How Will We Bend the Cost Curve — Really? A Brief Look at Five Innovative Approaches

Summary
In the context of health care, the term “bending the cost curve” refers to reducing the projected rate of increase in per capita health care spending.1 The increasing growth rate of per capita health care spending in the United States is well documented and universally acknowledged to be a significant national problem.2 Experts and policymakers alike are now concerned with devising sustainable strategies to slow health care spending growth. Although strategies vary, there are several novel approaches to slowing health care spending growth that address both patient-side initiatives such as alternative cost-sharing structures and provider-side initiatives such as redesigned primary care models. This brief introduces five such approaches and the current evidence regarding their impact and effect. Two are patient-side initiatives: a form of value-based insurance design in which financial incentives are tied to therapeutic benefit for individual patients, and a money-back guarantee model for common high-cost procedures. The other three address provider-side initiatives: a form of care coordination intended to promote better consumer decision-making, an approach to making the delivery of care more efficient, and a consumer driven model that incentivizes selecting cost-effective practitioners.

The interventions presented offer a window into the types of innovative ideas being pursued by policymakers, payers, and providers. While it is key to have a variety of tactics for slowing the growth rate of health care spending, it is also important to strategically implement and sustain these approaches so that they continue to slow the growth rate for the long term. Implementing and sustaining these or other approaches requires engagement and collaboration among the research, provider, payer, and policy communities.

Introduction
Health care spending per capita in the United States is projected to increase at almost six percent per year through 2020, a rate faster than the projected increase in per capita gross domestic product (GDP).3 Health care spending as a share of GDP will grow in the coming decade from 17.6 percent in 2009 to 19.8 percent by 2020. This translates into total projected spending of $4.6 trillion in 2020.4 The graph line that represents this increased rate in per capita U.S. health care spending is commonly referred to as the “cost curve,” a term coined by former Congressional Budget Office Director, Peter Orszag.5 Discussions about spending raise two separate but related issues in the public discourse: one is the amount of money spent per capita on health care and the rate at which it is growing; the other is the amount of value gained for each dollar spent on health care.6,7

Genesis of this Brief:
As part of its initiative addressing cost and value in health care, AcademyHealth convened a panel of experts at its 2011 Annual Research Meeting (ARM) to share their experiences with, and perspectives on, the potential for traditional and novel mechanisms to slow health care spending growth. Discussions included patient-side initiatives such as alternative cost-sharing structures as well as provider-side initiatives such as redesigned primary care models. Participants included Dana Goldman, Ph.D., professor in medicine and policy, and director of the Leonard D. Schaeffer Center for Health Policy and Economics, University of Southern California; Lewis Sandy, M.D., senior vice president, Clinical Advancement, UnitedHealth Group, and Arnold Milstein, M.D., medical director, Pacific Business Group on Health. Katherine Baicker, Ph.D., professor of health economics, Harvard School of Public Health, moderated the discussion.
Although there is no consensus on what level of spending, rate of spending increase, or amount of value received is appropriate for addressing these issues, experts have identified a variety of approaches to cost containment built around potential improvements to the delivery and financing of health care. One of the oldest approaches includes attempts to control costs by limiting reimbursements to providers in various ways. Prospective payment arrangements, first introduced in Medicare in the 1980s, pay hospitals and other institutions a fixed fee per stay. In the mid-1980s, Medicare also introduced the concept of fee schedules that tried to systematize payments to physicians. The move to managed care in the private sector in the 1990s lowered the rate of cost growth for a time by limiting the growth in provider reimbursements and, in some cases, by putting providers financially “at risk” for the patients they treat. While payers may still try to constrain costs through provider payment, they, along with providers themselves, are increasingly exploring new approaches to reining in cost growth and realizing greater value for each dollar spent.

Experts generally agree that because of the complexity of our health care system and the multiple factors that contribute to the growth in spending, there will be no single solution to bending the cost curve. Multiple approaches may have value and impact. For that reason, many experts are promoting experimentation and assessment as means to identify options for cost containment and quality improvement.

