Stemming the tide: Reducing health care cost inflation through eliminating waste

Nino Monea

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Stemming the tide: Reducing health care cost inflation through eliminating waste

Abstract
This paper examines the issue of rising health care costs in the United States. It begins by analyzing the growth in health care spending over the last several decades, notes the drivers of costs, and identifies areas of waste. At the end, policy alternatives are compared, a recommendation of price transparency is made.

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STEMMING THE TIDE: REDUCING HEALTH CARE COST INFLATION THROUGH ELIMINATING WASTE

By

Nino Monea

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STEMMING THE TIDE
Reducing Healthcare Cost Utilization through Pharmacist Wellness

Nino Monea
Eastern Michigan University
April 2014
Introduction

"We believe that the rising cost of health care represents perhaps the most significant threat to the long-term economic security of workers and retirees."

So reads the opening words of the aptly titled report by the Social Security Advisory Board, "The Unsustainable Costs of Health Care, 2009."

Since the time of that report, Obamacare, né The Patient Protection and Affordable Care Act, has been signed into law, with far reaching implications for every sector of the U.S. health care system, both public and private. However, despite significant cost control measures within the law, its primary focus was on ensuring near universal access to health insurance. As a result, there remains much work to be done in the realm of health policy to achieve sustainable cost controls, despite enormous progress.

In this paper, I hope to make a contribution towards helping policy makers craft a law to address the challenges of cost inflation. I shall begin by examining the current state of health care expenditures in detail, including distribution, outcomes, and, most importantly, cost trends and projections. Unless otherwise noted, figures are totals for the entire country, not just the government or private sector.

Next, the drivers of health care inflation will be analyzed, including areas of waste within the system. This in turn will guide the discussion of policy solutions that might address the problem of health care inflation. Different solutions will be evaluated by way of a cost benefit analysis involving financial, political, and technical considerations.

Once a recommended policy option has been identified, I shall explore the implementation of such a solution, considering both the steps that would need to be taken, as well as the potential pitfalls that could ensue. In the end, I hope to produce a clear policy recommendation, properly contextualized, to address key elements of the problem of health care inflation, as well as a road map for execution for consideration by policymakers.
I. Current State of Health Care Inflation

In this section, I will examine the nature of health care cost inflation throughout the United States. There is no single method by which to measure health care costs. In order to be as comprehensive as possible, I will consider absolute spending, per capita spending, spending as a percentage of GDP, and international comparisons.

Before I delve into health care cost growth, I will consider the U.S. health care system in general. In 2012, the most recent year where full data are available, the country spent $2.793 trillion on health care. Of this, the largest individual component was hospitals, coming in at $882 billion. After that, physicians and medical practitioners consume $752 billion, and prescription drugs account for $263 billion. A full breakdown is shown below (Martin, et al. 2014).

Figure 1. Health Care Spending Components, 2012

2012 Health Care Components, Percent of Total Spending

Leading the pack in terms of growth since, there are non-durable medical equipment, home health care, and hospitals. The total spent on these items have increased by 5.6%, 5.1%, and 4.9%, respectively,
between 2011 and 2012. These three categories have also had elevated growth rates over the five year period leading up to 2012 (Martin, et al. 2014).

It is also worth looking at how this spending is funded. While it is true that $328 billion a year is paid by Americans on out-of-pocket care, the vast majority of health care spending, over two trillion dollars, comes from insurance, both public or private (Martin, et al. 2014).

In 2012, 84.6% of Americans had some form of health insurance, and 15.4% were uninsured. Of those with insurance, 63.9% had a private sector plan, and 32.6% had some form of government coverage. It is worth noting that there is some overlap between the two groups (DeNavas-Walt, Proctor and Smith 2013).

A majority of Americans received insurance through their employers, 54.9% in total. Only 9.8% purchase their health insurance directly on the private market, although this will likely increase in the coming years due to the health care exchanges established by the ACA. Indeed, over two million people enrolled in private health insurance plans through the ACA in the last quarter of 2013 alone (Park, Watkins and Andrews 2014).

Figure 2. Health Insurance Providers

U.S. Health Insurance by Provider Market Share

Data from Center for Medicare and Medicaid Services
Of the total health care insurance system, $1.1 trillion is spent by the government on health insurance each year. To break down by program, 28% of all health insurance spending goes to Medicare, 21% goes to Medicaid (split roughly equally between federal and state governments), and about 5% are spent on other health insurance programs, primarily Children’s Health Insurance Program (CHIP), and military health care plans. All told, government comprise 54% of health insurance spending, and the private market accounts for $917 billion, or 46% (Martin, et al. 2014).

Any way it is measured, health care spending has soared. Though it does not give the full picture, the absolute level of spending is striking. Over the last eight decades, national health expenditures across the entire economy have grown 60-fold in non-inflation adjusted dollars. Adjusting for inflation, it has more than sextupled. This growth has been as consistent as it has been large: in all but 7 of the last 80 years, medical cost growth has outstripped GDP growth in the economy. At times, it has been by as much as six percentage points, averaging more than double the rate of economic growth (Conover 2012).

Unfortunately, costs are poised to rise only further in the coming years.

Figure 3. Total Health Care Expenditures

![Graph of U.S. health care spending 1970-2021, in billions]

*Data from Center for Medicare & Medicaid Services*
In the last decade, from 2000 to 2010, spending virtually doubled, surging from $1.3 trillion ($800 billion inflation adjusted) to $2.6 trillion ($1.2 inflation adjusted). In the decade to follow, it is projected to nearly double again, reaching $4.8 trillion by 2021 (CMS 2012). These are just gross numbers, and they are not adjusted for inflation, but alternative measures of spending provide are hardly more encouraging.

As with overall spending, per capita expenditures have doubled between 2000 and 2010, from $4,880 ($2,800 inflation adjusted) per person, all the way up to $8,400 ($3,900 inflation adjusted). Future projections are even bleaker, as the rate of increase is expected by the Centers for Medicare & Medicaid Services (CMS) to rise even faster between 2012 and 2021. In the last 80 years, inflation adjusted per capita spending has risen by eight-fold (Conover 2012).

Figure 4. Per Capita Health Care Spending

![Graph showing U.S. per capita health care spending, 1970-2021](image)

*Data from Center for Medicare & Medicaid Services and the Census Bureau*
Most troubling of all, the share of the economy devoted to health has seen a steady climb as well. As a result, capital that might be better utilized in other sectors of the economy ends up being sunk in the health care industry (International Monetary Fund 2012). So great is the misallocation of resources that a mere 1.5 percentage point reduction in health care inflation would yield an estimated increase in the real GDP by 2% in 2020, 8% in 2030, and 16% by 2040. This translates to a nearly $10,000 boost to the income of a typical family of four (Council of Economic Advisers 2009).

Figure 5. Spending as percentage of GDP

![U.S. health care spending, as a % of GDP, 1970-2021](image)

Data from Center for Medicare & Medicaid Services, Bureau of Economic Analysis, and the International Monetary Fund

Since 1929, the share of the economy spent on health care has quadrupled (Conover 2012). Growth has not been perfectly uniform. Because the economy and health care spending grow at different rates, the graph is not a straight line. For example, the recessions in 2001 and 2008 depressed GDP growth concededly, but health care spending growth was not nearly as dampened. The result is that during those periods, health care shot up as a percentage of GDP.

Today, this means that medical care consumes nearly one-fifth of GDP, an alarming figure. Far more frightening, a 75 year projection of costs found that by 2082, one half of the entire economy will be...
for health care (P. Orszag 2008). Though it must be noted the analysis was performed before Obamacare was implemented; furthermore, even the best analysts cannot penetrate the fog of such a distant future with a great degree of clarity.

More recently, in 2012, the CBO has estimated in a 25-year baseline forecast that health care spending will account for one-quarter of GDP by 2037, and it is expected to rise thereafter. Using an alternative fiscal scenario – which assumed that by 2013 Congress would renew individual tax cuts (it did) and prevent cuts to Medicare physician reimbursement (it did) – the numbers are even higher. Additionally, the share of government spending devoted health care is projected to double by 2037. Were this to occur, health care would account for roughly half of all federal spending. (CBO 2012).

Moving on to an international perspective, health care spending in the United States is also high when compared against other developed nations, according to the Organization for Economic Cooperation and Development (OECD). As noted above, the U.S. spends roughly $2.6 trillion and 18% of GDP on health – more than any other developed nation in the world. For comparison, the next highest is the Netherlands, which spends 12% of GDP, and the rest of the world is downhill from there (OECD 2012).

Figure 6. OECD Health Expenditures, as a Percentage of GDP

Graph from the Organization of Economic Cooperation and Development
All the more troubling is the fact that, not only is the United States the world leader in health cost expenditures, it is the leader in health care cost growth. Between 1980 and 2008, the share of GDP devoted to health care rose 7 percentage points in the U.S., from 9% in 1980 to 16% in 2008. For the rest of the developed world, the average was 2.7 percentage points of growth (Chandra and Skinner 2011).

Figure 7. OECD Health Expenditures for 1980 and 2008

Data from the Organization of Economic Cooperation and Development

As can be seen using virtually any measure of health care spending – gross, per capita, GDP, and international comparisons – they all point in the same direction: up. The concerns raised by these numbers and trends are not simply academic; they have real impacts upon the wellbeing of the nation and its people.

