentive payment as close as possible to the desired behavior.

4. What distribution of incentives best achieves the PVBP Plan goal and objectives? How should incentives be structured to be consistent with and supportive of the level of accountability at which performance can be measured?

The Measures section above addressed possible levels at which performance can be measured: the individual professional level, the group level, the geographic region/service area level, and other levels, such as type of service (e.g., primary care, surgery). Each level provides opportunities to accomplish different objectives of the PVBP Plan. If accountability for some measures is at the practice or geographic level, while other measures address the individual professional level, the financial incentive could be based on a combination of metrics, recognizing the role of the professional, both individually and as a part of a larger group/region, in improving clinical quality and value.

Depending on the way in which the incentive is structured, performance-based payments could be distributed narrowly or more broadly:

- For example, the PVBP Plan could provide larger incentives to a smaller number of high-performing individuals or practices to reward them for top performance.
- Alternatively, the PVBP Plan could distribute payments across a larger number of practices. Spreading payments broadly—for example, by paying for improvement as well as attainment—would decrease the financial risk for practices and potentially engage more practices in improving their performance. However, in this approach top performing practices would receive a smaller incentive payment than they would otherwise receive.

5. What should be the basis for receiving an incentive? Are there strategies that place particular types of professionals, such as rural professionals, at an advantage or disadvantage? Would a combination approach be sensitive to the special challenges that some professionals might encounter in meeting a national threshold?

There are a variety of strategies for specifying the performance basis for incentive payments. Frequently, strategies are used in combination. Each strategy has different implications for the predictability of receiving a payment, budgeting, the size of the

payment, and the distribution of payments. CMS is seeking comments on the following strategies:

Meeting an absolute performance threshold: Examples of absolute thresholds are “90% of patients with AMI must have received aspirin at arrival,” or “the 75th percentile score for the prior year’s performance across all professionals.” This approach has the advantage of predictability in that professionals know in advance the threshold they must meet to receive an incentive payment. It also ensures that all professionals who achieve the threshold receive an incentive payment. From an operational perspective, this approach is more challenging to budget, because CMS does not know how many professionals will meet the threshold in any given year. To manage this uncertainty, CMS would need to establish a fixed sum of money that could be allocated annually to the incentive. Under this scenario, the more professionals who meet the threshold, the smaller the incentive payment because the fixed sum of money needs to be distributed to more professionals.

Relative thresholds or percentile ranking: An example of a relative threshold is payment for performance above the 75th percentile of the current year’s performance across all professionals. This is the type of approach used in the Premier Hospital Quality Incentive Demonstration, where all hospitals are ranked and incentives are given to hospitals in the top two deciles of performance. This approach is easier for CMS to budget because the number of professionals who will receive an incentive is more predictable. However, such an approach seems undesirable for the PVBP Plan because the level of performance required to trigger an incentive payment is unknown at the start of the year, thus creating uncertainty for budgeting. It also penalizes high performers once performance scores become compressed at the top end of the performance distribution.

Minimum performance threshold: The PVBP Plan might require a minimum level of performance before professionals are eligible to receive any incentive. Possibilities include linking eligibility for incentives to accreditation standards or to specified levels of

performance on or continued reporting of retired measures to sustain professionals' performance.

Improvement in performance: This could take the form of either year-over-year improvement or a negotiated improvement target from baseline or from some other point in time. This approach has the advantage of encouraging performance improvements among poor performers, because the targets may seem more attainable than an absolute or relative threshold approach. Paying on the basis of improvement would also reward professionals for continual improvement (not just stopping once a benchmark has been reached) and addresses regional variation in performance scores. However, this approach may be perceived as unfair if the PVBP Plan rewards a professional who improves from 10% to 20% on a measure while another professional who remains at 90% across the time period would receive no financial reward. Combining improvement with paying for performance above some upper threshold would mitigate this effect.

A combination of approaches: Various approaches described above could be used in combination, for example, setting an absolute performance threshold as well as paying on improved performance. This would reward both attainment and improvement to engage professionals performing at all levels, a design principle for the PVBP Plan. A combination approach might also be a way to recognize and be sensitive to the special challenges that some professionals might encounter in meeting a national threshold. For example, it could be challenging for some rural professionals to meet a national threshold for certain process measures, such as the percent of patients referred to home health or skilled nursing facilities, since such post acute care services might be less available in rural areas. Likewise, limited availability of post acute care services could affect a rural professional's performance score for resource use for acute care services.

