Quality and patient safety are fundamental to the mission of health care providers. Hospitals, physicians, and purchasers have long sought ways to ensure that appropriate care is delivered to each patient at the right time and in the right setting. Despite these efforts, mistakes do occur in the health care delivery system, and there is both overuse and underuse of many tests and treatments. The Institute of Medicine’s reports, To Err Is Human and Crossing the Quality Chasm, drew attention to these issues and called for changes in the nation’s health care delivery system to foster improvements in quality of care. Though there are no simple ways to raise quality, it is crucial that stakeholders — providers, payers, and consumers — work together to reach measurable goals.

A number of methods, such as practice guidelines, disease management, and decision support systems, have been employed to improve quality. Programs that integrate multiple methods generally are more successful than those based on one approach.¹

Recently, public and private purchasers have been exploring linking payment to performance as another way of improving quality. Today, those who purchase health care pay mainly for units of health services (e.g., a hospital stay, a physician visit, a lab test) or a specific amount per person per month (capitation). Providers are generally paid the same regardless of quality of care. The movement toward paying for performance involves setting performance expectations, measuring performance, and rewarding results through both financial and other incentive systems.

Health plans including PacifiCare, several Blue Cross Blue Shield plans, and others are offering financial incentives to physicians and hospitals that meet specified performance levels. Examples of non-financial rewards include a high rating on a publicly disclosed report card or the elimination of referral or prior authorization requirements for providers meeting quality targets.

This issue of TrendWatch explores the concept of pay-for-performance. It discusses methods and challenges in quality measurement and presents various models for rewarding performance, defining the “pay” component broadly to include both financial and other incentives. It features examples of these models in practice, emphasizing the relationships between plans and providers.

Sentinel research underscores the need to improve health care quality...

Chart 1: Percent of Medicare Heart Attack Patients Prescribed a Beta-blocker at Hospital Discharge When Indicated, 2002*

...through a variety of means...

Chart 2: Approaches to Quality Improvement

...but quality still trails other factors in making purchasing decisions.


1 = least important; 9 = most important
Performance must be defined and measured...

Developing quality measurement systems starts with setting performance expectations — ideally in a collaborative process involving purchasers, providers, and consumers — and selecting indicators to measure performance versus expectations. Preferred measures are unambiguous, easily understood, valid and reliable, timely, efficient to collect as part of the process of care, risk-adjusted where appropriate, and applicable to a wide variety of providers.

Purchasers may develop measures to meet their unique needs or rely on existing measures, such as those developed by the Agency for Healthcare Research and Quality, the Joint Commission on Accreditation of Healthcare Organizations, or the National Committee for Quality Assurance. Commonly, measures are chosen based upon existing scientific research. Quality measurement systems often combine structural, process, and outcome measures.

Quality of care can be measured in different ways...

<table>
<thead>
<tr>
<th>Types of Quality Measures</th>
<th>Examples</th>
<th>Initiative</th>
</tr>
</thead>
</table>
| Structure                 | • Computerized Physician Order Entry (CPOE) Systems for Prescriptions: Systems that notify physicians of adverse drug events  
                          • ICU Staffing Levels: Hospital ICUs staffed with “intensivists” | Empire Blue Cross Blue Shield  
                          Hospital Patient Safety Initiative |
| Process                   | • Childhood Immunization: % of 2 year olds who received a specified vaccine regimen  
                          • Asthma: % of patients with persistent asthma who received at least one prescription for inhaled corticosteroids | Integrated Healthcare Association Pay-for-Performance Initiative |
| Outcome                   | • Hip/Knee Replacement Clinical Outcomes: Indicators of post operative hemorrhage, post operative physiologic and metabolic derangement, readmissions 30 days post discharge, discharge to home/home health  
                          • Patient Satisfaction Outcomes: Indicators of respect for patient preferences, coordination of care, information and education, physical comfort, emotional support, involvement of family and friends, and transition to home | Federal CMS/ 
                          Premier Hospital Quality Incentive Demonstration Project  
                          PacifiCare Quality Index Profile of Hospitals |

