



Can We Reduce Health Care Spending? Searching for Low-Hanging Fruit in the Garden of Health System Reform

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Table of Contents

ABOUT THE LEWIN GROUP	1
EXECUTIVE SUMMARY	2
APPROACH.....	3
HOW MUCH MIGHT WE SAVE?	5
HEALTH BEHAVIOR.....	6
CARE COORDINATION AND MANAGEMENT	7
TRANSACTIONS.....	9
INCENTIVES TO OVER-USE HEALTH CARE	11
DISCUSSION	12

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Executive Summary

The goal of health care reform is to improve health care quality, efficiency and access to care for all Americans. To make reform possible many have argued that we must find savings in the existing system to offset the costs of new programs. Indeed, the US health care system is the most expensive in the world – whether measured in absolute dollars, as a percentage of GNP, or in per capita terms. The US uses more care and pays higher prices than other industrialized countries.¹ so, where might policy-makers look to find cost-savings?

We examine the recent literature documenting the major drivers of health care costs in the U.S. and identify where new policies and initiatives could reduce costs without adversely affecting quality or access to medically necessary care. Estimates of potential savings are based on the existing literature. We indicate where the evidence is strong and where it is weak or highly fragmented. Particularly in the current economic environment, cost savings that occur sooner are preferred. We comment on the timing of potential savings. Finally, savings that benefit some stakeholders while disadvantaging others will face more resistance than those that offer “win-win” scenarios. We reflect on incentives to cut costs and the comment on the distribution of costs and benefits that may result from actions.

The literature suggests that a large slice of the nation’s \$2.4 trillion health care budget is potentially controllable through political, personal, administrative or clinical actions. We could cut excess spending by the following amounts if we enacted evidence-based policies in five key areas:

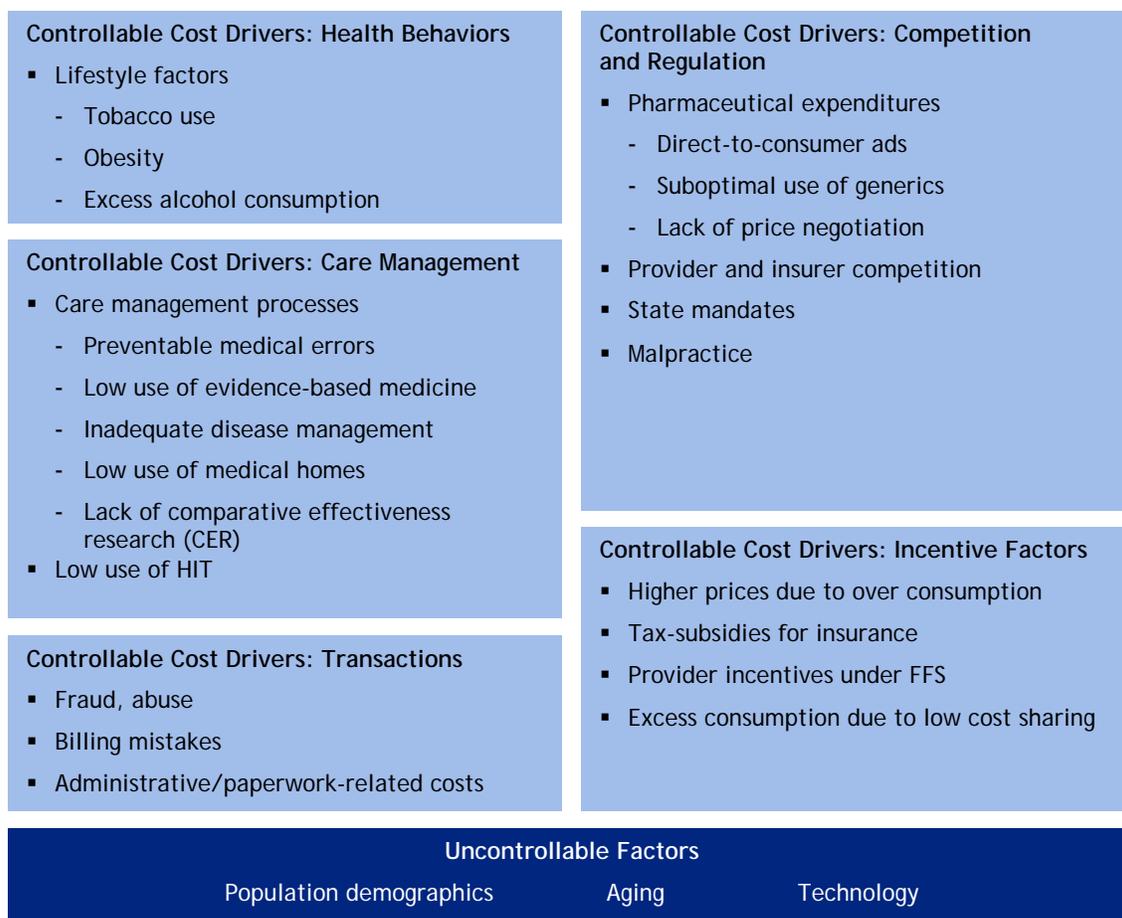
- Modifying unhealthy behavior: \$408 billion per year
- Improving care management and coordination: \$111 billion per year
- Streamlining transactions and eliminating fraud: \$203 billion per year
- Harnessing competition to reduce medical prices: \$148 billion per year
- Removing incentives that promote excess use of care: \$151 billion per year