This issue brief provides an overview of several new approaches to control cost. While not a comprehensive treatment of the topic, the document is intended to give policy audiences a flavor of some of the more innovative ideas being pursued by policymakers, payers and providers. In particular, it examines:

- a form of value-based insurance design in which financial incentives are tied to therapeutic benefit for individual patients,
- a money-back guarantee for common high-cost procedures,
- a form of care coordination intended to promote better consumer decision-making,
- an approach to making the delivery of care more efficient, and
- a consumer-driven design that rewards selecting cost-effective practitioners.

**VBID Reduces Cost through Improved Medication Compliance**

A 2007 Pitney Bowes study reduced copayments for several classes of medications for chronic conditions, including hypertension, asthma, and diabetes, in combination with other health initiatives. Internal analysis of the changes indicated that medication compliance had improved and as a result, the higher pharmacy costs to the employer were offset by lower rates of avoidable hospitalizations and emergency department visits.


**Patient-Side Interventions: Maximizing Value and Improving Adherence**

**Value-Based Insurance Design**

The first patient-side intervention is rooted in Value-Based Insurance Design (VBID), a growing trend in insurance benefit design. Traditional VBID seeks to lower copayments for services, which have been established as more clinically valuable. VBID for particular services is traditionally based on potential clinical benefit for the average patient (for an example, see box, VBID Reduces Cost through Improved Medication Compliance). While traditional VBID does provide substantial benefit for some users (e.g. patients with myocardial infarction [MI] or congestive heart failure [CHF]), it provides less clinical value for others (e.g. patients with performance anxiety), which can result in incentivizing patients to disproportionately utilize services with a low clinical value rather than those with a high clinical value.

However, there are other forms of VBID that target particular populations for whom a service is shown to be of clinical value. These approaches identify patients at high-risk for select clinical diagnoses (i.e. CHF) and lowers their copayments for specific high-value services (e.g., angiotensin-converting enzyme [ACE] inhibitors and beta-blockers). Patients who would not derive high clinical value from such services are charged a higher copayment. The underlying logic is that by reducing or eliminating copays on services that are of high clinical value to particular high-risk patients, they will be more likely to adhere to their prescribed medical regimens and better able to manage their illness, thereby reducing high-cost emergency department (ED) visits resulting from illness mismanagement. In addition, by maintaining or raising copays for patients who would derive low or no value for these services, utilization of those services is dis-incentivized (see the box “Varying Copayments by Therapeutic Benefit Leads to Lower Spending and Reduced ED Visits”).
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Varying Copayments by Therapeutic Benefit Leads to Lower Spending and Reduced ED Visits

A study conducted by the RAND Corporation between 1997 and 2001 examined whether a pharmacy benefit that varies copayments for cholesterol-lowering (CL) therapy according to expected therapeutic benefit would improve compliance and reduce use of other services.

The study examined the claims data of 60,000 patients who had initiated CL therapy at least one year prior. The data showed that when copayments increased from $10 to $20, depending on patient risk, the portion of fully compliant patients fell by 6 to 10 percent. However, the portion of patients that were fully compliant showed significantly fewer ED visits and thereby less health care spending when compared with patients not in full compliance. Using this information, the study simulated a policy that eliminated copayments for high- and medium-risk patients but raised them (from $10 to $22) for low-risk patients, and then simulated the policy on a national sample of 6.3 million adults on CL therapy. The results showed that the policy would avert close to 80,000 hospitalizations and more than 30,000 ED admissions annually—with total savings of more than $1 billion annually.


This form of value-based insurance design cost-sharing shows the potential for such tools to address issues of both cost and value in the health care system.

Yet, there remain some concerns with implementing this form of patient-focused VBID, including:

- That it will increase spending in the short-term and thereby inhibit widespread adoption;
- That there will be difficulties in targeting high-risk, high-value populations when the claims data does not include risk factors;
- Privacy concerns associated with the identification of patients with specific conditions required by this VBID approach;
- Possible objections that some patients are being charged less than others for certain services; and
- The potential of higher costs for employers stemming from the increased use of the health services once copayments are lowered.

Many of these barriers could be overcome by simplifying the insurance design system. Programs that do not differentiate by patient group face fewer barriers but will likely have less favorable financial outcomes. The appropriate degree of targeting will depend on the cost-benefit trade-off between the costs of overcoming the barriers relative to the potential gain from improved targeting. As evident from the experiences of existing patient-focused VBID approaches, benefit packages that use value when setting cost-sharing parameters can be implemented with success.