Issues to consider in the selection of measures include the following:

- Measures that focus on patient outcomes, such as mortality, require risk-adjustment — methods to account for differences in patient populations served — but current methods are varied and controversial.
- Disease-specific measures (e.g., dispensing beta-blockers to patients who have had heart attacks) are not necessarily indicators of the overall quality of a provider.
- The use of volume as a proxy for quality has been suggested, but even among high or low volume providers, variation in quality exists.
- Statistical issues may arise when developing measures applicable to small providers or low-volume programs.
- In any system, it can be difficult to separate measures of hospital performance from the performance of physicians.
- Much of what consumers view as high quality care, such as clear communication between physicians and patients, is not easily measured.

When payers tie compensation to provider performance, resolving these issues is critical for stakeholder acceptance of measures.

“At a time of heightened public interest in quality of care and patient safety and demand for accountability...we simply have to have better measures of quality, better information about quality, and then real engagement with the public and with decision-makers...” — William Roper, MD, Dean, University of North Carolina School of Public Health

...and rated based on a variety of targets.

<table>
<thead>
<tr>
<th>Type of Performance Target</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Absolute benchmark</td>
<td>Performing foot exams on at least 70 percent of diabetic patients</td>
</tr>
<tr>
<td>Incremental target</td>
<td>Increasing by 20 percent the number of diabetic patients receiving foot exams</td>
</tr>
<tr>
<td>Relative target</td>
<td>Scoring in the top 10 percent of all providers in performing foot exams on diabetic patients</td>
</tr>
</tbody>
</table>
In the strictest sense, pay-for-performance systems tie payment explicitly to the provision of high quality care. There are five categories of financial incentives used by purchasers.

- **Bonus Payments**
- **Awards for Improvement Projects**
- **Fee Schedules Based on Performance**
- **“At-Risk” Contracting**
- **Cost Differentials for Consumers**

**Bonus Payments**. Purchasers may make bonus payments to high-performing providers based on measures, such as patient satisfaction, clinical results, and utilization of services. Providers meeting predetermined goals receive payments, with higher payments paid to those achieving higher levels of performance. For example, the Centers for Medicare and Medicaid Services (CMS) has announced a new demonstration project wherein participating hospitals could receive a two percent bonus on their Medicare payments based upon their performance on 35 clinical outcome measures. Over time, purchasers may raise standards to promote continued improvement.

**Awards for Improvement Projects**. Purchasers may also offer awards to providers who are implementing projects that can be shown to improve quality. For example, the Buyers Health Care Action Group (BHCAG) in Minnesota pays $100,000 “gold” awards and $50,000 “silver” awards annually to care systems that implement system-wide improvement projects. Empire BCBS and a group of large national employers are increasing hospital payments by four percent (based on services provided to enrolled members) for implementing measures intended to improve patient safety.¹

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### An Example of Bonus Payments: PacifiCare Quality Incentive Program

PacifiCare Health Systems, Inc., a large health plan, is part of the Integrated Healthcare Association’s Pay-for-Performance initiative. PacifiCare began publishing a Quality Index report card for physicians five years ago. Measures include breast and cervical cancer screening, childhood immunizations, and diabetes and heart disease management. Physician performance has improved every year since PacifiCare began publishing measures. PacifiCare claims that its members have been using the report card to choose better-performing medical groups. However, it believes that rewarding high-performing groups with increased market share is not enough. In 2002, PacifiCare launched its Quality Incentive Program. In its first year, it paid financial bonuses from a $14 million pool — in the form of increased capitation payments — to 124 California medical groups that improved their performance. PacifiCare has also worked with the California Hospital Association and large hospital systems to develop the Quality Index Profile of Hospitals which it made public in March of this year.

