WHAT PUBLIC EMPLOYEE HEALTH PLANS CAN DO TO IMPROVE HEALTH CARE QUALITY: EXAMPLES FROM THE STATES

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January 2008

ABSTRACT: In recent years, health system stakeholders have experimented with a wide range of efforts to stimulate quality improvement, often combined with efforts to contain costs. In this report, the authors explore strategies that public and private purchasers are using to improve care quality, focusing specifically on the role that states play as employers providing health benefits for public employees and retirees. Examples of innovations used by state public employee health plans include: promoting provider adherence to clinical guidelines and best practices, publicly disseminating provider performance information, implementing performance-based incentives, developing coordinated care interventions, and taking part in multi-payer quality collaborations. This report can be used by public employee health plans and other large purchasers making strategic decisions about how to develop or coordinate quality improvement initiatives.

Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff. This and other Fund publications are available online at www.commonwealthfund.org. To learn more about new publications when they become available, visit the Fund's Web site and register to receive e-mail alerts. Commonwealth Fund pub. no. 1097.

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ACKNOWLEDGMENTS

The authors gratefully acknowledge the assistance of the advisory group of The Commonwealth Fund's Public Employee Health Plan Forum on Health Care Quality. Advisory group members, listed below, contributed to this report by reviewing drafts and making helpful comments and suggestions.

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Editorial support was provided by Deborah Lorber.

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INTRODUCTION

Quality Improvement in Health Care

Health care leaders, policymakers, and researchers have long recognized important deficiencies in the quality of care in the U.S. health care system.[1] Limits to care quality can be observed by examining gaps between recommended care processes and outcomes and the actual performance of the health care system.[2] Recent reports demonstrate how the quality of care varies from state to state; health care systems in leading states, on average, perform better than those in lagging states on multiple quality-related indicators.[3] Moreover, researchers have long identified health care disparities that compromise the quality of care for certain populations based on environmental, social, economic, cultural, and other factors.[4]

In recent years, large health care purchasers, including large employers, public programs, and other health system stakeholders, have experimented with a wide range of efforts to stimulate quality improvements, often combined with efforts to contain costs.[5] Many large employers, for example, have developed quality initiatives independently, through employer coalitions, and through other multi-payer initiatives.[6] Public purchasers, including Medicare and Medicaid, are increasingly adopting new quality-oriented measures, public reporting of provider performance, payment reforms, and other strategies.

Options available to improve care quality vary by the kind of indicators used, the types of incentives employed, and the specific populations targeted. Purchasers have experimented with varying forms of payment reform and other incentives to motivate quality improvement among hospitals, physicians, and other providers. Additionally, they use other strategies to influence individuals to make informed health care choices and to manage care more effectively. Many quality improvement strategies combine elements of these supply-side (i.e., provider) and demand-side (i.e., consumer) approaches, recognizing that deficiencies in care quality are the result of complex interactions of factors that require multifaceted responses.

State Employee Health Plans and Health Care Quality

Studies and reports have focused on states' efforts to improve care quality through public programs, such as Medicaid.[7] This paper focuses on the quality improvement options

available to states in their role as health care purchasers in public employee health plans (PEHPs).

PEHPs are large employer-based health plans providing health care benefits for about 13 million people across the United States.[8] Those receiving health benefits through PEHPs include active state employees, covered dependents, retirees in state governments, employees in some local governments, and employees and dependents of other quasi-public entities, such as public universities and K–12 school systems. PEHPs are financed through general state and county revenues and premium contributions from participating public sector employers, employees, and their dependents. As large employers (or specifically, as health care purchasing entities serving public employers), PEHPs are responsible for an increasingly large share of state health care spending, second only to state Medicaid programs. In fiscal year 2003, the most recent year for which 50-state comparative data are available, state spending on public employee and retiree health benefits accounted for about 16 percent of total state health spending (excluding the federal share), on average, up from 10 percent in fiscal year 1997. [9,10]

State PEHPs can contribute to quality improvement and affordability initiatives at the state level, including initiatives directly affecting traditional PEHP constituencies, as well as initiatives that benefit other populations.[11] Given that state governments are typically the largest employer group in any given state, state PEHPs are responsible for a large volume of health care purchasing. This can yield considerable influence in negotiations with participating health plans and provider groups, in terms of encouraging their participation in quality improvement, cost containment, and related initiatives. In addition, state PEHPs may be in a position to combine their quality improvement activities and strategies with other large public and private sector purchasers, including Medicaid, other public programs, and private health plans and employer groups. The combined market leverage of such coalitions can enhance PEHPs' purchasing advantage and help to coordinate state-level quality promotion activities.

Geographic distribution plays an important role in PEHPs' purchasing leverage and focus. The vast majority of PEHP health care purchasing activity occurs within states' own borders, although some geographic regions within a state (e.g., the state capital or university locations) may have greater concentrations of public employees. In contrast, the broad trend of nationalization of private employers has increasingly resulted in private sector benefit decisions being made on a centralized basis and a lack of direct involvement with or concern for local or state market issues among many large employers.[12] Furthermore, while private employers may be clustered in one or two locations within a state, PEHPs often administer benefits in every health care market

throughout the state. This can provide PEHP leaders with knowledge of and influence in local health care markets.

Median job tenure in the public sector is about 80 percent higher than that of private employers.[13] This means that PEHPs' targeted investments in health care quality initiatives can drive performance improvements over a longer time horizon than most large employers whose employees may move away or switch jobs more frequently. Because providers and health plans typically contract with multiple purchasers, state PEHP investments in quality promotion, directly or through third parties (e.g., health plans), may yield important results not only for primary PEHP constituencies but also for other individuals not covered by PEHPs. Therefore, quality improvement efforts may have a spillover impact on non-PEHP patients.

There are several key issues that may inhibit the ability of PEHPs to contribute to quality promotion activities at the state level. These include:

- **Size.** While PEHPs are typically among the largest employer purchasing groups in any given state, even the largest PEHPs only account for a relatively small percentage of total health care spending in the state. For example, despite covering over 1.3 million lives, the California Public Employee Retirement System (CalPERS) accounts for less than 4 percent of total health care purchasing in California.
- **Market variability.** State market conditions vary considerably from state to state, which can affect the range of options available to any given PEHP. For example, a PEHP seeking to stimulate or leverage competition based on performance may be limited if there are few health plan options in the state.
- **State regulations.** Cumbersome state purchasing rules and procedures may challenge innovative purchasing efforts developed by even the most determined and visionary PEHP staff, governing boards, and policymakers.
- **Financial issues.** Most states are grappling with new public accounting standards and difficult state budgetary conditions that prioritize cost containment over quality promotion activities. Thus, even large and assertive PEHPs may be constrained in their ability to focus on quality improvement efforts unless those efforts also address the cost of care and other pressing policy priorities.[14]
- **Focus on cost containment.** In general, public employees typically receive more generous benefits compared with their counterparts in the private sector. These richer benefits often involve higher costs, which may motivate state PEHPs to link

quality improvement initiatives with cost containment efforts. Focusing on cost containment, however, may limit the quality improvement options available.

