Linking Physician Payments to Quality Care

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A Position Paper of the
American College of Physicians

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Executive Summary

Improving the care patients receive has and continues to be the core of the internist's professional responsibilities. Internists have long strived to enhance the quality of care provided to patients through the use of actionable evidence-based guidelines and the coordination of care of complex chronic diseases. Unfortunately, the current payment system fails to recognize these efforts. The ACP views pay-for-performance (P4P) programs that focus on quality as a tremendous opportunity to align incentives in a way that rewards internists for effective care. However, ensuring that a P4P program is designed the right way is a challenging task. As new systems of payment linked to performance are being explored, ACP must ensure that the right measures are used; that data collection is accurate and reasonable; that appropriate and adequate financial incentives are provided; that quality—not just cost reduction—is always the overriding measure of success; and that savings realized by improvements in care are proportionally shared with those responsible for providing the care, which results in the savings. By being so engaged, ACP has a much greater chance of steering the quality-improvement movement so that it does not become yet another unfunded mandate on already stressed practitioners.

This position paper sets forth the operational boundaries within which public and private P4P programs should exist. The College outlines principles for a P4P system that would be evidence-based, transparent, fair, and equitable for practicing internists. The College's support for P4P depends on four main things. First, and most importantly, the current physician payment system, which fails to reward physicians for quality care, should be replaced with new methods of reimbursement that reward those who follow evidence-based standards of care. Second, rewards should reflect the level of work and commitment to quality improvement, which will inevitably differ among physicians across and within medical specialties. Third, P4P systems should rely on valid and reliable clinical measures, data collection and analysis, and reporting mechanisms. Finally, the value of health information technology (HIT) capabilities—such as electronic health records (EHRs) and decision-support tools—should be recognized for their ability to allow internists to do well on quality measures and report their progress. Performance measures will not lead to quality improvement if physicians in practice lack the ability to incorporate proven quality improvement measures into their practices.

Physician adoption of quality improvement strategies upon which incentives are based, if done right, can result in higher-quality patient care leading to better outcomes and increased physician and patient satisfaction. It will ultimately demonstrate what ACP has always argued and believes intuitively—that a well-trained internist provides the best value (i.e., quality and cost) in the health care system.

This position paper contains the following public policy positions of the American College of Physicians:

I. The Use of Incentives to Promote Physician Quality Care

Position 1: ACP supports the use of incentives to promote physician quality of care as evaluated through evidence-based performance measures applied and collected in a consistent, reliable, feasible, and transparent manner. The primary goal of pay-for-performance (P4P) programs must be to promote continuously improving quality care across the health care delivery system. P4P programs should:

- Demonstrate improved quality patient care that is safer and more effective as the result of program implementation;
- Incentivize all physicians to perform better, continually raising the bar on quality; and
- Develop, or link closely to, technical assistance efforts and learning collaboratives so that *all* providers are motivated and helped to improve their performance.

Position 2: The reward framework (i.e., type and magnitude of incentives) should be designed to permit and facilitate broad-scale positive behavior change and achievement of performance goals within targeted time periods. Potential rewards should be:

- Significant enough to drive desired behaviors and support continuous quality improvement;
- Greater than the cost of the physician's participation in a P4P program;
- Balanced between rewarding high performance and rewarding substantial improvement over time;
- Graduated to create stronger incentives for physicians to participate in performance improvement programs and to ensure that a physician's level of commitment to quality improvement activities is recognized;
- Directed at positive rather than negative rewards; and
- Timely and followed closely upon the achievement of performance.

II. The Need to Fundamentally Redesign the Physician Payment System

Position 3: ACP acknowledges that the current physician payment system is flawed and cannot sustain the use of incentives to reward quality improvement on evidence-based measures of care. Efforts to add an additional portion of reimbursement tied to physician performance on top of the current payment system will be inadequate to materially change the current level of physician performance. Public and private payers should work with the medical profession on a fundamental redesign of physician payment methodologies that include the following reforms:

- The physician payment system should fairly compensate physicians for work and practice expenses, and payment updates should fairly reflect inflation.
- Physicians reimbursement should not be based on volume and episodes of acute illnesses but on patient-centered, physician-guided care coordination and quality performance based on evidence-based clinical measures.
- In a fiscal environment in which Congress and private purchasers are seeking a reduction in the rate of growth in health expenditures, ACP recognizes that a redistribution of funds across and within geographic

locations and specialties and between physicians and hospitals or other health care providers will be necessary to support P4P programs. Redistribution of funds should be sufficient to address existing payment inequities that undermine and devalue the importance of internal medicine physicians in providing coordinated and high-quality care to patients with multiple chronic diseases. However, redistribution should not be used as a way to reduce total expenditures by payers.

III. Minimizing Physician Burdens

Position 4: Within reasonable trade-offs between the need to produce valid and reliable data and the cost of data collection and analysis, P4P programs should use the least burdensome and disruptive methods of measurement and data collection to encourage broad physician participation across all modes of practice, including geographic regions and practice sizes. Particular attention should be paid to the obstacles faced by safety net providers, physicians in small practices, and physicians who are just entering practice. New and expanded federal pilots and demonstration projects should evaluate ways to minimize barriers to participation.

IV. Transparency and Oversight

Position 5: Physicians should have a key role in determining methods used to develop and select measures, collect data from physicians, aggregate and score performance, and report performance data internally and publicly. These processes should be transparent so that physicians, consumers, and payers know that methods and results are valid and reliable. P4P program sponsors should notify potential participating physicians of program implementation, educate physicians about the potential risks and rewards inherent in program participation, and immediately inform physicians of any changes in program requirements and evaluation methods and newly identified risks and rewards.

Position 6: P4P programs should incorporate periodic, objective assessments of measurement, data collection, scoring, and incentive systems to evaluate its effects on achieving improvements in quality, including any unintended consequences. The program and, where appropriate, its performance thresholds should be readjusted only when there is compelling evidence and a justifiable reason to do so.

V. Selection of Measures

Position 7: Quality measures used to evaluate physician performance should be:

- Evidence-based or, in the absence of sound scientific evidence, based on expert consensus;
- Relevant to the physician's clinical responsibilities;
- Valid and reliable;
- Practical;
- Clearly defined;
- Have actionable measurement goals;
- Stable over time, unless there is compelling evidence or a justifiable reason to modify them; and
- Related to clinical conditions prioritized to have the greatest impact.

Position 8: ACP supports the use of structure, process, and outcome measures in P4P programs as long as they meet ACP's criteria for measures used to evaluate physician performance.

Position 9: ACP supports the use of "efficiency measures" as long as they meet ACP's criteria for performance measures and are based on an objective assessment of evidence on the effectiveness of particular treatments, with both cost *and* quality taken into consideration.

Position 10: The development, validation, selection, refinement, and integration of performance measures should be a multi-level process that takes advantage of the most recent scientific evidence on quality measurement and has broad inclusiveness and consensus among stakeholders in the medical and professional communities. This entire process should be transparent to the medical community. Measures selected by the Centers for Medicare & Medicaid Services (CMS) for use in a federal P4P program should be a subset of measures vetted through this process.

VI. Data Collection

Position 11: Data collection and physician reporting required to support P4P programs should be administratively feasible, reliable, practical, and consistent with the Health Insurance Portability and Accountability Act (HIPAA).

- Prospective data collection should be encouraged whenever possible to minimize burdens and to reduce measurement error.
- Measures based on chart abstractions and other new data collection efforts should only be used when the clinical and public health benefit of the measures clearly outweighs the burden and disruption that these kinds of data collection efforts cause.
- Data collection and analysis must not violate patient privacy.
- Physicians should not be required to purchase or lease proprietary models of data collection.

Position 12: Information technology tools should be used whenever possible to facilitate data acquisition for performance measures and to minimize any manual data extraction to support such measurement.

VII. Data Accuracy, Data Aggregation, and Scoring

Position 13: Analysis and reporting of physician performance should include the application of statistical methods that provide valid and reliable comparative assessments across populations.

- Data should be fully adjusted for case-mix composition (including factors of sample size, age/sex distribution, severity of illness, number of comorbid conditions, patient compliance, patient health insurance status, and other features of a physician's practice and patient population that may influence the results).
- To the extent possible, data analysis should accurately reflect all units of delivery that are accountable in whole or in part for the performance measured.
- Scores should relate care delivered (numerator) to a statistically valid population of patients in the denominator.

Position 14: Measuring, scoring, and incentivizing physician performance should result in better patient care. It should not compromise patient access to care through mechanisms such as "deselection" or lead to increased attention to or manipulation of documentation.

VIII. Public Reporting and Other Appropriate Uses of Analyzed Data

Position 15: Performance data should be used for public reporting and/or to determine physician payment only after:

- Physicians participating in the program are provided an opportunity to review and comment on such data; and
- Patient identifiers are removed to ensure that patient privacy is protected.

Position 16: Educational feedback should be provided to both physicians and consumers on a timely and routine basis. Educational feedback may include a discussion of the physician's individual performance, as well as the physician's performance relative to other physicians. Reports should be user-friendly and standardized.

Position 17: The results of P4P programs must not be used against physicians in health plan credentialing, licensure, and certification. P4P programs must have defined security measures to prevent the unauthorized release of physician ratings and patient data.

IX. Program Implementation

Position 18: A Medicare value-based purchasing program that includes P4P should be phased in gradually to allow physicians to obtain the capabilities and experience in measuring and reporting performance based on accepted measures. Such a phase-in should allow for an orderly transition from reporting on structural measures to enhanced payment based on achieving outcomes on evidence-based clinical measures. A Medicare value-based purchasing program should meet the principles outlined in this paper.

Introduction

The U.S. health system is laden with undeniable inefficiencies and gaps in patient care, as documented by the Institute of Medicine (IOM) in 2001, the Agency for Healthcare Research and Quality (AHRQ), the National Committee for Quality Assurance (NCQA) in 2004, and others. Inefficiencies are apparent through over-utilization of expensive and unnecessary procedures, the system's focus on treatment rather than prevention of costly chronic diseases, costly end-of-life care, and fraud and abuse. Over-utilization of costly services often takes place through excessive lab testing, extended courses of therapy, and liberal use of high-technology machinery. A 2005 study found that inflated prices for certain medical services are spurring intense competition among physicians and hospitals to expand cardiac, orthopedic, and high-end imaging services, potentially sparking a powerful new health care cost driver. Faced with stagnant payment rates for professional services, many physicians are lured by perverse incentives to over-invest and over-utilize modern, high-technology diagnostic and treatment machinery (1). A separate study by a group representing large employers estimated that $390 billion a year is being wasted on outmoded and inefficient medical procedures (2).