Guaranteeing Health Care Services

Another patient-side innovation in cost containment is the money-back guarantee, a pay-for-performance arrangement in which the patient only pays for services if he or she gets the desired response from the treatment, medicine, or procedure rendered. While it is essentially a form of bundled payment, some refer to it as a warranty because it is based on whether or not the patient realizes the intended outcome. ProvenCare, a policy employed by Geisinger Health System, a physician-led health care system in central Pennsylvania, is one example of such a warranty (see box, “Geisinger ProvenCare”). This intervention aims to both minimize wasted spending on unsuccessful treatment and encourage quality outcomes.

Another example of a money-back guarantee intervention involves granting drug-use licenses, which can improve patients’ compliance without decreasing profits to drug manufacturers and insurers. Under this model, patients purchase annual drug-use licenses that guarantee unrestricted access to a clinically optimal number of prescriptions over the course of a year. With the per-unit cost of drugs offset by the drug-use license fee, drug manufacturers are able to sell their drugs to insurers at a very low cost. Insurers then sell their patients the drug-use licenses which require the patients to pay an upfront one-time annual license fee in return for very low or no copays each time they fill a prescription. This structure is similar to how consumers purchase software licenses, where instead of charging a fee every time a person starts his or her computer, Microsoft, for example, charges a one-time fee for the use of its Windows Operating System. Consumers pay a fixed fee up front, after which they pay a very low (or nonexistent) amount for use of the good or service. Because usage fees are lower than they would be if charged per unit—the manufacturer makes up for this cost with the license fee -- those purchasing the product end up using more of it than they would if marginal prices were higher.

Geisinger ProvenCare

Implemented in 2006, the Geisinger ProvenCare program seeks to encourage hospitals and doctors to provide high-quality care that can avoid costly mistakes by guaranteeing their workmanship. Under the ProvenCare program, patients are charged a flat fee that includes 90 days of follow-up treatment at no additional cost. Even if a patient suffers complications or has to come back to the hospital, Geisinger promises not to send the insurer another bill. Geisinger began the ProvenCare program focusing on elective heart bypass surgery and has found that patients have been less likely to return to intensive care, have spent fewer days in the hospital and are more likely to return directly to their own homes instead of a nursing home.

Drug-use License for Statins

The drug-use license model was used in an empirical study conducted on a statins drug. The underlying strategy of the drug-use license intervention relies on consumer behavior, playing on the reality that in order for patients to recoup on their initial investment, they need to adhere to their medication or treatment. Using claims data from 88 health plans, the study estimated the relationship between average copayments and average statin compliance and found that for each $10 increase in copay, statin compliance fell on average five to six percentage points. Further study showed, for a monthly copay of $25—the average copay in 2005 in these same data—average compliance was only 65 percent. Based on these findings, a reduction in copayment from $25 to zero would improve compliance to nearly 80 percent, the point at which statins have been shown to have therapeutically optimal effects. The final outcome of the empirical study found that with an appropriately selected drug-use licensing fee, patients’ compliance can be greatly improved at no additional cost to patients or health plans and no change in profits to manufacturers. By increasing compliance, disease management improves, ED rates decline, and potential significant ED costs are avoided, thereby flattening the cost curve.

Altering the payment structure from a pay-per-use design to a one-time fee can help lessen financial barriers to patients refilling a prescription and perhaps improve treatment compliance.21 By improving compliance, chronic diseases are better managed and ED visits are reduced, thereby slowing the rate of increase in health care spending.2

This model can apply to any disease where repeated medications are required for effective treatment and treatment costs are determined by the level of use (e.g. asthma, diabetes, and chronic obstructive pulmonary disease [COPD]). It can also apply to acute diseases where prescriptions must still be filled and financed monthly (e.g. a nine-month antibiotic treatment for tuberculosis).23 A recent experiment of this type of pharmaceutical benefit involving a drug-use license for statins has shown positive results (see box, “Drug Use for Statins”).

Possible limitations to the drug-use license model include:

- Drug licensing will not eliminate the need for health plans to correctly identify those patients who should receive a given therapy. For those patients for whom coverage is appropriate, drug licenses can ensure therapeutically optimal utilization without increasing out-of-pocket spending.

