

A National Health Care Innovations Program

A proposal to increase the cost-effectiveness and quality of the U.S. health care system

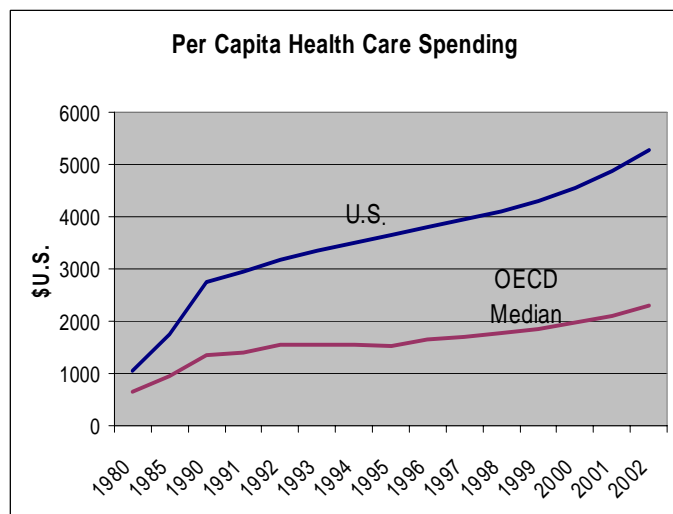
Summary

The U.S. health care system is reaching a breaking point. The amount we spend on health care and the rate of spending growth outpaces all other industrialized countries. Neither the public nor private sector can sustain this trend. If it continues unchecked, fewer and fewer employers will be able to afford health care for their employees and public health care spending will skyrocket as qualified, low-income individuals sign on to and Medicaid and the State Children's Health Insurance Program (SCHIP). Caught in the middle will be a growing population of Americans who do not qualify for public benefits and cannot afford to insure themselves.

The crisis is not just one of cost, however. It is a broader crisis of quality and access to quality care. As much as we spend on health care, we achieve only mediocre results as gauged by our population's health and, at times, clinical outcomes. Many other countries spend less and achieve better returns on their health care investments.

We must increase the efficiency, productivity, and quality of our entire health care system. By making the system more efficient and effective for those now covered by health insurance, we also increase the opportunities for coverage expansions.

Just as they did with welfare reform a decade ago, states can once again play a lead role in driving change. Through demonstration projects in partnership with the private sector, states can illustrate the benefits of large-scale system reforms. Accordingly, the nation's governors call on Congress to



establish a National Health Care Innovations Program to support the implementation of 10 to 15 state-led demonstrations in health care reform over a three- to five-year period. We propose states serve as the lead entity for these large-scale demonstrations that will focus on:

- deploying information and communications technology to improve services;
- improving quality of care, including disease prevention and management;
- allowing innovative financing strategies and rules changes to expand health care coverage for the working uninsured;
- empowering consumer choice through price transparency, quality reporting, and financial incentives; and
- reducing malpractice incidents and improving adjudication of malpractice claims.

Each demonstration project would be selected through competition and encouraged to demonstrate multiple innovations. All projects would need to emphasize the goal of increasing cost-

effectiveness and, to the extent possible, improving health care quality. In addition, a few projects that expand coverage should be supported but these, too, must show improved cost-effectiveness and quality of care.

The Problem

The United States spends about \$1.7 trillion or almost 15 percent of its Gross Domestic Product (GDP) on health care. This is more than any other industrialized country and 41 percent higher than the median of all 30 member countries in the Organization for Economic Co-operation and Development, or OECD (2002 data). On a per capita basis, the United States also outspends its peers. In 2002, Americans spent \$5,267 per person on health care, more than twice the OECD median of \$2,294 per person. In addition, from 2000 to 2005, the rise in health care costs alone is estimated to absorb an astounding 25 percent of the nation's projected economic growth.¹

Given the high expenditures devoted to health in this country, one should expect equally high healthy outcomes. But that is simply not the case:

- In 2001, the U.S. average life expectancy for males was just 74.4 years, a value exceeded by 21 other countries, including Iceland (78.3 years), Japan (78.1 years) and Sweden (77.6 years). Moreover, 21 other countries also exceeded the U.S. life expectancy for females of 79.8 years, including Japan (84.9), Switzerland (83), and Spain (82.9).
- In 2001, infant mortality in the United States was the fifth highest in the industrialized world at 6.8 deaths per thousand live births. The lowest recorded rate was Iceland at 2.7 deaths per thousand live births.
- In 2000, the United States reported 322 cancers per 100,000 people, a level higher than roughly half of all reporting OECD countries. The United Kingdom, which devotes only 7.7 percent of its GDP to health care (half the U.S. level), had the lowest reported rate at 254 cases per 100,000 population.
- In 2002, the United States had the highest obesity rate (22 percent of the total population) of any other industrialized country except the Slovak Republic, which reported an obesity rate of 22.4 percent. In contrast, Japan reported that only 3.6 percent of its population was obese.
- In 2003, the National Academy of Sciences reported that annual U.S. deaths from medical errors likely range between 44,000 and 98,000, exceeding the annual deaths recorded for motor vehicle accidents, breast cancer, or AIDS.²

Why does the United States spend so much of its money on health care and yet still produce such mediocre rankings? The reasons are many, but in general they can be attributed to four broad factors:

First, by failing to effectively use information technology, the U.S. health care industry has created a system that encourages inefficiency. The state of medical informatics is dismal. The U.S. health care industry remains a bastion of paper-based recordkeeping, billing and information exchange. As a result, administrative costs account for 31 percent of total health care spending in the United States, a level almost double Canada's rate³. Part of this inefficiency can be blamed on our fragmented system, in which multiple insurance and health care providers, regulatory systems, and health care networks all use different forms and standards. But a more important reason is the

fact that the U.S health care system is dramatically behind in deploying computer technology to standardize information, store data, and share records.

The result of this inefficiency is not just an increased administrative burden, but a loss of efficiency in patient care. Without electronic record-keeping, doctors in different locations or organizations cannot easily examine a patient's medical records or coordinate treatment with other providers. Their knowledge often is limited to their own examination and the information supplied by the patient. Likewise, patients cannot easily monitor their own health status or treatment progress. As a result, the efficacy of care is reduced, errors are more likely, and over- or under-use of services are frequent.

America's health care system will not be transformed until it fully implements information technology at the hospital, provider, and community level. Every aspect of care that creates or uses information must move that information to a paperless, integrated, and interoperable environment. Patient billing must become standardized and electronic. Providers and patients must be given remote access to up-to-date health records. And all prescriptions should be ordered, reviewed, and completed without paper transactions. Development of a real-time, virtual health information system is the first step toward improving productivity.

Second, the U.S. health care system does not emphasize quality and effectiveness of care. The current system fails to reward doctors for quality of care, encourage the reporting and elimination of errors, or promote cooperation among providers to enhance services. For example, most doctors today are compensated based on the complexity and volume of the clinical services they provide, not the quality of care. Therefore, to improve quality, provider payments should reward the achievement of better outcomes and use of best practices, including disease management and prevention protocols. Clinicians should be compensated for taking good care of all types of patients, neither gaining nor losing financially for caring for sicker ones or those with more complicated conditions.

The current system also discourages the reporting of errors and the identification, remediation, and elimination of sub-quality providers. Some of the problem lies with our current medical liability system, which can impose severe costs on doctors and hospitals that report errors, even when they have no adverse clinical impact. Some of the problem also lies with our licensing and accreditation processes, which do not focus on safety and performance except in the most egregious cases. And some of the problem lies in the way we pay for medical services, since most health insurers provide little incentive for health care organizations to improve safety and reduce errors.

Finally, our failure to use information technology to store patients' medical records and exchange information hinders a quality approach to patient care. Multiple providers serving the same patient rarely have access to the patient's complete and current medical information. As a result, each provider will treat what they see, often addressing a single set of symptoms. Patients rarely obtain a coordinated diagnosis or treatment regimen under such a system. For this reason, prescription overuse is common and duplicative tests and procedures frequently are requested.