Valuable and finite resources also are being poured into chronic disease treatment and end-of-life care. About 90% of national health care expenditures go to treat sick patients, while only 10% are earmarked for keeping people well (3). Recent estimates show that obesity costs the nation $69 billion to $117 billion per year; cardiovascular diseases, more than $300 billion each year; diabetes, approximately $132 billion per year; and asthma, nearly $14 billion per year. A much smaller amount is spent on preventing these conditions, despite evidence pointing to the enormous savings found in preventive care. One recent review of health promotion and disease management programs found a significant return on investment for these programs, with benefit-to-cost ratios ranging from $1.49 to $4.91 (median of $3.14) in benefits for every dollar spent on the program (4). In terms of end-of-life care, Medicare continues to be the largest funding source, serving more than 80% of people who die in the U.S. each year. Approximately one quarter of Medicare's annual budget is spent on its beneficiaries' last year of life (5).

Meanwhile, large-scale fraud and abuse pervades all sectors of the health care industry. An estimated $85 billion (5%) of the $1.7 trillion in U.S. health care spending in 2003 was lost to health insurance fraud (6). In 2003, the HHS Office of Inspector General reported collecting $988 million from Medicaid and Medicare providers making improper claims, with others saying fraud and abuse could far exceed that amount (7).

The effect of these various types of inefficiencies can be seen through regional variations in what Medicare pays for care in different states. In 2001, a traditional Medicare patient in Miami used $10,113 in services, on average, compared with a Medicare patient in Minneapolis who used $4,888 in services. These variations are usually linked to the kinds of extra health services provided in high-spending areas—such as the number of specialists, hospital beds, and technology available (including costly MRI and imaging scans and other minor procedures)—not varying rates of illness. Still, Medicare data show that most high-spending states rank near the bottom in quality of care (8).

In terms of quality gaps, Americans do not live as long as citizens of several other industrialized countries, and disparities are pervasive, with widespread differences in access to care based on insurance status, income, race, and ethnicity. Patients receive recommended care only about 55% of the time (9), and poor-quality care leads to 66.5 million avoidable sick days and $1.8 billion

in excess medical costs each year (10). Ambulatory care is not immune to these problems. A comparison of the 2003 and 2004 editions of the National Healthcare Quality Report revealed that on 24 measures of hospital quality, performance improved by a median of 5.4%, but only by 1.4% on 49 measures of the quality of ambulatory care (11). It is increasingly apparent that higher spending on health care does not necessarily result in better care.

Without the right systems in place to monitor quality and spending, the health care system is plagued with underuse, misuse, and overuse of medical services; delayed access to care; and health disparities. The quality of health care in the U.S. is simply not at the level one would expect from the world's most expensive health care system and valuable funding continues to be misdirected to less appropriate uses (12).

As health care costs continue to rise, those who pay for the system—government, employers, and taxpayers—are demanding greater accountability for the money being spent. Drawing on the IOM's call for the consistent provision of services based on current scientific knowledge and the development of a monitoring and tracking process to evaluate the progress of the health system (13), the Medicare Payment Advisory Commission (MedPAC) recently recommended to Congress that P4P systems be adopted by hospitals, physicians, and other Medicare participants. The CMS quickly followed MedPAC by endorsing the same concept. Even health care opinion leaders, recently surveyed by the Commonwealth Fund, ranked the rewarding of more efficient and high-quality providers first among effective ways to cut health care costs (14).

Medicare and other payers undoubtedly have a strong interest in encouraging changes in physician behavior that will improve health care quality. These changes may not only increase the quality of care but also eventually reduce total Medicare spending as a result of shorter and avoided hospital stays, fewer repeat visits, less complications from poor care, and other reductions to the total amount of care provided per episode.

Since its inception, ACP has been integrally involved in activities to measure and improve the quality of care that internists provide to their patients. However, this task has been hindered by the current payment system, which fails to recognize physician efforts to provide care in a coordinated and effective manner. As payers now attempt to add value to the health care data historically collected by medical societies, such as ACP, physicians are beginning to recognize that it is time to try to set the agenda rather than be "swept along as passive players in the next major change to the way health care is paid for and provided" (15). In 2004, ACP became one of the first medical societies to comprehensively examine the issue of physician performance measures in its position paper, "The Use of Performance Measures to Improve Physician Quality of Care." The paper laid out general principles on how responsible, equitable, and effective physician performance information can be gathered, used, and disseminated.

But the issue has moved with lightening speed over the past year, with Congress holding hearings on the merits of linking reimbursements to physician performance and legislation being introduced on the subject of value-based purchasing under Medicare. A value-based purchasing system, which includes P4P, would require physicians to demonstrate value by reporting their performance. ("Value-based purchasing" is a broader concept than P4P. It generally describes efforts by purchasers to use their purchasing clout to require value—based on some metric of cost and quality—for the money that they are spending on health care. In addition to linking financial incentives with quality, such programs also typically include efficiency and patient experience measures, report cards on

physician performance, and public reporting. Some value-based purchasing programs are also beginning to explore the use of patient co-payments to direct them to higher performing providers). Reimbursement would be tied to physicians' willingness to be held accountable based on such measures and to report to the public on the results.

ACP views the concept of P4P, if focused primarily on quality and implemented under a reformed physician payment system, as a tremendous opportunity to rearrange existing funding streams so that health care dollars are used most efficiently and effectively and to align incentives in a way that rewards internists for the complex care they provide. ACP's second paper, therefore, provides ACP leaders, members, staff, and policymakers with operational boundaries to assess public and private programs that not only measure performance, but link performance to payment. The paper elaborates on principles set forth in the original paper by discussing issues such as the development and selection of measures; appropriate ways to collect, aggregate, score, and report data; physician participation criteria; appropriate types of incentives; program implementation; and financing. The paper moves beyond the original paper, which called for *demonstration projects* to evaluate the use of performance measures and incentives, by advocating for the *implementation* of P4P systems, including public reporting and reimbursement incentives, that are evidence-based, transparent, fair, and equitable for practicing internists.

ACP also takes a major step beyond its original paper by acknowledging that under the current fiscal environment, where new funding is unlikely, P4P will have to be supported by a redistribution of funds among and across different geographic locations, health care professionals, and even among the College's own members on the basis of quality. It is, therefore, critical that, in providing rewards for physicians who commit to redesigning their practices to support quality improvement, the level of work and commitment involved should be recognized through differential payments. Basing incentives on effort assures that physicians who expend a disproportionately large amount of time and resources trying to improve quality and meet more complex measures, such as those who effectively manage patients with multiple chronic diseases, are recognized and rewarded accordingly. This is especially critical for the internist, whose ability to provide better care at lower costs through effective management of patients has been historically under-valued.

Redistribution of payments is only a small aspect of a larger issue that must be confronted before a system that rewards physicians for quality improvement can be effective: the dysfunctional physician payment system. The current reimbursement system is fragmented and episodic in nature, leading to enormous inefficiencies. Physicians are paid a standard fee regardless of the quality of their care, which discourages innovations, coordination, and practice improvement. The current system must be replaced with new methods of reimbursement that reward those who follow evidence-based standards of care. Only then can internists be recognized as uniquely qualified to manage the care of more complex patients with multiple chronic diseases and comorbid conditions.

ACP realizes that designing a fair, credible, and effective P4P program is a challenging and complicated task. P4P is comprised of many aspects, including the development and selection of appropriate performance measures, the integration of acceptable methods of data collection and reporting, and an equitable determination of incentives. Within each of these categories are a set of unintended consequences that must be carefully monitored and reconciled. ACP also realizes that in the short-term, P4P programs may actually increase utilization of more effective but currently under-utilized treatments, thereby raising costs rather than reaping savings.

As new systems of payment linked to performance are being explored, it is ACP's duty to its members to assure that the right measures are used, that data collection is accurate and reasonable, that appropriate and adequate financial incentives are provided, and that quality—not just cost reduction—is always the overriding measure of success. It is especially important that ACP and other public and private organizations monitor the impact of any P4P program on the lowest quartile of performers and offer services to help these physicians improve their performance, should they wish to do so. The access-to-care problems that disadvantaged and severely ill patients may encounter as a result of P4P programs must also be carefully monitored. By being so engaged, ACP has a much greater chance of steering the quality improvement movement so that it does not compromise patient care or become yet another unfunded mandate on already stressed practitioners.

Physician adoption of quality improvement strategies upon which incentives are based, if done right, can result in higher-quality patient care leading to increased physician and patient satisfaction. It will ultimately demonstrate what ACP has always argued and believes intuitively—that a well-trained internist provides the best value (i.e., cost *and* quality) in the health care system.

ACP understands that P4P is just one part of a comprehensive approach that also must include fundamental reform of payment systems. ACP believes that health care quality will improve if internists have the reimbursement and practical support needed to help them provide the best care possible. If P4P is done right, internists who can demonstrate continuous quality improvement based on accepted measures should have the opportunity to earn a larger share of total health care dollars in a way that will begin to address the reimbursement inequities that have plagued the profession for so long. This fundamental shift in reimbursement creates an opportunity to favorably affect the decisions of younger physicians to choose internal medicine and enhance the satisfaction of those who are currently practicing. More importantly, ACP believes that P4P programs will result in higher-quality patient care and enhanced patient satisfaction with the health care system.

The College also recognizes that value-based purchasing systems and other forms of P4P will not solve all of the problems of the health care system, including the issue of access to care. In the short-term, the 45 million uninsured individuals that essentially remain "outside" of our nation's health care system will be affected little by efforts by insurers to improve quality for those who already have coverage. In the long run, however, P4P has the potential to raise the overall bar on quality, to identify money that is now being used ineffectively and inefficiently, and to redistribute it to those who do not have coverage. ACP will continue its efforts to ensure that all Americans have access to affordable health coverage.

Environmental Assessment

Overview of ACP Activities Related to Quality Improvement

ACP's support for assessing physician performance as a way to identify gaps in quality and improve the delivery of care is not a new position of the College. In fulfilling its mission to enhance the quality and effectiveness of health care by fostering excellence and professionalism in the practice of medicine, ACP has engaged in several activities aimed at improving physician performance, including:

- Leading aggressive advocacy efforts to help internists provide well-coordinated, evidence-based, culturally competent, and patient-centered care;
- Influencing the development of reliable quality/performance measures and practice guidelines;
- Helping internists, particularly those in small practice, understand and use technology to improve the care delivered to patients and the efficiency in managing their practices;
- Providing self-assessment and other formats of education that help internists achieve successful recertification, particularly as they apply to the physician's ability to demonstrate competency versus knowledge;
- Making educational materials available on the College's Web site and through the Physicians' Information and Education Resource (PIER), with cross-links between those materials and *Annals of Internal Medicine* (16);
- Providing internists with guidance on ethical and clinical topics;
- Structuring the design of future programs based on needs assessments, including evidence-based content, patient outcomes, and the use of point-of-care technology to link continued medical education (CME) with quality-of-care improvement; and
- Supporting public and private organizations that seek to enhance health promotion, disease prevention, and quality assurance.