- It is possible some patients may be discouraged from initiating therapy if the license fee is set too high.

Nonetheless, charging patients a one-time license fee upfront and reducing or eliminating copays for each prescription can be beneficial. Compared to patients who paid per prescription filled, patients receiving medications under a licensing arrangement have shown increases in medication compliance.24 To the degree that health insurers experience cost savings as a result of reduced medical spending from improved patient compliance, or that patients value the health benefits associated with improved compliance, or both, plans and manufacturers can share in these gains so that all parties can benefit with drug-use licensing.25

Provider Side Interventions: Improving the Delivery and Coordination of Care

Shared Decision-Making

One provider-side intervention for reducing costs is a model that attempts to level the cost curve by leveraging shared decision-making to improve care-coordination and care-delivery.26 Shared decision-making differs from clinician decision-making in that the former explicitly involves the patient in the structure of the decision-making process, whereas the latter may include patient input, but it is not required.27 This approach bolsters information sharing among patients, providers, and payers.28 It has the potential to both increase patient clarity on available care options (resulting in decreased spending on unnecessary treatment) and improve patient compliance to treatment as a result of increased involvement in the decision-making process.29 (For an example, see box “Care Coordination Improvement through Shared Decision-Making.”)

Care Coordination Improvement through Shared Decision-Making

A 2009 study of adherence to asthma controller medications compared the shared decision-making method with the more commonly used clinician decision-making method. Subjects in the shared decision-making cohort negotiated a treatment regimen that accommodated their goals/preferences. Subjects in the clinician decision-making cohort were prescribed a treatment regime without having their goals/preferences discussed. After one year, results showed that the shared decision-making method resulted in improved controller adherence among the shared decision-making cohort, as well as significantly better clinical outcomes (asthma-related quality of life, health care utilization, rescue medication use, asthma control, and lung function when compared with results from the clinician decision-making cohort). Additionally, in year two, the shared decision-making cohort, when compared to the clinical decision-making cohort, showed significantly lower rescue medication use and an overall decrease in health care spending resulting from improved asthma management and a reduction in the use of emergency services. The shared decision support method was also found to significantly improve adherence to asthma pharmacotherapy and clinical outcomes.

Barriers to the adoption of shared decision-making may include:

- Time constraints; it is difficult to alter existing workflows to accommodate the extra time needed to allow for patient-provider communication.  
- Lack of applicability due to patient characteristics; specific personality differences between patients and providers can inhibit communication flows and render the shared decision-making process ineffective. 
- Lack of applicability due to the clinical situation; some clinical situations do not have multiple treatment options that can be discussed.

Despite these possible barriers, the impact that implementing shared decision-making could have on improving health outcomes, increasing information sharing, and decreasing health care spending make it an intervention worth considering.

**Changing Health Care Workflows**

Another way that health care leaders are trying to contain costs is by changing workflows in the delivery of care to improve efficiency. One approach to changing workflows sees health care as a self-contained ecosystem, viewing the a local health community as an interconnected, interdependent, performance-based network where innovating health care delivery and curbing spending growth is a collective endeavor.

An example of the ecosystem model is the HIT infrastructure of a local health community, where the data from patients and insurers affect the information flow and decision-making of providers, patients, and insurers; each of these components has an effect on health outcomes and health care spending.

Acknowledging the ecosystem framework when designing and implementing cost containing workflow interventions recognizes the importance of interoperability and the important role of various cause and effect mechanisms. Put simply, if one aspect of the ecosystem fails, becoming inefficient and/or resulting in expensive work-around solutions, the entire system suffers. Going back to the HIT example, a lack of interoperability in the HIT infrastructure can lead to a lack of information at the point of care, workflow inefficiencies, duplicated efforts, and ultimately, an increase of health care spending rates.

Current, unaligned, fee-for-service, specialist-based workflow designs can result in miscommunications, unnecessary procedures, and contribute to increases in per capita health care spending. Understanding the ecosystem perspective, innovators have proposed using a workflow alteration model to address the spending increases that can result from inefficient workflow designs. A workflow alteration model aims to improve efficiency and cut spending in health communities by re-designing workflow models and improving transparency in quality measures and information flows.