The Director of the Congressional Budget Office has said that “growth in [health care] spending remains the central challenge in putting the federal budget on a sustainable path (Ehmenddorf 2013).”
Indeed, because such a substantial portion of government spending is devoted to health care, when the latter increases, so does the former.

On a more positive note, if increasing health care spending swells the deficit, the reverse is also true. A mere 1.5 percentage point reduction in health care inflation has been estimated to reduce the deficit by more than 6% of GDP by 2040. Even a 0.5 percentage point drop would result in the deficit shrinking by 2% (Council of Economic Advisers 2009).

Medicare and Medicaid, the two largest government health insurance programs, are expected to cost more than $10 trillion over the next decade (Elmenddorf 2013), but if costs continue to climb unabated, the programs run the risk of becoming strained. In 2011, the Medicare trust fund had $246 billion in its coffers, but under current law, it is expected to fall to $68 billion by 2022, and become depleted by the mid-2020s. Were this to happen, beneficiaries would only be able to receive payments equal to revenues collected for the program by payroll taxes, resulting in an all but certain reduction in care (CBO 2012).

A reduction in overall health care costs has the potential of reducing government expenditures, private insurance premiums and private out-of-pocket expenditures. Projected health care costs are the leading factor in calculating private insurance premiums, resulting in very high costs of coverage (Health Research Institute 2012). To put it in tangible terms, a family health insurance plan costs nearly $16,000, a hospital admission will total almost $15,000, an average surgery runs $27,000, and an outpatient hospital visit is $2,200 (Health Care Cost Institute 2010). All told, deductibles and out-of-pocket expenses have tripled over the last five years for insured patients (IMS Institute for Healthcare Informatics 2013). Even small reductions in health care spending can yield notable savings for families and for employers in the form of insurance premiums. If health care cost growth was reduced by approximately one percentage point, over the course of a decade, the average person would save $1,400 (Executive Office of the President 2013).
Health care related expenses account for just over one-fifth of the average family’s budget; a greater percentage than any single category besides housing (Conover 2012). Historically, this is greatest share in the last century, as long as the government has been recording such figures. In 1919, health care consumed 3.7% of the family budget, but increased dramatically over the succeeding decades, up to 21.8% in 2010 (Johnson, Rogers and Tan 2001). Recalling Figure 4, which showed inflation-adjusted, per capita health care spending double between the 1990s and 2010, it is not surprising that the share of the budget devoted to health care doubled as well.

Figure 8. Health Care and the Family Budget

![Health Care Spending as a Percentage of the Family Budget for Select Years](image)

*Data from Conover & Johnson, Rogers, and Tan*

Employers also pay a price when health care costs rise. Although it is trending downwards, in 2011, a majority of Americans, 55.1%, received their health insurance through employers. Among the active labor force, it is over two-thirds, 68.2% (Janicki 2013). Consequentially, health care costs add a great deal to the cost of business. Health care costs tack on $1,525 to every car that GM manufactures (Volsky 2008), and Starbucks spends $300 million on employee health insurance; more than it does on coffee beans (Lepore 2011).
On a positive note, when health care costs fall, and with them the cost of bringing on a new employee, businesses can increase hiring. It has been posited that a ten percentage point reduction in employer health insurance premiums could result in an increase in the share of working-age individuals who are employed by 1.2 percentage points (Baicker and Chandra 2006).

High health care costs imperil health care decisions, for higher prices force people to cut back on care. Indeed, more than a quarter of Americans have reported problems paying medical bills. Six in ten have cut corners to try to manage costs, either foregoing or delaying care. This involves anything from skipping a recommended treatment, failing to fill a prescription, or relying on home remedies (Kaiser Public Opinion 2012).

Perhaps the most dramatically impacted group is retirees. Americans aged 66 and up spend between 13%-16% of their income on medical care, a greater percentage than on food, transportation, or miscellaneous (Kliff 2013). Needless to say, a change in the cost of health care will have a profound effect on one-sixth of their budget.

The American health care system has been radically transformed over the last half-century, from Medicare to Obamacare, oftentimes to the great benefit of the public weal. However, these changes have brought with them precipitous increases in costs. They not only inflate deficits, but also strain family budgets and may even impinge upon the quality of care if treatment becomes prohibitively expensive. We would do a disservice not only to ourselves, but to the next generation to meet these looming challenges with inaction.

But before the financial meat ax is swung in reaction, it is important to have a firm understanding of drivers of health care costs. There can be no doubt that a great deal of health care spending is of the utmost importance to countless Americans who rely on programs such as Medicare and Medicaid. To cut indiscriminately would be to inflict grievous and perhaps unnecessary harm upon these families. I will examine this issue in the next chapter.
II. Causes of Health Care Inflation

What is it that is driving the health care spending in America? There is no one cause of rising health care costs across the nation. Rather, a number of forces work in concert to drive prices up. The most significant factors are technology, income, insurance, and demographics. I will address each of them in turn.

There is general consensus that technology is the largest factor. Medical technology is a broad term that includes surgical procedures, diagnostic tests, drugs, prosthetics, and support systems (National Center for Health Statistics 2009). While some technology provides life saving benefits, there are also inefficiencies, and all of it is costly. A review of the literature by the CBO estimated that technology is responsible for anywhere from 38 to 65 percent of health care cost growth (P. Orszag 2008), while a more recent analysis found it to be between 27-48 percent. (Smith, Newhouse and Freeland 2009).

Technology also helps explain why the United States spends so much more than the rest of the developed world. The U.S. tends to be an early adopter of medical technology, and ends up paying more as a consequence (Conover 2012), which explains part of why the U.S. spends more than other developed nations.

The higher prices of medical procedures, which persist even after a given technology enters into the mainstream, are evident across a wide range of services, from a hip or knee replacement, to a coronary bypass, to appendectomy, prices in the U.S. are about 50% higher than the rest of the developed world (OECD 2012). Lastly, it is worth noting that in 2012, durable medical equipment grew at a rate of 5.6%, as compared to 3.7% for health care spending overall (Martin, et al. 2014).

Moving on, health insurance, whether it is public insurance such as Medicare and Medicaid, or private insurance paid by an employer inflates the costs of care. The reason for this is that insurance, be it for health, property, or whatever else, distorts rational behavior. A patient insulated from the full costs of care may request better, more expensive equipment, marginally beneficial procedures, or engage in riskier
behavior. The CBO approximated that it has accounted for 10-13% of health care growth, where Smith Newhouse, and Freeland peg it at about 11%. (2009).

This is an area that may very well grow beyond the estimates, as they do not account for the impact of the Affordable Care Act. Once it is fully implemented, it is projected to create an influx of 22 million new patients with health insurance plans, and the accompanying costs. This is expected to add two to three percentage points of health care cost growth after its implementation (Walker 2012).

While ACA may increase insurance costs, there may also be a countervailing force. Increasing financial pressure has prompted insurers to adopt greater use of co-payments and higher deductibles in their plans. Since 2006, the percentage of workers with a plan that includes a general annual deductible has increased from 52% to 72% (Rae, Panchal and Claxton 2012). The percentage enrolled in a high deductible plan increased from 4% to 10% since 2006 (GAO 2011). Thus, in the future, even insured patients may have a greater incentive to reduce their spending.

The articles do not estimate the impact of this, but a separate study found that by adopting a high deductible policy, spending was brought down by $527 person (Fronstin and Roebuck 2013). Considering that 10% of the population is already enrolled in a high deductible plan, and the total population is 313 million, 281 million do not have high deductibles. If everyone switched to a high deductible plan and experienced similar cost savings to the Fronstin and Roebuck study, it would save $150 billion a year, or about 5% of all spending.

The income effect is a well-documented economic phenomenon. As a people become wealthier, they begin to purchase more goods and services, including consuming more health care services. There is a wide deviation over what percentage of health care cost growth is attributable to this. The CBO puts it anywhere from 5 to 23%, and high-end estimates believe to be 28-43%.

Demographic changes and an aging population were not found to be an enormous factor, but a notable one all the same. Most studies on the matter have found that aging only has a small effect in
health care spending growth, 8% or less according to the estimates (CBO 2012). It is also worth noting that in the coming decade, a greater number of baby boomers will enter into retirement, and likely drive up costs. Thus, future studies may ultimately increase the estimates for this category.

Surveying the underlying causes of health care spending illustrates the importance of targeting cuts carefully. Technology, income, and insurance certainly increase costs, but one can hardly argue that the nation would be made better off by reversing technological advancement, degrading incomes, and slashing insurance coverage.

Figure 9. Percentage of Average Annual Growth in Real per Capita Health Spending Attributable to Selected Factors

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<tbody>
<tr>
<td>Technology</td>
<td>38-65%</td>
<td>34-48%</td>
</tr>
<tr>
<td>Income</td>
<td>5-23%</td>
<td>29-43%</td>
</tr>
<tr>
<td>Insurance</td>
<td>10-13%</td>
<td>11%</td>
</tr>
<tr>
<td>Aging Population</td>
<td>2%</td>
<td>7%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>14-32%</td>
<td>5-19%</td>
</tr>
</tbody>
</table>

But there may be a more fruitful way to reduce spending. By all accounts, a sizable share of health care spending is unnecessary, that is to say, does not improve health outcomes. On the expansive side, over $1 trillion may be spent on unnecessary care, nearly half of all expenditures (PricewaterhouseCoopers 2008). Using more conservative estimates, there is $700 billion in waste, which includes a variety of types of unnecessary spending, about a quarter of total spending (Whelan and Sekhar 2012).