Approach

We examined the sources of potentially controllable health care costs and classified them into five categories based on the underlying factors that drive spending: (1) health behavior; (2) care management; (3) health care transactions; (4) competition; and (5) incentives to over-use care. Since our goal is to inform policy actions, we excluded some well-established cost-drivers that are not subject to direct control; e.g. aging, other demographic changes, and the pace of technological advances.

Exhibit 1 shows the specific problems and issues that make up the broader classifications. For example, health behavior includes the costs of alcohol abuse, tobacco use, and obesity. Transactions-related costs include the costs of fraud, billing errors, and the savings that could be realized by automating “paperwork.”

Exhibit 1: Classifying Cost-Drivers



Source: Author tabulations

In addition to organizing the literature, the five categories tend to align stakeholders and are amenable to common policy tools. For example, competition policy is changed largely through antitrust enforcement and regulation at the state or federal level. Personal health behaviors can be modified by programs that educate patients and providers, and through incentives and other

interventions that motivate behavior change. Transactions-related savings require payers and providers to change administrative processes.

To find estimates of potential cost-savings, we searched the peer-reviewed literature and selected major studies from the “gray” literature, including government reports, studies by major policy organizations and research groups. We included studies that specifically addressed “excess costs,” i.e., those costs that could be eliminated, arguably, without undermining the quality of care.

The research literature measured potential cost-savings in various ways. Some studies adopt a case-control approach, looking at a counterfactual populations or settings. For example, much of the health behavior literature compares the health expenditures of individuals who smoke or drink excessively or who have excess weight to those who do not, controlling for other factors. This type of research provides estimates of “excess costs” but generally is silent about the interventions that will be required to achieve savings. Other studies gauged potential savings by extrapolating findings from demonstrations and pilots to the broader population. These studies give us insight into the specific mechanisms that produce changes, and often, their costs. However, as pilots, they tend to rely on small samples that our ability to scale up the results and generalize is suspect.

Relying on peer review, we did not independently assess the quality of the evidence, although we required that the article describe its data and methods and report whether estimates of cost savings were statistically different from zero. Apart from converting nominal dollar estimates to 2008 levels, we did not conduct additional analyses. Where possible, we limited studies to those published in the last 10 years, favoring more recent work over older estimates, and selected broader studies as opposed to those that considered only a narrow aspect of health care activities. Exceptions are noted in our discussion where we draw attention to oft-cited “cost” factors that are omitted because evidence is lacking.

The five categories are not unrelated. One of the challenges of integrating a diverse literature is that research typically focuses on the impact of one type of policy change, assuming that all other factors remain constant. For example, increasing competition would undoubtedly reduce the prices of hospital care, and this will affect the amount of savings that could be realized through care management programs.

How Much Might We Save?

Exhibit 2 reviews the evidence on potential savings. All estimates are annualized to 2008 dollars. There is a wide range of estimates in some of the categories. However, even at the minimum of the ranges, some of the savings estimates are quite large.

Exhibit 2: Summary of Potential Cost Savings

Cost-Driver	Range: Billions of 2008 Dollars	Midpoint estimate Billions of 2008 Dollars	Short/Long-term Savings Potential	Locus of Responsibility
Health Behaviors	\$264 - \$552	\$408	Long-term	Patient
Care Management	\$6 - \$216	\$111	Long-term	Provider
Transactions	\$109 - \$297	\$203	Short-term	Payer & provider
Competition	\$69 - \$227	\$135	Short-intermediate term	Government
Incentives	\$40 - \$261	\$151	Short-term & long-term	Government & Payers

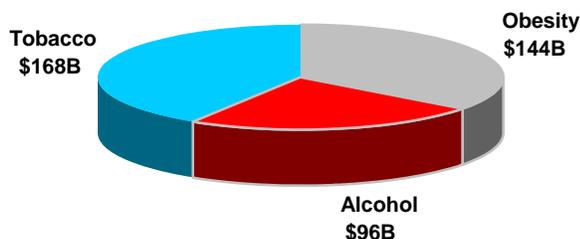
Source: Author calculations. See endnotes for literature cited.