6. Should the PVBP Plan base incentive payments on payments for all Medicare fee schedule services, payments for measured services only, payments for inpatient or ambulatory services only, or other factors, such as incentive payments based only on a practice's performance for its predominant areas of care?

In the current PQRI program, for 2009, a professional will receive a 2.0% bonus payment for all Medicare fee schedule services. Such an approach based on payments for all Medicare fee schedule services might be operationally easier and generally give greater incentives to professionals who have a higher volume of Medicare services. However, an incentive based on all fee schedule services:

- Does not allow for differentiating services or settings that might have a larger total impact on increasing the value of health care (e.g., emphasizing certain office-based services associated with improved coordination of care).
- Provides an incentive to increase volume of services for a larger payment.
- Does not recognize that the smaller volume professional might perform well but receive a relatively small incentive that is not commensurate with the resources dedicated to improving performance or the professional's total impact on patient health outcomes or resource use. The opposite could occur with a high-volume professional who receives extremely large incentive payments.
- Could unfairly advantage large multi-specialty practices that might qualify for a large payment incentive based on their total fee schedule services by reporting measures that are relatively easily reported or apply to relatively few of a practice's patients.

Data Strategy and Infrastructure

Data quality and the data infrastructure are essential building blocks for any successful VBP program. The underlying data used to score performance must be valid to provide a foundation for VBP performance determinations. The data strategy and infrastructure depend on the types of data used for calculating the performance metrics. If the data source used is claims, then the challenges include the timeliness of the data and accuracy of coding practices. If the data source is self reporting, then the data reporting infrastructure must provide a stable, secure, and user-friendly environment for

submission of performance measurement data as well as a process for auditing the validity of submitted data. Both approaches must support timely and accurate feedback on data submissions, data quality, and performance results. The data infrastructure must also have well-defined rules of governance and strictly defined operating requirements.

1. How can CMS build on the data submission processes and policies of current VBP initiatives to meet the data submission and provider feedback requirements for the PVBP Plan?

2. What are the advantages and disadvantages of various forms of data submission, including claims, registries, and EHRs?

3. How might various forms of data submission reduce the burden of reporting?

There are three core models for the collection of measurement data: claim submission, clinical data submission, and claims augmented with clinical data submissions. CMS has used claims alone for the Better Quality Information for Medicare Beneficiaries Project (BQI) and the Generating Medicare Physician Quality Performance Measurement Results Project (GEM). Claims augmented with clinical data are being used for the Physician Group Practice Demonstration, the MCMP Demonstration, and for the PQRI. Regardless of the model, there are data challenges that include:

- Association of individual professionals to group practices or system level organizations, and
- Attribution of a patient to a professional

The BQI and GEM projects include the further challenge of using all-payer data.

The BQI Project tested the most effective methods to combine private payer data with Medicare administrative data (i.e., claims files, provider files, and enrollment files) to produce more accurate, comprehensive measures of quality of services. Results show that combining data at the raw claims level is very complex and that calculating performance measurement results that could then be combined may be more effective.

The GEM Project used Medicare administrative data to generate professional group practice level quality performance measurement results on 12 consensus-based ambulatory care measures. Summary measures were provided for each professional group practice, rather than patient level beneficiary claims data as is provided to the BQI pilots. The measurement results may be combined with private sector information using the same methodology to produce all-payer professional performance measurement results.

Under the PGP Demonstration, large professional groups provide CMS with their tax identification numbers so that CMS can identify their organization in claims data in order to measure their quality and financial performance. At the end of each performance year, Part B outpatient evaluation and management (E&M) claims data is pulled for each PGP, and Medicare patients are assigned to a group if they receive the plurality of their outpatient E&M care at the group. This pool of assigned patients is used to measure quality, using both measures based upon claims data and measures that require data submitted from a sample of each PGP's clinical records, and to measure financial performance. Patients are assigned to PGPs annually at the end of each performance year.