- **Political environment.** State health care purchasing may be subject to the political will of state legislatures and the influence of unions, thereby influencing the options available to particular PEHPs.

Little is known about the role state PEHPs play in the broader state health policy environment. In contrast, researchers have examined other larger public health care purchasers to determine the impacts of purchasing behavior and contracting approaches on health system development and performance. Such studies emphasize the great potential Medicare and other public purchasers have to influence health system stakeholders (e.g., managed care organizations, physicians, hospitals, consumers).[15]

This paper explores some of the options available to public and private purchasers to influence improvements in health care quality. When reviewing these options, PEHP executives and policymakers, should consider the following questions:

- What options are available to state PEHPs to drive improvements in health care quality?
- What are the key barriers or constraints facing state PEHPs in their efforts to improve care quality?
- To what extent can the quality promotion activities of state PEHPs affect not only covered state employees, retirees, and their dependents, but also health system performance more broadly?

PURCHASER APPROACHES TO IMPROVE HEALTH CARE QUALITY

The Institute of Medicine (IOM) defines health care quality as "the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge."[16] There are as many determinants of care quality as there are approaches for improving it. This paper broadly outlines categories of options that health care purchasers, including state PEHPs, can pursue to stimulate improvement.

This report can be used by PEHPs and other purchasers considering how to develop or refine quality improvement initiatives. Each general approach is associated with distinctive challenges and hurdles for implementation and effectiveness. Feasibility, desirability, or effectiveness of different strategies can vary, based on a host of issues. These

include the level of internal or external capacity to implement new programs, state market characteristics (including organization and distribution of health plans and provider groups), the ability to coordinate with other employer groups or coalitions, availability and level of funding, political receptivity, and the existence of health information technology.

Many quality improvement approaches build on one another. For instance, collecting and analyzing data then allows for those data to be used to develop measures, evaluate performance, and create programs for continuous quality improvement. The goal of this report is to demonstrate how PEHPs and other purchasers can use combinations of these and other strategies as part of their overall quality improvement agendas.

Data Collection, Measurement, and Performance Reporting

Collecting and Analyzing Performance-Related Data

Quality improvement efforts fundamentally rely on obtaining quality-related data from health plans, providers, and consumers. These include data on patient demographics and utilization, health care processes and outcomes, and patient satisfaction and experience. Collecting and analyzing information about care quality can help purchasers better understand practice pattern variation, health care disparities, regional gaps in quality, and access to providers and appropriate services.

Data collection and quality measurement efforts can be used to benchmark and compare health plans and providers and help purchasers assess consumers' perceptions and experiences with the care they receive. These efforts can also allow purchasers to work closely with delivery system stakeholders to develop strategies to improve performance. Even if consumers do not have access to such information, providers and health plans may be motivated to examine or change practices when presented with information that benchmarks performance against their peers. Several studies have documented the benefits of providing hospitals with performance information, particularly comparative data.[17]

The most commonly used quality-related measures for health plans are contained in the Healthcare Effectiveness Data and Information Set (HEDIS) maintained by the National Committee for Quality Assurance (NCQA).[18] HEDIS was created in the late 1980s to establish a set of measures of health plan performance that would be useful to employer purchasers.[19] HEDIS measures include clinical performance indicators such as rates of cervical cancer screening, mammography screening, immunization, and secondary preventive measures for such conditions like asthma, diabetes, and coronary artery disease. HEDIS measures allow purchasers to make valid comparisons and to hold

health plans and care providers of care accountable for their performance.[20] Other relevant sources of quality data include the National Quality Forum, the Hospital Quality Alliance, Ambulatory Care Quality Alliance, the Leapfrog Group, and the federal Agency for Healthcare Research and Quality (AHRQ).

Patient satisfaction or experience with the health care system represents another important dimension of health care quality that purchasers can monitor and evaluate. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, developed by AHRQ, has become the most widely used instrument for assessing consumers' experiences and opinions regarding the quality of care they receive. CAHPS has gradually expanded beyond its original focus on health plans to address a range of health care services and delivery systems.[21] Other consumer-oriented surveys, including the Consumer Health Plan Value Survey and the NCQA enrollee satisfaction survey, can also be used to supplement HEDIS consumer satisfaction and process and outcome measures. Moreover, third party vendors, such as Press Ganey and The Jackson Group, produce institution-specific patient and consumer experience surveys for most hospitals in the United States.

Some purchasers provide incentives for health plans and provider groups to report quality-related data. For example, Medicare has established a program to collect Hospital Quality Alliance (HQA) data from hospitals to measure management of common medical conditions. HQA is the largest program for systematically rating the quality of hospital care in the United States.[22] Medicare withholds a small percentage of its fee schedule update for any hospital that chooses not to participate in the collection and reporting of key measures of hospitals' management of three common medical conditions: acute myocardial infarction, congestive heart failure, and pneumonia. As of December 2006, more than 4,300 hospitals reported data in to the program.[23]

The Massachusetts Group Insurance Commission (GIC) purchases health benefits on behalf of approximately 267,000 public employees and their dependents. In 2004, GIC began requiring that participating health plans submit medical, mental health, and pharmacy claims data to create a consolidated database on provider performance. GIC is using this vast database of claims information for analytical purposes and to develop new purchasing strategies designed to improve efficiency and care quality.

Other purchasers are developing new contracting provisions that encourage or require participating health plans or provider groups to make performance-related data available.

Purchasers can use "pay-for-reporting" initiatives, contractual requirements for performance reporting, and other mechanisms to facilitate the participation of health care stakeholders in quality-related surveys and measurements.

Measuring and Promoting Adherence to Clinical Guidelines and Best Practices

In addition to collecting and analyzing quality-related data, purchasers can play an important role in promoting the use of evidence-based guidelines—clinical guidelines used to assist in decision-making about appropriate health care for specific clinical conditions. Purchasers can promote the adoption of guidelines, for example, from the National Guideline Clearinghouse, a public resource for evidence-based clinical practice guidelines, sponsored by AHRQ. Evidence-based guidelines must be evaluated continuously as they are translated into practice.

Large health care purchasers do not typically create guidelines or establish best practices directly, but can use guidelines to monitor trends and contribute to the process of assessing the underlying issues regarding adherence and non-adherence. While provider non-adherence to guidelines may indicate gaps in quality, non-adherence may also be due to other issues, such as low rates of physician acceptance or knowledge about clinical guidelines. Non-adherence may also be associated with gaps in consumer compliance, lack of insurance coverage for particular services, or the lack of resources available to achieve standard recommendations at the community, hospital, or practice level.[24]

The Arkansas Foundation for Medical Care, with funding and technical support from the Robert Wood Johnson Foundation and Center for Health Care Strategies, launched a new multi-payer Regional Quality Improvement Initiative in 2006. The initiative—which includes Medicaid, the Arkansas State Employees Insurance Plan, and other large payers—has convened groups of health care leaders throughout the state to better understand available data and to use those data in a coordinated fashion to assess gaps in quality. The initiative is also collecting claims and other data from health care purchasers to develop a uniform set of quality measures that can facilitate ongoing performance monitoring and the development of new programs to improve care quality.