Broadly speaking, the wasteful spending can be divided into six categories: administrative complexity, lack of coordination, overtreatment, failures of delivery (prevention), fraud, and pricing
failures. It is worth taking the time to understand each of them. Furthermore, to determine if each area is truly a problem, I will consider whether the category is growing or is more prevalent in the U.S. as compared to other developed nations.

Administrative complexity can generally be called overhead costs. It is inefficiency that occurs within the health care system. Administrative costs account for anywhere from 3-13% of overall health care expenditures (Schieber, et al. 2009), which equates to anywhere from $107 to 389 billion in wasteful spending (Lallemand 2012). The health care sector spends more on administrative expenses as a share of total costs than many other industries, such as manufacturing (Yong and Olsen 2010).

Of this total spent on administration, about 60% is from health care providers, and the remaining 40% is from insurers. To better contextualize the size of expenditures, it is double what the nation spends on heart disease and three times it is spending on cancer (Cutler, Wikler and Basch 2012), the two leading causes of death in the country.

The country also does not stack up favorably to international comparisons. A study by the Robert Woods Johnson Foundation found that, per capita, the U.S. spent $1,059 on administrative costs for health care services, as compared to $307 in Canada. It is estimated that if American physicians' administrative costs were similar to their Canadian counterparts, there would be a savings of $27.6 billion (Lallemand 2012).

Not only are the costs high; they have been consistently growing. Administrative expenses grew at 7% annually between 1995 and 2005 according to the Congressional Budget Office. Between 2001 and 2010, they grew 107%, which is faster than overall health care spending, which grew 74% (Wikler, Basch and Cutler 2012).

The cost can be measured in time as well as dollars. U.S. physicians spend, on average, 3.8 hours a week interacting with payers—a total of three weeks lost over the course of a year. Furthermore, when polled, nearly half of physicians said that time spent on this activity was “increasing a lot” (Yong and
Moreover, nursing staff spends 21 hours a week on processing claims, while clerical staff spends 47. Consequentially, health care providers employ more billing and posting clerks than any other industry (Wilder, Basch and Cutler 2012). Clearly, there is a great deal of waste within the system.

Lack of coordination between care providers can lead to a great deal of unnecessary medical utilization. Two doctors may run the same test, a harmful treatment or drug may be prescribed because a patient's medical history was not made readily available, and patients may be readmitted to a hospital for avoidable reasons, or else put in the emergency room when the problem is less severe (R. Kelley 2009).

The sorts of errors that are caused by lack of coordination are more prevalent in the U.S. than in many other developed countries. In an international health survey by the Commonwealth Fund, the U.S was found to have a higher rate of medical mistakes than any other country examined, and was above average in being given the wrong medication (Mahon 2003).

Overtreatment is a broad term that includes treatments that provide little to no health benefit for patients, the use of needlessly expensive technology, or care that is provided for some other reason than the optimal health of the patient. The medical industry is replete with examples. For instance, $550 million is spent annually on antibiotics used to treat viral infections. However, as any high school biology student would know, antibiotics are only effective against bacteria, not viruses (Whelan and Sekhar 2012). Even worse, certain procedures, such as vertebroplasty, an operation in which cement is injected to stabilize the vertebrae, have evidence showing that are detrimental to patient health, but are prescribed anyway (Chandra and Skinner 2011).

Although greater treatment is not definitive proof that care is wasteful, it is instructive to compare the U.S. to the rest of the world. Americans receive three times as many MRI scans as the OECD average, and many more procedures per capita. For coronary artery bypass grafts, angioplasties, and stents, U.S. patients, on average, receive 45% more than Norway, the next highest consumer of the procedures (Swartz 2010). Given that the U.S. has worse health outcomes on many factors, it may point to the fact
that care is unnecessary (Emanuel and Fuchs 2012). Of course, it may simply be that Americans need more care, but these figures at least raise a suspicious eyebrow.

The largest sub-category of overtreatment is defensive medicine, which has been defined by the now-defunct U.S. Office of Technology Assessment as “when doctors order tests, procedures, or visits, or avoid high risk patients or procedures, primarily (but not necessarily solely) to reduce their exposure to malpractice liability” (OTA 1994).

To begin with a brief introduction to the issue, the medical liability system works to diffuse the financial risks that health care providers face from being sued by aggrieved patients. Doctors pay a premium in order to purchase malpractice insurance. If they are found to be negligent in their treatment of a patient and a lawsuit is filed, the physician is protected against the full brunt of the litigation (Roberti 2012).

Parsing out the exact cost to the health care system from defensive medicine is notoriously difficult. Doctors do not formally state which procedures are being done in whole or part to prevent a lawsuit. As a result, numbers vary widely. However, estimates vary from $100 billion (R. Kelley 2009) to $210 billion (Youn 2012). This translates into about 3-7% of total health care spending.

Failures of delivery are inefficiencies on health care providers’ end, as well as failure to use best practices in treatment. This also encompasses underuse of preventative care that would ultimately save money on treatment in the long run (Berwick and Hackbarth 2012). The situation is not helped by the fact that the current health care system has an incentive structure that rewards hospital and doctors for treating chronic conditions over time, rather than preventing them from occurring.

Given that chronic diseases are a driver of failures of delivery, this category may well expand in the future. As the baby boomers near retirement, the number and share of elderly patients will increase. As a result, Medicare is projected to spend $189 billion on Alzheimer’s disease by 2015, up from $91 in
Similarly, levels of spending for diabetes, lung disease, and heart disease are expected to rise. This indicates that preventative care would bear increasingly large returns.

Fraud is intentional misrepresentation that results in payment or overpayment for unnecessary or non-existent treatment. Oftentimes, it is an attempt to bilk the government through Medicare and Medicaid. It also includes the cost the government incurs from creating and implementing regulations to prevent fraud from occurring (Lallemand 2012). The Government Accountability Office (GAO) has labeled Medicare and Medicaid “high risk” in terms of being targets of fraud, and has noted that due to the ACA, four million more will be added to the rolls of Medicaid in the next decade, meaning that fraud will likely increase.

Lastly, pricing failures when there are distortions in a private market that result in the price becoming excessively high. For example, many medical products in the U.S. are far more expensive than in other developed countries. Barriers to a free market where goods are properly priced include lack of adequate competition and opacity of health care product prices (Lallemand 2012).

Anecdotes of overpriced products are widely available. $50 disposable gloves (Rosenbaum 2013). $500 IV bags (Bernstein 2013). $1,000 toothbrushes (Rosenberg 2013). The list goes on and on. All of them are examples of patients, ignorant of the price of a good or service until after it has been charged, who are unable to discern the actual value of their care. Of course, these are just isolated examples; we may also look to more systematic variations in costs caused by pricing failures.

The average cost of a Medicare enrollee in Miami, the most expensive city, verses Honolulu, the least expensive, was $16,000 and $5,300. One might assume that this was simply the result of aging populations, but even spending in the last two years of life showed a dramatic difference between the two cities: $72,000 and $43,000 respectively (Schieber, et al. 2009).
Taken together, these sources of unnecessary spending represent hundreds of billions of dollars of waste. They are also the low hanging fruit in discussions over health care austerity, in the sense that, although addressing each of these problems would provoke resistance from some groups, there would be minimal harm inflicted upon beneficiaries.

But is there truly a pressing need to tackle these inefficiencies? The preceding numbers may paint a grim picture for the U.S. health care system, and yet, in 2012, Medicare and Medicaid posted slower-than-expected growth in health care spending, producing savings in both programs (Montgomery and Goldfarb 2013). Health care costs are projected to maintain a growth rate of 7.5% in 2013, consistent with the last three years (S. Miller 2012). In terms of health care costs, this is comparatively low. This prompts the question, what caused the dip?

Some of the equation is structural changes. This means that they will continue to exhibit an effect on lowering costs due to shifts in the health care market. The professional consulting firm PricewaterhouseCoopers has posited that the American health care system has entered a “new normal” thanks to these changes (PricewaterhouseCoopers 2012).

There is certainly evidence to support the claim. The consolidation of hospitals has resulted in economies of scale, meaning they can purchase supplies in bulk for a large number of physicians under

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<td>Administrative Complexity</td>
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<tr>
<td>Total</td>
<td>$558-1,263</td>
<td>$600-850</td>
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their employ, rather than a myriad of practices purchasing materials individually. Additionally, merged hospitals enjoy greater negotiating power to bargain for lower prices and may more readily utilize inventory and tracking systems which allow them to monitor the usage of expensive equipment and make more efficient decisions (Health Research Institute 2012).

Greater usage of cheaper generic drugs has also helped dampen price increase. Over the last two years alone, drugs representing $50 billion in sales went off patent (Health Research Institute 2012). As a result, increase in spending on prescription drugs rose 0.4% in 2012, as compared to 2.5% the year before. If this trend of low cost growth continues, it will save several billion dollars a year (Martin, et al. 2014).