Similarly, under the MCMP Demonstration and, in the future, the Electronic Health Records (EHR) Demonstration, beneficiaries are retrospectively assigned for reporting purposes to the primary care practice that provided the greatest number of primary care services during the reporting year. These patients form the population on which practices are asked to report measures related to the care of chronic conditions and the provision of preventive care services. Data from both the medical chart as well as claims data are used to calculate performance.

The PQRI provides incentive payments to eligible professionals who satisfactorily report data on consensus based quality measures. Starting in 2008, professionals have the option of reporting quality data using special codes submitted on claims or by reporting information to a qualified clinical registry, which then submits the quality data to CMS.

CMS uses the reported information to determine satisfactory reporting and to also generate performance measurement rates. The PQRI model enables clinical information to be included on the Medicare claims and used in the calculation of the measures and relies on self-attribution, which provides a greater degree of confidence that the professional to whom a measure is attributed is actually the professional who performed the service being measured. Also in 2008, CMS has begun testing methods for submission of PQRI data through EHRs.

Because registries and EHRs permit reporting on all patients cared for by a professional or practice, not just for Medicare beneficiaries, reporting from registries and EHRs could offer a more comprehensive picture of professional performance on a robust set of quality of care measures in an actionable format for providers, consumers and other stakeholders. CMS is working to standardize interoperability of electronic transfer of clinical data. Certifying those standards and products that meet them will help to promote the reporting of clinical data and reduce burden on CMS and its providers.

CMS recognizes that its current data infrastructure will need to grow to accommodate the data needs for VBP initiatives. Existing infrastructure components that CMS could build upon include:

- Having professionals, group practices, or designated registries/vendors submit data on the defined set of performance measures derived from EHRs to a QualityNet Exchange website
- Using the QualityNet website to communicate with professionals about measure specifications and delivery dates
- Using the Medicare claims warehouse for Medicare Part B data to verify the completeness of data submissions
- Using QualityNet Exchange or other secure internet portal to provide timely confidential feedback reports

4. How should CMS structure the process for validating data submitted for the PVBP Plan?

Today, data validation is accomplished using two primary approaches: CMS claims audit and record abstraction. Both approaches use a sampling methodology specific to the program or project.

In the PGP and MCMP Demonstrations (and, in the future, the EHR Demonstration), measure results are tied to payment. Therefore, an audit and validation process has been developed for measures reported from clinical information sources. A random sample of 30 beneficiaries whose medical records were abstracted by each Demonstration site is selected, and these records are submitted for an audit that checks for discrepancies with the information originally submitted. Corrective action is taken if mismatches are found in more than 10 percent of the medical records. A similar process is used by the NCQA for auditing and validating HEDIS measure results reported by health plans. In the MCMP Demonstration, which involves over 650 small primary care practices, practices may be randomly selected for audit or identified based on outliers or other reporting issues.

Validating submissions for a national program, such as the current PQRI or future PVBP, clearly will be challenging because of the scale involved and limited resources.

5. How should CMS provide feedback reports that will be useful to professionals and their groups in improving clinical quality and resource utilization?

Timely, actionable feedback is a desirable component of the PVBP Plan as such feedback is key to a provider's ability to improve performance. Therefore, feedback systems and tools must be an important focus of the data infrastructure.

Public Reporting

Public reporting will play a key role in the PVBP Plan. It will be the vehicle for CMS to provide useful, understandable, and actionable information about professional performance to interested stakeholders, including professionals, other providers, beneficiaries, other consumers, private health plans, and other purchasers. Public

reporting is an effective non-financial incentive that can raise awareness about the quality and efficiency of care being delivered.

CMS is exploring a number of ways to make information available. In the BQI Project, CMS worked with six pilot sites across the country to test the feasibility of generating multi-payer quality performance measures for professionals and models to make this information available to professionals, beneficiaries and other stakeholders. CMS also provided Medicare professional practice level quality performance measurement results using 12 consensus-based measures to local collaboratives recognized by the Secretary of the Department of Health & Human Services as Chartered Value Exchanges (CVEs). The CVEs may publicly report this information in a manner that best meets the needs of the professionals, beneficiaries, and other stakeholders in their communities. MIPPA requires that eligible professionals or groups who satisfactorily submit data on quality measures under PQRI or who are successful electronic prescribers be reported on the CMS website. The ultimate goal is to include performance information on a Physician Compare Website similar to the Hospital Compare website. .