Health care purchasers, particularly those confined to particular geographic locations (such as state PEHPs) can monitor trends and organize stakeholders to address gaps in adherence to standards. Specifically, PEHPs can convene groups of practicing physicians, health plan medical directors, hospital executives, and medical society leadership to assess whether there is consensus within the provider community regarding best practices, the availability of provider resources to treat patients according to guidelines, and areas where standards or guidelines might need refinement through additional research. By playing a leadership role in addressing these issues, purchasers can identify barriers to high quality care, provide resources to overcome them, and catalyze the development of new programs.

Public Reporting of Quality-Related Information

Increasingly, purchasers are reporting information about provider and health plan performance and consumer satisfaction to the public. In the past several years, for example, purchasers have embraced efforts to facilitate the public reporting of hospital and physician quality information, ranging from small localized programs to broader initiatives, such as a major patient safety program sponsored by the Leapfrog Group.[25]

Public reporting can play an important role in improving care quality and the choices available to patients, referring physicians, and health care purchasers. The validity of public reporting efforts can depend on the specific clinical contexts examined (e.g., whether measures account for co-morbidities) and the underlying accuracy and appropriateness of information presented to consumers (e.g., whether provider-specific reports are adequately risk adjusted).[26] In general, studies show that although public reporting can motivate changes in provider behavior, consumers do not always use such information, when available, to inform their choices of health plans, physicians, or hospitals.[27] Additionally, critics argue that public performance reports can have unintended consequences. For example, providers may avoid high-risk patients. Purchasers should consider these issues and learn from the experiences of other programs when designing new performance reporting initiatives.

The Wisconsin Department of Employee Trust Funds (ETF), which purchases health care benefits for Wisconsin state employees, views public reporting of quality-related information as a key component of its broader value-based purchasing efforts. ETF provides consumers with comparative performance information on the health plans offered to members. Beginning in 1996, ETF launched its public reporting initiative by releasing CAHPS data results. Since then, ETF has included other recognized performance measures, including HEDIS measures.

It is clear that health care purchasers, and, to some extent consumers, will continue seeking and reporting information about provider performance and consumers' experiences with health care. AHRQ has recently compiled a new online directory containing examples of different approaches for provider report cards that purchasers are using to inform the public about provider quality.[28] Such information can help foster the coordinated development of accurate and timely public reporting mechanisms and facilitate consumer engagement.

The Minnesota State Employee Group Insurance Program provides consumers and providers with a Web-based resource to compare quality-related performance across health care clinics. Current measures, which are provided by Minnesota Community Measurement, report on the experiences of patients in 54 clinic groups, representing about three-quarters of the state's population. Available information includes how clinics perform in 10 specific areas of treatment, from immunizations to chronic care, and for conditions including heart disease and diabetes.

Performance-Based Provider Incentives

Payment Incentives

Using provider payment mechanisms like performance-based reimbursement can generate strong incentives that can influence the quality and efficiency of care.[29] The IOM has recommended that purchasers "align financial incentives with care processes based on best practices and the achievement of better patient outcomes."[30] Health plans and purchasers have increasingly adopted new payment and bonus incentives that make payments partly contingent upon providers completing certain tasks associated with care quality.

Pay-for-performance, an increasingly common performance-based approach used by commercial health plans[31] and public payers,[32] provides incremental revenue enhancements to providers achieving certain quality thresholds, typically evidence-based guidelines. Research focusing on early pay-for-performance designs has produced mixed results to date.[33] A major three-year evaluation that tested a variety of models found that financial incentives targeted at physicians do motivate measurable improvements in care quality.[34] Other studies suggest that several design features of early programs may require modification as programs evolve.[35] For example, most early pay-for-performance programs reward providers based on absolute levels of quality (as measured through adherence to certain protocols or meeting benchmarks) rather than continuous quality improvement. Thus, providers in need of significant structural investments or other major changes to attain absolute targets of care may not be motivated to improve. Additionally, to the extent that poor performance is a function of provider resource constraints inhibiting structural investments, rather than provider motivation or levels of effort, pay-for-performance initiatives may shift funds toward resource-rich providers and away from those who could use increased resources to facilitate the delivery of higher care quality.

State PEHPs and other purchasers interested in experimenting with pay-for-performance can learn from the evaluations and experiences of many existing programs.[36] Bridges to Excellence (BTE), for example, is the largest employer-sponsored effort to reward and recognize physicians for meeting quality benchmarks. BTE uses NCQA programs that reward physicians who consistently produce high-quality outcomes in clinical settings. BTE has resources available for purchasers interested in developing payment-based provider incentives to stimulate quality improvements. Additionally, AHRQ has developed a

The state of Pennsylvania recently announced plans for state-funded programs, including the Pennsylvania Employees Benefit Trust Fund (PEBTF), to stop paying for "never events." The PETBF, which administers benefits for 144,000 state employees, retirees, and dependents, anticipates that this action will stimulate performance improvements that can reduce the number of unnecessary infections and other complications.

decision guide resource for public and private purchasers who are developing pay-for-performance initiatives.[37]

Another strategy is to withhold payments for services resulting from preventable complications or errors. Some large purchasers and health plans are experimenting with new programs to refuse payments for conditions and events deemed directly related to poor care. These so-called "never events" may include medical instruments being left in patients during surgery, blood incompatibility, or certain hospital-related infections.[38]

The California Public Employees Retirement System (CalPERS) provides health care benefits on behalf of 1.3 million public employees and dependents in California. In partnership with Blue Shield of California, CalPERS launched a "Narrow Network Initiative" (NNI) in 2003 that resulted in the removal of several low-performing providers from the Blue Shield HMO provider network. The NNI assessed network providers' relative cost and quality and required members to either stop using excluded hospitals and affiliated physicians or to enroll in different plan options that retain these providers in network but include higher out-of-pocket costs. Due to concerns about limiting patients' access to health care providers, however, some providers initially removed were later permitted to rejoin the network.

Private health plans have experimented with such approaches for several years. HealthPartners, a Minnesota-based nonprofit HMO, began refusing payment for 27 "never events" in early 2005. This policy is limited to particularly rare events (e.g., surgery performed on the wrong body part or on the wrong patient) based on standards established by the National Quality Forum.[39] In August 2007, CMS established a new rule, stating that Medicare will no longer pay the extra costs of treating preventable errors, injuries, and infections that occur in hospitals.[40,41]

The National Business Group on Health, a national nonprofit that represents large employers, has developed specific recommendations for employers and other purchasers to include in contracts with health plans to improve patient safety in hospitals. These recommendations include posting standardized performance information on the hospital's Web site, maintaining a dedicated patient safety team with active CEO and board member involvement, and encouraging the use of contract provisions to prohibit payment for certain medical services that were delivered inappropriately or that led to preventable complications.

Quality-Related Contract Requirements

While payment reform efforts have captured headlines in recent years, purchasers do not have to adopt pay-for-performance models to create incentives for health plans and provider groups to improve care quality. Purchasers can establish contract requirements to ensure the reporting of performance data, which can be used in negotiations with health plans and providers regarding performance improvement requirements and contracting decisions. Excluding plans or groups from networks can also encourage improved performance by provider groups.

