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## Controlling Health Care Spending in Massachusetts

In 2006, Massachusetts passed landmark legislation ensuring near-universal health insurance coverage to residents of the state through a combination of mechanisms. By 2008, only 2.6 percent of Massachusetts residents were uninsured, considerably below the national average of 15 percent.

However, continued increases in the cost of health care services threaten the long-term viability of the initiative. As highlighted in Figure 1, in the absence of policy change, health care spending in Massachusetts is projected to nearly double to \$123 billion in 2020, *increasing 8 percent faster than the state's gross domestic product (GDP)*. If health care spending could be held to the rate of growth in the state's GDP, this would keep health spending from consuming an ever-increasing portion of the state's economy; spending would be \$107 billion by 2020.

*Finding a way to reduce spending on health care is a major focus for private and public policymakers in the state.* Policymakers are asking: Is it feasible to reduce the growth of health spending? And, if so, what are the most promising strategies for doing so? These same questions have been raised in the debate over national health reform legislation, and federal policymakers are looking to the Massachusetts experience for insight about the possible outcomes of national health reform.

The Massachusetts Division of Health Care Finance and Policy (DHCFP) contracted with the RAND Corporation to develop a menu of cost-containment strategies and options and to determine how they would affect all sectors of the health care system in Massachusetts, including state and federal government, providers,

### Key findings:

- In the absence of policy change, health care spending in Massachusetts is projected to increase about 8 percent faster than the state's GDP over the next decade.
- There are no silver bullets for closing that gap, but there are multiple options that would reduce spending.
- The most promising cost-containment options involve changing methods of paying for health care services.
- Some infrastructure-related options, such as increasing use of health information technology, will not produce substantial savings themselves but are needed to implement other policies.
- Some popular strategies, such as disease management and medical homes, do not appear likely to yield substantial savings.
- Two factors explain why some options are more promising: the size of the population affected and a clear mechanism for changing the price or quantity of services.
- Estimates of savings from all options are very uncertain because none has a proven history of reducing spending.

### This Policy Brief summarizes RAND Health research reported in the following publication:

Eibner C, Hussey P, Ridgely MS, and McGlynn EA, *Controlling Health Care Spending in Massachusetts: An Analysis of Options*, Santa Monica, Calif.: RAND Corporation, TR-733-COMMASS, 2009, available at [http://www.rand.org/pubs/technical\\_reports/TR733/](http://www.rand.org/pubs/technical_reports/TR733/).

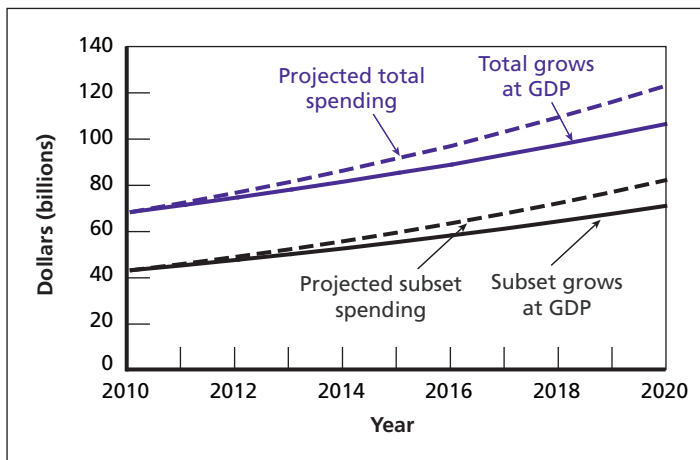
individuals, insurers, and employers. In collaboration with DHCFP, and in consultation with the Massachusetts Health Care Quality and Cost Council (QCC), RAND conducted a study to assist stakeholders in Massachusetts in forming a consensus on developing successful policies for reducing spending. The RAND team’s analyses focused on a subset of spending categories (shown as the lower lines in Figure 1) for which detailed data were available; the major category not included in the subset is spending on long-term care.