Quality of care must be a focal point of all efforts to transform America's health industry. This may mean developing "pay for performance" models that reward doctors for the quality of care they provide (including disease prevention). It means developing treatment guidelines for providers to follow based on accepted standards of care. It means changing the way we oversee provider performance to focus on improving quality, re-examining skills, and eliminating incompetence. It also means developing systems to encourage doctors to report mistakes without threat of liability and developing more equitable adjudication processes for medical errors.

Third, the health care system in this country does not permit the consumer to make informed decisions on the cost and quality of the services they receive. Little incentive or opportunity exists in today's system for the consumer to compare the prices or quality of the clinical services they receive or to implement lifestyle changes to reduce future service demands. The financial motivation for most consumers is to find the least costly insurance plan, not to find the most cost-effective treatment. Because most treatment costs are born by insurers, the consumer is not motivated to minimize costs.

Even if cost control was a motivation of consumers, the absence of data on prices for medical services and quality of care thwarts anyone from making an informed choice. This lack of transparency further fragments a system in which health care services are delivered to one party (the patient) but purchased by another (the insurer).

In a transformed market, consumers would have access to information on prices and quality and would be encouraged to select services based on these measures. To improve the cost-effectiveness of health care, consumers must be empowered to make cost-effective choices. This requires building an information technology backbone so people have the knowledge and the tools to help themselves better manage their health status. It also requires giving consumers the financial incentive to manage the cost and quality of their care.

Fourth, government rules help stifle innovative approaches for extending coverage to the uninsured. Myriad federal and state regulations make it difficult to create insurance options to cover a large number of low-income workers. Problems include government regulations that prevent public dollars from subsidizing private insurance, and rules that make it difficult for employees to receive a tax benefit for health insurance not purchased through an employer-sponsored plan. This helps create a fragmented system that cannot optimize dollars to meet demand. Failing to cover all workers means many will seek care when it is most costly – in emergency rooms and when prevention options have passed – driving health care costs upward throughout the system.

One problem is the difficulty small businesses face in sponsoring their own health insurance plans. Of the approximately 45 million non-elderly Americans who are uninsured, almost half are self-employed or work in firms of less than 25 workers.⁴ These firms do not sponsor insurance plans because:

- administrative costs per worker can be high;
- small firms lack the bargaining power of larger firms;
- the small size of the insured pool drives up costs; and
- insurance for small groups may not be available in their area.

One available solution is to encourage the formation of alliances among small firms to provide coverage for a large pool of workers. States can help sponsor such alliances by bringing the right parties to the table and changing state rules to ensure “alliance employees” receive the same tax-free benefits as workers covered by office health plans. State rules establishing minimum benefit requirements for business-sponsored plans also may need changing.

Another problem is federal rules make it difficult to blend public and private funds to create hybrid plans, which extend coverage to the working uninsured. For example, low-income workers typically cannot use Medicaid money to purchase a private health insurance plan or “buy in” to an

alliance as described above. This can even limit insurance coverage options for low-income workers, depending on how many providers in the area participate in Medicaid. A better option in many cases is to let Medicaid subsidize private insurance premiums for low-income workers. This could encourage the formation of alliances and make it easier for small businesses to offer insurance.

A major problem of the health care system is that it serves two markets – private sector insurers and government purchasers/regulators. Forty percent of all health purchases must meet government price controls set by Medicaid and Medicare, while the rest of the system can charge market rates to insurance providers. Each sector has different benefits packages, coverage rules and financial incentives. Until the system is made less fragmented, it may be difficult to achieve high efficiencies.

In a transformed market, government rules should encourage innovative strategies to cover many of the working Americans who currently lack health benefits. They should make it easier for insurers to offer plans to large pools of employees and make it easier for small businesses to help employees obtain coverage. By extending coverage through cost-effective plans, the high cost of uncompensated care could be lowered.