Unfortunately, a large part of the lower cost equation is also cyclical. One of the few positive economic impacts from a recession is lower inflation due to depressed spending. Over the last century, inflation has averaged 3.3%. Since 2007, when the recession struck, it has been 2%, and only 1.7% in 2013 (Federal Reserve Bank of Minneapolis 2013). As a result, prices across the economy fall, and health care is no exception.

For example, supplies account for up to 40% of the costs of certain procedures. As prices of supplies fall in a recession, the cost of treatment follows. Furthermore, spending cutbacks, both by the government and consumers, creates an impetus for hospitals and other care providers to do more with less. (PricewaterhouseCoopers 2012).

But while prices may fall, this is not necessarily something to celebrate. While it is true that prices fall during a recession, so too do incomes. It may be that patients are simply putting off treatment due to budgetary constraints, or families are reducing spending across the board to cope with turbulent financial waters. Similarly, health care providers may simply be moving towards leaner, less expensive plans, or requiring higher out-of-pocket payments, which would deter consumers from buying plans. Indeed, the latter possibility has been estimated to account for one-fifth of the slowdown in costs (Ryu, et al. 2013). All of these scenarios lower costs, but not in a way that prioritizes quality.
Additionally, during a recession, unemployment tends to spike. As discussed previously, the majority of Americans receive health insurance through their employers. Correspondingly, when there are fewer jobs, there are fewer health insurance plans, which means depressed utilization of health care services (Executive Office of the President 2013).

Backing up this hypothesis, a recent study from the Kaiser Family Foundation created a model using inflation and GDP growth to estimate the percentage of the slowdown in cost growth that was attributable to the economy. It concluded that 77% was due to the economic downturn. (Kaiser Family Foundation 2013).

As a result of the moribund economy, actual utilization of health care services has fallen. The number of visits to doctors’ offices fell 4.7% in 2010, and an additional 0.9% in 2012 (Thomas 2012). A survey by the American Academy of Family Physicians found that 54% of doctors saw a decrease in patients during the recession, and that 66% of them were taking actions to reduce costs, such moving to generic prescriptions (Holt 2009). Prescriptions issues dropped 1.1%, and non-emergency hospital visits declined 0.5% (Thomas 2012). Some of this reduction is due to greater efficiency, but under-treatment is also a factor (IMS Institute for Healthcare Informatics 2013). Needless to say, this freeze on prices and spending will thaw as the economy heats up.

Taking all of this into consideration, it is not unreasonable to assume that the dip in cost inflation has been an example of an anomaly, not normalcy. It is also worth pointing out that even the comparatively rate of cost growth of 7.5% is still triple general inflation and economic expansion, and would still outpace projected GDP growth (Torres 2012).

If I am correct that health care costs will begin to return to their prerecession levels, policy makers would be well served to respond. However, the health care policy landscape has been radically altered by the passage of the Affordable Care Act, which touches virtually every area of the industry. Before proposing new policy, I wish to briefly analyze the impacts of the ACA.
III. The Affordable Care Act

On the near horizon, the health care industry will have to contend with the full implementation of the Affordable Care Act. Already, numerous provisions of the law have gone into effect. Although the law’s primary focus was not touted as controlling health care costs, in many cases, it targets the wasteful areas that I have identified and implements strategies to reduce them. Therefore, before I lay out policy proposals to reduce or control health care spending, it is important to consider what is already being done so far as to avoid redundant solutions, spot areas that were unaddressed, and to identify promising reforms that may benefit from expansion.

To be certain, the law will increase spending; not only through the expansion of Medicaid, but also through subsidies to help low- and moderate-income patients afford care. Indeed, it is projected that in 2014, when the law is in full effect, government spending will increase 18% for Medicaid, 8.8% for prescription drugs, and 8.5% for physician services (Walker 2012). As a result, the net increase to the deficit between 2015 and 2024 is expected to be $1.2 trillion.

With Medicaid, 25 states have opted to expand the program, resulting in a 5% boost in enrollment in 2014. This has led to $33 billion in additional outlays for the program, an increase of about 12% - double the rate of growth in 2013. Taken together, government spending on health care is projected to total 5.1% of GDP by 2015, and 6.1% in 2024, surpassing the cost of Social Security. This translates into an additional $2 trillion in government health care spending over the next decade (CBO 2014).

The law also includes numerous provisions that will actually reduce health care spending. In the realm of reducing administrative costs, the law has begun the standardization of billing and claims forms (Novack 2014). This includes uniform electronic standards and operating rules to be used by public, as well as private, insurance providers. Taken together, this could save the federal government $20 billion over ten years, in addition to savings realized by the private sector (Orszag and Emanuel 2010).
The Obama Administration has provided savings estimates for some of these initiatives. The Partnership for Patients program seeks to reduce hospital complications and reducing preventable injuries and has a goal of saving about $11.7 billion per year. Anti-fraud efforts undertaken as a result of the ACA have resulted in about $3.7 per year in recovered payments. However, the White House policy brief does not estimate savings for many of its programs. I will attempt to.

With the passage of the law, the Prevention and Public Health Fund was established to promote investments in preventative care. The program works by disbursing grant money to a wide variety of government agencies, such as the Centers for Disease Control or the Administration for Community Living, for the purpose of projects. The total cost of all of the programs currently being funded was $750 million in fiscal year 2011. Examples of these include education campaigns on Alzheimer’s treatment, training for health care providers, and effectiveness research on preventative services (U.S. Department of Health & Human Services 2013).

It has been estimated that a $2.9 billion investment in public health initiatives such as this would save $16.5 billion annually (Forsberg and Fichtenberg 2012). Considering that $750 million is a quarter of $2.9 billion, I will assume that the savings will be one-fourth as great, or $4.1 billion annually. Though small, this means that every dollar invested would yield five dollars in savings.

Having a greater percentage of primary care physicians in an area, relative to specialists, is another method to reduce spending, as they are better able to coordinate care between health care providers (Thornton 2012). Incentives are created by the ACA to encourage primary care physicians and general surgeons to practice in areas that lack them. To wit, practitioners who move to high-need areas can receive a 10% bonus under Medicare (Manchikanti, et al. 2011).

It is estimated that this policy will reduce Medicare spending by 2% (Reschovsky, et al. 2012). Given that Medicare costs the government about $536 billion on Medicare, a 2% reduction would result in nearly $11 billion saved.
An oft-mentioned provision of the law relates to Accountable Care Organizations (ACOs). These are individual health care providers or groups of providers that are eligible to share in savings that are created when they improve efficiency. Because efficiency of the entire patient process is considered, and not simply focused on one particular procedure or visit, providers have an incentive to target wasteful spending holistically by better coordinating care and reducing fragmentation (Executive Office of the President 2013).

A good example of the kinds of cost savings that these organizations can produce comes from the Pioneer ACOs, a collection of 32 ACOs from all across the county representing 669,000 beneficiaries. Designation as an ACO, and along with it, the financial benefits, is a competitive process conducted by the Centers for Medicare & Medicaid Services (2012).

Initial results from this program are promising. Health care costs for the patients enrolled in the Pioneer ACOs grew at a rate of 0.3% in 2012, as compared to growth of 0.8% for similar beneficiaries not enrolled in an ACO. This netted a total of $87.6 million, as well as a saving $33 million for the Medicare Trust Funds. Seeing as only 600,000 people were enrolled in this set of ACOs, it is possible that the savings could be much larger if the pool were expanded. As an added bonus, health quality indicators such as cholesterol and blood pressure were also better for patients within an ACO system (Centers for Medicare & Medicaid Services 2013).

One interesting, if relatively obscure, cost reduction policy deals with hospital readmission rates. Prior to the ACA, hospitals had no incentive to prevent readmission of patients, and between 2007 and 2011, the readmission rate within 30 days of discharge remained consistent at 19%. However, the law began to penalize hospitals with high readmission rates (Executive Office of the President 2013).

In 2012, the year that the penalty took effect, the readmission rate for Medicare patients fell to 18% from 19%, and by 2013, it was at 17.5%. This translates into approximately 70,000 readmissions during 2012 than if the rate had remained at 19% (Gerhardt, et al. 2013). It is estimated that $26 billion is
spent on Medicare patient readmissions (Lavizzo-Mourey 2013). Given that readmissions rates have fallen from 19% to 17.5%, an 8% reduction, I estimate that the drop could account for about a $2 billion decrease in health care spending. If the downward trend continues, the savings could grow.

The law promotes the adoption by health care providers of electronic medical records. Although difficult to create, electronic records save money over time because they reduce redundancy of paperwork, and allow doctors to more easily access patient information, reducing the rate of errors. It was been calculated that the ACA will save $21.9 billion a year from greater use of electronic medical records (Wikler, Basch and Cutler 2012).

Some reforms may never come into fruition. In theory, the law will slow Medicare spending growth to 3%, far lower than the 8% average seen between 2003 and 2012. However, this projection rests upon the assumption that there will be a 24% cut to fees paid to physician for services under Medicare (CBO 2014). Those familiar with congressional politics will know that the body routinely override these reductions in fees, and have done so as recently as February 2014 (Tozzi 2014). Therefore, it is unlikely that the estimated $17 billion in potential savings will ever materialize, and I will exclude it from calculations.