As CMS develops the PVBP Plan and addresses the essential role public reporting will play, several critical issues must be considered, including the level at which information should be publicly reported, what information should be publicly reported, and how the information should be presented. The questions on which CMS requests public comment are as follows:

1. At what level should information be reported?

Professional performance information could be reported at several levels: the individual professional level, the group practice level (i.e., TIN), a broader population-based level, or a combination of these levels, depending on the measures used. In choosing the level(s) for reporting, CMS will consider two key issues: which level(s) are most actionable for beneficiaries, providers, the Medicare program, and other stakeholders; and which level(s) best support improved care coordination and reflect how beneficiaries actually receive care. The response may be different, depending on the purpose for

which the information is reported and the audience. For example, consumers might find individual professional information more useful than group practice information because they typically interact with an individual professional, not an entire practice. On the other hand, reporting information at the group practice level may be a better tool to encourage greater coordination of care among professionals in a practice. The level of information also raises issues related to the legal protection of individually identifiable information.

2. What information should be reported? Are some measures more appropriate for public reporting than others?

The information that is publicly reported will be driven in large part by the measures that are used. For example, would certain measures be more useful/actionable to professionals and others to beneficiaries or other stakeholders? Are there some measures that should be made available for public accountability, but which should be displayed separately from other measures more suitable for informed consumer choice?

3. Should resource use information be publicly reported in addition to quality information?

Resource use information will be a critical component of the PVBP Plan. To assess value, both quality performance and resource use information are necessary.

a. Should resource use information be provided confidentially or publicly reported?

Should some resource use information be provided confidentially only to the individual professional with higher level information being publicly reported? For example, CMS is currently working to provide resource use reports to individual professionals on a confidential basis. Concurrently, CMS also could publicly report resource use at the group practice level or a broader population-based level to demonstrate variation among group practices or from region to region.

b. If resource use information were publicly reported, should quality and resource use information be reported together?

For example, CMS could combine resource use and quality information in an overall “value” score that could be publicly reported for an individual professional, group practice, or a region.

- c. If resource use information were publicly reported, how might patients perceive and use the information?**

4. How should the performance measurement results be scored to facilitate interpretation?

Through the PVBP Plan, CMS will be linking payments to quality and resource use measurement results as well as publicly reporting information derived from these results.

- a. How should public reporting use the scoring used in determining incentive payments?**
- b. Should all performance measurement results be publicly reporting?**
- c. Should the receipt of incentive payments be publicly reported in addition to performance measurement information?**

5. How should the performance measurement results be displayed to facilitate understanding and use by Medicare beneficiaries, the public, professionals, and other providers?

One of the core tenets of public reporting is that the information must be actionable and useful to the intended audience.

- a. Should information be presented in composites rather than individual measures to better suit consumer needs and use of the information?**
- b. Should numbers, stars, or some other indicator be used?**
- c. Should certain information be suppressed if there is insufficient information or if a professional or organization failed to or chose not to report?**
- d. Should benchmarks be provided? If so, at what level – other individual professionals in the community? Other group practices in the community? By specialty? Against larger geographic regions?**
- e. Should trending be included from year to year to show improvement or decline?**