#### Percentage Change in Service Rates from 2Q 2002 to 2Q 2003

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>LDL Cholesterol Testing</td>
<td>27.3%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Hemoglobin A1C Testing</td>
<td>8.3%</td>
<td>3.3%</td>
</tr>
<tr>
<td>Breast Cancer Screening</td>
<td>15.9%</td>
<td>5.1%</td>
</tr>
<tr>
<td>Cervical Cancer Screening</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood Immunization</td>
<td>44.7%</td>
<td>11.5%</td>
</tr>
</tbody>
</table>

Source: Managed Care Outlook, Offering Physicians Incentives Helps Boost Clinical Indicators, August 1, 2003

### An Example of Bonus Payments: BCBS of Hawaii Quality and Service Recognition Program

Blue Cross Blue Shield of Hawaii began its Quality and Service Recognition (QSR) program for physicians in 1998. More than 2,000 of 2,400 eligible physicians are participating. BCBS uses administrative data to measure physician performance on a number of indicators, including clinical, patient satisfaction, utilization, and business operations. BCBS scores physicians based on a point system and pays them bonuses based on their scores. BCBS began a QSR for hospitals in 2002; all hospitals in Hawaii are participating. As with the physician QSR, bonus payments are based on a hospital’s performance as rated on a point system. BCBS of Hawaii adapted a hospital measurement program originally developed by HealthBenchmarks, Inc.

Source: HMSA and HealthBenchmarks, Inc.
Additional financial rewards include fee schedules and cost differentials for consumers...

Fee Schedules Based on Performance. Purchasers may also establish differential fee schedules to providers based on performance. For example, the Central Florida Health Care Coalition (CFHCC), a coalition of public and private employers, is grouping physicians into one of three categories (platinum, gold, or silver) based on their performance compared to national standards and paying them above, at, or below the Medicare fee schedule. CFHCC is working with actuaries to define appropriate payments for their three physician fee schedules. They have noted that preparing the data necessary for actuarial analysis was a large task and conceded that it was a major barrier to implementing their approach.

“At-Risk” Contracting. Purchasers may also consider providers’ performance in their contract negotiations. They may, for example, make a portion of annual payment increases contingent upon a specified level of performance. (See box below on Anthem.)

Cost Differentials for Consumers. Some health plans and large employers have begun to lower co-payments or deductibles for services consumers obtain from providers that meet certain performance expectations. The goal is to both improve care directly by encouraging consumers to seek care from high-performing providers and to promote provider competition for market share based on quality. For example, Aetna is offering a “tiered” network, in which consumers pay lower co-payments when higher quality providers are used. Blue Shield of California grouped its network hospitals into two categories: “Choice” providers, with no changes to consumer out-of-pocket expenses or “Affiliate” providers, with higher copayments. The plan used quality of care and cost data from The Leapfrog Group and The Patients’ Evaluation of Performance in California (PEP-C) to develop its tiered network.

Should consumers pay more for better quality?
Chart 6: Harris Interactive Health-Care Poll, July 2003

An Example of “At-Risk” Contracting:
Anthem Midwest Hospital Quality Program

Anthem Blue Cross Blue Shield has initiated different pay-for-performance programs for hospitals in the Midwest, Northeast, and Virginia. The Midwest hospital quality program began a decade ago; it now involves more than 350 hospitals in Ohio, Indiana, and Kentucky. The goal is to continuously improve the quality of health care delivered in Anthem’s network hospitals. The program uses over 80 measures of clinical outcomes, patient safety, processes of care, and organizational management structure developed through an interactive process with hospitals. Anthem keeps data confidential, though each hospital receives a score card which allows it to compare its performance relative to its peers. Anthem ranks hospitals by their scores and considers these rankings in its contract negotiations. Currently, up to 50 percent of a hospital’s payment increases are based on performance, with the highest two quartiles eligible for higher payments. In the future, Anthem hopes to increase the portion of the rate increase determined by performance.

Source: Nussbaum presentation to Virginians Improving Patient Care and Safety Annual Meeting, May 15, 2003
...but non-financial “rewards” can also be used to motivate providers to improve quality of care.