The impact of these cost savings may be greater than the sum of their parts, however. In public health care reforms, there is what is known as the “spillover” effect. Namely, when the government adopts a cost saving reform, the private insurance sector eventually follows suit. One study suggested that for every dollar of Medicare savings, private insurers save 55 cents (White and Wu 2013).

As noted previously, some of the reduction in health spending is due the recession. Accordingly, it is entirely possible that some of the savings yielded by the ACA are partially due to economic stagnation. Still, it is clear that the ACA will yield considerable savings in the wasteful areas that this paper is concerned with. If the assumptions I made when estimating savings are valid, as much as $54.4 billion would be saved from reducing unnecessary care. Note that this figure does not consider the
amount that would be saved from structural changes in the health care system caused by greater prevalence of insurance coverage.

IV. Policy Alternatives

What then, remains to be done to stem the tide of rising health care costs while addressing the problem of unnecessary spending? In this section, I shall examine several policy alternatives to ameliorate inefficiencies in the health care system. Policies will be assessed not only upon the total number of dollars shaved from the system, but also technical feasibility and political viability, for an idea that succeeds only on paper is of little help.

Medical Malpractice Insurance

Supporters of changes to malpractice insurance, also known as “tort reform,” believe it to be one of the biggest examples of unnecessary overtreatment in the health care system. But it was conspicuously absent from the final version of the ACA. This was not from lack of trying. In the 2010 health care summit, a daylong roundtable including President Obama and congressional leadership on both sides of the aisle worked through the gritty policy details of the ACA, and the issue of tort reform was broached a dozen times.

However, after the dust settled and the final 2,000+ page bill was published, only six of them dealt with medical malpractice insurance. The chief policy that remained was not bold: $50 million to explore alternatives to the liability system – one fifth of the amount requested by the Justice Department for that task in fiscal year 2012 (Norman 2011).

Defensive medicine is more than a specter. A 2008 survey of Massachusetts doctors found that the vast majority – 83% – admitted to engaging in defensive medicine. The survey concluded that about a quarter of tests, procedures, and referrals in the state, and 13% of hospital admissions, were done simply to foreclose the possibility of litigation (Youn 2012). A separate, nationwide survey yielded similar
results: 93% of doctors reported practicing defensive medicine, which included unnecessary tests, diagnostic procedures, and consultation (R. Kelley 2009).

At the same time, there have been a great many proposed reforms for the medical liability system to deal with the problem. Among them, specialized health courts, greater disclosure of risks, and incentives for hospitals to apologize and offer remuneration to patients without getting the justice system involved (Roberti 2012). But the reform which has gained the most traction, including being introduced as a law in the House of Representatives, is a cap on damages.

Damage caps vary on whether they apply to economic (those related to the injury or lost wages), noneconomic (related to emotional duress), or punitive (assigned to punish wrongdoing, not compensate the victim) damages, or all three. What unites all of them is the goal of reducing the size of payouts, which may be as much as 60% lower than states without such laws, translating into lower premiums by anywhere from 6-25% (Nelson, Morrisey and Kilgore 2007).

So what would the impact of a national policy capping damages? The Congressional Budget Office analyzed this very question in 2009. At the time, it assumed a cap of $250,000 for noneconomic damages, and a $500,000 cap on punitive damages. The report found that it will shrink medical liability insurance premiums by 10%. The impact would be further amplified due to the fact that the reform would reduce unnecessary spending as well. Taken together, the policy would save $41 billion per year, which would account for 0.5% of health care spending (Ehrendorf 2009).

As an added benefit, federal tax receipts would go up. As the CBO explains, many employer-sponsored health care plans represent nontaxable compensation. Since the reform would lower health care costs on the private market, it was assumed that firms would be able to increase wages, meaning an influx of $13 billion in federal payroll taxes. When combined with the $41 billion cut from spending, the policy could provide $54 billion in annual benefits.
Using the cost estimates provided by Bovbjerg, tort reform could result in a one percent decline in spending, equating to about $20 billion in savings during the first year and $260 billion over the first decade (Bovbjerg 2010). But that is a low-end estimate. An article in Health Affairs calculated it to be $55 billion annually, 2.4% of total health care spending (Lallemand 2012).

From a policy perspective, a damage cap is also appealing in that it is incredibly simple, technically speaking. Assuming the law was passed, the only implementation that it would require would be laying down a bright line rule for courts to follow when adjudicating claims. They would have little, if any, discretion, to subvert the cap. Similarly, attorneys would not be able to argue over precisely what the cap means; it would just be a numerical threshold.

Given that many policies are complex, and are much more ambiguous than a cap, there is typically much more room to stymie the implementation process. A cap would need no rulemaking body to draft a proposed regulation, and along with it, the necessary public comment and response. Aggrieved parties would have less of a chance to muddle the rollout process, thus allowing the policy to achieve maximum effectiveness.

However, the policy is far from perfect. The amount saved from damage caps could be larger than the CBO assumes, but there are a number of mitigating factors that limit their effectiveness. To begin, some doctors may not be prescribing unnecessary tests out of fear of liability, but rather because they can bill for additional tests and procedures (Thornton 2012). If this is the case, changes in liability insurance would have no effect on their behavior. Lastly, malpractice premiums may fall, but there is no guarantee that physicians will pass all of these savings along to patients.

Skeptics of this sort of policies point to the fact that the current state of affairs is not as dire as reformers claim. To begin, only a small percentage of those injured seek damages, around 4-7%, and a smaller number succeed (Conover 2012). Few of the lawsuits are “frivolous.” Less than 5% of claims are
minor, temporary injuries or purely emotional. Fatal injuries, the most common cause for litigation, make up 31% of claims (Gower 2013).

Furthermore, they note that while malpractice claims may be a component of health costs, they are not the driving force behind it. Specifically, the number of claims filed over the last 30 years has remained largely static, about one serious injury per one hundred hospitalizations, whereas the number of interactions between patients and physicians has gone up. Thus, the percentage of patients who are actually filing claims is declining (Baker 2009).

On top of this, medical malpractice premiums, inflation-adjusted, are at the lowest point in over 30 years. In the decade between 2000 and 2009, malpractice claims fell by half (Hunter, Cassell-Stiga and Doroshow 2009). Total payouts nationwide are on a downward trend and have been since 2003 – far preceding the recession. In 2012 alone, they fell 3.4%, bringing them to the lowest level since the late 1990s (Gower 2013).

Not only do critics of tort reform question the necessity of damage caps, they fear that it could have adverse consequences for patients. Although some, if not most of defensive medicine does not serve to improve patient outcomes, one cannot conclude that it is completely without value. Some additional tests may actually reveal conditions in need of treatment. Simultaneously, doctors may be more cautious when they know that their own finances are on the line when they screw up.

Because of these reasons, tort reform may have the unexpected benefit of reducing the quality of care. According to the Institute of Medicine, 98,000 people die each year due to medical malpractice, meaning that the U.S. has the third highest rate of deaths from medical error in the world. The creation of the proposed damages cap could add as many as 4,800 deaths annually (Durbin 2010).

Coming to a similar conclusion, a working paper from the National Bureau of Economic Research (NBER) found that simply decreasing the malpractice premium costs could increase the number
of patient deaths. Specifically, it found that a 10% decrease in malpractice costs would result in a 0.2% increase in mortality (Lakdawalla and Seabury 2009).

The NBER study also noted that most conventional estimates of the economic value of a human life are around $6 million. Using this number, the loss of life outweighs the reduction in malpractice premiums. Of course, this is grim way to evaluate a policy; it may well be that legislators would prefer to place a greater value on human life than is reflected by the numbers.

Regardless of the effectiveness of malpractice reforms, the issue is surrounded by a great deal of political contention. As noted previously, Republicans fought hard to include some form of tort reform while the ACA was being debated. Senators Lindsey Graham (R) and Tom Coburn (R) both submitted amendments to the law. More recently, they introduced the HEALTH Act, which seeks to institute the same damages cap that was kept out of the original law (Norman 2011).

They are backed up by various think tanks. The U.S. Chamber Institute for Legal Reform, for instance, is a strong proponent of hard limits on malpractice awards (Young 2010). It is joined by the usual consortium of conservative bastions of thought. These include the Heritage Foundation and the American Enterprise Institute. Interestingly, the Cato Institute, which normally would be in perfect alignment with these groups, has published a paper opposing federal damage caps, not on policy grounds, but rather because it says that the federal government does not possess the constitutional authority to enact them (Krauss 1998).

Democrats have typically met these efforts with skepticism. Senate Majority Whip Dick Durbin (D-Ill.) has been one of the most outspoken opponents of tort reform, stating that it is fundamentally unfair to deprive victims of damages if the suffering caused by a medical error is substantial (Vance 2010). He is far from alone. Democratic Senators Pat Leahy, Chuck Schumer, and Robert Menendez have all approached the suggestion of damage caps with caution (Bolton 2011).
That is not to say that there has been no bipartisan talk on the subject. Erskine Bowles and Alan Simpson, who gained notoriety as the co-chairs of the President's National Commission on Fiscal Responsibility and Reform, have gone around the country calling for austerity measures. Among them, they ask for reforming medical malpractice as a means of controlling health care costs (McCarthy 2011). During the debate over ACA, President Obama said that he would at least consider tort reform, but ultimately left it out of the law. He later clarified to say that he does not favor damage caps, but acknowledged defensive medicine as a driver of health care spending (Condon 2009).