APPENDIX 1: CMS PVBP WORKGROUP MEMBERSHIP

Name	CMS Component	Leadership Role
Arnold Balanoff, MD	Kansas City Regional Office	
Amy Bassano	Center for Medicare Management	
Ira Burney	Office of Legislation	
Jody Blatt	Office of Research, Development & Information	
Barbara Connors, MD	Philadelphia Regional Office	
Lisa Grabert	Center for Medicare Management	
Nilsa Gutierrez, MD	New York Regional Office	
Jayne Hammen	Office of Beneficiary Information Services	Public Reporting Subgroup Co-Lead
Valerie Hartz	Office of Information Services	
Laura Hoffmeister	Office of Policy	
Julianne Howell	Independent Technical Adviser	Project Coordinator
William Kassler, MD	Boston Regional Office	
Terrence Kay	Center for Medicare Management	Incentives Subgroup Co-Lead
Kimquy Kieu, MD	Seattle Regional Office	
Annette Kussmaul, MD	Kansas City Regional Office	
Mark Levine, MD	Denver Regional Office	
Tom Latella	Office of Information Services	
Lori Maatta	Office of Information Services	
William Matos	Office of Clinical Standards & Quality	Data Subgroup Lead
Karen Milgate	Office of Policy	Measures Subgroup Co-Lead
David Miranda	Center for Drug & Health Plan Choice	
Curt Mueller	Office of Research, Development & Information	
David Nilasena, MD	Dallas Regional Office	
John Pilotte	Office of Research, Development & Information	
Michael Rapp, MD	Office of Clinical Standards & Quality	Measures Subgroup Co-Lead
Melissa Reisman	Office of Legislation	
Jeffrey Rich, MD	Center for Medicare Management	Workgroup Chair
Jaewon Ryu, MD	Office of Policy	
Fred Thomas	Office of Research, Development & Information	
Jane Thorpe	Office of Policy	Public Reporting Subgroup Co-Lead
Thomas Valuck, MD	Center for Medicare Management	Workgroup Vice Chair, Incentives Subgroup Co-Lead
Richard Wild, MD	Atlanta Regional Office	

Appendix 2: CMS Efforts Relevant to Value-Based Purchasing

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Unit of Analysis	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
Physician Group Practice Demo	10 physician group practice sites	Group practices with a minimum of 200 physicians	-32 clinical ambulatory process and outcomes measures (Diabetes, Congestive Heart Failure, Coronary Artery Disease, Preventive Services) -Expected versus actual per capita spending	-Administrative -Physician submission of individual patient data	Attributed group practice beneficiaries v. beneficiaries in PGP market who do not use PGP services	-Calculate measure scores -Calculate whether groups meet certain quality and savings thresholds of performance for eligibility for shared savings - Reports containing scores are provided to physicians	Financial; Eligibility for sharing savings with Medicare program	-Practices share in up to 80 percent of Medicare savings if adjusted per capita spending is less than 2 percentage points below local market growth rate -CMS calculates payment annually	-Began April 2005 -Anticipated end date March 2009
Medicare Care Management Demo	4 states; Approximately 650 practices with 2200 physicians participating	-Small to medium size primary care physician group practices up to 20 physicians per practice -Each practice must have 50 Medicare beneficiaries	-26 clinical ambulatory process and outcome measures (Diabetes, Congestive Heart Failure, Coronary Artery Disease, Preventive Services)	-Administrative -Medical record abstraction -CMS reporting tool - CCHIT- certified EHR	- Selected physician group practices using EHRs v. matched comparison of practices participating in DOQ-IT in non-demo states. -Eligible patients of the demonstration practices v. comparison group practices	-Calculate reporting, performance on measures, and payment related incentives -CMS provides a detailed report showing performance on all measure data submitted and how payment was calculated	Financial -Payment for reporting baseline quality measures - Payment is tied to minimum scores on either Medicare HEDIS percentiles or absolute percentages. Practices do not have to improve upon previous year to receive payment. -Bonus if measures are reported electronically using CCHIT-certified EHR	Three payments: -Initial payment for reporting quality measures -Annual payment for composite quality scores on measures -Annual bonus payment for number of measures submitted electronically from CCHIT- certified EHRs	-Performance period began July 1, 2007 (baseline data year was 2006) -Expected end date is June 30, 2010