For the first phase of the study, RAND investigators used a combination of strategies (including local stakeholder interviews and an environmental scan) to identify approximately 75 broad approaches to cost containment. With input from DHCFP and the QCC, RAND selected 21 high-priority policy options, described in the table on pages 4 and 5, and then assessed the likelihood that spending reductions associated with these options could be achieved. The research team determined whether there was evidence that savings could be realized and evaluated the strength of that evidence. If savings appeared possible, the team assessed whether these would occur in the near or long term.

The second phase of the study focused on options for which there was some evidence of savings potential and available data to make projections. RAND developed high and low estimates of cumulative cost savings for these options over ten years. The high savings estimates assumed that optimistic scenarios, informed by previous experience, would apply. Low savings estimates assumed more conservative scenarios. A greater spread between the high and low savings estimates indicates greater uncertainty.

The researchers estimated the impact of these options individually; however, as policymakers consider cost-containment alternatives, some combination of approaches will likely be

**Figure 1**  
**Projected Increase in Massachusetts Health Care Spending, 2010–2020**



**Policy Options That RAND Analyzed** (see Figure 2)

**Utilize Bundled Payment Strategies:** Encourages insurers to provide a single payment for all services related to a treatment or condition, including services delivered by multiple providers and in multiple settings.

**Institute Traditional Hospital All-Payer Rate Setting:** Establishes a regulatory board to determine appropriate rates for hospital inpatient, outpatient, and emergency department care, limit payment to the minimum amount necessary to cover hospital operating expenses, and require all payers to adhere to the rates set.

**Institute Rate Regulation for Academic Medical Centers:** Limits reimbursement for nontertiary care provided at academic medical centers to the average community hospital reimbursement rate through a regulatory strategy.

**Eliminate Payment for Adverse Hospital Events:** Identifies specific serious, preventable medical errors (and other indicators of poor care) and allows public and private payers to deny or reduce payment for the costs associated with such care.

**Increase Adoption of Health Information Technology (HIT):** Accelerates adoption of HIT through financial incentives, direct provision (of hardware and/or software), regulatory mandates, development of standards, and establishment of health information exchanges.

**Institute Reference Pricing for Academic Medical Centers:** Encourages insurers to adopt pricing policies that base reimbursement on the community hospital rate for a given service and require consumers to pay the difference if they wish to obtain care at an academic medical center.

**Encourage Greater Use of Nurse Practitioners and Physician Assistants:** Changes the law, regulations, and/or financing practices that currently limit patients’ use of physician assistants and nurse practitioners as primary care providers.

**Promote the Growth of Retail Clinics:** Encourages the growth of limited service clinics by modifying regulations (e.g., expedited review of retail clinic applications, changes in corporate practice of medicine laws, and relaxing physician oversight requirements for nurse practitioners).

**Create Medical Homes to Enhance Primary Care:** Provides comprehensive primary care through physician-led teams; involves the use of strategies designed to reduce costs (such as improved care management for chronically ill patients, 24-hour-call and same-day scheduling to improve access, and HIT).

**Decrease Resource Use for End-of-Life Care:** Encourages the use of less-expensive sources of care, such as community hospitals and hospice care settings, at the end of life.

**Encourage Value-Based Insurance Design:** Ties co-payments to the expected benefit of the health care service being consumed.

**Increase Use of Disease Management:** Encourages healthy behaviors, medication adherence, and appropriate utilization of care for persons with chronic illnesses.

necessary. The savings estimates for many individual options cannot be summed because they target the same dollars. For example, disease management, medical homes, and bundled payment all seek to achieve better management of chronic disease, thereby reducing rates of hospital and emergency department use.