The College supports several federal demonstration projects that test new models to improve office-based quality and reward physicians for managing care effectively. ACP is directly involved in implementing the Chronic Care Improvement Program/Medicare Health Support pilots in Mississippi and Pennsylvania as authorized by Section 721 of the Medicare Modernization Act (MMA), working with awardees to develop mechanisms to support physicians' roles in coordinating and improving care of patients with diabetes and congestive heart failure. ACP has also urged Congress to expand the performance-based demonstration program for small physician practices that was created by Section 649 of the MMA and to enact legislation to authorize a new Medicare pilot of patient-centered, physician-guided chronic care improvement, where patients are encouraged to select a physician practice as their "medical home." ACP is supportive of the Quality Improvement Organization's 8th Scope of Work, which requires quality improvement organizations (QIOs) to provide technical assistance for information technology to physicians, and is an active participant in CMS's Doctor's Office Quality Information Technology (DOQ-IT) demonstration project, which promotes the adoption of EHRs in small and medium-sized practices.

The Ambulatory Care Quality Alliance

In May 2005, the Ambulatory Care Quality Alliance (AQA) took a major step toward improving the quality of the U.S. health care system by selecting a "starter set" of 26 clinical performance measures for the ambulatory care setting. The College is one of four original organizations that organized and convened the first AQA meeting in the fall of 2004 (the other three co-conveners are the America's Health Insurance Plans, the American Academy of Family Physicians, and the Agency for Healthcare Research and Quality) and ACP continues to serve on its steering committee.

The AQA, a national consortium of large employers, public and private payers, and physician groups, aims to improve health care quality and patient safety through a collaborative process in which multiple stakeholders agree on a strategy for measuring, reporting, and improving performance at the physician level. The AQA also works to promote uniformity in order to provide consumers and purchasers with consistent information, while considering the administrative feasibility of measures in terms of the practicing physician.

The AQA's starter set of ambulatory care measures is intended to provide clinicians, consumers, and purchasers with a set of quality indicators that may be utilized for quality improvement, public reporting, and P4P programs. The rationale behind the measurement starter set is to allow physicians to get used to tracking a few simple performance goals, while more sophisticated measurements and implementation guidelines are developed. The starter set represents the first of several generations of increasingly sophisticated performance measurement sets that can be used to measure quality of care in the ambulatory area. (A complete list of the AQA starter set measures can be found at www.ahrq.gov/qual/aqastart.htm.)

The initial set of measures relies principally on administrative data that are readily available for most practices, thereby reducing the administrative burden of having to extract information from medical records. In addition, the starter set meets the standards of scientific validity, feasibility, and relevance to physicians, patients, and purchasers. AQA participants are now beginning to address the complex issues associated with creating the infrastructure for performance reporting. The group also is working on a model for aggregating, sharing, and stewarding data that maintains appropriate restrictions on privacy and confidentiality, as well as principles for reporting information to providers, consumers, and purchasers.

Public Programs

P4P is rapidly gaining momentum across the nation among private and public payers as a way to ensure the best care is delivered for the money spent. In a national effort to encourage public reporting of quality data, CMS has launched various P4P demonstration projects, signaling its willingness to consider the concept. In 2005, CMS launched the Physician Group Practice Demonstration, the first Medicare initiative to pay physicians for improvements in the quality of care provided to chronically ill and high-cost beneficiaries. The demonstration will reward 10 large group practices (more than 200 physicians) for improving the quality and efficiency of health care services delivered to Medicare fee-for-service beneficiaries. Bonuses, in addition to fee-for-service reimbursements, will be provided based on 32 quality indicators, such as blood pressure management and colorectal cancer screening. CMS also seeks to encourage coordination of parts

A and B services and promote efficiency through investment in administrative structures and processes.

The Medicare Care Management Performance Demonstration (section 649 of the MMA) is a 3-year P4P demonstration with physicians to promote the adoption and use of HIT to improve the quality of patient care for chronically ill Medicare patients. Doctors who meet or exceed performance standards established by CMS in clinical delivery systems and patient outcomes will receive bonus payments for managing the care of eligible Medicare beneficiaries. In contrast to the Physician Group Practice Demonstration, this demonstration, which is currently under development, is focused on small and medium-sized physician practices. It will be implemented in four states: Arkansas, California, Massachusetts, and Utah. The QIOs in those states support the demonstration.

The Medicare Health Care Quality Demonstration (MMA section 646) is a 5-year demonstration program whose purpose is to test major system changes to improve the quality of care while increasing efficiency across the entire health care system. Payments under the demonstration will be tied to cost savings, as well as improvements to process and outcome measures. Eligible entities include physician groups, integrated health systems, and regional coalitions. The program hopes to improve quality by improving patient safety, reducing variations in utilization by appropriate use of evidence-based care and best practice guidelines, encouraging shared decision making, and using culturally and ethnically appropriate care.

Preliminary data are now available from CMS's hospital P4P demonstrations, which were initiated before the physician demonstrations. The Hospital Quality Initiative (originally known as the National Voluntary Hospital Reporting Initiative) uses payment incentives to promote public reporting on 10 measures of health care quality for three medical conditions. Hospitals that did not submit performance data for the quality measures by July 2004, received 0.4% smaller Medicare payments in fiscal year 2005 than institutions that reported data. Nearly all acute care hospitals (98.3%) chose to participate in this voluntary program (17).

The Premier Hospital Quality Incentive Demonstration, which includes more than 270 hospitals, seeks to provide bonuses or reductions in payments to hospitals based on their performance on quality measures for five conditions. Those in the top 10% of quality for each clinical area receive a 2% payment bonus, while institutions in the second decile receive 1%. By the third year, hospitals that do not achieve performance improvements above a baseline will see their payments adjusted downward (18). Initial results of the Premier demonstration project show that using financial incentives to reward quality patient care results in better care and fewer costly complications. The median performance composite score, a measure of improvement for hospitals that combines the process of care and outcome measures from chosen clinical focus areas, increased 7.5% overall in the project's first year (19).

A list and description of other current Medicare P4P initiatives can be found at www.cms.hhs.gov/media/press/release.asp?Counter=1343.

Private Programs

While the public sector awaits the results of current demonstrations, the private sector is leaping ahead with performance-based incentive programs. The Commonwealth Fund has counted as many as 105 private payer P4P initiatives in the United States, while Med-Vantage, a consulting firm that has surveyed scores of plans, estimates that more than 100 plans are covering more than 40

million patients. According to one report, almost one third of health plans say that they have a P4P program in place, but most are in the earliest stages of development or implementation (20). A 2004 survey found that most P4P programs 1) targeted primary care physicians and 2) were confined to HMO, fully insured products with annual bonus incentives based on NCQA Health Plan Employer Data and Information Set (HEDIS) performance measures. Over the last year, however, P4P programs have significantly expanded to include Preferred Provider Organizations and Consumer Directed Health Care products; clinical information technology adoption measures have significantly grown; P4P programs have expanded to specialists; use of adjustable (tiered) fee schedules instead of annual bonus payments are increasing; and interest in using P4P performance results for public reporting is growing (18).

One of the most recognized private initiatives is the Bridges to Excellence (BTE) program, which CMS has looked to in designing its Medicare demonstration projects. Bridges to Excellence, which focuses on ambulatory care improvement, is currently based on three physician recognition programs designed and administered by the NCQA. The programs cover diabetes, heart and stroke, patient education, and HIT. A central aspect of the BTE program involves incentives for physicians to install systems to handle electronic medical records (EMRs). The annual per-patient bonus was as much as $50 in 2004, which BTE says is equal to about half the projected savings that would come from using the HIT systems. Bridges to Excellence estimates that "the short-term savings achieved by adopting these IT systems are about 4 percent to 5 percent of the total cost of care" (21). Over the next few years, BTE will be working rapidly to expand its P4P programs to include clinical areas that constitute close to 70% of employers' outpatient expenditures (22). Employers, coalitions, and health plans—including United Healthcare, CIGNA HealthCare, and CareFirst—are also now preparing to expand the program to 20 more markets beyond the four in which it currently operates.

The Leapfrog Hospital Rewards Program is another highly regarded but less developed program. It measures the quality of care and the efficiency with which hospitals use resources in five clinical areas that represent a significant portion of hospital admissions and expenditures among the commercially insured population. Hospitals will be scored and rewarded separately for each of the five areas and can participate in any of the areas in which they provide care. If they demonstrate sustained excellence or improvement, they may be eligible for financial rewards or increased market share. Scores can become the basis for financial incentives for consumers, such as waived co-pays or deductibles for choosing care at high performing hospitals. Scores can also be incorporated into health plans' existing performance-based incentive and reward programs. The program is now accepting data from hospitals and the first results will be available in October 2005. The first implementers are likely to begin paying rewards in 2006 (22).

The Integrated Healthcare Association's (IHA) statewide pay-for-performance program is the largest in the country, comprising of seven California HMOs covering more than 35,000 doctors in 225 medical groups and more than six million patients. Performance data for IHA's second measurement year showed gains across all 14 evidence-based measures of clinical quality. The program also assesses the investment in and adoption of HIT to support patient care. Of the 225 participating medical groups, 119 (53%) met some or all of the program's HIT criteria in the second year, a marked increase from the 74 groups that met HIT standards in 2003. Illustrating the link between HIT adoption and quality, the medical groups who received full credit on the HIT

measures had average clinical scores that were 9 percentage points higher than medical groups that showed no evidence of HIT adoption. The 225 participating medical groups also collectively improved from 2003 across all six patient satisfaction measures. The 2004 results will be used by participating health plans to calculate the incentive payments they distribute to medical groups between early July and October 2005. Medical group-specific results will also be released to the State of California Office of the Patient Advocate for use in its annual public scorecard (23).