Leveraging contracting influence with health plans and provider groups can be difficult and controversial for many reasons, including concerns about the impact on access to health care if certain providers or health plans are excluded or voluntarily opt out of participation. However, explicit contract requirements regarding care quality initiatives and the threat or execution of network exclusion can be powerful strategies that purchasers can use to motivate investments in performance improvement.

The Oregon Public Employees Benefit Board (PEBB), the state's largest employer-based health plan—representing more than 120,000 public employees and their families, recently launched a Vision 2007 initiative, which seeks to stimulate quality improvement in Oregon. A hallmark of the initiative is to include detailed quality goals and requirements in contract language with health plan and to evaluate health plan proposals based on quality improvement initiatives or improvements. PEBB's request for proposals for health plans included detailed information regarding the use of evidence-based care, promotion of transparency, inclusion of consumer self-management programs, and detailed guidelines for health plans engaging directly with provider groups at local levels to develop joint quality promotion pilot or demonstration programs.

Patient-Centered Interventions

Many of the purchaser-led quality improvement strategies discussed in this report have focused on influencing the behaviors and practices of providers and insurers. However, purchasers and health plans can also seek to improve care quality by influencing consumers' or patients' behaviors. Consumer behavior can be targeted a variety of ways, including benefit design and cost-sharing arrangements, wellness and disease management programs, and patient education and health literacy improvement programs.

Benefit Design and Cost-Sharing

Large purchasers can influence the health services available to covered populations and the cost-sharing obligations required to access those services. Ensuring that benefit packages include services that are consistent with high quality care, such as necessary preventive services, can influence the degree to which consumers use particular services. For example, the expansion of Medicare reimbursement to cover colon cancer screening has been credited with increasing the use of colonoscopies among Medicare beneficiaries, as well as increasing the likelihood of early diagnosis of colon cancer.[42] This suggests the importance of benefit design as a mechanism to facilitate early disease diagnosis, which has important implications for care quality.

Catamount Health, Vermont's new health coverage program for uninsured residents, covers preventive services and chronic care management services without requiring consumer cost-sharing to encourage consumer adherence to evidence-based care. The state plans to expand such efforts across state programs, including state employees, as part of the Vermont Blueprint for Health.

In addition, purchasers can use other incentives to encourage consumers to make health care choices that are consistent with high quality. One strategy, for example, involves reducing or eliminating consumer cost-sharing requirements, and providing educational support programs, to encourage behaviors that promote positive health outcomes.[43]

This could entail reducing copayments or premiums for consumers who voluntarily complete health risk assessments or participate in health literacy, smoking cessation, or health coaching programs. Or it could involve lowering cost-sharing for specific "clinically valuable" services (e.g., beta-blockers) that are recognized to provide benefits for patients with certain conditions (e.g., congestive heart failure or myocardial infarction). Purchasers and health plans can also establish different cost-sharing provisions based on patients' characteristics. For example, programs can identify patients with specific diseases, such as diabetes or coronary heart disease, and reduce cost-sharing for high-value services to increase patients' adherence to treatment.[44]

Incentives must be carefully designed and introduced to ensure that they appropriately guide consumers to high-quality evidence-based care. Such approaches can be technically difficult to administer and can generate political challenges if some groups are perceived to be favored over others. Moreover, comprehensive assessments of the effects of these programs are not yet widely available. Nonetheless, this approach highlights the important role purchasers can play in encouraging and equipping consumers to make choices consistent with high quality care.

The University of Michigan established an initiative beginning in July 2006 called the "M-Healthy: Focus on Diabetes Program," which targets 2,200 employees and dependents diagnosed with diabetes mellitus. The program provides diabetics with point-of-service copayment reductions for drugs that help prevent or reduce the long-term consequences of disease (e.g., those affecting blood sugar levels, blood pressure, cholesterol, depression).

High performance networks (HPN) represent a related patient-centered strategy to promote care quality. HPNs use cost-sharing to encourage consumers to select hospitals and physicians providing high quality, efficient care. Under HPNs, high-performing providers are placed in a "preferred" tier while other in-network providers are placed in non-preferred tiers. As an incentive for selecting high-

In 2002, the Minnesota State Employee Group Insurance Program introduced a new self-insured purchasing model, called Advantage, that rank primary care clinic systems. The Advantage program ranks more than 50 "care systems" or "clinic groups" based on their risk-adjusted costs. Care systems are then assigned to one of four cost tiers as determined by claims experience, risk adjustment, actuarial models, and collective bargaining. Members select their care system and pay higher copayments, deductibles, and coinsurance when using higher cost clinic groups.

performing providers, consumers who select these preferred providers have lower cost-sharing obligations. Under HPNs, providers who deliver efficient high quality care have a clear advantage in achieving and maintaining preferred tier placement. Thus, providers may be willing to invest in improvements in quality or efficiency to ensure preferred tier placement.

HPN efforts may take years to take full effect, and can be technically challenging, necessitating major investments to develop the data capacity necessary to collect and analyze clinical information at the group or individual provider level.[45] Due to the way providers are ranked based on the efficiency and quality of care they deliver, the introduction of HPNs can also be quite controversial as provider groups understandably seek information about the underlying validity of measures. While the general HPN approach is generating interest among purchasers and health plans, further research is needed to address the robustness and adequacy of underlying tier designations and the likelihood that these designations can drive improvements in quality.

Several PEHPs are experimenting with high deductible health plans as optional benefit choices, some of which are coupled with savings or reimbursement accounts. These include the Arkansas State Employee Health Plan (implemented in 2006), Indiana State Employee Health Plan (2007), Nebraska State Employee Program (2007), South Carolina Employee Insurance Program (2004), Utah Public Employees Health Program (2006), and Wyoming Employees Group Insurance Program (2006).

Finally, a small but growing movement around consumer-directed health plans (CDHP) seeks to combine higher patient cost-sharing, consumer information tools, and increased financial incentives for consumers to control spending.[46] Proponents of CDHPs argue that by making consumers aware of the financial consequences of their medical decisions, they will increasingly exert pressure on physicians and hospitals to improve quality of care.[47] However, numerous studies demonstrate that higher consumer cost-sharing—a key element of CDHP—results in decreased utilization of appropriate care, including necessary preventive services.[48] Other analysts point out that current CDHP designs do not include robust consumer decision support tools that include comparative and valid measures of quality.[49] Nonetheless, to the extent that CDHP designs evolve and robust decision support tools emerge, CDHPs may ultimately help to engage consumers in managing their care.

The North Carolina State Health Plan, which provides health care benefits for more than 615,000 public sector employees, retirees, and dependents, began offering a new healthy living initiative for its members in 2005 called Health*Smart*. Among other care management activities, Health*Smart* includes an Internet-based Personal Health Portal where members can take a Health Risk Assessment and receive a customized Personal Action Plan, health-coaching services, worksite wellness programs, and information about specific diseases and diet and exercise.

Coordinated Care Interventions

Chronically ill populations, particularly those suffering from multiple diseases and conditions or receiving services from various health care providers, require appropriate, ongoing management and intervention to ensure adherence to high quality care and improved health outcomes. Accordingly, many purchasers have developed varying forms of coordinated health care interventions and communications for consumers. Interventions focus on patients already suffering from chronic diseases or conditions, as well as on relatively healthy populations to prevent or reduce the burden of chronic or disabling conditions.