Needed: A National Health Care Innovations Program

America's current health care system is ripe for improvement and states are ready to take the lead in helping drive change. Bold ideas are needed to address the health care system's most serious problems and change the conventional thinking that meaningful reform can only be driven from the top, through federal policy changes. Instead, similar to welfare reform, health care system change should be demonstrated through innovation and experimentation by states. States are small enough to tailor solutions unique to their cultures, institutions, and health care markets, but large enough to experiment with system-wide reforms. States also can partner effectively with health care providers, insurers, and purchasers to lead large scale pilot projects.

In 2002, the Institute of Medicine identified a set of demonstration projects that had the potential to lead to fundamental change in the health care system.⁵ The institute recommended a substantial portfolio of demonstration projects, including 10 to 12 chronic care demonstrations, eight to 10 information and communication technology demonstrations, and four to five state liability demonstrations. Similarly, in 2003, the National Academy of Sciences called for the federal government to commit approximately \$1 billion over a three to five year period to support demonstrations on quality improvement alone⁶. The academy recommended the money be used to create the Health Care Quality Innovation Fund. Both of these proposals offered excellent ideas, but, to date, neither has resulted in the implementation of large-scale, cross-systems demonstrations.

To help drive change, Congress and the administration should create a National Health Care Innovations Fund capable of supporting 10 to 15 large-scale experiments over the next three to five years. The demonstration projects would incorporate multiple innovations, including information technology, disease prevention and management, quality improvement programs, and changes to

the medical liability system. The emphasis of these experiments should be on achieving the following goals, in the following order of importance:

1. Increase cost-effectiveness (all demonstrations);
2. Improve quality of care (several demonstrations); and
3. Increase coverage (a few demonstrations).

Principles

The demonstration projects should adhere to the following principles:

1. All of these experiments should be public/private partnerships which may include local and federal government in addition to state governments and the private sector. The partnerships also should include both the health care delivery system and purchasers.
2. To the extent possible, the experiments should attempt to demonstrate multiple innovations, such as deployment of information technology together with programs for disease management, quality reporting, and pay for performance.
3. Funds should be used to support planning, systems design, certain infrastructure investments (with matching dollars from project partners), and evaluation. The funding should not be used to cover long-term, operational costs.
4. States should serve as the lead partner for a multi-partner project with other entities. States should compete with each other for the innovation funding.
5. An independent advisory body should review the merit of the proposals, but HHS should be the operational agency for the grants. HHS also should have the authority to coordinate Fund demonstrations with other, ongoing projects supported by HHS to maximize investments.
6. All experiments must contain a very strong evaluation component.
7. The demonstrations need not be statewide, but must stress collaboration among public and private entities.

The fund should be specific regarding both the evaluation criteria and the types of potential innovations it will support. Each experiment should incorporate several elements among the categories described below. For example, a project demonstrating the use of electronic medical records also could include demonstrations of improved patient care, error reporting, disease management and price and quality listing.

Innovation Categories

The Innovations Fund should support projects demonstrating multiple elements of the following innovation strategies:

- deploying information and communications technology to improve services;
- improving quality of care, including disease prevention and management;

- creating innovative financing strategies and rules changes to expand coverage and improve cost-effectiveness;
- empowering consumer choice through price transparency, quality reporting and financial incentives; and
- reducing malpractice incidents and improving adjudication of malpractice claims.

Deploying Information and Communications Technology

Full deployment of information technology, including electronic health records (EHR), is the backbone of almost all other meaningful system improvements. Without a robust information technology infrastructure, improvements in disease management, consumer empowerment, medical error reporting, and health care quality are nearly impossible.

A number of small-scale demonstrations already are underway testing the use of information technology. In 2004, for instance, the U.S. Department of Health and Human Services awarded \$139 million in grants and contracts to promote the use of health information technology (HIT). Over 100 grants were given to communities, hospitals, providers and health care systems to help them develop and use information technology. Larger contracts were given to five states (Colorado, Indiana, Rhode Island, Tennessee and Utah) to help them develop statewide networks that are secure, ensure privacy of health information, and allow sharing of records among providers.