Massachusetts' major health insurers paid thousands of primary care physicians millions of dollars in bonuses in 2004, with some handing out record payouts to doctors based on benchmarks ranging from technology improvements to asthma or breast cancer screenings. Blue Cross Blue Shield of Massachusetts, Harvard Pilgrim Health Care, Tufts Health Plan and Fallon Community Health Plan all claim many of their primary care physicians now earn some kind of performance bonus on top of their regular patient reimbursements. The plans note that bonus payments for 2004—in excess of $40 million—created better record keeping, improved care, increased efficiency, and reduced costs. According to Blue Cross Blue Shield of Massachusetts, an average payment to physicians would hit $2 per patient per month, allowing a five-physician practice with 800 patients to make close to $20,000 extra over the course of the year. Harvard Pilgrim said it paid $18.5 million in performance bonuses to a significant percentage of its network of 7,000 primary care physicians for 2004 work, representing a record after more than 10 years of bonuses. Average payments reached $3.70 per patient member per month. Physicians from small practices to the mega-physicians group at Partners HealthCare now participate as part of their contracts, while insurers (such as Blue Cross and Tufts) say they are increasingly gearing bonuses to specialists (24).

ACP Public Policy Positions on Linking Financial Incentives to Physician Performance on Quality Measures

I. The Use of Incentives to Promote Physician Quality Care

Position 1: ACP supports the use of incentives to promote physician quality of care as evaluated through evidence-based performance measures applied and collected in a consistent, reliable, feasible, and transparent manner. The primary goal of P4P programs must be to promote continuously improving quality care across the health care delivery system. P4P programs should:

- Demonstrate improved quality patient care that is safer and more effective as the result of program implementation;
- Incentivize all physicians to perform better, continually raising the bar on quality; and
- Develop, or link closely to, technical assistance efforts and learning collaboratives so that *all* providers are motivated and helped to improve their performance.

Position 2: The reward framework (i.e., type and magnitude of incentives) should be designed to permit and facilitate broad-scale positive behavior change and achievement of performance goals within targeted time periods. Potential rewards should be:

- Significant enough to drive desired behaviors and support continuous quality improvement;
- Greater than the cost of the physician's participation in a P4P program;
- Balanced between rewarding high performance and rewarding substantial improvement over time;
- Graduated to create stronger incentives for physicians to participate in performance improvement programs and to ensure that a physician's level of commitment to quality improvement activities is recognized;
- Directed at positive rather than negative rewards; and
- Timely and followed closely upon the achievement of performance.

The goal of any incentive program linked to physician performance must be to encourage continuously improving quality care across *all* practice settings. The bar on quality should continually be raised—lifting all boats rather than leaving some to founder. Programs must therefore reward *all* physicians who actively participate in the program and who achieve prespecified absolute program goals or demonstrate prespecified relative improvement toward program goals.

ACP encourages its members to implement and participate in continuous quality improvement, including the use of performance measures to regularly monitor and assess the levels of quality care that they are delivering to their patients. ACP recommends that its members participate in data reporting and benchmarking efforts and compare their individual performances against benchmarks. The College intends to supply its members with the tools and resources needed to help them implement routine self-assessments using performance measures and, in general, to succeed in their quality improvement efforts.

In recognizing the cost of providing care in accordance with evidence-based accepted national standards of care, incentives must be sufficient enough to cover any additional work and practice expenses incurred by physicians as a

result of program participation, including the cost of acquiring HIT. If incentives are so insufficient that physician payments do not keep up with the cost of measuring and reporting care based on quality indicators—including investments in HIT and other practice-based tools to perform effectively—physicians will view P4P as another unfunded mandate imposed on their practices with no meaningful rewards in terms of higher reimbursement.

Rewards must reflect a physician's level of work and commitment to quality improvement, which will inevitably differ among physicians across and within medical specialties. Because participation in performance measurement programs involves substantial, but varying levels, of costs (for HIT, data collection, and reporting) and time commitment from physicians and their staffs, the level of incentive should consider the complexity of the measures, including the number of dimensions of care being measured, the number of measures upon which data is collected, the time and costs associated with documenting performance based on the measures, and the level of HIT acquired by the practice to support participation in approved quality improvement programs. For example, physicians who only meet basic structural measures should receive a lower, but positive, bonus payment than physicians who are participating in programs that use multiple or more robust evidence-based measures. A graduated payment structure, as opposed to a system that pays all physicians the same amount regardless of their level of commitment, creates stronger incentives for physicians to participate in performance improvement programs and encourages specialties with only a few simple measures to develop more complex evidence-based measures of performance.

For a physician to participate in a P4P program, the reward must reflect more than the cost of participation. It must also reflect the immediate direct costs involved with higher-quality care, such as increased utilization of certain procedures. Although higher quality care saves a health system in the long-run, these cost-savings are not immediately apparent—especially to the primary care physician. The aging of America, combined with poor lifestyle choices, may in fact undo cost savings that could come from better management of chronic conditions and may actually generate higher costs in the short term. Rewards, therefore, must be sufficient enough to cover the immediate costs associated with properly following evidence-based performance measures.

P4P programs should reward high performance, in addition to continuous quality improvement (i.e., an individual clinician's or group's measurable gains in quality compared with previous years, even if they fall short of the absolute thresholds). If P4P programs only reward quality improvement, low-performing groups would have an advantage over those who have already achieved high levels of care. If P4P programs only reward those who meet certain benchmarks, physicians that face disproportionately large barriers—such as physicians practicing in underserved areas, small practice physicians, and newly practicing physicians—would be penalized and have little incentive to participate. A recent study published in the *Journal of the American Medical Association* (*JAMA*) concluded that P4P programs that do not provide sufficient rewards may fail to significantly improve quality and that concerns of fairness can be addressed by P4P programs that recognize *both* improvement and high performance (25).

If designed correctly, P4P can provide opportunities for ACP members to get reimbursement support for their efforts to improve quality supported by HIT. To the extent that internists are better prepared than others to succeed in P4P programs, they can earn a larger share of the dollars in a way that will begin to address the reimbursement inequities.

II. The Need to Fundamentally Redesign the Physician Payment System

Position 3: ACP acknowledges that the current physician payment system is flawed and cannot sustain the use of incentives to reward quality improvement on evidence-based measures of care. Efforts to add an additional portion of reimbursement tied to physician performance on top of the current payment system will be inadequate to materially change the current level of physician performance. Public and private payers should work with the medical profession on a fundamental redesign of physician payment methodologies that include the following reforms:

- The physician payment system should fairly compensate physicians for work and practice expenses, and payment updates should fairly reflect inflation.
- Physicians reimbursement should not be based on volume and episodes of acute illnesses but on patient-centered, physician-guided care coordination and quality performance based on evidence-based clinical measures.
- In a fiscal environment in which Congress and private purchasers are seeking a reduction in the rate of growth in health expenditures, ACP recognizes that a redistribution of funds across and within geographic locations and specialties and between physicians and hospitals or other health care providers will be necessary to support P4P programs. Redistribution of funds should be sufficient to address existing payment inequities that undermine and devalue the importance of internal medicine physicians in providing coordinated and high quality care to patients with multiple chronic diseases. However, redistribution should not be used as a way to reduce total expenditures by payers.

Medical care today and in the future, especially for the internist who treats most Medicare beneficiaries, will involve treating an aging population, treating patients' chronic conditions, preventing and managing illness rather than just treating disease, rendering care by a coordinated team of health professionals, and making clinical judgments based on evidence-based clinical decision support. These changes carry an increased need to coordinate care, reach out to patients to ensure they are following their treatment regimens, and implement available HIT into their daily office routine. Although internal medicine is particularly well-qualified to provide high-quality care and manage the care of more complex patients, including those with multiple chronic disease and comorbid conditions, these activities are very difficult to accomplish in an environment characterized by payment cuts, perverse incentives, and a lack of recognition and attribution of system-wide savings. As MedPAC pointed out to Congress, "[w]hile providers are motivated individually to provide the best care possible, the organization and incentives they work within make it difficult to do so. The incentives to improve quality must build upon the commitment of individuals and help create system support for delivery of the best care possible" (26).

Significant improvements in performance or quality cannot occur until the current payment system has been replaced with one that incentivizes the delivery of high-quality care. Incentives associated with P4P programs cannot simply be added to the existing flawed system. For P4P to be effective, the Medicare payment system must be modified so that it provides physicians with incentives to improve quality and avoid unnecessary costs. For one, physicians

need to receive positive Medicare payment updates in order to be willing and able to participate in P4P programs. Reversing cuts that would otherwise occur under the sustainable growth rate (SGR) formula is a temporary solution. A longer term solution is to repeal the SGR and replace it with a formula that is based on the actual cost of delivering care with additional incentives for physicians who demonstrate a commitment to continuous quality improvement.

The existing fee-for-service system for determining physician payments inherently limits the quality that can be achieved, since it does not reward the quality of procedures performed or cognitive services but rather the number of procedures performed. The Medicare payment system must reward physicians for engaging in practices that lead to more effective and efficient care, such as meeting quality performance measures, incorporating EHRs, and providing increased care coordination.

Congress and private purchasers may not be willing to increase the total amount of money that they are spending on health care beyond what they are currently projected to spend. If anything, they are seeking efficiencies that will slow the rate of growth. Although ACP ideally would like to see the appropriation of new funds to support quality improvement efforts, ACP realizes that P4P programs may have to depend on the financial support of cost savings derived from multiple sources. One of the most significant sources of funding may be the redistribution of funds within existing levels of projected expenditures on health care services. Savings that result from preventing avoidable hospital admissions or readmissions, for example, may be redistributed to physicians. Funds that result from reductions in spending in geographic areas that have higher per capita expenditures but rank near the bottom in quality indicators may be funneled to providers in areas that rank higher on quality indicators but have lower per capita expenditures. Redistribution will involve a re-examination of existing payment inequities across specialties that devalue the critical role played by internists in delivering patient-centered and physician-guided care coordination of patients with multiple chronic diseases.

ACP supports the concept of redistribution to support internists who demonstrate continued improvement in care based on appropriate quality and efficiency measures. In recognizing the challenges involved, ACP believes that redistribution must be approached with fairness to all, be driven by quality, provide opportunities for "less efficient" clinicians to improve their own quality and resource use rather than simply cutting their payments, and be sufficient to address existing payment inequities that undermine and devalue the importance of internal medicine physicians in providing coordinated and high-quality care to patients with multiple chronic diseases.

Meeting these goals will not be easy and may necessitate a re-evaluation of the current distribution of hospital funds. P4P programs already operating in hospitals continue to funnel rewards for savings to hospitals through payments for diagnosis-related groups (DRGs), at the exclusion of physicians who helped produce the savings. Compounding the problem is the fact that these P4P programs have succeeded at substantially reducing the duration of hospital stays over the last few years. As a result, new saving available to physicians is very limited.

