ISSUE BRIEF

MATHEMATICA Policy Research, Inc.

TIMELY INFORMATION FROM MATHEMATICA

Improving public well-being by conducting high quality, objective research and surveys

MAY 2010
NUMBER 5

REFORMING HEALTH CARE

Financial Incentives for Health Care Providers and Consumers

by Jill Bernstein, Deborah Chollet, and Stephanie Peterson

Health reform will emphasize financial incentives for providers and consumers to promote the use of effective health services and discourage the use of marginally effective or inappropriate services. This brief looks at evidence on the impacts of financial incentives and draws lessons for policymakers.

Consumer Incentives Affect Their Choices

Most private and public insurance plans use financial incentives to constrain consumer demand for care. This strategy is premised on the idea that consumers will make better decisions about seeking care and using cost-effective services when they bear responsibility for a portion of the cost. So-called "consumer-directed" health plans attempt to extend this model, coupling high cost sharing with consumer information about treatment alternatives.[1]

Indeed, research shows that cost sharing—including deductibles, coinsurance, and copayments—does affect health care use and expenditures.[2] However, cost sharing can have important negative effects on health, and high cost sharing may ultimately have little impact on total costs.

When people respond to greater cost sharing by reducing their use of health services, they may forgo services that are necessary and effective as well as those that are more discretionary or ineffective. Forgoing care in response to higher cost sharing may not have significant health consequences for people with good overall health status and average income. But people with health problems and those with lower income and education enrolled in high-deductible health plans may suffer worse outcomes when they forgo or delay care.[3, 4] Vulnerable populations are especially likely to experience negative health outcomes related to cost sharing.[5, 6]

In addition, financial incentives may not significantly change the overall costs of care. Consumers with serious health problems account for most health care costs.[7] Even if strong incentives induce these consumers to use care judiciously, most of their care is nondiscretionary, and costs that exceed their cap on out-of-pocket spending may account for most of the total cost of their care.

Value-Based Purchasing

A growing number of private and public payers (including Medicare) use financial incentives targeted to providers, consumers, or both, and linked to measures of health care quality and efficiency. These strategies have come to be known generally as value-based purchasing.

Value-based purchasing efforts that focus on providers typically use evidence-based measures of quality, effectiveness, and efficiency to classify or select providers, and to determine how much they are paid. These payment strategies, generally known as "pay for performance" (P4P), may also take into account

ABOUT THIS SERIES

This brief is the fifth in a series highlighting issues related to health care reform that policymakers may want to consider as they implement the federal health reform law. The list of series titles is on page 4. For more information, contact Deborah Chollet at dchollet@mathematica-mpr.com.

measures of consumer experience or satisfaction.[8] Most commercial P4P systems use hybrid approaches that combine fee-for-service payment with payment bonuses or withholds that reflect provider performance on specific measures of quality or patient satisfaction.[9]

Value-based efforts that focus on consumers reduce premiums or cost sharing when they choose plans that use more efficient and high quality providers. Some efforts focus on patients with specific diagnoses, reducing or eliminating cost sharing when they participate in evidence-based treatment plans.[10]

Most value-based incentives for consumers and providers have concentrated on specific medical conditions, such as diabetes or heart disease.[7] However, performance measures vary widely across programs, and the structure and amount of the financial incentives also vary.[11]

Value-based systems have encountered various problems related to consumer education and continuity of care that have affected their ability to meet program goals. For example:

- Consumers sometimes associate higher prices with higher quality, leading them to select inefficient, lower-quality health plans with higher premiums.[12]
- Adverse outcomes—and ultimately greater cost—may result when conversions to new evidence-based treatment protocols disrupt care. Disruptions may be especially problematic for patients with serious, chronic illnesses and close ties to their care providers.[13] Although careful targeting of incentives can protect vulnerable patients by identifying those who would most benefit from specialized care, it may also entail additional costs for technical and clinical expertise and for educating and communicating with patients.[14]

P4P Results Are Mixed

Health care experts widely agree that aligning financial incentives with provider performance, and basing performance measures on evidence of treatment effectiveness can substantially improve health care quality and efficiency.[15] However, evidence of the effects of P4P systems is mixed.[16] While some systems have succeeded in stabilizing insurance costs and removing barriers to appropriate care,[17] others have failed to produce improvements in quality or efficiency.[18]

SOME LESSONS LEARNED

Evidence on the impacts of financial incentives in private and public insurance plans is limited, but we do know that:

- In general, financial incentives work best when carefully targeted to a specific population, set of services, or health condition. However, providing high quality, effective care can be expensive, even when it is targeted.
- Incentives that improve care and reduce cost present challenges. For plan administrators, designing and using effective incentives can be technically demanding and administratively expensive. For providers, performance reporting can be time consuming. For consumers, choosing among plan options, providers, and treatments can be difficult.
- If not carefully designed, financial incentives can have unintended adverse consequences, including poorer health outcomes and higher long-term costs.