In addition to these federally-supported demonstrations, several private health care networks, including Kaiser Permanente, have made HIT a core element of their business model and have invested heavily in these systems with beneficial results. For example, Kaiser Permanente has made electronic patient records a core element of their quality care program.

The National Health Care Innovations Fund would build on the investments and knowledge gained from these existing projects. The Innovations Fund would support efforts to bring these current projects “to scale” and demonstrate the following using HIT:

- real-time electronic access to patient health records by clinicians and patients on a right-and need-to-know basis;
- support tools for patients, including educational materials, information to facilitate self-care programs, and data systems to track health progress;
- telemedicine systems to link providers to providers and providers to patients;
- data capture and decision support tools for clinicians;
- software to improve management systems, including electronic billing, workflow scheduling and claims processing;
- data gathering, analysis, and reporting to measure quality improvements in outcomes and patient safety, and
- interoperability among systems managed by different providers and networks.

Improving Quality of Care

Programs to improve the quality of patient care encourage clinicians to utilize best practices, including disease prevention and management. They also focus on reducing system waste, promoting collaboration among providers, and reducing medical errors. Finally, they require reporting of quality measures.

Both the federal government and private sector have funded research to identify best clinical practices. A number of health care providers, hospitals, and networks have put these and similar practices in place, often supported by information technology to aid physicians and the consumer. Some providers, such as Kaiser Permanente, have instituted pay-for-performance systems to reward doctors for quality and patient satisfaction. In its report, *Crossing the Quality Chasm: A New Health System for the 21st century*, the National Academy of Sciences recommended \ quality improvement initiatives emphasize:

- improving safety;
- improving effectiveness by providing services based on scientific knowledge;
- empowering the patient to help guide clinical decisions;
- reducing harmful delays;
- avoiding waste; and
- providing equitable care to all patients.

State demonstrations on improving quality of care would need to incorporate information technology and recommended clinical practices. The type of projects the Innovations Fund should cover would demonstrate the following:

- use of state-of-art, evidence-based care for identified patient's conditions;
- customized care models based on patient needs;
- improved self-management of chronic conditions, including helping patients increase their health literacy;
- improved outcomes and satisfaction of patients;
- reduced clinical waste;
- cooperation among clinicians; and
- use of pay-for-performance models to support quality improvements

In addition, the demonstration program would need to create a mechanism to report quality of care measures for consumers. Such a system is critical for helping the consumer make informed choices (see section below, "Empowering Consumer Choice").

Using Innovative Financing to Increase Coverage, Lower Cost

A number of states would like to experiment with different financing strategies to allow them to expand coverage and improve efficiency. To do this often requires changes in state regulations and, in some cases, changes to federal Medicaid regulations to allow blending of public and private monies.

Maine offers a good example of an experiment already underway to create coverage for a large pool of uninsured. Through its new [Dirigo](#) Health plan, Maine expects to increase coverage to 189,000 residents over five years. The state will contract with private insurers to offer coverage beginning with small businesses, self-employed, and individuals. Eventually, coverage will be expanded to larger groups. Employers who enroll are required to pay up to 60 percent of the cost and employees will pay the remaining share. Premium subsidies are available to individuals with annual incomes below 300 percent of the FPL.

Dirigo began offering coverage in the fall of 2004, and in its first year was funded through \$54 million in state funds freed up by federal relief money. In subsequent years, the one-time federal relief funding will be replaced by contributions from employers and employees, federal Medicaid funds, and the savings insurers realize from cost containment efforts in the plan as well as not

having to pay for the uncompensated care of individuals insured under the plan. Dirigo's board will calculate the annual savings in health care cost growth and assess an annual savings offset payment on insurers and other third parties to recapture those dollars. Those funds will be used to pay the premium subsidies for low-income individuals. Insurers are expected to save \$80 million per year.