III. Minimizing Physician Burdens

Position 4: Within reasonable trade-offs between the need to produce valid and reliable data and the cost of data collection and analysis, P4P programs should use the least burdensome and disruptive methods of measurement and data collection to encourage broad physician participation across all modes of practice, including geographic regions and practice sizes. Particular attention should be paid to the obstacles faced by safety net providers, physicians in small practices, and physicians who are just entering practice. New and expanded federal pilots and demonstration projects should evaluate ways to minimize barriers to participation.

ACP acknowledges the many burdens that may be placed on a physician who chooses to participate in a P4P program, including the extra time it may take to document, collect, and report data and the investment of valuable resources in HIT and other forms of practice redesign. All aspects of a P4P program, from measurement sets to data collection methodologies, should be developed with the minimization of these burdens in mind.

Physicians who face seemingly insurmountable barriers to easily measuring, collecting, and reporting data should not be precluded from participating in and realizing the benefits of a P4P program. These clinicians, in particular, require assistance (both technical and financial), and penalizing them will only cause them to fall farther behind those who have more resources to invest. Favoring early adopters or larger practices over those who do not have such capabilities will create a two-tiered system that will benefit certain patients at the expense of the tens of millions of patients who receive their care from physicians in smaller practices. P4P program sponsors should help such practices adopt the infrastructure needed to voluntarily participate in programs to measure and report performance based on accepted clinical measures.

Several studies have illustrated the challenges practices face in implementing quality assurance mechanisms, including HIT components. Recent studies found a positive statistical relationship between the size of a physician organization and the use of care management processes (including the use of disease registries, the adoption of clinical practice guidelines, and the teaching of patient's disease self-management skills) (27, 28). Another study revealed that practice size was the predominant factor affecting physician use of information technology, with smaller practices most challenged by the financial costs of implementation (29). Since larger practices may start off with an advantage in terms of capabilities to measure and collect data and to administer care efficiently, P4P programs should assist practices that face obstacles adopting mechanisms that promote quality improvement. Programs should also encourage collaborative, team approaches to the provision of quality health care so that *all* providers are motivated and helped to improve their performance.

IV. Transparency and Oversight

Position 5: Physicians should have a key role in determining methods used to develop and select measures, collect data from physicians, aggregate and score performance, and report performance data internally and publicly. These processes should be transparent so that physicians, consumers, and payers know that methods and results are valid and reliable. P4P program sponsors should notify potential participating physicians of program implementation, educate physicians about the potential risks and rewards inherent in program partici-

pation, and immediately inform physicians of any changes in program requirements and evaluation methods and newly identified risks and rewards.

Position 6: P4P programs should incorporate periodic, objective assessments of measurement, data collection, scoring, and incentive systems to evaluate its effects on achieving improvements in quality, including any unintended consequences. The program and, where appropriate, its performance thresholds should be readjusted only when there is compelling evidence and a justifiable reason to do so.

Before implementation, P4P programs should provide a complete explanation of all program facets to all eligible physicians and practices. Physicians should receive a complete description of quality measures and the methods used to score physician performance analysis and to determine incentive eligibility and incentive amounts. Physicians should clearly understand what the reward will be relative to their level of participation so that they can accurately assess the cost of participation.

Since many physicians may be financially threatened by P4P programs, it is critical that the impact of any P4P program on the lower quartile of performers be monitored and that ACP, as well as other private and public organizations, assist physicians who are disproportionately affected by obstacles to improve their performance, should they wish to do so.

P4P remains an ongoing experiment—not an accepted permanent change in the health care system—and programs will require ongoing evidence-based evaluations to ensure that they are meeting the goals of quality improvement without unduly burdening physicians.

V. Selection of Measures

Position 7: Quality measures used to evaluate physician performance should be:

- Evidence-based or, in the absence of sound scientific evidence, based on expert consensus;
- Relevant to the physician's clinical responsibilities;
- Valid and reliable;
- Practical;
- Clearly defined;
- Have actionable measurement goals;
- Stable over time, unless there is compelling evidence or a justifiable reason to modify them; and
- Related to clinical conditions prioritized to have the greatest impact.

Position 8: ACP supports the use of structure, process, and outcome measures in P4P programs as long as they meet ACP's criteria for measures used to evaluate physician performance.

Position 9: ACP supports the use of "efficiency measures," as long as they meet ACP's criteria for performance measures and are based on an objective assessment of evidence on the effectiveness of particular treatments, with both cost *and* quality taken into consideration.

Position 10: The development, validation, selection, refinement, and integration of performance measures should be a multi-level process that takes advantage of the most recent scientific evidence on quality measurement and

has broad inclusiveness and consensus among stakeholders in the medical and professional communities. This entire process should be transparent to the medical community. Measures selected by CMS for use in a federal P4P program should be a subset of measures vetted through this process.

Physician performance measures should be based on widely accepted evidence-based clinical practice guidelines. According to the IOM, evidence-based medicine plays a valuable role in addressing the systemic nature of quality-of-care problems by pointing to patterns of care that support optimal patient outcomes (30). To ensure adherence to quality measures, the evidence on which they are based must be effectively communicated to physicians and patients. The measures must be clearly defined and explained to physicians, including definitions of each specific numerator and denominator. Early results from currently tested models reveal that high levels of adherence to evidence-based guidelines are achievable with sufficient education of physicians (12).

Measures should focus on those elements of clinical care over which physicians have direct and instrumental control, as opposed to systems constraints. If a physician does not have adequate control over an element of medical care used to measure performance, that element should not be considered or should be properly adjusted for. Some performance measures are highly patient-dependent (e.g., completion of a colon cancer screening), whereas others are highly physician-dependent (e.g., whether a particular procedure was done according to approved guidelines, such as a radiological procedure or a nuclear medicine scan). In the early stages of a P4P program, measures should focus on actions attributable to the physician to the extent feasible and practicable. As quality continues to improve as a result of performance measurement, measures will eventually begin to account for a physician's ability to influence patient health behaviors.

Still, much remains to be learned before outcome measures can be used. In the meantime, measures should recognize outcome limitations, such as patients for whom the physician is not solely responsible, patients who do not adhere to therapy after reasonable efforts to ensure compliance, or patients for whom the measure is not appropriate. Measures should also account for subsequent actions taken by the physician. Prevention measures, for example, should not evaluate whether a physician succeeded at getting a patient to quit smoking. Instead, the measures should look at whether a physician advised the smoker to quit, discussed smoking cessation medications, and/or discussed smoking cessation strategies. Similarly, an appropriate measure for breast cancer prevention, for example, should allow a physician to indicate the circumstances of a patient who has had bilateral mastectomies. Although adjusting for factors beyond a physician's control is important, measurement systems should be careful not to dilute the data so much that they lose their value to quality improvement efforts.

P4P programs should not undermine the provision of safe, high-quality care. Physicians and patients should have access to the range of evidence on all treatment options and health management strategies in formats that are balanced and practical at the point of decision making. Such information can help patients and physicians consider issues like the level of certainty the evidence provides, its applicability to their own circumstances, and the potential risks and benefits of different treatment options (30). ACP's PIER is a point-of-care evidence-based decision-support tool that enables physicians to make such assessments. PIER supports MedPAC's goal of making sure that physicians have "the appropriate information available at the right time to make informed decisions" (26).

Since physicians are ethically required to use sound medical judgment, holding the best interests of the patient as paramount, the application of evidence should be consistent with permitting physicians and patients to choose safe, effective health interventions that best meet the unique medical needs and values of the individual patient (30). A recent study published in the *JAMA* illustrated the problems that could arise in patient safety and higher costs when clinical practice guidelines are followed to care for an older person with several comorbid conditions (31). The study found that guidelines for individual conditions were not always accurate or effective for patients with multiple conditions and could even prove to be harmful. The study highlights the need to further explore issues related to the effectiveness of measures. Until these issues are worked out, the most basic and reliable measures should be used in P4P programs.

More research needs to be conducted on the individual strengths and weaknesses of structure, process, and outcome measures. For instance, process measures have been found to be more sensitive to differences in quality than comparisons of outcomes (32). To avoid most of these differences, all measures should be subject to the best available risk adjustment for patient demographics, severity of illness, and comorbid conditions.

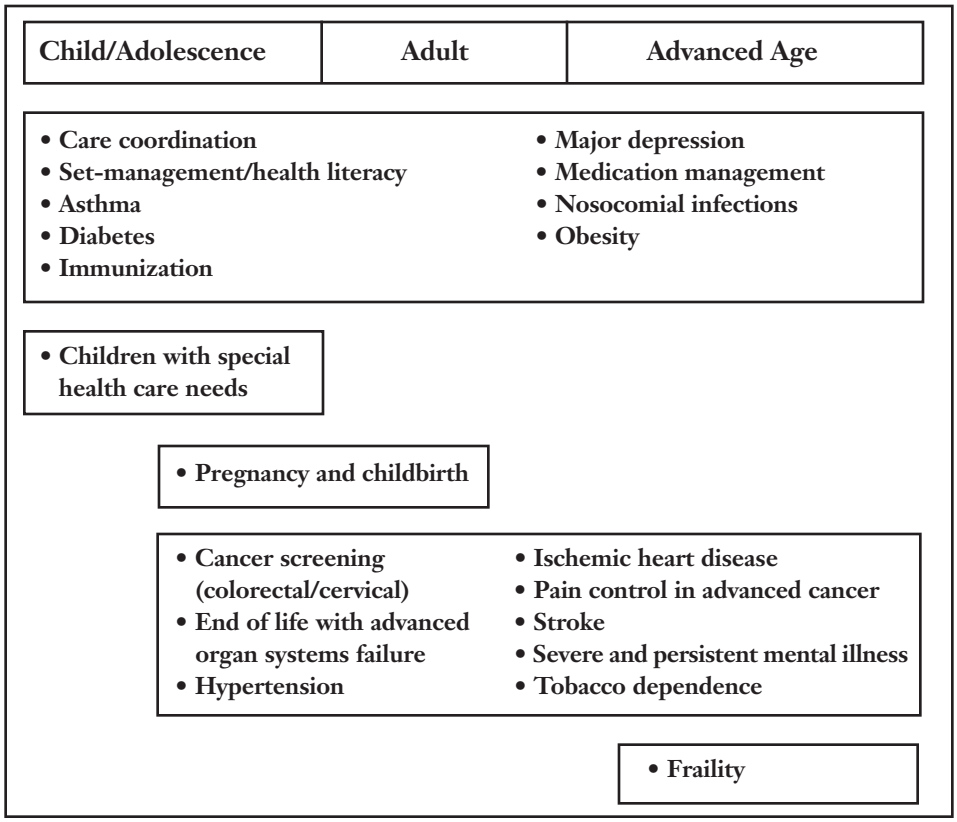
P4P programs must be careful not to use measures that compare cost and utilization or attempt to control volume in the absence of an objective evaluation of the evidence supporting the effectiveness (in terms of *both* cost and quality) of specific treatments. Thus, an "efficiency measure" used in the context of P4P is only acceptable if it evaluates cost *and* quality while factoring in how the health system in which the physician practices affects the results. Coordination of care, for example, simultaneously supports both cost containment and quality improvement by eliminating wasteful redundancies or delays in treatment. The evaluation of the overuse of antibiotics is another example of an appropriate "efficiency" measure that accounts for both resource use and quality. It is critical that measures demonstrate that they actually assess the quality component.