While this law has only been introduced at the federal level, many states have already imposed caps. Across the country, these caps vary widely in size, ranging from $200,000 to $750,000, and vary over what kinds of damages they restrict (Nelson, Morrisey and Kilgore 2007). It is interesting to note the diversity of states that have imposed these caps. Both liberal California, where the governor’s mansion and both chambers of the legislature are controlled by Democrats, and conservative Texas, where Republicans control both political branches, have damage caps. Indeed, only fourteen states do not have a cap (Roberti 2012).

Trial lawyers, who benefit from large victim payouts made possible by the current system, are strongly opposed to changing the medical liability landscape. The American Association for Justice (AAJ), a professional organization consisting of plaintiff attorneys, has spent $3.5 million in lobbying in 2012, with over 90% of that sum going to Democratic candidates (Center for Responsive Politics 2012). The group has long been active in the debate. Back during the presidency of George W. Bush, it defeated his plans to enact medical liability reforms, and was a key player to keep it out of the Affordable Care Act (Young 2010).

Not to be outdone, on the other side of the fight, the American Medical Association (AMA), the largest professional group representing physicians in the country, has come out strongly in support of damage caps. Considerably larger than the AAJ, the group spent over $16 million lobbying in 2012 alone.
Although it is more bipartisan in its distribution of funds, it still gives a little under two-thirds of its PAC money to Republicans (Center for Responsive Politics 2012).

In addition to disagreement within the legislative branch, the judiciary has also weighed in on the matter. In several jurisdictions, state supreme courts have found damages caps to be unconstitutional (Nelson, Morrisey and Kilgore 2007). Specifically, the state supreme courts of Illinois and Georgia held caps to be an improper abrogation of the power of juries to set damages with full discretion. At the same time, in West Virginia and Alaska, the state high courts upheld the constitutionality of damage caps (Roberti 2012).

Were a federal law to be subjected to judicial review, it is worth noting that the present composition of the Supreme Court is a 5-4 conservative tilt, so it is likely that the law would be upheld. To attempt to glean the Court’s reasoning, we may look to past cases that involved similar facts. Back in 1978, the case of Duke Power Company v. Carolina Environmental Study Group, Inc. it was held that damage caps for injuries from nuclear accidents passed constitutional muster (Roberti 2012). In the 1996 case BMW of North America, Inc. v. Gore, the Court found overly excessive noneconomic damage awards to be unconstitutional (Tager 1999).

All told, the political climate around medical malpractice is highly charged. This means that it would likely be difficult to pass in more pragmatic times, but given the current state of division in Washington, it is doubtful that Democrats and Republicans would be able to come to an agreement on this policy. Resultantly, this policy alternative may not be the most attractive overall, despite good marks in technical feasibility.

Price Transparency
The market for health care is an economist’s nightmare. Many of the market forces that would militate against rising prices in other industries simply do not exist for the health care market in the United States. Sudden injuries and illnesses create demand uncertainty by preventing consumers from planning in
advance when they will purchase care. Third-party payers distort incentives to reduce costs (Christensen, Floyd and Maffett 2013). But perhaps most vexing of all, the true cost of most medical services are obscured, resulting in pricing failures that could be as large as $84-131 billion (Berwick and Hackbarth 2012).

To get an idea of the systematic overpricing of medical procedures, we can look at the average cost of various medical services in the U.S. as compared to other developed countries. The results show that American consumers may pay anywhere from double to 26 times the price that a foreigner would face (Rosenthal 2013). For instance, the typical price of an MRI scan in the United States is $1,121, as compared to $319 in the Netherlands.

Figure 11. Comparative Prices for Selected Procedures

<table>
<thead>
<tr>
<th></th>
<th>Angiogram</th>
<th>Colonoscopy</th>
<th>Hip replacement</th>
<th>Lipitor</th>
<th>M.R.I. scan</th>
</tr>
</thead>
<tbody>
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<td>AVG. U.S. PRICE</td>
<td>$914</td>
<td>$1,185</td>
<td>$40,364</td>
<td>$124</td>
<td>$1,121</td>
</tr>
<tr>
<td>CANADA</td>
<td>$35</td>
<td>$655</td>
<td>$7,731</td>
<td>$6</td>
<td>$319</td>
</tr>
</tbody>
</table>


Transparency in healthcare prices seeks to alleviate these huge disparities in prices. By allowing consumers to make more informed choices, the hope is that providers will be forced to compete to lower prices to attract more business (Christensen, Floyd and Maffett 2013). Certainly, price transparency has been successful at reducing spending in other industries, such as toll roads and electricity (CBO 2008).

There is much need for this sort of information. According to the Vanderbilt Center for Evidence-Based Medicine, 90 million consumers have difficulty understanding their health care options, directly resulting in a 3 to 6% increase in medical expenditures (Coluni 2012).
But what is the potential savings to be realized from such a policy in the health care industry? As stated earlier, an estimated $84-131 billion is wasted annually due to pricing failures (Berwick and Hackberth 2012). However, due to all of the distortions present in the health care market, it is doubtful that any policy could end all inefficiency.

A study out of the University of Chicago gives what is perhaps a more realistic assessment. The focus was on hip replacements, which ranged from $16,000 to $93,000 in price. After controlling several other confounding variables, the conclusion was that price transparency regulations had an independent, causal effect on prices, bringing the cost of hip replacements down by 6.5% - a savings of nearly $2,800 to consumers. Additionally, the laws had the effect of tightening the distribution of prices, with the most expensive hospitals seeing the largest reduction in prices (Christensen, Floyd and Maffett 2013).

The study did not provide far reaching estimates for cost reductions, but I wish to extrapolate. Per capita, $1,650 is spent on physician and clinical services, with about 313 million people in the U.S. Using these figures, about $516 billion is spent on physician services, which the study suggests would be responsive to price transparency. Were price transparency equally successful in reducing prices across all procedures across the country, the potential savings would be $33.5 billion.

Unsurprisingly, the study also found that consumers with larger co-pays, and thus more incentive to reduce costs, saw a greater effect. These consumers had an 11% reduction in services purchased. Consumers in general were also more likely to switch to cheaper hospitals. At this point, it is important to highlight the fact that in health care, higher prices do not necessarily indicate higher quality.

An extensive experiment conducted by the RAND Corporation in the 1970s and 1980s found that when patients spent less on health care, there was little impact on their health (CBO 2008). The fact that transparency might lead consumers to select lower cost alternatives should not be taken to mean that they are choosing inferior care. This finding was buttressed by research from the Massachusetts Attorney
General's Office and the state Division of Health Care Finance and Policy, which found no correlation between cost and quality (Coluni 2012).

Although the primary focus of price transparency is to help patients, there may also be benefits for insurance companies. For this reason, several insurers have worked to start their own price transparency initiatives (GAO 2011). By having a better understanding of the prices, insurers would have more bargaining power and would be able to better negotiate prices with hospitals (Muir, Alessi and King 2013).

A white paper from Thomson Reuters provides an additional estimate of the potential savings. If high cost outliers could be brought towards the median price for a given good or service through price transparency, there could be as much as a 3.5% reduction in spending. This equates to $36 billion in savings per year— and that only considers employer sponsored health care plans (Coluni 2012). This is quite similar to the estimate that I calculated.

It must be noted that the policy solution is not as simple as posting the prices online and leaving market forces to work. The Centers for Medicare and Medicaid Services has already posted the raw data for hundreds of hospitals, but it is in a form that is not readily accessible to the average patient. It is important that it be structured in a way that makes the information useful.

Fortunately, we have 30 states to look to for wisdom on how to structure an effective law. California, for example, required hospitals to make available the list prices for their goods and services. However there are several key omissions from the requirement. Namely, physician services (such as surgeries), are not disclosed, and because patients with insurance typically do not pay the full list price, also called chargemaster price, the information is not entirely relevant to them (CBO 2008).

New Hampshire, which passed a law in 2007, had a more holistic approach. The state’s Insurance Department compiles comprehensive information on physician services, out-of-pocket costs, and total prices. This principle was reaffirmed in a report from the Government Accountability Office, which noted
that disclosing negotiated prices, not just chargemaster prices, was key in providing consumer lucid information. Additionally, patients should be made aware of quality of care so that they may make a fully informed decision (GAO 2011). Quality of care information may include mortality rates for procedures, complication rates, or average length of stay.

Promotion is also critical to the policy's ultimate fate. In California, inadequate public awareness led to less than a quarter of the population actually being aware that there was any information on hospital prices at all (Coluni 2012). After instituting a publicity campaign, visits to the transparency website spiked.

Unfortunately, there may be unintended consequences of transparency as well. In markets with high concentration and low competition, it is possible that providers would take advantage of transparency by raising, rather than lowering, prices to match their rivals. At the same time, firms may have less incentives to cut prices if they know that the move would be matched by other providers, eroding any competitive advantage they would have had (CBO 2008). However, the CBO report that raised this concern singled out hospitals as the most susceptible to this sort of collusion, yet, the aforementioned University of Chicago study centered on hospitals and found that price transparency resulted in lower, not higher, prices for consumers.