Vermont's Blueprint for Health, a new statewide chronic care initiative that will be fully implemented by 2009, provides new resources to improve the health of individuals with and at-risk for specific chronic conditions, including arthritis, asthma, heart disease, and diabetes. The new comprehensive program includes developing new chronic care management programs in Medicaid (Vermont Health Access), the Vermont children's health insurance program (Dr. Dynasaur), the state's self-insured health plan for state employees, a new public insurance program for low-income uninsured individuals (Catamount Health), and other public and private payers. Overall, Vermont's "Blueprint for Health" is part of a larger state reform effort that focuses on expanding access to coverage and on improving the health system's ability to prevent illness and complications, rather than reacting to poor health outcomes.

Coordinated care interventions combine provider and patient approaches to promote patient-focused, coordinated care to reduce the complications or consequences of chronic disease. In provider-focused approaches, physicians receive information and incentives to facilitate the delivery of high quality and appropriate care. Similarly, patient focused approaches aim to equip patients with information and incentives to promote effective self-management and adherence to physicians' treatment plans.

Several studies demonstrate the positive impacts of coordinated care interventions for chronic disease. For example, one review found that disease management programs can improve patient satisfaction, patient adherence, and disease control.[50] However, other studies have been unable to detect any significant improvement in short-term clinical outcomes.[51,52] As state PEHPs consider introducing new disease management initiatives, they should carefully examine lessons learned from programs in operation to identify best practice models that have the strongest likelihood of influencing cost and quality.

Leadership in Public–Private Purchaser Coalitions

The fragmentation and complexity of the health care system can limit the ability of any single stakeholder—even the largest and most assertive purchaser—to produce meaningful and lasting effects on care quality. Multiple purchasers working independently can produce a confusing web of strategies, reporting requirements, and

other incentives for providers, health plans, and patients. Physicians may not be able to manage a large number of disparate quality improvement initiatives from multiple purchasers and health plans. Instead, they may choose to participate in initiatives from a dominant purchaser or purchaser coalition.[53]

Thus, purchasers and other health system stakeholders may be more effective by working with coalitions that collectively focus on improving health care quality. Together, purchasers can work to develop effective strategies to coordinate performance measurement and reporting efforts, payment and consumer incentives, and other mechanisms to support improvements in care quality. Such collaborations can work toward developing infrastructure development goals associated with quality improvement, such adopting health information technology.

The Kansas Health Policy Authority is a governmental entity established in 2005 that is responsible for coordinating a statewide health policy agenda to promote effective purchasing and administration. The Authority, which includes Medicaid, Kansas State Employees Health Benefits Plan (SEHBP), and other public programs, seeks to test and coordinate new coverage and quality initiatives, including health promotion and wellness strategies, with the ultimate goal of expanding these strategies to private payers statewide. In addition to developing joint care management and other strategies across programs, the state seeks to merge claims and other information across Medicaid, SCHIP, and the SEHBP. This ambitious effort will drive administrative purchasing efficiencies and facilitate system wide performance evaluation, monitoring, and continuous quality improvement.

Public–private purchaser coalitions or collaborative initiatives that focus on health care quality include prominent involvement by PEHPs, as follows:

- The Puget Sound Health Alliance in Washington seeks to improve the quality of care using several coordinated strategies, including the public dissemination of provider performance reports.[54] The Washington State Health Care Authority, which administers benefits for about 350,000 state employees and higher-education staff, is a partner in the Alliance and is supporting the effort to release provider performance information across a five-county region. Alliance stakeholders are currently devising coordinated strategies to identify providers in public performance reports (i.e., at the group or individual levels), determine what measures should be included, and decide how best to release the information to help consumers and purchasers make valid comparisons.[55]
- The Minnesota's Smart Buy Alliance is a group of public and private health care purchasers who share knowledge about pay-for-performance, public reporting, and designated centers of excellence to promote and reward higher value.[56] Its members include the state agencies that oversee Medicaid and public employee

health benefits. Other members include business and, until recently, labor unions.[57] Recent experiences illustrate the challenge of building and maintaining coalitions of disparate purchasers. In July 2007, the Labor Management Coalition of the Upper Midwest—a major component of the Alliance, representing over 300,000 people—exited the Alliance due to disagreements regarding the structure and pace of activities.

These and other prominent purchaser coalitions and organizations suggest the important role that states can play as major purchasers contributing to quality promotion activities, and also highlight the challenges and rewards facing state PEHPs.

CONCLUSIONS

Health care leaders, policymakers, and researchers have long recognized that the overall quality of care in the U.S. health care system has room for improvement. Large health care purchasers and other health system stakeholders have experimented with a wide range of options to stimulate improvements in care quality. These strategies vary by the kinds of indicators used, the types of incentives employed, and the populations targeted. In turn, they create different technical, organizational, financial challenges. While the different options included in this report vary in important ways, they share the overarching goal of promoting quality improvement and ultimately improving the health status of the population.

As large health care purchasers operating at the state level, state PEHPs are in a unique position to contribute to quality promotion activities. Rather than viewing specific options or programs in isolation, state PEHPs and other purchasers should seek to combine and align quality improvement strategies where possible. This can include developing quality "portfolios," which may include collecting and analyzing data to evaluate performance, benchmarking provider performance against peers, as well as public reporting efforts, performance-based payment mechanisms, consumer incentives, coordinated care interventions, and collaborations with other purchasers.

Given the limited research available regarding some of the options outlined, organizations looking to develop and implement new initiatives should look to the quality-improvement efforts—both the challenges and success stories—of state PEHPs and other large health care purchasers.

APPENDIX A. SUMMARY OF QUALITY IMPROVEMENT APPROACHES

Method	Description	Facilitating Characteristics	Other Issues for Consideration	Examples
Collecting and Analyzing Performance-Related Data	Obtain information necessary to assess gaps in quality and to develop quality improvement strategies	• Requires significant data collection and analytic capabilities • Requires infrastructure (e.g., data systems and information technology) • Requires buy-in from health plans tasked with delivering complete, accurate, and timely data	• Examining data without understanding underlying issues driving performance can compromise efforts to promote quality improvement	**Institute for Clinical Systems Improvement:** Nonprofit organization that aggregates, analyzes, and provides quality-related provider performance data for organizations in Minnesota, including the State Employee Group Insurance Program
Measuring and Promoting Adherence to Clinical Guidelines and Best Practices	Promote the use of appropriate clinical guidelines to improve overall quality and reduce disparities	• Requires extensive analytic capabilities to compare or benchmark provider and health plan performance • Requires building and sustaining consensus with stakeholders regarding measures of quality and their uses • Facilitated by the willingness of physicians and providers to be responsive to the process of identifying reasons for adherence and non-adherence to standards	• Non-adherence to standards may be due to low rates of physicians' acceptance of standards, poor knowledge about standards, or resource constraints • Standards may not be appropriate in all clinical contexts	**Arkansas Foundation for Medical Care**: Multi-payer Regional Quality Improvement Initiative, including the Arkansas State Employees Insurance Plan, sponsored by the Robert Wood Johnson Foundation
Public Reporting of Quality-Related Information	Facilitate the public reporting of hospital and physician performance and consumer satisfaction information to help consumers and purchasers make more informed decisions	• Requires significant efforts to ensure the validity of underlying quality information (e.g., whether measures account for co-morbidities or risk-adjustment reports) • Requires evaluating how best to present consumers with appropriate presentation of complex information	• Physicians, providers, and health plans may be reluctant to release information • Historically, consumers do not use publicly available information on quality to inform their choices as much as might be expected	**Puget Sound Health Alliance:** Regional partnership in the Seattle area, involving employers, physicians, hospitals, patients, health plans. The Alliance promotes quality improvement and affordability, including the public dissemination of provider performance reports. Washington State Health Care Authority, which oversees its Public Employees Benefits Board, is a partner in the Alliance.