Measures that look only at costs run the risk for dissuading physicians from selecting invaluable, yet costly, treatments for certain conditions. Highly valued treatments, however costly, should not be viewed as opportunities to reduce wasteful spending if their effectiveness is supported by evidence. Research has found that innovations in the treatment of diseases, such as heart disease, cancer, and depression, have yielded benefits far in excess of their costs. For example, new approaches to heart disease, the single most costly condition, have considerably reduced death rates (33). In the end, "efficiency measures" used to measure physician performance *must* preserve the ultimate goal of improving clinical outcomes.

At the same time, the pursuit of improved performance on certain measures must not preclude the necessity for physicians to continue to be attentive to avoiding medically unnecessary care. Evaluating and preventing the overuse of ineffective procedures is just as important to quality improvement as incentivizing physicians to perform the most effective procedures. Achieving the goal of improved health care quality will necessitate an evidence-based examination of procedures that are overused or ineffective or that simply fail to improve the quality of care.

Finally, measures to improve clinical quality should focus on those clinical conditions that have the greatest impact on our health care system (34). The IOM has identified 20 top priority areas based on their breadth of impact, improvability (the likelihood of closing large quality gaps), and inclusiveness

(the diversity of people affected and the likelihood of improvements having positive effects throughout the health care industry). The priority areas are relevant to the full spectrum of health services—acute, emergency, surgical, preventive, behavioral, care management, and long-term and palliative care—and, therefore, emphasize the importance of care coordination. They also represent services delivered in publicly and privately financed ambulatory and inpatient health care settings by a variety of health care practitioners, including both generalists and specialists. The priority areas cut across all stages of a typical life span, with most of the areas clustering around adulthood and extending into end-of-life—age cohorts that are representative of internal medicine.



Priority Areas for National Action: Transforming Health Care Quality: HCS, IOM; 2003.

Most importantly, the IOM priority areas encompass the most costly and most prevalent medical conditions. Five of the IOM conditions (heart disease, stroke, chronic obstructive pulmonary disease, cancer, and diabetes) account for 1.5 million deaths annually and 63% of the total deaths in the U.S. annually. At least 12 of the top 15 most costly conditions in the U.S. and four of the top five most costly conditions figure prominently in IOM's top 20 priority areas. In fact, 43% to 61% of the change in total health care spending in the U.S. from 1987 to 2000 was attributable to the 15 most costly conditions (35), while the five most expensive conditions—heart disease, mental disorders, pulmonary disorders, cancer, and trauma—contributed to 31% of this overall change.

A performance measurement program that focuses on the IOM priority areas can achieve substantial gains in quality and cost efficiencies. One need only

to look at diabetes, the fifth leading cause of death in the United States, affecting 17 million people and a contributing factor to more than 210,000 deaths in 1999. Total annual economic costs attributed to diabetes-related illness in 1997 were $98 billion. While diabetes predisposes individuals to many long-term, serious medical complications, the lifetime benefits of intensive therapy could result in about 8 years of additional sight, 6 years free from end-stage renal disease, and 6 years' deferral of lower-extremity amputation.

The process by which evidence-based measures are developed, validated, refined, and integrated into physician practice is equally as important as the components that make up the measures. The success of any P4P program will depend in great measure on the involvement of physicians. Measures should be developed by medical specialty groups and practicing physicians with expertise in the area of care in question, and selected based on where there has been strong consensus among stakeholders, including providers, health plans, insurance companies, and consumer representatives in both the public and private health care systems. The American Medical Association's Physician Consortium for Performance (Consortium), which includes more than 70 national medical specialty and state medical societies, is an example of a group that identifies and develops evidence-based clinical performance measures that enhance quality of patient care and foster accountability. Following selection, measures should be evaluated and validated by a reputable consensus building organization, such as the National Quality Forum (NQF), which is a private, voluntary consensus-based standards-setting organization. Complementary to this step should be a separate, more refined evaluation of measures that takes into account issues related to implementation, such as the administrative feasibility of a measure and its applicability to everyday practice. This task should be conducted by a broad-based coalition, such as the AQA. This entire process, including measurement selection decisions and periodic reviews and updates of measures, should occur through a process that is open to the medical profession.

Since medical knowledge continues to expand every year, practice guidelines and the measures of quality on which they are based may require updating. Measures should be stable for at least 2 years, unless there is compelling evidence or a justifiable reason to modify them, such as an evidence-based update or if performance goals have already been met. Measures should be assessed continually through the use of on-site abstraction of medical records to evaluate the accuracy of the individual data elements collected. Quality measures that do not reflect updates in clinical practice can lose their value, causing the program to lose its credibility.

VI. Data Collection

Position 11: Data collection and physician reporting required to support P4P programs should be administratively feasible, reliable, practical, and consistent with HIPAA.

- Prospective data collection should be encouraged whenever possible to minimize burdens and to reduce measurement error.
- Measures based on chart abstractions and other new data collection efforts should only be used when the clinical and public health benefit of the measures clearly outweighs the burden and disruption that these kinds of data collection efforts cause.
- Data collection and analysis must not violate patient privacy.
- Physicians should not be required to purchase or lease proprietary models of data collection.

Position 12: Information technology tools should be used whenever possible to facilitate data acquisition for performance measures and to minimize any manual data extraction to support such measurement.

Physicians will be reluctant to participate in P4P programs if data collection and reporting adds to the paperwork burden experienced by physicians. A study by the NCQA found that medical record abstraction costs $30 to $50 per chart (36): "Given that 30 to 50 charts per physician is a minimal estimate of the number needed for each measure, basic data collection costs between $1,000 and $2,500 per physician, or between $500,000 and $1.25 million per year for a metropolitan area of about 1 million persons with 500 primary care physicians."

Incentive programs should encourage the adoption of services facilitated by electronic health data systems, such as EHRs, electronic prescribing, and clinical decision-support tools. Experts agree that the integration of HIT, along with an interoperable health care data system, can revolutionize health care by easing the management of patient records and medical record abstraction. Several recent studies, including the IOM's *Fostering Rapid Advances in Health*, have shown that adoption of HIT systems for purposes such as building patient registries for at-risk or chronically ill patients and using electronic decision-support systems at the point of care can lead to substantial improvements in the quality of care. Health information technology systems put real-time clinically relevant patient information and up-to-date, evidence-based clinical decision-support tools in the hands of providers. MedPAC has noted that "[h]aving the appropriate information available at the right time to make informed decisions is key to delivering quality health care" (26). Health information technology systems can also standardize the measurement, collection, and reporting of physician performance data. For example, as HIT systems are adopted throughout physician practices, the task of abstracting data from medical records will become substantially less arduous. By increasing the availability of useful health care data, health care data systems can facilitate the delivery of a higher, but less costly, standard of quality.

A recent RAND study estimated that effective EMR implementation and networking could eventually save the U.S. more than $81 billion annually—by improving health care efficiency and safety—and that HIT-enabled prevention and management of chronic disease could eventually double those savings while increasing health and other social benefits (37). Despite recognition of the value of information technology, adoption by practicing clinicians, particularly small providers, continues to be low. This is due largely to both the lack of capital to purchase such systems and the prevailing reimbursement methods that reward volume of services as opposed to quality outcomes or activities. A separate study of 14 solo and small group practices with EHR systems revealed that physician practices spent an average of about $44,000 per full-time equivalent provider to implement an EHR system and about $8,500 per provider to maintain the system. On average, the practices recouped the costs of the systems through business savings within 2.5 years (38). These costs are too high for physicians in small practices and certain specialties to bear. This is of particular concern to the College, since 50% of its members involved in direct patient care after training are in practices of five physicians or fewer and 66% are in practices of 10 physicians or fewer. It is critical that P4P programs assist those who find it more difficult to adopt HIT systems.

The Medicare program should assist physicians who face disproportionate obstacles providing higher-quality care by offering technical assistance and financial incentives to adopt HIT. Medicare patients are disproportionately

treated by physicians that who HIT capabilities. A recent study by the Center for Studying Health System Change documented the significant lack of Medicare beneficiary access to physician practices with fully-integrated HIT systems. While nearly half of the Medicare outpatient visits used at least one of five clinical functions, only 9% of visits were to physician practices with electronic-prescribing capabilities.

To read more about the challenges and barriers that must be addressed as the nation's health care system embarks on the widespread deployment of EHRs and other interoperable HIT networks, please see the following ACP papers: "Enhancing the Quality of Patient Care Through Interoperable Exchange of Electronic Healthcare Information" (available at www.acponline.org/hpp/quality_care.pdf) and "The Paperless Medical Office: Digital Technology's Potential for the Internist" (available at www.acponline.org/hpp/paperless.htm).

VII. Data Accuracy, Data Aggregation, and Scoring

Position 13: Analysis and scoring of physician performance should include the application of statistical methods that provide valid and reliable comparative assessments across populations.

- Data should be fully adjusted for case-mix composition (including factors of sample size, age/sex distribution, severity of illness, number of comorbid conditions, patient compliance, patient health insurance status, and other features of a physician's practice and patient population that may influence the results).
- To the extent possible, data analysis should accurately reflect all units of delivery that are accountable in whole or in part for the performance measured.
- Scores should relate care delivered (numerator) to a statistically valid population of patients in the denominator.

Position 14: Measuring, scoring, and incentivizing physician performance should result in better patient care. It should not compromise patient access to care through mechanisms such as "deselection" or lead to increased attention to or manipulation of documentation.

When physician performance is measured and publicly reported and/or used to determine payments, there clearly is the risk for unintended consequences and ethical dilemmas. Physicians may attempt to "weed out" sicker or more complicated patients, or "dump" non-compliant patients because such patients could adversely affect a physician's performance rating and minimize the reward. Such behavior is dangerous because it can compromise the care of the patient. For example, a physician may be tempted to treat patients with questionable contraindications to standard therapies rather conservatively, fearing an adverse outcome, thereby excluding many patients who might have benefited from such therapies. Inaccuracies may also result from physicians attempting to "game" the system. The administration of discharge instructions can be easily manipulated by medical staff through check-off forms. Similarly, educational interventions, such as smoking-cessation counseling, that are effective in a clinical trial, may fail abysmally when they are transformed into a check-box on a discharge form (13). Measuring and incentivizing physician performance should result in better patient care, not in increased attention to or manipulation of documentation.