Several factors may explain why some P4P systems have no significant impacts. First, the financial rewards may be relatively small.[19] For example, to minimize disruption of care, the Medicare Payment Advisory Commission has recommended that large-scale P4P incentives should initially involve only a small portion of total reimbursement. Over time, as better performance measures are developed to calibrate financial rewards and help providers build the infrastructure they need to understand and meet performance standards, more aggressive P4P incentives could be used.[20]

Second, most P4P systems use quality measures that focus on appropriate testing or treatment for specific conditions. Because these services are sometimes underused, improving the quality of care may entail greater use of these services, which can offset other cost savings or even raise costs.

Third, incentive programs are based on data reporting—requiring computer hardware and software, as well as systems for data reporting, auditing, and data security. Providers with heavy caseloads of vulnerable patients, or those in solo or small practices, may be unable to collect and report necessary data accurately, efficiently, and reliably.[21]

Finally, P4P systems can have a number of unintended consequences, jeopardizing quality of care overall and some patients' access to care. For example:

- Payment incentives can lead providers to focus on aspects of care that will affect their "scores" and neglect aspects not being measured.[22]
- Providers may respond to financial incentives or public reporting of performance by avoiding the most vulnerable patients—including those with limited education or literacy skills, multiple chronic conditions, or the most severe illnesses.[23] Adjusting incentives to reward providers for taking on patients who require more care or specialized care can mitigate adverse consequences.
- Incentive systems that reward only high performers can widen gaps in performance among providers, as lower payments to those at the bottom diminish their ability to invest in improving their performance.

To be successful, P4P systems must be designed to avoid these problems. For example, incentives can be adjusted to reward providers for taking on patients who need more care or specialized care—although this requires a more complicated system of incentives. In addition, P4P incentives can be based not only on absolute measures of achievement (so that high-performing providers maintain a high level of care), but also on improvements in performance that encourage all providers to do better.[24]

While provider incentive programs ideally would reward high quality, give all providers incentives to improve, and offer larger rewards for greater improvement, these programs have been able to achieve just one or two of these goals to date. Continuing improvements in performance measurement and data, however, may help future incentive programs to achieve all of these goals.[25]

Considerations for Policymakers

The Patient Protection and Affordable Care Act (P.L. 111-148), or ACA, focuses on developing financial incentives to improve quality of care and constrain costs. It requires the secretary of the U.S. Department of Health and Human Services to submit a report to Congress on the effectiveness of wellness programs, the impact of premium-based and cost-sharing incentives on participant behavior, and the effectiveness of different types of rewards.

In addition, it authorizes a federal Consumer Operated and Oriented Plan (CO–OP) program to foster the creation of nonprofit health plans that offer qualified coverage to individuals and small group businesses through the exchanges. In states with one or more CO-OPs, state advisory councils will provide recommendations to the secretary on innovative payment policies to promote quality, efficiency, and savings to consumers.

Finally, ACA includes a number of provisions related to Medicare P4P and performance improvement, including:

- Pilot testing of P4P programs for certain Medicare providers, such as psychiatric hospitals, long-term care hospitals, rehabilitation hospitals, cancer hospitals exempt from Medicare's prospective payment system, and hospice programs
- Value-based purchasing programs for hospitals, skilled nursing facilities, home health agencies, and ambulatory surgical centers
- Development of value-based payment modifiers to the physician fee schedule
- Performance bonuses for Medicare Advantage plans that achieve high quality and/or improved care coordination and management, especially with respect to chronic conditions

States have an important role to play in coordinating payment incentives in the coming years. Many Medicare beneficiaries, especially those with chronic conditions, are also enrolled in Medicaid, so that Medicaid pays for part of their care. In addition, ACA charges states with oversight of new CO-OPs and with developing criteria for other health plans that will participate in state-based exchanges for individuals and small businesses. In all of these capacities, states can attempt to minimize the burden on providers by aligning reporting requirements with those that Medicare will require. By also aligning payment incentives, states can maximize the quality and efficiency gains from system change.

OTHER TITLES IN SERIES

- How Does Insurance Coverage Improve Health Outcomes?
- Encouraging Appropriate Use of Preventive Health Services
- Basing Health Care on Empirical Evidence
- Disease Management: Does It Work?

Forthcoming Title:

- Medical Homes: Will They Improve Primary Care?

Go to www.mathematica-mpr.com/health/series.asp to access briefs in this series.

Notes:

[1]Hibbard, J., J. Greene, and M. Tusler. "Does Enrollment in a CDHP Stimulate Cost-Effective Utilization?" *Medical Care Research and Review,* vol. 65, no. 4, 2008, pp. 437–449.