Method	Description	Facilitating Characteristics	Other Issues for Consideration	Examples
Payment Incentives	Adopt new payment and bonus incentives that make provider payments partly contingent upon providers' effort to deliver high quality care	• Requires the development of robust and valid quality data measures upon which to base provider incentives • Facilitated by incentives large enough to motivate provider change or investments in new processes • Facilitated by coordinating payment incentives with multiple payers • Design features require careful development (e.g., developing incentives based on quality improvement rather than absolute thresholds of quality)	• Providers in need of significant structural investments or other major changes to attain absolute targets of care may not be motivated by potential payment incentives • New incentive structures can have unintended consequences • Different payers offering different types of incentives and participation requirements can be confusing to providers, inhibit participation, and limit effectiveness	**Massachusetts Group Insurance Commission's Clinical Performance Improvement Initiative:** Purchases health benefits on behalf of approximately 267,000 public employees and their dependents. In 2004, it introduced a new provider tiering initiative that creates new incentives for consumers to select "preferred" providers achieving high scores on cost effectiveness and quality.
Quality-Related Contract Requirements	Establish contract requirements to ensure reporting of performance data and other provider or health plan activities consistent with quality improvement	• Facilitated by availability of competing health plans and provider groups to encourage participation and responsiveness to contract requirements or preferences	• Exerting strong contract influence (e.g., use of network exclusion) can be controversial and may exacerbate access and other issues • Aggressive use of contract requirements can reduce acceptance and collegiality with health plans and providers toward quality improvement activities • Imposing process-related requirements requires PEHP-initiated audits to verify compliance	**Oregon Public Employees' Benefit Board**: Purchases health benefits for 120,000 public employees and their families. It recently completed a request for proposals process with carriers that explicitly evaluated health plan proposals based on their quality improvement initiatives.

Method	Description	Facilitating Characteristics	Other Issues for Consideration	Examples
Consumer Incentives Using Benefit Design and Cost-Sharing	Optimize employee benefit designs and cost-sharing requirements, and develop other incentives to influence consumers to make health care choices consistent with high-quality care	• Facilitated by clear evidence regarding efficacy of desired services or interventions (e.g., use of certain drugs in specific clinical contexts, necessity of particular screenings to improve outcomes) • Facilitated by a clear understanding of how consumers are likely to respond to particular incentive arrangements • Requires overcoming difficult technical challenges associated with designing customized benefit design, cost-sharing	• Consumers with a legacy of modest cost-sharing obligations may be more resistant to new incentives • Different population groups may respond differently to incentives • Concerns could arise regarding the provision of unequal levels of incentives or benefits based on population or risk characteristics	**Vermont's "Catamount Health":** A broad health care reform initiative established in 2006. Among other reform components, Catamount establishes preventive services with no cost-sharing requirements.
Coordinated Care Interventions	Provide targeted programs offering health care interventions and communications to improve care coordination, adherence to best practices, and health literacy and engagement	• Facilitated by comprehensive care interventions rather than single applications or solutions (e.g., weight management classes accompanied by healthy food choices at the workplace) • Facilitated by availability of care coordinators or other personnel with understanding of local resources who are available to consumers • Facilitated by active employer leadership to demonstrate importance of wellness initiatives, including real incentives for participation	• Motivating consumer behavioral change is very difficult, which can limit the effectiveness of even well-designed programs • Consumers may be reluctant to share personal information with third party disease management and related vendors • Rigorous evaluations of discrete care interventions are challenging and costly	**NC State Employee Health Plan:** The Health*Smart* program includes care management activities, health coaching services, a consumer Web portal, and worksite wellness programs serving over 640,000 state employees, teachers, retirees, state university and community college personnel, and others public employees.

Method	Description	Facilitating Characteristics	Other Issues for Consideration	Examples
Public–Private Purchaser Coalitions	Collaborate with other public and private payers to jointly develop principles and coordinated programs to improve care quality and financial efficiencies	• Facilitated in areas with large employers and other payers that jointly capture large percentage of purchasing volume or provider and health plan contracts • Requires overcoming competitive barriers and disparate organizational cultures and needs to pursue shared goals; leadership is critical • Depending on mission or goal, may require data sharing agreements • Facilitated by the establishment of formal organizational structures to define stakeholder relationships, decision rules, funding, appropriate data uses, and other issues	• Establishing partnerships with stakeholders and reaching consensus on key issues can prove difficult and can consume scarce time and resources even if quality promotion is not realized • Sustaining collaboration can prove difficult if certain stakeholders are perceived to benefit from collaboration more than others	**Minnesota SmartBuy Alliance:** A coalition of public and private health care purchasers representing over 60% of Minnesota's population. Pursues common health care purchasing principles, including adopting uniform measures of quality, providing provider performance information to consumers, and advancing the use of health information technology **Kansas Health Policy Authority:** State agency responsible for coordinating a statewide health policy agenda to promote effective purchasing and administration, including all publicly funded programs (Medicaid, SCHIP) and the State Employee Health Benefits Plan.

APPENDIX B. ORGANIZATIONS OR PROGRAMS MENTIONED IN THIS REPORT

Public Employee Health Plans

Arkansas Department of Finance and Administration, Employee Benefits Division: www.arkansas.gov/dfa/employee_benefits/ebd_index.html

California Public Employees' Retirement System: www.calpers.ca.gov

Indiana State Personnel Department, State Employee Benefits: www.in.gov/jobs/benefits/benefitsummaries.htm

Kansas State Employee Health Benefits Plan: www.khpa.ks.gov/OpenEnrollment07/benefits07.htm

Massachusetts Group Insurance Commission: www.mass.gov/gic

Nebraska Administrative Services, Employee Benefits: www.das.state.ne.us/personnel/benefits/

North Carolina State Health Plan: http://statehealthplan.state.nc.us

Oregon Public Employees' Benefit Board: http://pebb.das.state.or.us

Pennsylvania Employees Benefit Trust Fund: www.pebtf.org/

South Carolina Employee Insurance Program: www.eip.sc.gov

Utah Public Employees Health Program: www.pehp.org/

Vermont Department of Human Resources: http://www.vermontpersonnel.org/employee/index.php