ACP recognizes that there is no scientific way to accurately track, study, and avoid all attempts to "game" the system. However, there are ways to minimize them. As discussed earlier, the selection of appropriate measures can minimize the effect of external factors that are beyond a physician's control. To further guarantee that performance is clearly attributable to the organization or individual physician being evaluated and not external factors outside of the physician's control, collected data used to measure, score, and report physician performance should be subject to the best available risk adjustments. Risk adjustments should account for patient demographics (including race, ethnicity, English-language proficiency, and socioeconomic status), setting where care is delivered (e.g., inner city vs. rural areas or small vs. large practice), patient health status, severity of illness, and comorbid conditions. This will encourage physicians to accept patients where complexity, risk, or severity of illness may be considerations. To further limit patient selection or deselection and to ensure that physicians are not penalized based on factors beyond their control, data analysis should also account for the following factors (when known by a physician): patient non-compliance; contraindications to procedures, prescriptions, and tests; patient preference resulting in a procedure, test, or prescription not being recommended; socioeconomic reasons for non-compliance; and receipt of a test, prescription, or vaccine through another provider. These adjustments do not only result in a more fair assessment of physician quality. They also assure that physicians who serve minority, uninsured, or sicker patients are not financially disadvantaged by P4P programs and that those patients are not denied access to care.

Furthermore, data should not be used for scoring purposes unless a sufficient number of observations are available to generate a stable and statistically valid assessment of the performance of individual physicians or groups of physicians. Measures also should not be used in situations where there is reason to believe that the data available to the physician are not complete and do not fully represent current physician performance due to factors such as large numbers of uninsured patients who do not generate claims or patients receiving services outside of the physician's office.

Accounting for these extraneous factors is not a simple task and challenges still remain. For example, the influence that personal economics has on health care decision making is a subjective concept and a physician should not be expected to know when a patient's socioeconomic situation is dire enough to cause the patient to forgo some treatment recommendation. The threshold may not only be the actual economic situation of the patient but also the value he or she places on the treatment. One person's "too expensive" is another person's "got to have at any cost," despite equal assets and incomes.

P4P programs should avoid "tournament ranking" physicians to determine rewards, where only the top 10% or 20% of physicians are rewarded, since everyone else would be discouraged from trying to improve. The goal is not to set up winners and losers but rather to encourage overall improvement. As mentioned earlier, physicians should receive bonuses based on absolute scores of meeting or moving towards a predefined quality threshold—regardless of their baseline and regardless of how their performance compares to other physicians.

ACP recognizes that much remains to be explored in terms of analyzing, scoring, and reporting performance data.

VIII. Public Reporting and Other Appropriate Uses of Analyzed Data

Position 15: Performance data should be used for public reporting and/or to determine physician payment only after:

- Physicians participating in the program are provided an opportunity to review and comment on such data, and
- Patient identifiers are removed to ensure that patient privacy is protected.

Position 16: Educational feedback should be provided to both physicians and consumers on a timely and routine basis. Educational feedback may include a discussion of the physician's individual performance, as well as the physician's performance relative to other physicians. Reports should be user-friendly and standardized.

Position 17: The results of P4P programs must not be used against physicians in health plan credentialing, licensure, and certification. P4P programs must have defined security measures to prevent the unauthorized release of physician ratings and patient data.

ACP supports the MedPAC recommendation that physician performance scores first be supplied confidentially to providers as part of an ongoing quality improvement effort. Before performance data are released publicly and/or used to determine physician payment, programs should have a mechanism for physicians to appeal their ratings in writing. Physicians also should be given the opportunity to adjust practice patterns over a reasonable period of time to more closely meet quality objectives. If requested by the physician, physician comments should be included adjacent to any public ratings.

Reports provided to physicians should be based on data that reflects performance within a timeframe that is as recent as possible; should include explanations of methodology to facilitate review by physicians; should track variations in a physician's performance over time and compare individual rates for each measure against national averages (making sure to remove all physician identifiers) (13); and should include real-time, actionable follow-up information for providers. Reports may also identify physicians with exceptional performance in providing effective and safe patient care, if approved by that physician, and include a discussion of best practices that may be of interest to other physicians.

Reports, even if distributed confidentially, can offer insight into how a physician practices medicine compared with his peers and illustrate trends in care that may not have been realized by a physician during everyday practice. Both qualitative and quantitative studies have demonstrated benefits associated with providing health care professionals regular feedback on their performance on quality measures. Receiving national comparative data may even be an added stimulus for poor performers to improve (13).

Consumer reports should be presented in a way that reflects how consumers think about their care, evaluate data, and apply data to actions. They should include information that is most important to consumers and that which promotes informed health care decision making. Consumer reports should also be written in an easily understandable language that allows for easy comparisons and fair judgements.

ACP supports further research into appropriate ways to report performance data both confidentially and publicly.

IX. Program Implementation

Position 18: A Medicare value-based purchasing program that includes P4P should be phased in gradually to allow physicians to obtain the capabilities and experience in measuring and reporting performance based on accepted measures. Such a phase-in should allow for an orderly transition from reporting on structural measures to enhanced payment based on achieving outcomes on evidence-based clinical measures. A Medicare value-based purchasing program should meet the principles outlined in this paper.

A Medicare P4P should develop gradually, allowing physicians to become acclimated with a system in which measurements are used to determine payment. Because of the unique challenges associated with a Medicare P4P program, ACP recommends that initial payments to participating physicians should be based principally on the reporting of limited structural measures, rather than evidence-based clinical measures. These measures should be used to assess whether a provider has or is taking steps to secure structural capabilities to support quality improvement. Measures should evaluate not just the adoption of innovative techniques or the purchase of technology, but the application of these mechanisms to facilitate quality improvement activities. While physicians are encouraged to adopt HIT, the College understands that not all physicians will have the resources to make such an investment. Therefore, during this first stage, any structural activity that improves a physician's ability to engage in quality activities and the reporting of quality data should be rewarded, such as a paper-based system that facilitates the physician's ability to engage in and report on quality activities. All physicians who report their structural capabilities should receive the same level of reward during this initial stage. Bonus payments should help physicians further establish the HIT infrastructure needed to move towards more sophisticated and complete quality assessments.

In the second stage, payments would be based on voluntary participation in a program that uses evidence-based measures but not on how well a physician does in meeting the actual measures. Payment during this stage should be graduated and proportionate to the level of commitment on the part of the physician to participating in approved performance measurement programs.

By the third stage, a program would provide graduated bonus payments to physicians who demonstrate success in meeting evidence-based clinical performance measures.

This "crawl–walk–run" approach to developing a P4P program, whether in the public or private sector, recognizes the importance of engaging physicians by helping them to become comfortable with the data collection process. Stage one is especially critical because it allows physicians who are not yet ready to participate in more robust measurement programs to still participate and qualify for bonus payments. The phased-in approach also allows programs to begin with less controversial measures that providers can directly control and where there are fewer aggregation issues (i.e., risk adjustment not required and smaller sample size) that have not yet been resolved.

Conclusion

ACP has a long-standing commitment to enhancing the quality and effectiveness of medical care. As such, ACP strongly supports the development of clinical performance measurement activities, the increased use of HIT and the use of financial incentives to facilitate quality improvements within physician practices. These initiatives carry with them many obstacles and must, therefore, be well thought-out, adequately tested, and sufficiently funded to help ensure that they improve quality of care and patient safety and promote savings throughout the health care system.

The P4P movement gives internists an opportunity to demonstrate that delivering care in a proactive and coordinated manner—a manner in which internists are most experienced—enhances quality and saves money through better management of costly illnesses. The P4P movement must move internal medicine in the right direction in terms of realigning financial incentives in a way that not only improves payments to its members but enhances quality for its patients. Alongside these efforts, ACP will continue to pursue reforms, such as care management fees for physician-directed care of patients with chronic diseases, which can provide additional opportunities for general internists to receive fair and appropriate compensation. The College is hopeful that policies that create incentives to improve quality will create an opportunity to enhance the value of internal medicine. The profession will become more rewarding as both reimbursement and patient satisfaction is enhanced.

The medical profession is still learning how best to move through this process, particularly the later stages that involve reporting and structuring of payments. ACP will continue to study the risk for unintended consequences and ethical dilemmas associated with aggregating, scoring, and reporting performance data and will report on its findings through a series of future papers.

Glossary

AHRQ: Agency for Healthcare Research and Quality—health services research arm of the U.S. Department of Health and Human Services that provides evidence-based information on health care outcomes; quality; and cost, use, and access. (Formerly known as the Agency for Health Care Policy and Research.)

AQA: Ambulatory Care Quality Alliance—a large body representing clinicians, consumers, purchasers, health plans, and others whose mission is to improve health care quality and patient safety through a collaborative process in which key stakeholders agree on a strategy for measuring performance at the physician level; collecting and aggregating data in the least burdensome way; and reporting meaningful information to consumers, physicians, and other stakeholders to inform choices and improve outcomes.

BTE: Bridges to Excellence coalition—a not-for-profit organization created to encourage significant leaps in the quality of care by recognizing and rewarding health care providers who demonstrate that they deliver safe, timely, effective, efficient, and patient-centered care.

CMS: Centers for Medicare and Medicaid Services—arm of the U.S. Department of Health and Human Services that administers the Medicare and Medicaid programs. (Formerly known as the Health Care Financing Administration [HCFA].)

Consortium: Physician Consortium for Performance Improvement—provides performance measurement resources for practicing physicians to facilitate implementation of clinical quality improvement programs. Convened by the American Medical Association, it includes methodological and clinical experts representing more than 50 national medical specialty societies.

DOQ-IT: Doctors' Office Quality Information Technology project—a project that promotes the adoption of electronic health record systems and information technology in small to medium-sized physician offices with a vision of enhancing access to patient information, decision support, and reference data, as well as improving patient–clinician communications.

EHR: Electronic health record—generic term for all electronic patient care systems.

EMR: Electronic medical record—electronic record with full interoperability within an enterprise (hospital, clinic, and practice).

FFS: Fee-for-service.

HEDIS: Health Plan Employer Data and Information Set—a tool developed by the National Committee for Quality Assurance to measure performance in key areas, such as immunization and mammography screening rates.