The fear has also been raised that by being upfront with prices, patients may decline to get necessary treatment, and in the long run, they will be worse off (Rosenbaum 2013). This argument is not totally invalid, but it is difficult to say that consumers cannot be trusted with information over the products that they must ultimately bear the costs of.

Even if the potential pitfalls do not outweigh the benefits, they cannot be ignored. To address concerns about collusion among health care providers, it is vital that the federal government ramp up its anti-trust efforts in the event that transparency measures were to pass into law. In New Hampshire, the first two years of price transparency did not result in a dramatic reduction in costs, but this was partly due
to the fact in many rural areas of the state, health care providers did not have effective competition.

Furthermore, there was at least some evidence that the law constrained growth rates, and its effectiveness would only grow the longer it was in effect (Tu and Lauer 2009).

While it is true that the effectiveness of health care transparency is lessened by the fact that insurance prevents patients from seeing the full cost of care, this may not be a barrier to the success of a transparency policy in the future. As noted earlier, the share of health insurance plans with deductibles is increasing. If the trend continues, consumers may become more sensitive to higher prices, increasing the utility of price transparency.

Another important benefit of the policy is that it enjoys a wealth of political currency. Back in 2010, the House Energy and Commerce Committee heard testimony on three bills relating to price transparency. Although none of them ultimately made it out of committee due to trepidation over the ultimate effectiveness of transparency, the bipartisan support behind them was heartening. Two were introduced by Republicans, and one by a Democrat. Two of the three had co-sponsors from both sides of the aisle (Bakhtiari 2010). Paul Ryan, a Republican policy wonk and the Party’s nominee for Vice President in 2012, has written in support of price transparency.

It is also worth recalling that those who were opposed to the price transparency law cited the 2008 CBO report which warned that transparency could lead to collusion. However, four years later, Peter Orszag, the Director of the CBO during 2008, came out in support of price transparency (2012), noting that fuller transparency has a necessary component of broad reform.

There is also some agreement among interest groups that often at loggerheads. Unions representing constituencies as varied as public workers to physicians and nurses, in states from Florida to California have come out in support of greater price transparency laws. For workers, transparency stands to make health care more affordable; for physicians, it allows them greater insight as to where costs are
going (Shinkman 2014). Employers too have come out in support of price transparency in hopes that it will lower the cost of providing care (Leavitt 2012).

Because health care transparency, at its core, utilizes private market forces to bring down costs, the idea is very amenable to conservatives. Thomas Miller, a health policy analyst who has worked for both the American Enterprise Institute and Cato Institute, and a staunch critic of Obamacare, has endorsed the policy (2006). The Heritage Foundation expressed openness towards the concept, even though its support carried the stipulation that transparency would only be effective as part of a larger reform, (Nix 2010).

Left leaning think tanks have also lined up in support of such a policy. The Brookings Institute has made statements in support of greater transparency law in conjunction with antitrust efforts. The Center for American Progress calls the reform “common sense.” The liberal Economic Policy Institute has also called for greater transparency in the health care market (Gould 2013).

Of course, support is not universal. Health plan providers may balk at full disclosure, worrying that the information is proprietary or that they already have preexisting confidentiality agreements. Perhaps needless to say, if transparency was successful at bringing down costs, they would be losing out on billions in potential revenue through markup. Similarly, a special interest group representing device manufacturers – which would stand to lose profits from price transparency – paid for study that concluded that transparency laws would be harmful (Pauly and Burns 2008).

Transparency will not be a panacea. To recap, there are several specific principles that must be incorporated into a price transparency policy in order for it to achieve maximum potential effectiveness. First, the disclosure platform should be user friendly, not merely the raw aggregation of data. Next, it should include not only sticker price, but also negotiated prices, as well as quality of care information. Lastly, it must be actively promoted, and done with an eye towards preventing collusion among providers. Still, it represents a policy that has the potential to lower costs without harming quality of care.
Administrative Simplification

There is no way to manage the delivery of $2.7 trillion in medical services without some level of bureaucratic complexity. Quite apart from prescribing medicine and performing surgeries, health care providers must contend with such myriad tasks as determining patient insurance costs, collecting and depositing payments, maintaining databases, managing appeals, and negotiating claims, inter alia (Yong and Olsen 2010).

But the American experience is uniquely onerous, partially explained by the private sector emphasis of the U.S. health care system (Kelley and Fabius 2010). A little less than half of health care spending is covered by the government, as compared to a 72% average in other developed countries (OECD 2012). Putting aside the pluses and minuses of public health care in the aggregate, it has a better track record on controlling administrative costs. The Institute of Medicine found that private insurers spent $105 billion on administrative costs in 2009, whereas public insurance programs only spent $42 billion.

It is also worth comparing public and private efficiency in terms of percentages, not just gross dollars. For private insurers, it is approximated that 12.3% is spent on overhead. For comparison, Medicaid has between 4-5% spent on administration, and Medicare is only at 2% (Yong and Olsen 2010).

Short of radically transforming the private-public composition of the American health care system, what can be done to cut through the red tape? Surely, some of the administrative costs are necessary to properly monitor care, but what about the estimated 50% of administrative spending that is wasteful (Wikler, Basch and Cutler 2012)?

One of the hallmarks of health care administration is redundancy. Standardization could be a key solution in cutting down the complexity and accompanying costs. This remedy has worked in other industries as well. For example, the Federal Reserve succeeded in lowering administrative costs for banks by implementing a uniform computer system for financial institutions to communicate with each other.
Walmart brought costs down by requiring suppliers to use its standard computer format for their retail information (Cutler, Wikler and Basch 2012).

Could a similar solution work for health care? There have certainly been efforts in the past. The Health Insurance Portability and Accountability Act (HIPAA) of 1996 did mandate standardization of electronic processing of common administrative transactions, but the law had sufficient ambiguity that different payers still had variation in terms of their format, dampening the law’s effectiveness. Furthermore, many firms continued to use manual means to process transactions (Yong and Olsen 2010).

There has been some progress on this front with the implementation of the Affordable Care Act. It has required the Department of Health and Human Services (DHHS) to lay down more detailed rules, and, as noted in the last section, has greatly expanded the use and standardization of electronic medical records. This includes requiring payers to accept a standard billing form electronically.

However, there are many other areas which the ACA overlooked. Credentialing systems are used to establish contracts between providers. The average physician must handle nearly 20 different types of these forms, devoting a total of 23 hours annually across the entire staff. All told, this costs ten-physician practice $7,600 per year (Ivey 2006). Having a nationwide standard could greatly simplify the process for doctors.

There are many other examples. Reporting requirements for quality and safety programs differ between the various plans, public and private. Many steps in the administration process could be automated. Standardized enrollment across different public health care programs would reduce headache for patients (Wikler, Basch and Cutler 2012).

It is difficult to give one cost savings estimate for simplification due to the fact that most policy papers given numerous recommendations of areas that could be standardized. Individually, each reform would only save a few billion dollars. Summed up, a paper from the Center for American Progress pegged the savings of six separate realms of administrative simplification at $35.7-45.8 billion. However,
$21.9 billion of that is from reforms from the ACA that are already in progress. Thus, the savings from new reforms would be $13.8-23.9 billion.

Additional research from the Institute of Medicine examined simplifying the process by which physicians interact with payers. In physician practices, $64.7 billion is spent on administrative costs collectively. Standardization of payer-physician interactions, using a model similar to Canada, costs would fall by 10%, a savings of $6.5 billion. Total savings may be greater, as it does not factor in the time savings to physicians and staff.

Hence, if we sum the collective simplification reform proposals, we get an estimated savings of $20.3-30.4 billion. In addition to cost savings, simplification may yield other benefits as well. By making the system more efficient, consumers would experience fewer delays and issues receiving care. Physicians and their supporting staffs would have more time available for patients. In short, it would make it easier for the health care system to focus on health.

Case in point, a Minnesota law that standardized the electronic exchange of health care transactions was projected to save the state $60 million (Kelley and Fabius 2010). When prior authorization for medical tests was automated within the state, the number of unnecessary tests fell, as did the time spent interacting with plans.

Ironically, the task of simplifying the health care system may be extremely complex. Because there are so many different types of forms for so many different interactions, there is no one national standard that could be used. Rather, a common format would have to be established for a variety of forms. This would involve reconciling many different providers to bring them all to the same page. Given the decentralized nature of the U.S. health care system, this would be a formidable task.

As an additional roadblock, the organ of government that would be in charge of creating and enforcing these standards is not entirely clear (Kelley and Fabius 2010). Such an undertaking may even require a new office within the DHHS specifically tasked with putting out rules and implementing them
(Cutler, Wilder and Basch 2012). This would open the door to all of the complications that are inherent in the rulemaking process. To make matters worse, multiple rules would have to be executed, forcing regulators to run the gauntlet of public comment again and again. As evidenced by the limited success of HIPPA, agencies may face significant difficulty in achieving true reforms.

To be sure, the solution of administrative simplification is as popular as motherhood and apple pie. Members of every political party have been able to join hands in opposition to wasteful overhead spending. A survey of the health care platforms from the major American political parties revealed that they are united by the common refrain of simplifying the system. On the left, the Democratic Party pledges to root out waste from health care. On the right, the Republican Party spoke out against the bureaucracy in the system.

Indeed, it is difficult to conceive of any politician coming out in favor of bureaucratic hassle. There are no think tanks publishing paper on how to throw more dollars down the drain. No policy briefs are written advocating for ever more cumbersome paperwork.