For example, a 2009 *New York Times* article found that at least 95 million high-tech scans (MRI, CT, PET) costing around $100 billion a year, are performed each year in the United States, with Medicare paying for $14 billion of that. Yet, recent studies show that as many as 20 to 50 percent of high-tech scans are errantly ordered because their results did not help diagnose ailments or treat patients. However, in these studies there was no established protocol for determining unnecessary treatment prescriptions. Had a more transparent, interconnected, and informed workflow process been in place, some of those charges might have been preemptively identified as unnecessary and avoided altogether.

It has been found that, in some instances, altering the care delivery workflow design to incorporate patient-focused primary care process that provides continuity of care through electronically connected systems, has the potential to cut spending while maintaining or improving quality (see box, “Altering the workflow: ThedaCare and the Toyota Production System” and “United-Healthcare’s eSync Platform”).

Barriers to the adoption of a workflow alteration model may include:

- Existing cost reimbursement structures that incentivize inefficiency. For example, as a result of ThedaCare’s increased efficiency, they receive $2,000 less per patient from Medicare than they did when they were less efficient. Hospitals and clinics rely on the compensation from patients and insurers for services rendered. Receiving less money per patient as a result of improving efficiency could be seen as a financial barrier to implementing the workflow alteration intervention. The reduced compensation per patient added to the costs associated with workflow re-design and implementation may be significant enough to prevent local health systems from adopting this intervention.
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Altering the workflow: ThedaCare and the Toyota Production System

Every health care process, whether it is filling a prescription or a complex surgical operation, consists of a series of steps. With this in mind, ThedaCare, a four-hospital health care system in northeastern Wisconsin, altered its workflow strategies by implementing methods borrowed from lean manufacturing, which is derived from the Toyota Production System (TPS).

The core ideas of lean manufacturing are: learn to see waste in all its manifestations, eliminate it, create one-piece flow, and improve continuously. Above all, the Toyota Production System requires that every action and intention is focused on the needs of the customer (or patient). ThedaCare implemented this by introducing small cross-functional teams that gathered for one week to study a process, identify problems, and propose a solution to fix the process. Typically, ThedaCare has five of these process evaluation projects running every week. Since 2006, employees have increased productivity and cut waste by 12 percent, saving the company more than $27 million. ThedaCare found that a significant portion (90–95 percent) of the steps taken for each health care process (from delivering a baby to an appendectomy) provide no apparent added value for the patient, largely because of poor process design. ThedaCare removes wasteful steps through critical attention to process design, resulting in better outcomes for patients, a better experience for staff, and a decrease in per capita health care spending.


Improving Cost-Effectiveness

The final provider-side intervention discussed in this brief is the cost-effective model, whereby providers incentivize patients to choose cost-effective healthcare options. Purchasers can offer tiered or narrow network insurance plans that provide incentives for patients to select doctors, hospitals, and treatment options that rate higher on quality and cost-efficiency. Tiered network plans offer consumers lower co-pays for selecting higher-quality, cost-efficient providers within the plan’s provider network. Narrow network plans limit consumers to a smaller group of providers that offer higher quality and cost efficiency. The incentivized consumer demand for cost-effective, high-quality health care choices eventually results in the increase in availability of high quality, cost effective health care options in order to meet increasing consumer demand. This type of consumer-driven intervention is demonstrated by CIGNA’s Care Designation Program (see box, “Incentivizing Cost-Effectiveness”).

UnitedHealthcare’s eSync Platform:

Another example illustrating interconnected information transparency is UnitedHealthcare’s eSync platform. The eSync platform provides UnitedHealthcare the ability to synchronize health care management data from multiple sources to develop insights and a broad array of targeted, personalized care approaches. It permits UnitedHealthcare to monitor and measure the outcomes of every patient and provider interaction, including medical and pharmacy claims, as well as individual health assessments. Using this data, UnitedHealthcare can identify if their network and individual providers are following medical standards established by professional associations worldwide and offering the appropriate level of care established by evidence-based care guidelines. The analytical power of eSync also allows UnitedHealthcare to examine whether members are making optimal health care decisions, such as using an in-network provider and filling prescriptions. This allows UnitedHealthcare the opportunity to respond in time to make a difference in the effectiveness and cost of members’ health care choices.