### Is Reducing Health Spending Feasible?

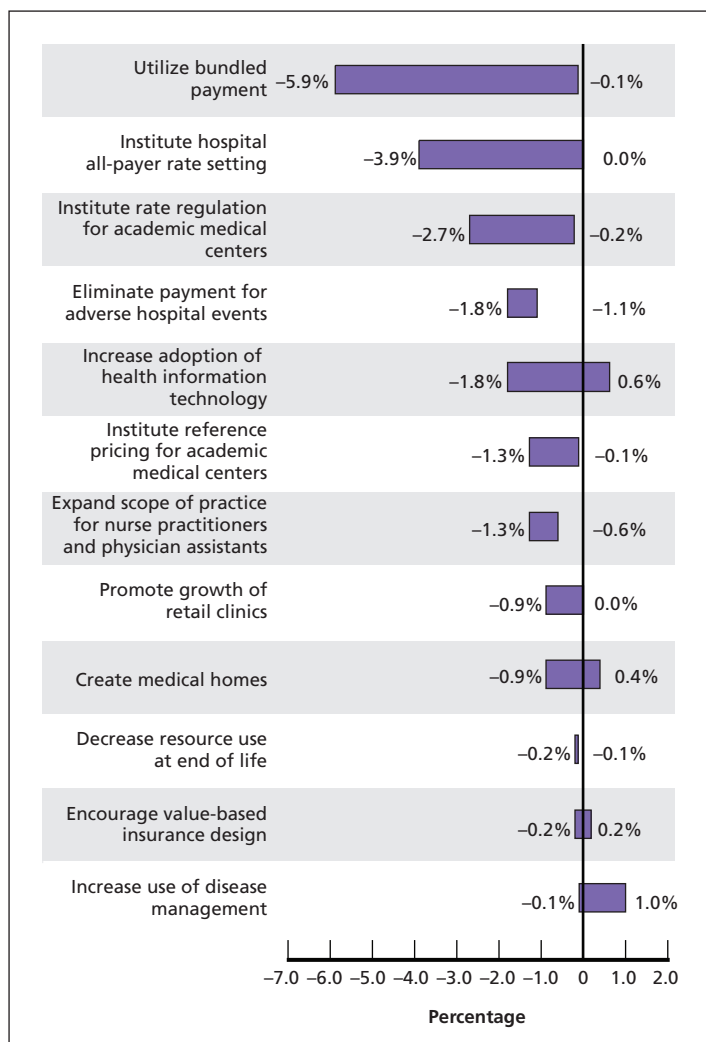
Health spending has grown steadily for many years, largely resisting all previous attempts to reduce its growth. Given this history, is it feasible to expect that any of these policy options can reduce the health spending growth rate to that of GDP for the state?

*The RAND team found that, under optimistic scenarios, it would be feasible to change the trajectory of health spending growth.* Several of the policy options studied have the potential to reduce spending (Figure 2). Not surprisingly, there

were no “silver bullets” that, alone, would reduce the rate of growth in health spending to that of GDP. However, *in high savings scenarios, all 12 of the options modeled would produce some level of cumulative savings by 2020.* Even under low savings scenarios, six options would produce savings. This suggests that health spending can be reduced.

However, as indicated by the spread between the high and low savings estimates in Figure 2, the amount of the reduction is highly uncertain. For many options, the low savings estimates were close to zero. The uncertainty in these estimates reflects the fact that none of these options has a proven history of reducing spending. Some options, such as medical homes, are just beginning to be tested in small pilot projects. Others, such as hospital rate setting, have been used in the past but have not demonstrated significant spending reductions. To achieve the savings at the high end of these estimates, new policies would need to be formulated and implemented effectively. In order to reduce the growth of health spending to the GDP rate, a combination of strategies would likely be needed.

**Figure 2**  
**Estimated Cumulative Savings from Selected Policy Options, 2010–2020**



### Which Options Are Most Promising?

The options at the top of Figure 2 have the most promise for reducing spending. *The top four options*—bundled payment, hospital all-payer rate setting, rate regulation for academic medical centers, and elimination of payment for adverse hospital events—*all change methods of paying for health care services.* The sixth most-promising option, reference pricing for academic medical centers, is also a change to payment methods.