[2]Gruber, J. *The Role of Consumer Copayments for Health Care: Lessons from the RAND Health Insurance Experiment and Beyond.* Washington, DC: The Henry J. Kaiser Family Foundation, 2006; Pauly, M. "The Truth About Moral Hazard and Adverse Selection." Center for Policy Research Policy Brief No. 36. Maxwell School, Syracuse University, 2007; and Congressional Budget Office. *Consumer-Directed Health Plans: Potential Effects on Health Care Spending and Outcomes.* Washington, DC: CBO, 2006.

[3]For example, recent research shows that enrollees consumer-directed plans, whether with a high or lower deductible, were more likely than enrollees in preferred provider organizations, with a still lower deductible, to attempt to save money by foregoing appropriate care. See Dixon, A., J. Greene, and J. Hibbard. **"**Do Consumer-Directed Health Plans Drive Change In Enrollees' Health Care Behavior?" *Health Affairs,* vol. 27, no. 4, 2008, pp. 1120–1131.

[4]Hibbard et al. 2008; Fronstin, P., and S. Collins. "Early Experience with High-Deductible and Consumer-Driven Health Plans: Findings from the EBRI/Commonwealth Fund Consumerism in Health Care Survey." Employee Benefit Research Institute Issue Brief No. 288. Washington, DC: EBRI, 2005; and Dixon et al. 2008, pp. 1120–1131.

[5]Higher cost sharing that keeps vulnerable populations from seeking appropriate health care can lead to the use of more expensive forms of care, such as emergency room care or hospitalization. See Ku, L., and V. Wachino. "The Effect of Increased Cost-Sharing in Medicaid: A Summary of the Research Findings." Washington, DC: Center on Budget and Policy Priorities, 2005.

[6]Gruber 2006; Congressional Budget Office 2006; and Hibbard et al. 2008, pp. 437–449.

[7]Tu, H., and P. Ginsburg. "Benefit Design Innovations: Implications for Consumer-Directed Health Care." Issue Brief No. 109. Washington, DC: Health Systems Change, 2007.

[8]Conrad, D., and L. Perry. "Quality-Based Financial Incentives in Health Care: Can We Improve Quality by Paying for It?" *Annual Review of Public Health,* vol. 30, April 2009, pp 357–371; Rosenthal, M. "Beyond Pay for Performance—Emerging Models of Provider-Payment Reform." *The New England Journal of Medicine,* vol. 359. no. 12, September 18, 2008, pp. 1197–1200.

[9]Most commercial health maintenance organizations (HMOs) use pay-for-performance incentives in their provider contracts. See Rosenthal, M., B. Landon, S. Normand, R. Frank, and A. Epstein. "Pay for Performance in Commercial HMOs." *The New England Journal of Medicine*, vol. 355, no, 18, November 2, 2006, pp. 1895–1902.

[10]Chernew, M.E., A.B. Rosen, and M. Fendrick. "Value-Based Insurance Design." *Health Affairs,* vol. 26, no. 2, w195–w203, 2007. Web Exclusive. Available at [http://content.healthaffairs.org].

[11]These performance measures typically focus on clinical quality, use of information technologies (such as computerized pharmacy ordering), volume of services provided, and patient experience and satisfaction. See Rosenthal et al. 2006, pp. 1895–902; and Rosenthal, M. Testimony Before the Subcommittee on Employer–Employee Relations Hearing on Examining Pay-for-Performance Measures and Other Trends in Employer-Sponsored Health Care. U.S. House of Representatives, Washington, DC, May 17, 2005.

[12]Agency for Healthcare Research and Quality "Consumer Financial Incentives: A Decision Guide for Purchasers." AHRQ Publication No. 290-06-0023-2. Rockville, MD: AHRQ, 2007.

[13]For example, some health plans require higher coinsurance, or do not cover many name-brand drugs when lower-cost substitutes are available, as a means of controlling drug costs. Although the restrictions may be consistent with evidence regarding clinical effectiveness, these formularies can lead some chronically ill consumers to stop taking the medications best suited for their particular conditions, causing avoidable adverse outcomes and, in the long run, increased medical costs (Agency for Healthcare Research and Quality 2007).

[14]Chernew et al. 2007, w195–w203; and Agency for Healthcare Research and Quality 2007.

[15]Medicare Payment Advisory Commission. *Data Book 2007.* Washington DC: MedPAC; and Congressional Budget Office. *Budget Options 2007.* Washington, DC: CBO, 2007.