Even so, restructuring workflows that recognize the health ecosystem framework and focus on incorporating patient-centric strategies, has the potential to improve health outcomes, health information sharing, and ultimately reduce unnecessary health care spending for patients, providers, and insurers.

Incentivizing Cost-Effectiveness: The CIGNA Care Designation (CCD) Program

In an effort to improve health care quality while reducing costs for patients and overall health care spending, CIGNA implemented the CIGNA CARE Designation (CCD) program. CCD is a tiered network that rates physicians in 21 specialties on quality, cost and other factors and ranks them into one of two tiers. All physicians in the 21 specialties must pass an initial quality standard. Physicians who meet the highest initial quality criteria automatically receive CIGNA’s “Care Designation.” Physicians who do not reach the highest quality rating, but pass minimum quality standards, are further assessed for additional quality criterion and also for cost-efficiency. CCD is a physician-profiling program that confers the CCD on some physicians depending on how highly they are rated on CIGNA’s “quality” and “cost efficiency” measures and places physicians in tiers within CIGNA’s physician network. Unlike narrow network programs, the CCD program does not exclude physicians from CIGNA’s network. CIGNA and similar providers offering plan options with narrowed or tiered networks based on physician profiles have been able to lower premiums or improve benefit designs, or both.

Miller TP, Troyen AB, Milstein A. How Can We Make More Progress In Measuring Physicians’ Performance To Improve The Value Of Care? Health Affairs. September/October 2009; 28(5).


Some potential barriers to the adoption of cost-effective models include:

- Insurance companies may not support national initiatives designed to standardize coverage of benefits and administrative transactions with health care providers.43
- Large employers may resist the adoption of cost-effective models because they prefer not to use sponsorship of employee health insurance as a vehicle for creating managed competition among large health plans.44
- Hospital administrators may resist interventions that reduce hospital occupancy out of alarm that decreases in revenue may jeopardize their ability to cover large fixed costs.45

Despite the potential barriers, implementing cost-effective interventions has the potential to improve healthcare quality while lowering the spending growth rate for patients and providers.

Conclusion

The examples presented suggest there may be a variety of innovations that have the potential to help constrain costs. However, further research on these models is needed as policymakers will continue to require rigorous experimentation and evaluation if they are to be able to successfully use such innovative approaches.

About the Author

Ben DeCoudres is a research assistant at AcademyHealth.

Endnotes

8. While this brief focuses on four specific innovative approaches, other analysts have presented more comprehensive menus of options with estimates of achievable cost savings. See the December 2007 Commonwealth fun report “Bending the Curve: Options for Achieving Savings and Improving Value in U.S. Health Spending.”
13. Ibid.
14. Ibid.
15. Ibid.
16. Ibid.
17. Ibid.
21. Ibid.
22. Ibid.
23. Ibid.
24. Ibid.
25. Ibid.
26. A form of patient-provider communication where both parties are acknowledged to bring expertise to the process and work together to make a decision
27. A form of decision-making where the clinician relies on scientific observations of available data and their expertise to decide the best course of treatment for the patient
31. Ibid.
32. Ibid.
33. A health community is defined as local community made up of 3 to 4 hospitals, and the local clinics, doctors, patients, employers, insurers, and programs that exist within the immediate surrounding area.
35. Ibid.
36. Ibid.
37. While this brief focuses on four specific innovative approaches, other analysts have presented more comprehensive menus of options with estimates of achievable cost savings. See the December 2007 Commonwealth fun report “Bending the Curve: Options for Achieving Savings and Improving Value in U.S. Health Spending.”
38. While this brief focuses on four specific innovative approaches, other analysts have presented more comprehensive menus of options with estimates of achievable cost savings. See the December 2007 Commonwealth fun report “Bending the Curve: Options for Achieving Savings and Improving Value in U.S. Health Spending.”
39. While this brief focuses on four specific innovative approaches, other analysts have presented more comprehensive menus of options with estimates of achievable cost savings. See the December 2007 Commonwealth fun report “Bending the Curve: Options for Achieving Savings and Improving Value in U.S. Health Spending.”
43. Workflow is defined as the tasks, procedural steps, organizations or people involved, required input and output information, and tools needed for each step in a care delivery process
45. Ibid.
47. Ibid.