Health Behavior

The first area, “unhealthy behavior” is the largest in magnitude and is the subject of a large body of peer-reviewed research. The midpoint of the cost-savings estimates is \$408 billion per year, equivalent to 17% of 2008 national health expenditures (NHE). The range of expected savings from the respective studies is \$264 billion to \$552 billion per year and includes several significant studies by the CDC and NIH.²⁻¹¹

The costs of unhealthy behavior are those that could be avoided through lifestyle changes that would reduce disease and illness associated with alcohol and tobacco use and obesity. Obesity increases the risk of many chronic diseases, including diabetes, heart disease, and some cancers. The cost of obesity has been extensively modeled; estimates of potential cost-savings range from \$72 billion to \$216 billion per year. Tobacco increases the risk of cancer, heart diseases and pulmonary diseases; estimated cost savings range from \$144 billion to \$192 billion per year. Alcohol abuse contributes to acute and chronic health problems and injuries. Eliminating alcohol abuse is estimated to generate savings that range from \$48 billion to \$144 billion per year. Exhibit 3 shows the problems that make up the health behavior category and illustrates the respective cost savings using the midpoint of estimates.

Exhibit 3: Potential Savings from Eliminating Unhealthy Behavior 2008 (billions)



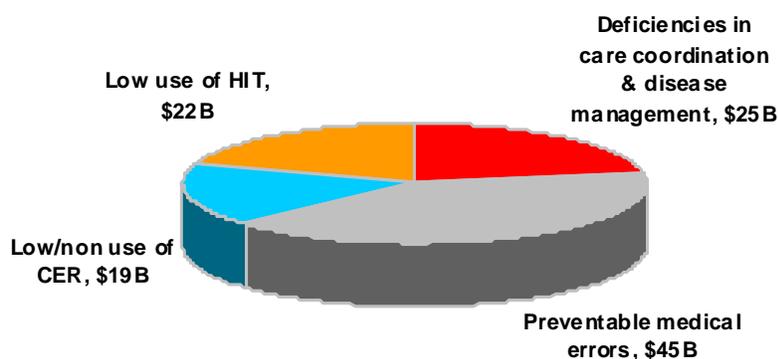
Source: Author tabulations based on literature cited in endnotes 2--8. Values represent the midpoint of the range of cost-savings estimates reported for each category.

Reaping these savings, however, is neither quick nor easy. Ultimately, they involve changing individuals’ behavior. Many of the studies in this literature do not address the mechanisms or interventions that would be required to accomplish the goals. Some health benefits accrue long after changes are initiated, limiting incentives for payers or providers to spend current resources. New payment mechanisms attempt to increase incentives for physicians and health care providers to support healthy behaviors. For example, enhanced coding of preventive care services or fees paid to medical home providers would increase reimbursement for primary prevention, but aligning the benefits and cost-savings across time and stakeholders remains a challenge. That said, the potential for large savings should draw attention and resources to finding solutions.

Care Coordination and Management

Failure to appropriately coordinate and manage care, a second area of focus, reduces quality and in many cases raises costs. We focus on four aspects of care coordination for which there is a substantial literature: (1) avoidable medical errors; (2) savings in care coordination enabled by health information technology (HIT); (3) savings from the expansion and application of comparative effectiveness research (CER); and (4) disease management, primary prevention and care coordination as exemplified by the medical home model, as shown in Exhibit 4.

Exhibit 4: Sources of Potential Savings from Improving Care Coordination



Source: Author tabulations based on literature cited in endnotes 9-14. Values represent the midpoint of the range of cost-savings estimates reported for each category.

Taken together, at the midpoint of the range of estimates, the literature suggests we might save \$111 billion per year. The range is large, however. If we take the study with the smallest estimated impact in each of the categories (medical errors, HIT, CER, care coordination) the our estimate of cost savings equal to only \$6 billion, while using the maximum in each of the four categories results in savings of \$216 billion per year. The evidence in this area is quite varied and there are several individual studies that show no expected net cost savings.