Pay-for-performance systems can be based on non-financial or other rewards, as well. Examples include:

Profiling Performance. Some purchasers work collaboratively with providers to collect and distribute confidential information about their performance. This information facilitates providers’ own quality improvement efforts by allowing them to see how they measure up against their colleagues. In southeast Michigan, 10 acute care hospitals participated in the Guidelines Applied in Practice (GAP) initiative focused on quality improvement in acute myocardial infarction (AMI). In January 2000, each hospital was presented with its own baseline performance on selected quality indicators as well as state and aggregate GAP hospital comparisons. After one year, significant improvements were seen in overall adherence to key treatments in administration of aspirin and beta-blockers at admission and administration of aspirin and smoking cessation at discharge.

Public Disclosure of Quality Information. A number of large purchasers and provider organizations make quality data available to employees, plan members or the general public. Available information ranges from data about participation in selected quality or safety-related projects to distribution of comprehensive provider “report cards.” Publicizing quality information can be effective because it may create an incentive for providers to improve their performance and/or patients may seek care from higher performing providers. Many states, such as California, have produced health care report cards that rate providers on the quality of care they provide. However, evidence indicates that consumers rely more on other information sources to make provider choices.

Reducing Administrative Burden. Providers who perform well on quality measures can be rewarded by the elimination of referral or prior authorization requirements, loosening of formulary restrictions, or by reduction of other administrative requirements. For the CFHCC, physicians with the highest quality ratings are subject to less administrative oversight of their treatment decisions.

Selective Contracting. Large purchasers may contract selectively with plans or providers based on demonstrated performance. The goal of these contracts, such as Choice Plus under the Buyers Health Care Action Group, is to foster competition and drive volume toward high quality care. Although selective contracting is not strictly “paying” for performance, increased volume can lead to financial rewards.

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Public disclosure of quality information can create incentives for providers to improve.

*Chart 7: Quality Index Profile of Hospitals, 2003*

<table>
<thead>
<tr>
<th>Hospital</th>
<th>Overall Quality Grade</th>
<th>Appropriate Care Grade</th>
<th>Patient Safety Grade</th>
<th>Satisfactory Grade</th>
<th>Utilization Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Large</td>
<td>B</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>2 Small</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>3 Medium</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>4 Medium</td>
<td>A</td>
<td>A</td>
<td>C</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>5 Large</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>6 Small</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

**Hospital Size**
- Small = 25-99 beds
- Medium = 100-249 beds
- Large = 250+ beds

**Grading**
- A - placed in top third of all hospitals
- B - placed in middle third of all hospitals
- C - placed in lower third of all hospitals

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An Example of Public Disclosure of Quality Information: New York State Cardiac Surgery Reporting System

In 1989, the New York State Department of Health began publishing data on risk-adjusted mortality following coronary artery bypass graft surgery. It was the first statewide program to produce outcome data, by physician and hospital, for cardiac surgery. Poor performing hospitals were prompted by the data to undertake the additional work needed to improve their cardiac surgery programs. As a result, statewide mortality fell 26 percent between 1989 and 1997. However, the program has had limited success in motivating hospitals with mediocre performance data to improve.

![Hospital Risk-adjusted Mortality Rate (%) for CABG Surgery in New York State 1989 - 1997](source)

Source: *Health Affairs*, Vol. 21 no. 4: 40 - 51

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Policy Questions

Paying for performance is one approach to quality improvement. As the health care delivery system searches for new ways to promote quality, some purchasers are aggressively linking performance to payment. However, more research and experience are needed to inform the development of valid quality measures and to assess the prevalence and effectiveness of the current strategies, whether the benefits of incentive systems merit the costs, and whether these programs ultimately improve the provision of care, cost-effectiveness, and outcomes. Difficult questions for stakeholders to consider include:

- Do the current methods of paying for performance lead to improved quality of care?
- Is performance measurement sufficiently developed to be linked to payment?
- What level of payment is required to change provider behavior?
- How, if at all, do measures universally reflect quality across different types of hospitals — urban vs. rural, large vs. small, etc.?
- How should payment systems incorporate paying for performance — as an incremental add-on to current payment systems or as a basis for revamping entire systems? Which stakeholders should be the driving force for action?
- How do higher payments to high quality performers affect premium costs for consumers?
- Should consumers pay more or less for high quality care?