Appendix 2: CMS Efforts Relevant to Value-Based Purchasing

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Unit of Analysis	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
EHR Demo	12 states or regions; Up to 2,400 total practices recruited (approx. 200 per site) Half of all practices in each site will be randomly assigned to a control group and half will participate in the demonstration treatment group and be eligible for incentives	-Small to medium size primary care physician group practices up to 20 physicians per practice -Each practice must have 50 Medicare beneficiaries	-26 clinical ambulatory process and outcome measures (Diabetes, Congestive Heart Failure, Coronary Artery Disease, Preventive Services) - Use of CCHIT-certified EHR for managing patient care (measured by Office Systems Survey instrument)	-Administrative -Medical record abstraction -CMS reporting tool - CCHIT- certified EHR -Office System Survey	-Physician group practices randomized into practices receiving (treatment group) and not receiving (control group) incentive payments -Eligible patients of the demonstration treatment group practices v. those in control group practices	-Calculate payment related incentives - CMS provides a detailed report showing performance on all measure data submitted and how payment was calculated	Financial -Bonus based on performance on measures -Bonus for greater use of EHR functions	Three payments - Annual bonus based on usage of EHR functionalities (years 1-5) -Pay for reporting quality measures (year 2) -Pay for Performance based on composite quality scores on measures (years 3-5)	-Sites announced June 2008 -Physician recruitment in four Phase 1 sites ended 11/26/2008; Recruitment in remaining 8 communities Fall, 2009 -Demo operational in each site for five- year period
Medical Home Demo	In all or parts of 8 states; specific geographic areas to be announced in early 2009	Physician practices with at least 150 Medicare FFS beneficiaries as patients	-Claims data from “intervention” practices and “comparison” practices -Evaluation of impact on Medicare cost, quality of care, coordination of care, patient and practice experience	-NCQA’s Physician Practice Connection – Patient-Centered Medical Home CMS Version -Part A and B claims	-Patients of participating group practices serving as medical homes v. patients of comparable non-home practices	Determine the impact of the medical home on Medicare cost, quality of care, coordination of care, patient and practice experience, and practice revenue for intervention vs. comparison group	Financial; Per member per month payment rates by patient based on HCC score category in addition to regularly billed CPT codes.	Practices share up to 80% of savings if medical home demo saves Medicare more than 2%	-In process -3 year demo -Official launch January 2010

Appendix 2: CMS Efforts Relevant to Value-Based Purchasing

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Unit of Analysis	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
Acute Care Episodes (ACE) Demo	4 physician hospital organizations (PHOs) in TX, OK, CO, and NM	Patients in these PHOs with one or more of these procedures: hip/knee replacement surgery or CABG	-Participants must have received full IPPS update for reporting quality measures since 2006 -Evaluation of 22 clinical quality measures	-Hospital billing records -Medical record abstraction -PHO reporting for a subset of measures	-Selected PHOs v. other hospitals in PHO market areas -Selected patients of participating PHOs v. comparable patients of other hospitals in PHO market areas	Evaluate quality of care delivered under bundled payments	Bundled payment for physician and hospital services provided for certain inpatient procedures with optional physician-hospital shared savings arrangements under the bundled payment	Bundled payment made to PHOs based on submitted bids	-Demo sites will be announced Fall, 2008 -Demo operational from January 2009 through December 2011
PQRI – Quality reporting and incentives program	Any physicians to whom PQRI measures apply; voluntary program	Individual physician	119 clinical ambulatory process, structural, and outcomes measures	Self-reported using G-codes on administrative claims Option of reporting through qualified clinical registries starting in 2008	Eligible patients of individual physicians	Generate physician feedback reports and calculate payment incentives	Financial; bonus for reporting information (not level of performance)	Satisfactory reporters earn a single consolidated payment of 1.5% of total allowed charges for covered Physician Fee Schedule services provided during reporting period	-Voluntary reporting through PVRP began in January, 2006 -Incentives for reporting began in July, 2007 as mandated by the Tax Relief and Health Care Act of 2006 -Project ongoing; funding through 2010 through the Medicare Improvements for Patients and Providers Act of 2008

Appendix 2: CMS Efforts Relevant to Value-Based Purchasing

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Unit of Analysis	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
BQI – QIO project	Six pilot communities	Individual physicians and physician group practices	12 ambulatory clinical measures	Parts A, B, and D claims data	-Individual Physician and Physician Group Practice (TIN) -Eligible patients in practices	-Test data aggregation methodologies to generate physician performance measurement results -Public Reporting by BQI pilots	Possible Public Reporting (depends on pilot site)	N/A	Ends October 31, 2008
CVE – QIO project	Measures generated for physician group practices in all 50 states plus territories	Physician Group Practices	12 ambulatory clinical measures	Parts A, B, and D claims data	-Physician Group Practices (TIN) -Eligible patients in group practices	-Generate physician performance measurement results -Public reporting by CVEs	Possible Public Reporting (depends on CVE)	N/A	Ends January 31, 2009
Resource Use Reporting – Confidential Feedback Program	Flexible	Physicians	Relative resource use using episodes of care and per capita costs	Parts A and B claims	Individual physicians	Confidential Feedback	Confidential Feedback on cost of care performance	N/A	Program began in August 2008 and is ongoing
Hospital Value Based Purchasing – Plan to Congress	All IPPS hospitals	All hospitals that report minimum number of measures as part of the Reporting Hospital Quality Data Annual Payment Update (RHQDAPU)	Hospital clinical measures used in RHQDAPU	-Measures self-reported by hospitals -Clinical process measures -Claims data (mortality measures) -HCAHPS	IPPS Hospitals	-Calculate payment incentives -Public reporting	-Currently reporting hospitals receive full APU -Under VBP plan, calculate payment based on improvement and attainment formula	-Currently, payment based on reported measures -Under VBP plan, calculate payment based on improvement and attainment formula	-Payment incentive for voluntary reporting launched in FY 2005 -Report to Congress for Hospital VBP delivered November, 2007. Congressional authorization required before plan implementation