As part of the Dirigo plan, Maine also began providing information on prices charged for medical services to encourage better consumer decision-making and has started a Web site devoted to quality of care information.

Alliances, such as Dirigo, would be encouraged under the demonstration program. Bolder concepts employing refundable tax credits to cover insurance for low-income workers also could be tested if permitted by Congress. In general, the Health Care Innovations Project would support demonstrations focused on:

- Innovative strategies that combine public and private funds to extend coverage to the uninsured while lowering costs and raising quality.
- Rules changes, both state and federal, that would encourage employers to help pay the cost of insurance for non-employer sponsored plans.

Empowering Consumer Choice

A major criticism of the current system is that it is not patient-centered. The consumer – the patient – does not have information on prices and quality to make cost-effective choices, they lack information on clinical best practices, and they are not given the financial incentive to make informed decisions. A number of programs underway – mostly through the private sector – are demonstrating consumer-centric care on a small scale. State demonstrations could expand these programs, which would help test out whether this powerful market reform can lead to meaningful cost-containment.

The first step is to create a transparent system that provides ready information on prices for clinical services—this is a basic element of a normally functioning market. Several health plans and networks publish their rates for clinical services, and the Dirigo plan described earlier lists average hospital charges across the state for the 15 most common diagnoses. However, few if any states require the listing of all provider prices. Illinois used to conduct an annual hospital survey listing prices for common diagnostic procedures across the state, but that practice ended in 2002. The fact remains most consumers do not have access to comparative data on provider prices and, thus, have no information that could guide them toward cost-effective choices. By providing such data, consumers can begin taking greater responsibility for the cost of medical services.

The second step is to provide information on the quality of medical providers. Several government and private efforts are underway to report quality measures, but they need to be expanded. Medicare has added quality information about nursing homes to its Web site, comparing such things as "percentage of patients who get better at walking or moving around" and "percentage of patients who had to be admitted to the hospital" with state and national averages. A private company, [HealthGrades](#), offers consumers free ratings of most U.S. hospitals, and for a \$9.95 fee provides limited doctor comparisons. Another example is the [Leapfrog Group](#) – a consortium of companies and organizations that purchase health care – which posts quality ratings for a number of hospitals on its Web site.

The third step is to give the consumer financial incentives encouraging them to use cost and quality data to make informed decisions. Currently, the incentive for most consumers is to purchase an insurance policy that provides the best coverage at the lowest price. In fact, there is no incentive to purchase the cheapest, most effective care. Innovations are needed to spur consumers to consider cost and quality of care when buying health services. One such innovation already underway is the health savings account (HSA). HSAs are part of a coverage plan that provides individuals a tax-free spending account (about \$2,500 in the first year for individuals) that can be used to purchase health care services at their discretion. Additional coverage is provided by a high-deductible plan covering all expenses beyond a specified “out-of-pocket” limit. Unexpended HSA dollars can be rolled over to the next year with no tax penalty. The advantage of these consumer-directed plans over conventional insurance is two-fold: the HSA plans often are less expensive and provide a wider array of services, including disease prevention.

Without the proper support infrastructure, however, HSAs cannot guarantee consumers will make better-informed decisions. Consequently, most companies (like [Lumenos](#)) that sponsor HSA plans offer them as part of an integrated system that helps consumers spend their health care dollars wisely. Consumers are given full information on the cost of services in the network and data on provider quality. They also receive information to improve health “literacy” – such as data on clinical best practices and outcomes – so they are able to choose the most appropriate service or avoid visits altogether. Consumers also are given small financial awards to take online, self-diagnostic tests. Patients with certain diseases are given access to health care counseling, with an emphasis placed on prevention and management. Through such an approach, Lumenos and others have actually been able to reduce health care costs (not just slow its growth) and improve outcomes.

All demonstrations involving consumer-centric care will require a heavy dose of information technology. Access to web-based systems is crucial to achieving system transparency on prices, outcomes, and evidence-based best practices.