Washington State Health Care Authority: www.hca.wa.gov

Wisconsin Department of Employee Trust Funds: http://etf.wi.gov

Wyoming Employees' Group Insurance: http://personnel.state.wy.us/EGI/Index.htm

Other Organizations or Programs

Agency for Healthcare Research and Quality: www.ahrq.gov

Ambulatory Care Quality Alliance: www.aqaalliance.org

Arkansas Foundation for Medical Care: www.afmc.org

Bridges to Excellence: www.bridgestoexcellence.org

Centers for Medicare and Medicaid Services: www.cms.hhs.gov

HealthPartners: www.healthpartners.com/

Hospital Quality Alliance: www.aha.org/aha_app/issues/HQA/index.jsp

Kansas Health Policy Authority: www.khpa.ks.gov/subject/benlink.htm

The Leapfrog Group: www.leapfroggroup.org

Maine Quality Forum: www.mainequalityforum.gov

Massachusetts Health Care Quality and Cost Council: www.mass.gov/?pageID=hqcchomepage&L=1&L0=Home&sid=Ihqcc

Minnesota Smart Buy Alliance/Buyer's Health Care Action Group: http://bhcag2.avenet.net

National Committee for Quality Assurance: www.ncqa.org

National Guidelines Clearinghouse: www.guideline.gov

National Quality Forum: www.qualityforum.org

Puget Sound Health Alliance: www.pugetsoundhealthalliance.org

Vermont "Blueprint for Health": http://healthvermont.gov/blueprint.aspx

NOTES

[1] L. Kohn, J. Corrigan, M. Donaldson (eds), "To Err Is Human: Building a Safer Health Care System," Washington, D.C.: National Academy Press, 1999; and M. Chassin, R. Galvin, "The Urgent Need to Improve Health Care Quality: Institute of Medicine National Roundtable on Health Care Quality," *Journal of the American Medical Association*, 1998;280(11):1000-1005.

[2] E. McGlynn, S. Asch, J. Adams et al., "The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine*, 2003;348:(26) 2635-2645.

[3] Agency for Healthcare Research and Quality, "National Healthcare Quality Report," 2006, Pub. No. 07-0013 (Rockville, Md.: AHRQ, 2006); and J. Cantor et al., "Aiming Higher: Results from a State Scorecard on Health System Performance," June 2007.

[4] T. Waidmann and S. Rajan, "Race and Ethnic Disparities in Health Care Access and Utilization: An Examination of State Variation," *Medical Care Research Review*, 2000; 57; 55.

[5] A. Mehotra, T. Bodenheimer, RA Dudley, "Employers' Efforts to Measure and Improve Hospital Quality: Determinants of Success," *Health Affairs*, 2003. 22: (2) 60-71.

[6] V. Maio, N. Goldfarb, C. Chureen et al., "Value-Based Purchasing: A Review of the Literature," The Commonwealth Fund, May 2003. http://www.commonwealthfund.org/usr_doc/maio_valuebased_636.pdf?section=4039.

[7] "Seeking Higher Value in Medicaid: A National Scan of State Purchasers," Center for Healthcare Strategies, November 2006. http://www.chcs.org/usr_doc/State_Purchaser_Scan.pdf.

[8] A. McKethan, D. Gitterman, A. Feezor, A. Enthoven, "New Directions For Public Health Care Purchasers? Responses To Looming Challenges," *Health Affairs*, 2006. 25:(6) 1518-1528. http://content.healthaffairs.org/cgi/reprint/25/6/1518.

[9] "State Health Care Expenditure Report: 1998-2003," Milbank Memorial Fund, 2004. http://www.milbank.org/reports/05NASBO/index.html.

[10] This figure is an underestimate; it does not include employer contributions from a wide range of local governments and other quasi-state entities such as public commissions and boards that may also purchase health benefits through PEHPs.

[11] C. Watts, J. Christianson et al., "The Role of Public Employers in a Changing Health Care Market," *Health Affairs*, 2003. 22: (1) 173-180. http://content.healthaffairs.org/cgi/content/abstract/22/1/173.

[12] S. Trude et al., "Employer-Sponsored Health Insurance: Pressing Problems, Incremental Changes," *Health Affairs*, 2002. 21: (1) 66–75. http://content.healthaffairs.org/cgi/reprint/21/1/66.

[13] "Employee Tenure," Employee Benefits Research Institute, March 2005. http://www.ebri.org/publications/notes/index.cfm?fa=notesDisp&content_id=3279.

[14] A. McKethan, "Moving or Mimicking the Market?: The Opportunities and Constraints of Public Employee Health Plans," University of North Carolina at Chapel Hill. Unpublished Dissertation, August 2007.

[15] R. Mayes, R. Berenson, "Medicare Prospective Payment and the Shaping of U.S. Health Care," Baltimore, MD: The Johns Hopkins University Press, 2006.

[16] "Crossing the Quality Chasm: The Institute of Medicine Health Care Quality Initiative." www.iom.edu/CMS/8089.aspx.

[17] E. Bradley et al., "Data Feedback Efforts in Quality Improvement: Lessons Learned from U.S. Hospitals," *Quality and Safety in Health Care* 13, no. 1 (2004): 26–31; and R. Gibberd et al.,

"Using Indicators to Quantify the Potential to Improve the Quality of Health Care," *International Journal for Quality in Health Care* 16, no. 1 Supp. (2004): i37–i43.

[18] "What is HEDIS?" National Committee for Quality Assurance. http://web.ncqa.org/Default.aspx?tabid=187.

[19] S. Schoenbaum, "What's Ahead in Quality: The Managed Care Perspective," *Physician Executive*, Nov.–Dec. 1993 19(6):40–42.

[20] S. Schoenbaum, A. Holmgren, "The National Committee for Quality Assurance's The State of Health Care Quality 2006," The Commonwealth Fund, November 2006. http://www.commonwealthfund.org/usr_doc/969_Schoenbaum_NCQA_state_hlt_care.pdf?section=4039.

[21] "Consumer Assessment of Healthcare Providers and Systems," Agency for Healthcare Research and Quality. https://www.cahps.ahrq.gov/content/cahpsOverview/Over_Program.asp?p=101&s=12.

[22] "Hospital Quality Alliance," Centers for Medicaid and Medicare Services. http://www.cms.hhs.gov/HospitalQualityInits/15_HospitalQualityAlliance.asp.

[23] A. Jha, J. Orav, Z. Li, A. Epstein, "The Inverse Relationship Between Mortality Rates and Performance in the Hospital Quality Alliance Measures," *Health Affairs*, 2007. 26: (4) 1104–10. http://content.healthaffairs.org/cgi/reprint/26/4/1104.

[24] P. Bach, "Using Practice Guidelines to Assess Cancer Care Quality," *Journal of Clinical Oncology*, 20 December 2005, Vol 23. No. 36. pp 9041-9043.

[25] J. Barr et al., "Public Reporting of Hospital Patient Satisfaction: The Rhode Island Experience," *Health Care Financing Review*, 23, no. 4 (2002): 51–70.

[26] T. Lee, D. Torchiana, J. Lock, "Is Zero the Ideal Death Rate?" *New England Journal of Medicine*, 2007 Jul 12;357(2):111-3.