Appendix 3: Illustrative Private Sector Value-Based Purchasing Efforts

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
<p>Integrated Healthcare Association (IHA) ⁱ</p> <p>IHA's Pay-for-Performance Program (P4P): IHA is a California based statewide association of a diverse set of stakeholders: health plans, physician groups, and hospital systems that develop P4P measures for health plan use</p>	<p>Subset of California physicians and patients</p> <p>-IHA's P4P program involves 40,000 physicians and 12 million health plan members.</p> <p>-Seven California plans: Aetna, Blue Cross, Blue Shield, Cigna, HealthNet, PacifiCare, Western Health Advantage participate in IHA's P4P program</p>	Physicians and patients of the IHA P4P program	<p>-Clinical process and outcome measures</p> <p>-Structural measures (implementation of HIT)</p>	-Aggregated claims data from all participating plans	<p>-Public reporting</p> <p>-Feedback to physicians</p> <p>-Payment incentives</p>	-Payments to physicians based on performance on clinical process/outcome measures and reporting	-Based on a common set of IHA performance metrics, but methodology determined by individual plans	-Established in 1994, work continues
<p>Bridges to Excellence (BTE) ⁱⁱ</p> <p>Not-for profit National Pay-for-Performance program</p>	Employers, health plans, and coalitions in 16 regions	Primary care physicians	Measures across BTE's 8 programs involving disease specific and structural quality process and outcome measures (Diabetes Link, Medical Home, COPD link)	<p>-Claims data supplied by participating health plans</p> <p>-Assessment tools submitted by physicians</p>	<p>-Recognize and provide financial incentives to high-performing physicians</p> <p>-Public reporting of physician results in some programs</p>	Financial incentives based on clinical process, outcome, and structural measures in the recognition programs	Varies by program	Operating in 13 states with 18,577 recognized physicians and 2,041 physician practices as of August 2008

Appendix 3: Illustrative Private Sector Value-Based Purchasing Efforts

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
<p>UnitedHealthcare Premium Physician Designation Program ⁱⁱⁱ</p> <p>Performance based physician ranking program</p>	Covers 132 markets, with 12 million UHC covered lives	UnitedHealthcare contracted physicians with at least 5 UHC patients or procedures	<p>-NQF, NCQA, & AQA evidence and consensus based quality measures</p> <p>-Physicians meeting quality standards are then evaluated on resource use efficiency with Symmetry/ETG grouping software</p>	Claims data	Physicians designated as premium providers are displayed on the UHC website to inform consumer choice	Reporting to enrollees	N/A	Ongoing
<p>HealthPartners ^{iv}</p> <p>Partners in Quality</p>	HealthPartners physicians and patients	Primary care and Pediatric physicians, Pharmacists, Cardiologists, OB/GYNs, ENTs, Behavioral Health Providers, and Physical Therapists contracted with HealthPartners	<p>-Clinical process and outcome measures</p> <p>-Patient satisfaction</p>	Unknown	<p>-Financial rewards to providers</p> <p>-Public recognition of high performers</p>	Financial, HealthPartners will pay providers up to \$21 million for their performance in 2007	Based on the level of performance providers achieve on clinical quality and patient satisfaction measures	Ongoing, began in 1996
<p>Anthem Blue Cross Blue Shield ^v</p> <p>Anthem Quality Insights Program</p>	Anthem BCBS members in New Hampshire, Maine, and Connecticut	90% of Anthem BCBS network primary care, cardiologists and OB/GYNs	<p>-Chronic disease/prevention clinical process and outcome measures</p> <p>-Generic prescription rate</p> <p>-Adoption of HIT</p> <p>-Patient satisfaction</p>	Unknown	<p>-Physician Feedback</p> <p>-Financial Incentives to physicians</p>	Payments to physicians	Based on the level of performance on clinical process and outcome measures, generic prescription rate, level of patient satisfaction and successful implementation of HIT	Ongoing, began in 2005