Quotes from the Field

“There is no more pressing concern for the American health care system than improving the quality of care we provide. Improving quality of care not only enhances patients’ lives. It saves lives.” — Tommy G. Thompson, Secretary, Department of Health and Human Services

“We learned that if we gave providers good information on their performance, they would be willing – and even eager – to make changes. I have yet to meet a doctor who wants to practice bad medicine.” — Becky Cherney, President and CEO, Central Florida Health Care Coalition

“Physicians now have an opportunity for significant financial rewards if they do a good job. Our patients will be healthier, and our physicians will be happier.” — Steve McDermott, MD, Chair, Board of Directors, Integrated Healthcare Association

“Providing high quality care demands that patients be informed partners in decisions about their care every step of the way. Providing helpful information can only enhance a patient experience.” — Dick Davidson, President, American Hospital Association

“The other side is that what the public sees as evidence-based medicine and what we see as evidence-based medicine are very different. The quality of evidence varies a lot out there, and that’s important to understand as we start looking at what quality really is and how we define it.” — Floyd Eisenberg, MD, Senior Medical Manager, Siemens
### Stats to know

**Hospital Sector**

<table>
<thead>
<tr>
<th>Metric</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Margin:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>4.7%</td>
<td>4.6%</td>
<td>4.2%</td>
<td></td>
</tr>
<tr>
<td>Percentage of Hospitals with Negative Total Margin:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>32.5%</td>
<td>32.2%</td>
<td>29.4%</td>
<td></td>
</tr>
<tr>
<td>Operating Margins:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>2.1%</td>
<td>2.0%</td>
<td>2.7%</td>
<td></td>
</tr>
<tr>
<td>FTEs per Adjusted Admission:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>0.07</td>
<td>0.07</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Patient Margins:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>-4.3%</td>
<td>-4.2%</td>
<td>-3.6%</td>
<td></td>
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<tr>
<td>Percent Change in Expense per Adj. Admission:</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>90 to 01 Trend</td>
<td>1.9%</td>
<td>2.5%</td>
<td>4.7%</td>
<td></td>
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<tr>
<td>Medicare Margins:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>-0.1%</td>
<td>-0.9%</td>
<td>-1.6%</td>
<td></td>
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<tr>
<td>Average Length of Stay (in Days):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90 to 01 Trend</td>
<td>5.9</td>
<td>5.8</td>
<td>5.7</td>
<td></td>
</tr>
</tbody>
</table>
Endnotes:
Page 3: 1 Profiles of Organizations Using Incentives, Bailit Health Purchasing published by National Health Care Purchasing Institute, 2002
2 Dr. Sam Ho, Chief Medical Officer, PacifiCare
3 Interview with Richard Chung, MD, VP and Medical Director, Care Management, Hawaii Medical Services Association, August 29, 2003
Page 4: 1 Interview with Sam Nussbaum, MD, Executive Vice President and Chief Medical Officer, Anthem Blue Cross Blue Shield, September 3, 2003

Sources:
Chart 2: The Lewin Group
Chart 3: Goldfarb et. al., Office of Health Policy and Clinical Outcomes, Thomas Jefferson University
Chart 5: The Lewin Group
Chart 6: The Wall Street Journal Online/Harris Interactive Health-Care Poll, Few Patients Want to Pay Extra Based on Quality of Health Care, July 21, 2003
Chart 7: PacifiCare Quality Index Profile of Hospitals, California Member Report, 2003

Source for "Stats to Know":

TrendWatch is a series of reports produced by the American Hospital Association and The Lewin Group highlighting important and emerging trends in the hospital and health care field.