[16]Various characteristics of P4P plans make it difficult to discern their impacts on care delivery, costs, or outcomes. Many pay-for-performance systems are relatively new, with little experience to date. They vary in design and include different enrollee populations in a wide range of delivery systems. Because these systems are more common in large, integrated health organizations, which may also have more resources to devote to quality improvement, it is difficult to distinguish the results of pay-for-performance systems from better overall performance in the organizations that are implementing them. Finally, when the pay-for-performance system is only one facet of wider efforts to improve quality and efficiency, it is difficult to discern its contribution to changes in provider practice. Thus, one recent analysis of pay-for-performance systems in large commercial health plans contracting with physician groups in Massachusetts over a three-year period found no significant difference in increases in quality of care delivered under these systems compared with the overall trend toward quality improvement for plans in general. See Rosenthal, M. Testimony Before the Subcommittee on Employer–Employee Relations Hearing on Examining Pay-for-Performance Measures and Other Trends in Employer-Sponsored Health Care. U.S. House of Representatives, Washington, DC, May 15, 2005; and Pearson, S., E. Schneider,

K. Kleinman, K. Coltin, and J. Singer. "The Impact of Pay-for-Performance on Health Care Quality in Massachusetts, 2001–2003." *Health Affairs*, vol. 27, no. 4, 2008, pp. 1167–1176.
[17]Silow-Carroll, A., and T. Alteras. "Value-Driven Health Care Purchasing: Case Study of Wisconsin's Department of Employee Trust Funds." Publication No. 1056. New York, NY: The Commonwealth Fund, 2007; Silow-Carroll, A., and T. Alteras. "Value-Driven Health Care Purchasing: Case Study of Minnesota's Smart Buy Alliance." Publication No. 1054. New York: The Commonwealth Fund, 2007; and Chernew et al. 2007, w195–w203; Rosenthal 2005.
[18]Mullen, K., R. Frank, and M. Rosenthal. "Can You Get What You Pay For? Pay-for-Performance and the Quality of Healthcare Providers." NBER Working Paper No. w14886; Congressional Budget Office 2007; Rosenthal, M., and R. Dudley. "Pay-for-Performance: Will the Latest Payment Trend Improve Performance?" *JAMA,* vol. 297, no. 7, 2007, pp. 740–744; Schatz, M. "Does Pay-for-Performance Influence the Quality of Care?" *Current Opinion in Allergy and Clinical Immunology,* vol. 8, no. 3, 2008, pp. 213–221; and Bokhour, B., J. Burgess, J. Hook, B. White, D. Berlowitz, M. Guldin, M. Meterko, and G. Young. "Incentive Implementation in Physician Practices: A Qualitative Study of Practice Executive Perspectives on Pay-for-Performance." *Medical Care Research and Review,* vol. 63, no. 1, 2006, supp: 73S–95S.
[19]Rosenthal, M., R. Frank, L. Zhonghe, and A. Epstein. "Early Experience with Pay for Performance." *JAMA,* vol. 294, no. 14, October 12, 2005, pp. 1788–1793.
[20]MedPAC. Report to the Congress: Medicare Payment Policy, March 2005. Available at [http:// www.medpac.gov/documents/Mar05_EntireReport.pdf].
[21]Rosenthal et al. 2006, pp. 1895–1902.
[22]Hahn, J. "Pay-for-Performance in Health Care." Washington, DC: Congressional Research Service, 2006.
[23]Burack, J.H., P. Impellizzeri, P. Homel, J.N. Cunningham, W.C. Nugent, F.L. Grover, S.J. Lahey, C.E. Anagnostopoulos, and M.C. Oz. "Public Reporting of Surgical Mortality: A Survey of New York State Cardiothoracic Surgeons." *The Annals of Thoracic Surgery,* vol. 68, no. 4, 1999, pp. 1195–1202; and Shen, Y., "Selection Incentives in a Performance-Based Contracting System." *Health Services Research,* vol. 28, no. 2, 2003, pp. 535–552.
[24]Hahn 2006; and Rosenthal and Dudley 2007, pp. 740–744.
[25]Werner, R., and R. Adams Dudley. "Making the Pay Matter in Pay-for-Performance: Implications for Payment Strategies." *Health Affairs,* vol. 28, no. 5. 2009, pp. 1498–1508.

ABOUT THE AUTHORS

Jill Bernstein consults with private- and public-sector organizations on matters related to health insurance coverage, health care cost and quality, and access to care. She holds a Ph.D. in sociology from Columbia University.

Deborah Chollet, a senior fellow at Mathematica, conducts and manages research on private health insurance coverage, markets, competition, and regulation. She has a Ph.D. in economics from the Maxwell School of Citizenship and Public Affairs at Syracuse University.

Stephanie Peterson, a research analyst at Mathematica, focuses on issues related to Medicare Advantage, medical homes, and health care quality and costs. She has an M.P.P. in public policy from the College of William & Mary.