This makes the work of the Massachusetts Special Commission on the Health Care Payment System timely and critical to the state’s efforts to control costs. *The Commission’s recommendation to move toward global payments over five years is consistent with RAND researchers’ finding that payment reform is an essential tool of cost containment.* Among the options evaluated, bundled payment is promising, largely because it can apply to a range of health care providers—not only hospitals, as in the other options modeled. Bundled payment is designed to reduce both the price and the number of services delivered. Global payments have these same attributes.

*The next most promising area is infrastructure investments.* Although these options require increased spending in the short term, they could enable more efficient care in the long term. These investments include increasing adoption of health information technology (HIT) and several methods for expanding the capacity of primary care: increased use of nurse practitioners and physician assistants, growth of retail clinics, and creation of medical homes.

### Which Options Are Least Promising?

Some popular strategies, such as policies to reduce spending on chronic illness through improved disease management for

**Policy Options to Reduce Health Care Spending in Massachusetts**

<b>Options That Were Modeled</b>		
<b>Policy option</b>	<b>Problem addressed</b>	<b>How would savings be achieved?</b>
Utilize bundled payment strategies	Fee-for-service payments encourage overuse of care, and pay for potentially preventable complications.	Public and private insurers would need to adopt bundled payment reimbursement policies.
Institute hospital all-payer rate setting	High and rising costs of inpatient care; unjustified differences in rates among hospitals.	State regulatory authority would set rates for all payers, including Medicare (through a federal waiver).
Institute rate regulation for academic medical centers (AMCs)	Higher costs of AMCs; increased use of this setting of care.	State regulatory authority would set rates for AMCs that are in line with community hospital rates; Medicaid and private insurers would not pay higher rates.
Eliminate payment for adverse hospital events	Potentially preventable readmissions and avoidable complications add costs and reduce quality.	Medicare, Medicaid, and private insurers would eliminate payment for these events, resulting in reduced spending and increased value.
Increase adoption of HIT	Current rates of HIT adoption are too slow and uneven to ensure adequate infrastructure for payment and delivery changes.	Through mandates and financial incentives, full adoption of HIT by hospitals and physicians would be achieved by 2015 or 2017.
Institute reference pricing for AMCs	Higher costs of AMCs; increased use of this setting of care.	Consumers would pay the difference between what they would have paid at a community hospital and the AMC price; Medicaid and private insurers would use this pricing model.
Expand scope of practice and change payment policies for nurse practitioners (NPs) and physician assistants (PAs)	NPs and PAs are underutilized despite being qualified to provide primary care at a lower cost than other providers.	Physician practices and consumers would make greater use of NPs and PAs because of changes in payment and scope of practice policies.
Promote the growth of retail clinics	Expensive emergency department and urgent care clinics are used for problems that do not require a high level of care because of their availability after business hours.	Consumers would use retail clinics as a convenient, accessible, and less expensive alternative to emergency department and urgent care clinics.
Create medical homes	Payment for primary care services is low and may not cover key elements of effective patient management.	Medicaid and private insurers would reimburse primary care practices as medical homes, and require improved access, better chronic care management, and use of HIT.
Decrease intensity of resource use for end-of-life care	Spending on end-of-life care in hospitals can be very expensive with little benefit; patients are often more satisfied with less costly hospice care.	Medicaid and private insurers would encourage the use of hospice over hospitals, and community hospitals over teaching hospitals; Medicare is not included in estimates.
Encourage value-based insurance design	Reimbursement is not currently related to the health benefit expected from certain interventions; no financial incentive exists to use more clinically or cost-effective interventions.	Reduced drug co-payments for patients with certain chronic diseases provide patients with incentives to better manage their illnesses; commercial insurers would adopt this approach to benefit design.
Increase use of disease management	Chronic care is poorly managed and coordinated, leading to potential unnecessary expenses for health problems that could have been avoided.	External service provided to help fill the gap in care-management systems; provider or insurance systems would have to adopt these programs in greater numbers than is now the case.