The Health Care Innovations Fund would support demonstrations that focused on:

- creating a transparent system reporting prices and quality of clinical services by providers;
- providing information to the consumer on evidence-based clinical practices and recommended procedures so that the patient could make informed choices on medical care; and
- establishing financial and other systems to motivate self-diagnoses, disease prevention, and disease management behaviors.

Reducing Malpractice Incidents and Improving Adjudication

While debate exists as to the role malpractice plays in health care costs, few would argue the malpractice system has done a good job reducing medical errors or improving the quality of health care. In addition, few would agree the system for adjudicating claims is uniform, fair or predictable. There is much room for improvement.

Several states have moved forward in implementing innovative approaches to reduce the incidence of medial malpractice and the overall medical liability system. A 2004 New Jersey Patient Safety Act (S. 557) law created a patient safety bill extending limited medical malpractice liability protections to hospitals, nursing homes and other health care facilities that voluntarily report preventable and adverse treatment events not subject to mandatory reporting. The protections exempt any documents, materials or other pertinent information reported to the state’s Department

of Human Services from discovery, being admissible as evidence, or otherwise disclosed in any civil, criminal, or administrative action or proceeding.

To be eligible for the limited liability protection, facilities must develop and implement a patient safety plan to reduce the occurrence of medical errors and establish a patient safety committee comprised of qualified medical staff. The committee must demonstrate an ongoing effort to analyze evidence-based patient safety practices and train staff to apply these principles facility-wide.

Other states have implemented additional changes to improve the medical liability system, including enhanced reporting of errors, requiring alternative dispute resolution on claims, requiring claimants to file an affidavit certifying the qualifications of their experts to judge the factual basis for each claim, and strengthening doctor licensing and accreditation procedures. The Health Care Innovations Project would build on these efforts and support demonstrations that focus on:

- developing and implementing systems that collect and report adverse events that result in death or serious harm;
- requiring health care organizations to report standardized information on a defined list of adverse events;
- instituting procedures to re-examine and re-license doctors and other key providers based on quality of care and knowledge of safety practices;
- helping certifying and credentialing organizations develop more effective methods to identify unsafe providers and take action; and
- developing medical malpractice adjudication procedures that reduce frivolous claims and utilize competency-based evaluations.

Conclusion

Much can be done to improve the efficiency and effectiveness of the nation's health care system without changing its basic structure, increasing government oversight, or altering how it is financed. Transformation can occur by fundamentally changing the way information technology is utilized, improving quality of care and patient safety, providing financial incentives to consumers and providers to make cost-effective choices, changing rules and regulations to offer more coverage choices at lower cost, and improving our medical liability system.

This paper calls for the establishment of a National Health Care Innovations Fund to support large-scale demonstrations emphasizing cost-effectiveness and quality improvements in the health care system. The Fund will help support state-led partnerships between government and the private sector to test major innovations. As they were with welfare reform a decade ago, states are anxious to help drive improvements in the nation's health care system to help lower cost and improve quality. Without such an effort, we will face ever growing health care costs, a higher uninsured population and increased public spending that will threaten our ability to invest in education and other priorities.

¹ Alan Sager and Deborah Socolar, "Health Care Cost Absorb One-Quarter of Economic Growth, 2000 - - 2005", Boston University School of Public Health, Health Reform Program, www.healthreformprogram.org.

² National Academy of Sciences, "To Err is Human: Building a Safer Health System", 2003.

³ Steffie Woolhandler et al, "Costs of Health Care Administration in the United States and Canada", The New England Journal of Medicine, August 21, 2003. See www.nejm.org.

⁴ Stuart Butler, “Reducing Uninsurance by Reforming Health Insurance in the Small-Business Sector” (Backgrounder), No. 1760, June 17, 2004, The Heritage Foundation.

⁵ National Institute of Medicine, “Fostering Rapid Advances in Health Care”

⁶ National Academy of Sciences, “Crossing the Quality Chasm: A New Health System for the 21st Century”