Appendix 3: Illustrative Private Sector Value-Based Purchasing Efforts

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
Highmark Blue Cross Blue Shield (Pennsylvania) ^{vi} QualityBLUE Physician Pay for Performance Program	49 counties in Western and Central Pennsylvania	Participating providers	-16 clinical quality indicators -Generic prescribing -Member access -EHR -Electronic prescribing -Adherence to evidence- based medicine	-Claims and encounter data -Provider submission of data	Financial incentives to physicians	Payments to physicians	Payments to physicians. 1% bonus for scores in the 50-59% percentile, 2% for scores in the 60-69% percentile, 4% for scores in the 70-84 percentile, and 5% for scores in the 85-100 percentile	Ongoing, began in 2001
Geisinger Health System ^{vii} ProvenCare	Geisinger cardiac patients requiring Coronary Artery Bypass Grafts (CABG)	Cardiac surgeons who perform CABG	-Evidence-based process improvements to achieve 40 best practice standards -Geisinger Health System is paid a single, risk based fee for a CABG episode: 90 days of care, including pre and post-op care, complications, and hospital/professional fees	Unknown	Payments to Geisinger Health System	Bundled payment	Financial reward if actual costs are lower than the bundle	Ongoing, expansions to include other types of acute episodes and conditions

Appendix 3: Illustrative Private Sector Value-Based Purchasing Efforts

Program Name/Type	Scope of Program	Measurement Population	Measures Used	Information Collection	Use of Information	Type of Incentive	Calculation of Payment Incentives	Status
Prometheus ^{viii} Payment System Model	Payment model for providers and care settings; currently developed for a specific set of 10 conditions in 5 categories of care (cancer, cardiac, chronic disease, orthopedics, and preventative care)	-Providers that elect to be paid under this payment model and their relevant patient population -Currently, providers (and their participating health plan) have volunteered to be paid under the model in four pilot sites.	Evidence-Informed Case Rate (ECR) withhold calculated from provider performance on a “Scorecard” of clinical process/outcome and patient experience measures. 70% of scorecard calculation based on provider’s own score and 30% based on comparisons to providers with the same ECRs.	-Claims -Clinical Assessment tools still under development	-Payment to providers -Public reporting	A single, risk-adjusted payment (ECRs) to providers across inpatient and outpatient settings of care. Payments are based on the resources required for care, as recommended in well-accepted clinical guidelines. ECRs contain financial margins, quality and efficiency withhold amounts, and can be negotiated by providers.	Withhold amounts are 10% for physicians and ancillary providers, 20% for hospitals and other facilities. If providers reach a minimum threshold of performance, they can earn back all of the dollars withheld.	-Pilot demos are beginning in four sites. \$6.4 million from RWJF to conduct pilot. -Actual measures and performance thresholds are still under development.

ⁱ <http://www.iha.org/About%20the%20IHA-11202006.pdf>

ⁱⁱ <http://bridgestoexcellence.org/>

ⁱⁱⁱ *CMS interview, August 25th, 2008

^{iv} <http://www.pr-inside.com/healthpartners-announces-performance-bonuses-r908225.htm>

<http://www.healthpartners.com/portal/p158a.htm>

^v http://www.anthem.com/shared/noapplication/f5/s2/t0/pw_ad079718.pdf

^{vi} <https://www.highmarkblueshield.com/health/pbs-professionals/qualityblue-home-page.html>

Rosenthal M, et al. Paying for Quality: Providers’ Incentives for Quality Improvement. *Health Affairs* 2004; 23(2): 127-141

^{vii} Paulus K, et al. Continuous Innovations in Health Care: Implications of the Geisinger Experience. *Health Affairs* 2008; 27 (5):1235-1245.

^{viii} <http://www.prometheuspagement.org/>