Even the health care industry itself is in support of cutting red tape. In 2008, the American Medical Association published a white paper outlining solutions to cut down on administrative waste. As the earlier figures about wasted time and resources spent on negotiating the bureaucratic system illustrate, physicians would stand to gain much from simplification.

In the abstract, no one could possibly be opposed to pairing down “administrative complexity.” The true divisions come out when one tries to define exactly what is wasteful. For instance, the Affordable Care Act provides federal funds for “navigators” to help patients work their way through the options available to them (Caper 2013). In a sense, this is health care spending that does not go to actual patient care, and thus, is overhead. But supporters of the ACA would quickly note the importance of this expenditure, and balk at the proposition that this is needless waste.
There are countless other examples. Does profit that a firm earns count as an administrative cost? Advertising? Bill collection? Investigations into fraud? Perhaps. All of these things have been counted in various estimates (Klein 2009). But whether or not these functions are worthy expenses is a much harder question to answer than whether we should reduce “administrative complexity.”

Similarly, proponents of a single payer health care system often note that it could save hundreds of billions of dollars by sheering down complexity alone – far more than the policies that I have identified. Of course, such an overhaul of the health care system would make the debates over the enactment of the ACA look tame by comparison.

That said, in politics, optics matter a great deal. In public opinion polling, a solid majority – 65% - reported that they would be in favor of federal action to ameliorate administrative expenses (Oberlander and White 2009). The fact that the idea, at least on the surface, has such broad public appeal, it would make it easier to get the policy off the methodical runway. Additionally, I believe that the specific areas that I have identified would generally be considered unnecessary by most serious players.

V. Policy Recommendation

Before making a policy recommendation, there are three factors that I will consider. The first is the most straightforward: estimated savings. This figure is determined based on the studies done on each of the policy alternatives. There may be some variation among estimates, but I have attempted to come up with a reasonable number. I provided a range of cost reduction estimates in an attempt to convey that it is difficult to determine the exact savings that a policy will yield.

The second factor is political difficulty. There is no simple measure of the political obstacles that a given policy would face, and given today’s polarized Congress, any bill would have difficult time becoming law. That said, to assess the political odds of each policy, I considered statements by prominent Democrats and Republicans, positions of various ideological think tanks, the intensity of interest group
involvement in the policy area—both for and against—and actions that state governments took. No method is perfect, but I feel as if my final ratings are fair.

The only policy that I looked at that is hotly contested is medical malpractice reform. Any law with a damage cap would face strenuous opposition. The other two policies, by and large, would be relatively uncontroversial. Granted, some special interest groups would protest, but such acts would pale in comparison to a hot issue.

The third factor is technical feasibility. This is perhaps the vaguest of all the categories. To determine the technical feasibility, I took into account not only the difficulty of writing a law that would fully capture the scope of the policy solution, but also the effort that would be taken to implement it.

A damage cap would be straightforward: the law would be passed, and courts would apply the cap. Price transparency would be more complex, as it would require not only publishing the information, but also making it accessible to consumers, and complemented by anti-trust enforcement. Administrative standardization would require not only the design of common forms that covered all pertinent information, but possibly the creation of a new agency to design them.

After assessing these three categories, I conclude the price transparency would be the best policy alternative. The savings that it could yield are in the mid-range, however, the variation between the estimates is tight, and lower range is the highest of the three policies. Furthermore, the cuts in spending would come out of the profit sheets of hospitals and device manufacturers, not injured patients, as with damage caps.

Both price transparency and administrative simplification both are popular concepts. Price transparency is not demonstrably better than standardization, but when taken in conjunction with the technical feasibility, it comes out on top.
In terms of complexity, I would place price transparency as only medium. Although there would be numerous challenges to creating the policy, much of the groundwork has already been done. The Centers for Medicare and Medicaid Services already publishes a vast amount of data on hospital costs. Although it is not easily accessible to patients, the raw numbers exist.

Back in 2010, H.R. 4803 was introduced, mandating price and quality transparency. A less ambitious H.R. 5800 was introduced in 2012. Both of these bills acted through amending Title XIX of the Social Security Act, and both of them are less than one thousand words long. This would provide legislators with model legislation, a legal mechanism, and an indication that even a more comprehensive law would not need to be incredibly verbose.

Anti-trust regulators would need to be vigilant if a price transparency law was enacted, but this is hardly an untested muscle of the federal government. It has performed this function for over 100 years across every industry imaginable. Originally, railroads and oil companies may have the principle target of anti-trust laws, but, more recently, Amazon was successfully charged by the Department of Justice for fixing prices on its e-books (Molina 2014).

Specifically to health care, the Federal Trade Commission (FTC), working with the Department of Justice, is already active in policing anti-competitive behavior. There have already been cases filed against medical device suppliers, pharmaceutical companies, and hospitals for monopolistic practices.
Although state governments may also be involved, it is clear that the federal government is already involved in pursuing health care anti-trust cases, so, there may be no need for new enforcement laws.

At this point, I would like to perform a basic cost-benefit analysis of the policy. In order to provide as safe an analysis as possible, I will use very conservative estimates for benefits and very liberal estimates for costs. First, let me expound upon the benefits.

The lower estimate for savings is $33.5 billion. Alluding back to the analysis of a damage cap, the CBO found that it would increase wages, and thus federal tax receipts. By the CBO’s count, every dollar shaved from health care costs, there would be an increase of 30 cents in tax revenue. I will assume that every dollar in health care spending reduced will increase revenue by 15 cents. Even by this more modest estimate, $5 billion in revenue would be generated.

Moving on to costs, the total budget of the Antitrust Division of the Department of Justice is $163 million, and the FTC spends roughly $25 million on “promoting competition” through stopping collusion. Thus, about $200 million is spent on enforcing anti-trust policy on the part of the federal government. Of course, only a fraction of this is actually spent on health care, but in encompass all possible costs, and costs to state governments, I will assume that an additional $200 million will be spent.

There would need to be some sort of web interface to store and access price and quality information. No one has estimated what this will cost, but I will look at the cost of the ACA website. Certainly, Healthcare.gov would be much larger than a price transparency website, but it is at least an example of a government sponsored health care websites. Cost estimates for Healthcare.gov vary, but its staunchest critics claim $350 million (Kessler 2013), so that is the figure I will use.

Therefore, total benefits could be approximately $38.5 billion, and total costs of the policy could be as great as $550 million. Thus, the net benefit would be just a little under $38 billion. Over the course of a decade, this could equate to $380 billion in savings.
Lastly, I will discount the savings to give an idea of the present value of the savings. This is will provide a more accurate estimate of the long-term savings, rather than just multiplying the savings in one year by ten. The formula that I will use is as follows:

\[ B \left( 1 - \frac{1}{(1+i)^n} \right) \]  

where B is benefits, i is the interest rate, and n is the number of years.

In this example, B is $38 billion, i is 2% which is roughly the interest rate on a ten-year Treasury securities, (Federal Reserve 2014), adjusted for inflation, and n is 10. Plugging in these numbers, we get:

\[ \frac{38 \text{ bil}}{0.02} \left( 1 - \frac{1}{(1+0.02)^{10}} \right) = $340 \text{ billion} \]

Hence, I estimate that if a comprehensive price transparency policy were enacted, even accounting for the costs of implementing and enforcing it, it would still have hundreds of billions of dollars over the decade. To put that in perspective, $30 billion a year could pay for universal pre-K across the nation, eradicate world hunger, or simply reduce the federal deficit by a fair amount.

Taken in totality, I believe that price transparency is the strongest policy alternative available. It would likely produce a sizable savings in the health care system, past transparency bills have had bipartisan support, and it would be solution that would not require creation of a large bureaucracy to execute. Indeed, even when using pessimistic assumptions, the benefits still outweighed the costs.

VI. Conclusion

The problem of health care cost inflation is particularly vexing. It is too large to be ignored. Any way that it is measured, health care costs are on the rise. Left unabated, they run the risk of draining the federal budget, hamstringing the economy, and impoverishing consumers and businesses alike.

At the same time, the issue is extremely complex. Covering one-sixth of the economy, and spanning the public and private sector alike, the health care industry brings together millions of employees in the form of physicians, nurses, clerical and custodial staff, insurers, and many more. They
are employed in hospitals, practices, and firms large and small. No person within the country is untouched by the health care system, and it often intimately involved the very beginning and end and our lives.

There are a wide range of factors that drive the growth of health care costs. Some of them are inexorable, and some of them are good for society. Throughout all of them there is a great deal of waste. Clearly, no one policy can ever hope to be a silver bullet. Even if all three of my policies were adopted, and all of their benefits were accrued, it would amount to about $100 billion out of $1 trillion in waste.

Although I believe that policy outlined would be an important step forward, reform will need to be ongoing.

But more important than implementing my recommended solution would be having policymakers focus on reducing unnecessary spending in the system. A 2008 survey examined what consumers believed to be the largest impediments to reducing inefficiency in the health care system (PricewaterhouseCoopers 2008). Over a dozen options were available to them, including political gridlock, sheer complexity, and a culture unresponsive to change. But the most common response, given by nearly half of all respondents, was that it was not a priority of the U.S. government. It is time to change that.
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