Preventable medical errors in hospital settings and those resulting from medication use account for about \$45 billion per year of the avoidable care coordination costs. Most of the cost estimates in this area come from a series of seminal studies from the Institute of Medicine, published in the last decade.¹²⁻¹⁴ Unfortunately, good data and comprehensive research that document the cost of errors in ambulatory settings are lacking. Wider application of HIT is projected to save \$22 billion per year in the cost of care. Projections of cost savings from widespread HIT implementation range from \$5 billion to \$38 billion per year, depending on assumptions about the pace of adoption and whether the lessons learned from early adopters will lead future adopters to select the most efficient HIT applications.ⁱ

CER and its application are projected to cut costs by \$15 billion per year. Projected savings vary considerably, from \$0.1 billion to \$30 billion per year, with the lower figure coming from the Congressional Budget Office (CBO) and higher one coming from a Commonwealth Fund study that assumed that CER could be coupled with well-integrated incentives that will encourage providers to follow guidelines.²⁰⁻²² Finally, disease management and primary care coordination (medical homes) are associated with a wide range of potential cost-savings estimates, ranging from zero to \$58 billion per year, with a midpoint of \$29 billion per year. The Centers for Medicare and Medicaid Services found no significant savings in its Medicare disease management demonstration. Other studies based on chronically ill and Medicaid populations have suggested that 1.5%-9% of health care expenditures could be saved over time. The variation in these projections highlights the risks inherent in generalizing individual studies to the population in general.

Transactions

A third area for potential for savings involves making health care transactions more efficient, primarily removing inefficiencies in administrative functions and processing claims. This category includes avoidable costs associated with payment errors, fraud and abuse; excess paperwork; and the lack of automation or poor connectivity in interactions between payers and providers. The literature suggests that there are potentially \$203 billion in excess costs from these sources, accounting for nearly 8% of NHE.²²⁻²⁹ Fraud, abuse and billing errors account for as much as \$156 billion per year (\$72 billion - \$240 billion per year), or 70% of the total. Unnecessary paperwork and other avoidable billing and insurance-related activities are estimated to account for an additional \$47 billion per year.

Reducing administrative waste, improving efficiency and stopping fraud is a win-win proposition. Providers, payers and patients would all benefit from reducing transaction costs. Government can play a role in improving transactions efficiency by examining how Medicare, Medicaid, Defense, and other federal program payment policies can create barriers to change or, conversely, can promote the adoption of new systems. A good example of the latter is CMS' requirement that providers submit electronic claims.

Competition and Regulation

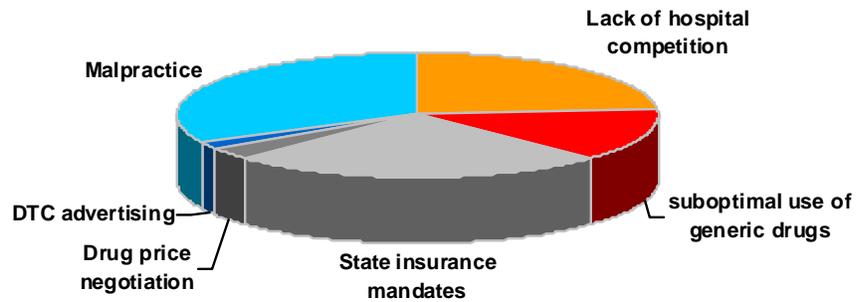
Fourth, we examined whether improving competition and reducing regulatory burden has the potential to save money. Regulation produces benefits as well as costs. The studies cited provided estimates of the net cost of regulation.

A dose of competition would improve health care quality and reduce costs, according to a joint study by The Federal Trade Commission and Department of Justice (2004).³⁰ Lack of competition in hospital markets has been the particular focus of several studies and is estimated to raise prices by approximately 5%, adding \$35 billion per year to costs (range \$4 billion to \$65 billion per year).³¹⁻³³ There has been concern about effects of recent consolidation in physician and insurance markets as well; however, the literature lacks studies that systematically quantify the impact.

Malpractice liability and the defensive medicine it induces by providers are estimated to add \$48 billion per year to costs. State mandates for insurance benefits or that restrict competition across state lines have been estimated by the CBO to add another \$35 billion per year to costs.³⁴ Finally, practices, laws and regulations that result in delayed introduction of generic drugs, the inability of the federal government to negotiate drug prices, and induced consumption of drugs through advertising and incentives are estimated, collectively, to increase costs by about \$27 billion.^{21,35,36}

Together, regulation and lack of competition may contribute about \$148 billion per year to excess costs, or about 6% of NHE. (Exhibit 5) Reducing these costs requires changes in state or federal regulation and antitrust enforcement. Savings are likely to materialize slowly; regulatory changes can take several years to move from draft to statute and more time to realize their full impact.