**Policy Options to Reduce Health Care Spending in Massachusetts (continued)**

<b>Options That Were Reviewed But Not Modeled</b>		
<b>Policy option</b>	<b>Problem addressed</b>	<b>How would savings be achieved?</b>
Increase use of pay-for-performance	Reimbursement is not currently related to provider performance.	Financial incentives would be used by insurers to stimulate hospitals and physicians to improve efficiency.
Regulate insurance premiums	The cost of insurance coverage has increased rapidly.	Regulation limits increases in health insurance premiums, either by capping the medical loss ratio or by limiting premium growth.
Increase Medicaid reimbursement	Some physicians do not accept Medicaid patients because of low reimbursement rates, which can limit access to primary care.	Increased Medicaid reimbursement could stem cost-shifting from public to private payers and increase physician acceptance of Medicaid patients.
Increase use of preventive care	Rates of preventive care utilization are lower than desirable.	Expanding mandates for coverage of preventive services in public and private insurance and consumer educational campaigns will increase utilization of services. Savings come from substituting preventive services now for treatment services later.
Reduce administrative expenses	Some portion of administrative spending does not add value or is not necessary.	Insurers would streamline administrative functions, such as billing, general management activities, sales and marketing, management of clinical care, and compliance, with regulatory requirements decreasing costs for payers and providers.
Extend the determination of need process	Excess supply of facilities and expensive technologies lead to increased use of costly care.	Government regulatory authority would be strengthened to approve only capital expenditures in the public interest.
Use comparative effectiveness analysis to guide coverage and payment rules	Dearth of information on the relative clinical- and cost-effectiveness of many treatment alternatives.	Expanded information is used to increase utilization of more effective treatments through changes in coverage or payment, or through consumer education.
Promote wellness/healthy behaviors	Unhealthy behaviors increase lifetime health care costs.	Employers provide premium discounts or rebates to encourage enrollment in programs designed to promote healthy behaviors; consumers get healthier and use fewer services.
Change laws related to the non-economic damages cap and expert witnesses in malpractice suits	Medical liability—and related insurance costs—are widely believed to be related to rising malpractice premiums, large damage awards, and the practice of defensive medicine.	By making it more difficult for plaintiffs to bring cases and limiting damage awards, the incentive to sue is reduced, which in turn may decrease malpractice claims and the excessive use of defensive medicine.

the non-elderly, or reducing the intensity of resource use at the end of life for the non-elderly, did not yield significant estimates of savings. Although these approaches might improve quality and value, they are unlikely to moderate cost trends. Other options, such as value-based insurance design, are not well specified or tested at this point, but may be developed over time and reconsidered when more evidence is available about their effectiveness.

**What Makes Some Options More Promising Than Others?**

Two factors explain why some options are more promising than others: (1) the size of the population affected by the

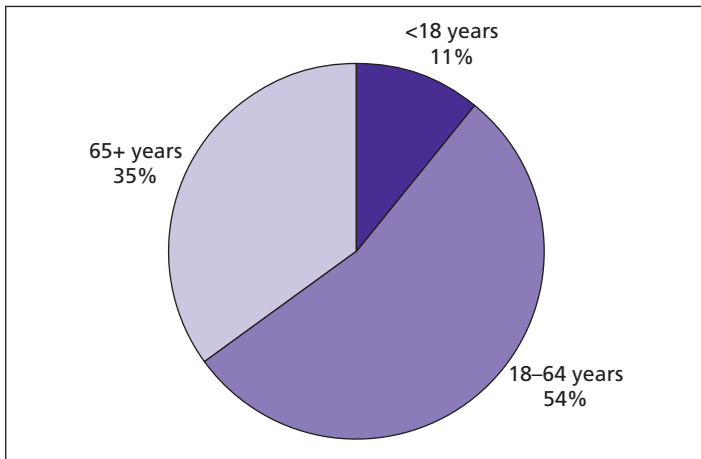
policy option, and (2) the presence of a clear mechanism for reducing the number and/or price of services used.