HHS: U.S. Department of Health and Human Services.

HIPAA: Health Insurance Portability and Accountability Act of 1996—Requires the U.S. Department of Health and Human Services to establish national standards for electronic health care transactions and national identifiers for providers, health plans, and employers. It also addresses the security and privacy of health data and protects health insurance coverage for workers and their families when they change or lose their jobs.

HIT: Health information technology—The application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making (39).

IOM: Institute of Medicine—An independent institute of the National Academies that provides unbiased, evidence-based, and authoritative information on matters of biomedical science, medicine, and health.

MedPAC: Medicare Payment Advisory Commission—an independent federal body established to advise the U.S. Congress on issues affecting the Medicare program.

MMA: Medicare Modernization Act of 2003.

NCQA: National Committee for Quality Assurance—an independent, non-profit organization that helps the public make informed decisions about health care through the use of accreditation, performance measurement tools, and a comprehensive member satisfaction survey.

NQF: National Quality Forum—private, not-for-profit membership organization created to develop and implement a national strategy for health care quality measurement and reporting. It endorses consensus-based national standards for measurement and public reporting of health care performance data that provide meaningful information about whether care is safe, timely, beneficial, patient-centered, equitable, and efficient.

PIER: The Physicians' Information and Education Resource—a Web-based decision-support tool developed by ACP and available to College members.

QIO: Quality Improvement Organization program—CMS program that has developed several quality measures and an infrastructure to assist providers to improve quality.

SGR: Sustainable Growth Rate formula—a methodology used to calculate the update for Medicare payments under the Physician Fee Schedule. The formula links Medicare spending on physician services to the economy, causing payments to deviate from physician costs because it does not account for all factors affecting the actual cost of providing services.

Value-based purchasing: Synonymous to P4P, a value-based purchasing system would require physicians to demonstrate value by reporting their performance based on quality, efficiency, and patient experience measures. Reimbursement would be tied to physicians' willingness to be held accountable based on such measures and to report to the public on the results.

Notes

1. Ginsburg P, Grossman J. When the Price Isn't Right: How Inaccurate Payments Drive Expensive Medical Care. Health Affairs Web Exclusives. 9 August 2005. Accessed at http://content.healthaffairs.org/cgi/content/full/hlthaff.w5.376/DC1?maxtoshow=&HITS=10&hits=10&RESULTFORMAT=&fulltext=When+the+Price+Isn%27t+Right&andorexactfulltext=and&searchid=1129819313862_952&stored_search=&FIRSTINDEX=0&resourcetype=1&journalcode=healthaff on 14 October 2005.
2. Freudenheim M. Study Finds Inefficiency in Health Care. New York Times. 11 June 2002. Accessed at www.vaccinationnews.com/DailyNews/June2002/InefficiencyHealthCare.htm on 19 October 2005.
3. Vise D. Case Seeks Health Care Revolution. Washington Post. 5 April 2005. Accessed at www.washingtonpost.com/wp-dyn/articles/A26671-2005Apr4.html on 19 October 2005.
4. Prevention Makes Common "Cents." U.S Department of Health and Human Services. September 2003. Accessed at http://aspe.hhs.gov/health/prevention/index.shtml#CONCLUSION on 19 October 2005.
5. Austin B, Fleisher L. Financing End-of-Life-Care. AcademyHealth. February 2003. Accessed at www.hcfo.net/pdf/eolcare.pdf on 19 October 2005.
6. Serota S. Fighting the Battle Against Health Care Fraud. BCBS News. BlueCross BlueShield Association. 28 June 2005. Accessed at http://bcbshealthissues.com/proactive/newsroom/release.vtml?id=167200 on 18 October 2005.
7. Fraud, Abuse in Medicare and Medicaid Could Exceed Government Tracking Figures. Kaiser Daily Report. Kaiser Family Foundation. 20 April 2004. Accessed at www.kaisernetwork.org/daily_reports/rep_index.cfm?hint=3&DR_ID=23284 on 19 October 2005.
8. Gaul G. Bad Practices Net Hospitals More Money. Washington Post. 24 July 2005. Accessed at www.washingtonpost.com/wp-dyn/content/article/2005/07/23/AR2005072300382.html on 19 October 2005.
9. McGlynn E, Asch S, Adams J, et al. The Quality of Health Care Delivered to Adults in the United States. New England Journal of Medicine. 2003;348(26):2635-45.
10. The State of Health Care Quality: 2004. National Committee for Quality Assurance. 2004. Accessed at www.ncqa.org/communications/SOMC/SOHC2004.pdf on 25 August 2005.
11. 2004 National Healthcare Quality Report. Agency for Healthcare Research and Quality. Publication no. 05-0013. 2004. Accessed at www.qualitytools.ahrq.gov/qualityreport/browse/browse.aspx?id=2880 on 19 October 2005.
12. Romano P. Improving the Quality of Hospital Care in America. New England Journal of Medicine. 2005:353(3):302-4.
13. Williams S, Schmaltz S, Morton D, et al. Quality of Care in U.S. Hospitals as Reflected by Standardized Measures, 2002-2004. New England Journal of Medicine. 2005:353(3):255-64.
14. Health Care Opinion Leader's Survey. The Commonwealth Fund. 2005. Accessed at www.cmwf.org on 25 August 2005.
15. Romano P. Performance Anxiety: Is it Too Late for Physicians to Set Their Own Rules on Pay-for-Performance? Modern Healthcare. 30 May 2005. Accessed at www.allhealth.org/recent/audio_07-15-05/Modern%20Healthcare.pdf on 25 August 2005.
16. ACP has created the infrastructure needed to support quality improvement. ACP's Physicians Information and Education Resource (PIER), for example, provides ACP members—at no cost to them—with access to "actionable" evidence-based guidelines at the point of care for more than 300 clinical conditions. PIER has recently been incorporated into several EHR systems, and its evidence-based content will soon be aligned to support a starter set of ambulatory care measures. PIER is also creating paper order sets that imbed such quality measures in the order set, so that physicians who have not made the transition to electronic health records could still rely on PIER content.

17. Medicare "Pay For Performance (P4P)" Initiatives. Medicare Fact Sheet. Centers for Medicare & Medicaid Services. 31 January 2005. Accessed at www.premierinc.com/advocacy/issues/medicare/05/p4p-fact-sheet-0105.pdf on 25 August 2005.
18. Baker G, Carter B. Provider Pay-for-Performance Incentive Programs: 2004 National Survey Results. Med-Vantage, Inc.. 2005. Accessed at www.medvantageinc.com/Pdf/MV_2004_P4P_National_Study_Results-Exec_Summary.pdf 25 August 2005.
19. Loos R. Quality Connections: Financial Rewards Lead to Better Care, Study Says. Modern Healthcare.com. 9 May 2005. Accessed at www.modernhealthcare.com/article.cms?articleId=35862&topicId=69 on 25 August 2005.
20. Pay for Performance's Small Steps of Progress. PricewaterhouseCoopers, LLC. 2005. Accessed at http://healthcare.pwc.com/cgi-local/hcregister.cgi?link=pdf/p4p.pdf on 25 September 2005.
21. Kranhold K. Effort is Widened to Reward Doctors for IT Investment. Wall Street Journal. 26 May 2004.
22. Leapfrog Group Launches National Hospital Rewards Program. The Leapfrog Group. May 2005. Accessed at www.leapfroggroup.org/news/leapfrog_news/636854 on 25 August 2005.
23. California Pay-for-Performance Results Show Improvements in Health Care Quality. Integrated Healthcare Association. 5 July 2005. Accessed at www.iha.org/070505.htm on 25 August 2005.
24. Hollmer M. Docs Examine Merits of Health Plan Bonuses. Boston Business Journal. 23 May 2005.
25. Rosenthal M, et al. Early Experience with Pay-for-Performance. Journal of the American Medical Association. 2005:294(14):1788-93.
26. Using Incentives to Improve the Quality of Care in Medicare. Report to the Congress: Variation and Innovation in Medicare. MedPAC. June 2003.
27. Casalino L, et al. External Incentives, Information Technology, and Organized Processes to Improve Health Care Quality for Patients With Chronic Diseases. Journal of the American Medical Association. 2003:289(4):434-41.
28. Rittenhouse DR, et al. Physician Organization and Care Management in California: From Cottage to Kaiser. Health Affairs. 2004:23(6):51-62.
29. Audet A, et al. Information Technologies: When Will They Make It Into Physicians' Black Bags? Medscape General Medicine. 7 December 2004. Accessed at www.medscape.com/viewarticle/493210 on 25 August 2005.
30. PhRMA Principles for Use of Evidence-Based Medicine: Advancing Patient Care and Health Care Value. Pharmaceutical Research and Manufacturers Association. August 2005.
31. Boyd C, Darer J, Boult C, et al. Clinical Practice Guidelines and Quality of Care for Older Patients with Multiple Comorbid Diseases. Journal of the American Medical Association. 2005:294(6):716-24.
32. Palmer RH. Using Health Outcomes Data to Compare Plans, Networks and Providers. International Journal for Quality in Health Care. 1998:10(6):477-83.
33. Containing Catastrophic Care Costs. Report on the Council of Medical Service, American Medical Association. June 2005. Accessed at www.ama-assn.org/ama1/pub/upload/mm/372/a05cms5.pdf on 25 August 2005.
34. Crossing the Quality Chasm: A New Health System for the Twenty-First Century. Institute of Medicine. 2001.
35. Thorpe, et al. Which Medical Conditions Account for the Rise in Health Care Spending? Health Affairs Web Exclusives. 25 August 2004. Accessed at http://content.healthaffairs.org/cgi/content/full/hlthaff.w4.437/DC1 on 25 August, 2005.
36. Pawlson P, et al. Rewarding Quality in Physician Office Practices. National Committee for Quality Assurance. Accessed at www.ncqa.org/Programs/RADD/ResearchReports/RewardingResults.pdf on 25 August 2005.
37. Hillestad R, Bigelow J, Bower A, et al. Can Electronic Medical Record Systems Transform Health Care? Potential Health Benefits, Savings, and Costs. Health Affairs. 2005:24(5):1103-17.
38. Miller RH, West C, Brown TM, et al. The Value of Electronic Health Records in Solo or Small Group Practices. Health Affairs. 2005:25(5):1127-37.
39. Brailer D, Thompson T. The Decade of Health Information Technology: Delivering Consumer-Centric and Information-Rich Health Care. Office of the National Coordinator for Health Information Technology, U.S. Department of Health and Human Services. 21 July 2004. Accessed at www.hhs.gov/healthit/documents/hitframework.pdf on 25 August 2005.

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