Exhibit 5: Sources of Potential Savings from Improving Competition & Regulation



Source: Author tabulations based on literature cited in endnotes. Values represent the midpoint of the range of cost-savings estimates reported for each category.

Incentives to Over Use Health Care

The final category includes the cost of incentives that encourage the over-consumption of health care. These incentives result from the tax exclusion on employer-provided insurance that subsidize the cost of insurance, encouraging firms and employees to purchase more “first-dollar” coverage, and policies with lower co-payments, deductibles and coinsurance than would be purchased in the absence of tax-subsidies. Fee-for-service reimbursement of providers reinforces the incentive to over use care – consuming services of marginal or questionable value– since the greater the health care used by the patient, the greater are the earnings of the physicians. Hence, over-insurance induced by the tax system combined with physician incentives to recommend more services lead to over-consumption.

Incentives for over-consumption are estimated to result in excess costs of about \$151 billion per year, or 6% of NHE in 2008, of which approximately \$107 billion is attributable to increases in utilization and \$44 billion is attributable to higher prices that result from rising demand for care.³⁷⁻⁴⁰

Discussion

There is significant evidence that well-directed policies and initiatives could improve the efficiency of health care. Unfortunately, there is no magic bullet: results can not be achieved quickly across the board, and require leadership, coordinated action and incentives that would remove current barriers. There is also a great deal of variation among even the most commonly cited sources of evidence on cost-savings. This should not be a surprise, since forecasting the economic and political environment is perilous. It also points to the need, however, for more and better research that is designed to demonstrate how and where evidence-based initiatives can be implemented in community settings.

Modernizing health care transactions offers the best route for achieving near-term savings. Even most conservative estimates suggest real savings. Reducing transactions costs is largely a win-win proposition, freeing up resources for payers and providers to extend services or improve quality.

Reducing the costs of unhealthy behavior holds great promise, but is the most difficult to achieve in either the short-run or long-run. As Teddy Roosevelt might quip, nothing worthwhile is ever easy, but neither is much of the current evidence scoreable for policy purposes.

Estimates of cost-savings that might accrue from better disease management and care coordination are varied. Few argue the link between better care and higher quality, but we need to build a better business case for potential savings. Knowing what should be done is not enough. One of the key lessons from the literature is that we must couple knowledge with tools and incentives to use it. Misalignment between quality and economic incentives remains a major obstacle to improving healthcare efficiency. Policies that promote gain-sharing across providers and payers, as well as new ways of organizing care — such as those promoted by accountable care organizations — may reduce these barriers.

Policy makers have looked to better care coordination as a means of improving the efficiency of the US health care system. The Obama Administration in particular has highlighted the promise of comparative effectiveness research, HIT, and care management through medical home models. Available evidence and related projections suggests that, under favorable circumstances, these innovations may yield savings. However, realizing cost-savings requires that we put incentives in place that will guide payers and providers to apply evidence-based-practices.

There have been few proposals to materially change the tax code, insurance markets or the payment policies that create incentives to use more care than is “optimal.” Bundling payments, paying for episodes of care or, better yet, the results of care, would shift the focus from utilization to outcomes. Similarly, mechanisms that promote the use of cost-effective decisions could overcome some of our current inclination to consume more health care at the margin.

In conclusion, there are quite substantial savings that could be wrung from the system; improving efficiency and often quality. Much like knowing where there are “proven reserves” it is useful to identify where savings might lie and how much we know about the depth and breadth of the pool of dollars. This helps us direct investments and initiatives.

Are there any shallow reserves, or low-hanging fruit? A message to policy makers might be that focusing on improving the efficiency of health care transactions could reap immediate gains. For example, less than half of all physician offices receive their payments and remittance advice electronically.⁴¹ Automating remaining paper claims and improving the transactions standards that make it easier to verify eligibility and handle referrals are actions that would produce savings in the near-term. Similarly, encouraging the use of prospective analytic techniques that flag erroneous or fraudulent claims before they are paid would likewise improve the efficiency of payers' transactions, including Medicare and Medicaid. These measures are well within our technological grasp, stakeholder resistance is likely to be minimal, and a significant portion of the estimated \$200 billion in savings could be achieved quickly.

Changing health behavior has the greatest expected return but is a long term process, requiring that patients fundamentally change personal actions that create health risks. Knowledge is not enough to improve either health behavior or care management. Rather, the literature suggests savings are realized when patients, providers and payers have incentives to act in a concerted fashion.

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