**Population Affected by the Policy**

Because RAND focused on policy options that public or private policymakers in Massachusetts could implement without changes in federal legislation or regulation, the results generally exclude the Medicare population, which reduces the base spending levels that can be affected by policy changes. People age 65 and older will represent 35 percent of health spending in Massachusetts in 2010. Therefore, many of the options considered can only affect up to 65 percent of spending (Figure 3). Policies that do not include Medicare spending,



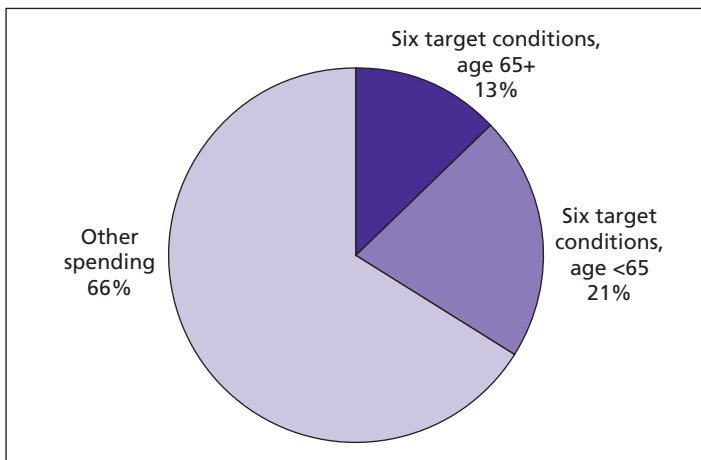
**Figure 3**  
**Massachusetts Health Spending by Age Group, 2010**



such as payment for end-of-life care for the elderly, have a smaller base for spending reductions. For example, Medicare currently pays for 80 percent of end-of-life care in Massachusetts, so just 20 percent of spending in this category can be reduced through state policy changes.

Many proposals for reducing spending focus on chronic disease because it accounts for 75 percent of national health spending. Bundled payment for chronic diseases is an important part of potential savings for this reason. In Massachusetts, spending for people younger than 65 with one of six chronic conditions that are commonly targeted by disease management programs (asthma, chronic lung disease, heart disease, heart failure, depression and diabetes) will be 21 percent of the total in 2010 (Figure 4). Other chronic conditions

**Figure 4**  
**Massachusetts Health Spending for Targeted Chronic Conditions, 2010**



(such as arthritis) represent a larger percentage of spending but have not been included in most quality-improvement or cost-reduction programs to date, so the mechanisms for reducing spending are less clear.

### **A Clear Mechanism for Changing Price or Quantity of Services**

*The options with the largest estimated savings, such as payment reform, typically offer a clear and direct mechanism for reducing spending.* Bundled payment has been shown to be effective in prior public and private demonstration projects and would directly affect the amount paid for health services. Hospital rate setting would impose statewide controls on the price of hospital services. Other mechanisms for directly controlling health spending—for example, fixed budgets for health care as used in other countries—would also probably reduce spending. However, the researchers did not model this option because the total savings would be relatively easy to determine. Future analysis could contribute to setting a budget target.

Some of the options considered were developed with the primary aim of improving quality of care; spending reductions would be a secondary effect. These options might have promise for improving the value of health care spending, but may not reduce the level of spending. In order to enable quality improvement, these options often require up-front investment, which could increase net spending. Some of these options are typically implemented across an entire population (HIT, medical homes, disease management) but savings are likely only for a small portion of the population. If the options are not implemented effectively, savings will not exceed investments. The organizations that must operationalize these strategies are heterogeneous and vary in their ability to implement new approaches to delivering health services.