[27] M. Rosenthal, R. Fernandopulle, H. Song, B. Landon, "Paying for Quality: Providers' Incentives for Quality Improvement," *Health Affairs*, 2004 Mar-Apr;23(2):127-41.

[28] New Web Tool Provides Samples of Report Cards on Health Care Quality. Press Release, May 30, 2007. Agency for Healthcare Research and Quality, Rockville, MD. http://www.ahrq.gov/news/press/pr2007/compendpr.htm.

[29] J. Robinson, "Theory and Practice in the Design of Physician Payment Incentives," *The Milbank Quarterly*, 2001 79 (2): 149-77.

[30] J. Corrigan, M. Donaldson, L. Kohn (eds). Crossing the Quality Chasm: A New Health System for the 21st Century. Washington, D.C: National Academy Press; 2001.

[31] M. Rosenthal, B. Landon, S. Normand, R. Frank, A. Epstein. "Pay for Performance in Commercial HMOs," *New England Journal of Medicine*, 2006 Nov 2;355(18):1895-902.

[32] K. Kuhmerker, T. Hartman, "Pay-for-Performance in State Medicaid Programs: A Survey of State Medicaid Directors and Programs," The Commonwealth Fund, 12 April 2007. http://www.commonwealthfund.org/usr_doc/Kuhmerker_P4PstateMedicaidprogs_1018.pdf?section=4039.

[33] M. Rosenthal, R. Frank, "What Is the Empirical Basis for Paying for Quality in Health Care?" *Medical Care Research Review*, 2006; 63; 135. http://mcr.sagepub.com/cgi/content/abstract/63/2/135.

[34] "Pay for Performance Improving Health Care Quality and Changing Provider Behavior; But Challenges Persist," Nov 15, 2005, Robert Wood Johnson Foundation. http://www.rwjf.org/newsroom/newsreleasesdetail.jsp?productid=21847.

[35] M. Rosenthal, R. Frank, "What Is the Empirical Basis for Paying for Quality in Health Care?" *Medical Care Research Review*, 2006; 63; 135. http://mcr.sagepub.com/cgi/content/abstract/63/2/135.

[36] E. Fisher, "Paying for Performance: Risks and Recommendations," *New England Journal of Medicine*, 2006: 355(18):1845–47; K. Davis, S. Guterman, "Rewarding Excellence and Efficiency in Medicare Payments," *The Milbank Quarterly*, September 2007 85(3):449–68.

[37] R. Adams Dudley, M. Rosenthal, "Pay for Performance: A Decision Guide for Purchasers," Agency for Healthcare Research and Quality, April 2006. http://www.ahrq.gov/qual/p4pguide.pdf.

[38] Medicare Program: Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates. Federal Register 2007; 72:47379-428.

[39] "HealthPartners Hospital Payment Policy." www.healthpartners.com/portal/866.html.

[40] R. Pear, "Medicare Says It Won't Cover Hospital Errors," *New York Times*, 19 August 2007. http://www.nytimes.com/2007/08/19/washington/19hospital.html.

[41] "Medicare Program: Changes to the Hospital Inpatient Prospective Payment Systems and Fiscal Year 2008 Rates." Federal Register 2007; 72:47379-428.

[42] C. Gross et al., "Relation Between Medicare Screening Reimbursement and Stage at Diagnosis for Older Patients with Colon Cancer," *Journal of the American Medical Association*, 296 (23); 2815-2822, 2006.

[43] D. Goldman, G. Joyce, P. Karaca-Mandic, "Varying Pharmacy Benefits with Clinical Status: The Case of Cholesterol-Lowering Therapy," *American Journal of Managed Care*, January 2006; and N. Choudhry, J. Avorn, E. Antman, S. Schneeweiss, W. Shrank, "Should Patients Receive Secondary Prevention Medications for Free after A Myocardial Infarction? An Economic Analysis," *Health Affairs*, January 2007.

[44] A. Fendrick and M. Chernew, "Value Based Insurance Design. A 'Clinically Sensitive' Approach to Preserve Quality and Contain Costs." *American Journal of Managed Care*. 2006;1:18–20.

[45] D. Draper, A. Liebhaber, P. Ginsburg, "High-Performance Health Plan Networks: Early Experiences," Issue Brief No. 111. Washington, Center for Studying Health System Change, 2007.

[46] J. Gabel, A. Lo Sasso, T. Rice, "Consumer-Driven Health Plans: Are They More than Talk Now?" *Health Affairs*, 20 November 2002. http://content.healthaffairs.org/cgi/reprint/22/1/173.

[47] R. Herzlinger, "Consumer-Driven Health Insurance," In: Herzlinger RE. *Consumer-Driven Health Care*. San Francisco, Calif.: Jossey-Bass; 2004:74-101.

[48] J. Blustein, "Medicare Coverage, Supplemental Insurance, and the Use of Mammography by Older Women, *New England Journal of Medicine*,1995;332:1138-43; M. Wong, R. Anderson, C. Sherbourne, RD Hays, MF Shapiro, "Effects of Cost-Sharing on Care Seeking and Health Status: Results from the Medical Outcomes Study," *American Journal of Public Health*, 2001;91:1889-94; H. Huskamp, P. Deverka, A. Epstein, R. Epstein, K. McGuigan, R. Frank, "The Effect of Incentive-Based Formularies on Prescription Drug Utilization and Spending." *New England Journal of Medicine*, 2003;349:2224-32; and T. Lee and K. Zapert, "Do High-

Deductible Health Plans Threaten Quality of Care?" *New England Journal of Medicine,* Sept. 22, 2005 353(12):1202–04.

[49] M. Rosenthal, C. Hsuan, A. Milstein, "A Report Card on the Freshman Class of Consumer-Directed Health Plans," Health Affairs, 2005. 24 (6) 1592-1600. http://content.healthaffairs.org/cgi/reprint/24/6/1592.

[50] E. Ofman et al., "Does Disease Management Improve Clinical and Economic Outcomes in Patients with Chronic Diseases? A Systematic Review," *The American Journal of Medicine,* 2004 117(3):182-192.

[51] B. Landon et al., "Improving the Management of Chronic Disease at Community Health Centers," *New England Journal of Medicine,* 356(9):921-934.

[52] Congressional Budget Office, An Analysis of the Literature on Disease Management Programs (Washington: CBO, 2004).

[53] S. Glied, J. Graff Zivin, "How Do Doctors Behave When Some (but not all) of Their Patients Are in Managed Care?" *Journal of Health Economics,* 2002 21:337-53.

[54] Ibid.

[55] T. Alteras, S. Silow-Carroll, "Value-Driven Health Care Purchasing: Case Study of Washington State's Puget Sound Health Alliance," 2007. The Commonwealth Fund. http://www.commonwealthfund.org/usr_doc/1055_Alteras_value-driven_Washington_case_study2.pdf?section=4039.

[56] S. Silow-Carroll, T. Alteras, "Value-Driven Health Care Purchasing: Four States That Are Ahead of the Curve," 2007. The Commonwealth Fund. http://www.commonwealthfund.org/usr_doc/1052_Silow-Carroll_value-driven_purchasing.pdf?section=4039.

[57] Ibid.

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