### **Why Were Some Options Not Modeled?**

The RAND team did not make quantitative estimates of savings for several of the most popular policy options, including comparative effectiveness research, prevention, and pay-for-performance, among others (see table). These options could potentially be implemented in a way that reduces spending, but they were not modeled because there was little or no evidence of potential effects and/or a specific mechanism by which each option would lead to reduced spending. The decision not to model these reforms should not exclude them from further consideration. However, any claim that these options will result in significant spending reductions should be interpreted with caution.

### **How Should Massachusetts Move Forward?**

Most of the options considered would require significant investments of time and energy by stakeholders in Massa-

achusetts to ensure that the policy changes had the greatest opportunity to produce savings. For this reason, the RAND team considered the most promising places to invest that time and energy. *The analysis suggests that the best opportunity for reducing spending over the next decade is to change the method of paying for health care services.* Moving toward more bundled forms of payment appears most promising. Massachusetts has already taken steps to eliminate payment for adverse hospital events, which is another promising strategy. Some of the regulatory strategies, such as hospital all-payer rate setting, also appear effective.

It was beyond the scope of RAND's analysis to estimate the likely effect of combining options. However, several of the options considered are designed to improve the infrastructure within which health care can be delivered in the state. *The two most important options in this category are accelerating the adoption of health information technology and expanding primary care capacity.* Although they do not appear likely by themselves to produce significant savings, they are foundational to other efforts.

Accelerating the adoption of health information technology facilitates both improvements in health services delivery and innovations in payment methods. It can allow medical homes to operate effectively, retail clinics to use protocols and communicate with other providers, and payment reform to take account of clinically important variations in patient need. Increasing the flow, utility, and timely availability of data on system performance through wider adoption of HIT will enable the state to evaluate its progress in implementing policy changes and make necessary mid-course corrections.

Expanding and enhancing the capacity of primary care would ensure that more patients have access to primary care providers, reduce the use of less efficient providers of primary care services (such as emergency departments), and lay the ground work for reforms that would require better care management. Options to expand and enhance primary care could include medical homes and more reliance on nurse practitioners and physician assistants for routine care.

Some of these infrastructure options may cost more money than they save in the next ten years, but failure to get started on the kind of system transformation that these options enable will only further delay the opportunities to fundamentally improve the health care system.

## **Caveats**

In evaluating the savings potential of these policy options—and developing high and low savings estimates—the RAND research team was explicit about how the option would be designed. As options are considered by policymakers, alternative designs may be offered that could increase or decrease expected savings. This RAND analysis provides a method and a framework within which these discussions can take place.

For many potential cost-containment approaches, the research evidence is weak or nonexistent, and results often vary widely due to differences in the design or implementation of an option. There are inherent limitations in using past U.S. experience to draw conclusions about what might work in the future—particularly because past efforts to control costs in the United States have generally been timid, uncoordinated, and limited in scope and duration. If Massachusetts is bold and innovative, it may succeed where others have failed. Leadership and commitment by all of the stakeholders are essential to the success of these efforts. *Attention to past failures may ensure that those experiences are not repeated.*

The analyses focused almost exclusively on spending reductions and did not formally account for potential effects on health care quality and access. Blunt spending reduction methods may reduce costs but have other unintended consequences. The challenge will be to implement options so as to improve or maintain quality as well as reduce spending.

Finally, for a variety of practical reasons, RAND did not evaluate all available options. There may be other ideas that are worth considering. Proponents of these ideas must be specific about how the option would be designed and implemented. Observations that “if only we could be like that other state or country,” in the absence of a specific action plan, are not an adequate basis for estimation or policy change.

## **Conclusion**

From an initial set of 75 ideas, RAND identified a few options that appear to have the potential to slow the rate of increase in health spending in Massachusetts over the next decade. Considerable work remains to move from the ideas presented here to an action plan. However, *if policymakers and stakeholders focus on those areas most likely to achieve the goals of significant spending reductions, the second round of health reform in Massachusetts will once again provide a model for the nation.* ■

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