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Current state of the American healthcare system - why exorbitant spending results in low international health rankings and how to ameliorate this paradox

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CURRENT STATE OF THE AMERICAN HEALTHCARE SYSTEM – WHY EXORBITANT SPENDING RESULTS IN LOW INTERNATIONAL HEALTH RANKINGS AND HOW TO AMELIORATE THIS PARADOX

by

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ALICE XIANG

ABSTRACT

The United States spends more than any other nation on healthcare by an exceedingly significant amount. The United States also ranks very poorly on health outcomes when compared to other economically developed nations. The reason why the United States spends so much more than other nations is because they spend more in all categories of healthcare. Hospital admissions and overnight stays are more expensive, medical staff salaries are higher than in other nations, procedures and treatments are ordered more frequently and cost more than in other nations, prescription drugs prices are multiple times greater in the U.S., the multi-payer private and public insurance payment schemes are time consuming and complex, and administrative costs are significantly higher in the U.S. than in other countries. These complexities and high costs create inefficiencies in America’s healthcare system that can interfere with the quality of care provided. The major reasons why the United States is lacking in health outcome rankings can be attributed to an underdeveloped primary care sector and an underfunded social services sector, which make it difficult to coordinate care and practice preventative medicine.
America’s history of uninsured citizens lacked access to care so the U.S. saw repeats of emergency admissions and expensive hospitalizations for chronic conditions. These problems are preventable with a more robust primary care sector, increased access to care, and advocating public health awareness. Current reforms such as the Affordable Care Act are making strides in the positive direction by creating Accountable Care Organizations, increasing access to care, and regulating an online insurance marketplace. However, continued research and assessments of these new methods of delivering care are necessary in the near future to see if pilot studies can be scaled up on a national level.
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<td>ACA</td>
<td>Affordable Care Act</td>
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<td>AIDS</td>
<td>Acquired immune deficiency syndrome</td>
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<tr>
<td>AMA</td>
<td>The American Medical Association</td>
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<td>CDC</td>
<td>The Center for Disease Control and Prevention</td>
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<tr>
<td>CT</td>
<td>Computed tomography</td>
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<td>ED</td>
<td>Emergency Department</td>
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<td>FDA</td>
<td>Food and Drug Administration</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>HIV</td>
<td>Human immunodeficiency virus infection</td>
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<td>HMO</td>
<td>Health Maintenance Organization</td>
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<tr>
<td>MRI</td>
<td>Magnetic resonance imaging</td>
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<td>NHS</td>
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<td>NICE</td>
<td>Diagnostic Advisory Committee by the National Institute for Health and Clinical Excellence</td>
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<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>PCORI</td>
<td>Patient-Centered Outcomes Research Institute</td>
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<td>WHO</td>
<td>World Health Organization</td>
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INTRODUCTION

The United States is unquestionably a world leader in healthcare in terms of research and academics. Americans have the most advanced technologies to treat patients and the potential to provide the best patient care and satisfaction. However, there are numerous problems with the United State healthcare system and the most jarring statistic is the exorbitant costs of funding medical expenditures. In recent years, about 18% of U.S. GDP is spent on healthcare and the spending increases steadily with each passing year (World Bank Data, 2015). Other developed nations in Europe spend significantly less on their healthcare systems. Among the 34 developed countries that make up the Organization for Economic Cooperation and Development (OECD), the United States continues to outspend all other nations at a rate of twice the average OECD spending on healthcare (OECD, 2011).

United States High Healthcare Spending

OECD data from 2010 shows that the United States spent 17.6% of its GDP on healthcare while countries like France and Germany spent about 11% of their GDP on healthcare and the United Kingdom and Japan spent about 9% of their GDP on healthcare (Figure 1). It is also interesting to note that the United States’ public spending only accounts for less than half of its total healthcare spending, compared to other countries where the majority of healthcare spending is covered by their government. When converting the OECD data from 2010 to a quantitative amount per capita, the U.S. spent $8,233 per person for healthcare, when the OECD average was about $3,268 per person (Figure 2).
At 17.6% of GDP in 2010, US health spending is one and a half as much as any other country, and nearly twice the OECD average.

Total health expenditure as a share of GDP, 2010 (or nearest year)

Figure 1. Comparison of Percent GDP spent on Healthcare Amongst the OECD Nations in 2010. Although the U.S. is a very rich country, it devotes far more of its economy to health than any other country. The average among OECD countries was almost half that of the U.S., at 9.5 percent of GDP. Source: OECD Health Data 2012.
Figure 2. Comparison of Total Healthcare Expenditure Per Capita Amongst OECD Nations in 2010. The U.S. spends over two times greater than the OECD average with $8,233/capita. Norway, Switzerland, and the Netherlands are the next highest spenders, but they all spent about $3,000/per capita less than the United States.
Source: OECD Health Data 2012
United States Poor Health Outcomes

If the US was ranked number one in healthcare worldwide, this spending might be excusable. Unfortunately, according to several studies, the US consistently ranks last among first world countries. The World Health Organization (WHO) also ranks the United States healthcare at 37-39 worldwide – a much lower number than one would expect for the richest nation in the world (WHO, 2000).

The results show that American health outcomes lag behind many of its European counterparts. In the 2013 Institute of Medicine report, Shorter Lives, Poorer Health, the United States ranks lower in life expectancy and has higher rates of infant mortality, low birth weight, injuries and homicides, adolescent pregnancy and sexually transmitted diseases, HIV/AIDS (Human immunodeficiency virus infection and acquired immune deficiency syndrome), drug-related deaths, obesity, diabetes, heart disease, chronic lung disease and disability than people in other industrialized countries. OECD data from 2009 demonstrates similar results where the United States ranks much lower in health outcomes than other developed nations (Table 1). In addition, this national health disadvantage in America is not due to racial and economic disparities. Insured, college educated and upper income citizens in the US have poorer health than do their counterparts in other industrialized countries (Woolf and Aron, 2013).
United States health outcomes such as life expectancy, infant mortality, and low birth weight are all significantly worse than other industrialized nations. Source: OECD 2007.

<table>
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<tr>
<th>Health Outcome</th>
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<td>Life expectancy</td>
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<td>Low birth weight</td>
<td>28th</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>31st</td>
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Source: OECD, Health at a Glance 2007

As these rather indisputable statistics on high costs and comparatively meager health outcomes are released, it forces health policy makers and government officials to try to understand why their healthcare system has fallen behind. America is entering a period of change where they are forced to reassess their current methods, seek successful models from other countries, and develop major reforms to improve quality of care, access to care, and create more affordable care. In order to begin developing plans to improve the current system, one has to first comprehend the American healthcare paradox of why spending more is getting less.

In order to understand where improvement in America’s healthcare system can be accomplished, it is important to first research the ranking criteria. In 2000, WHO created its first analysis of the world’s health system, where the organization ranked its 191 member states by their healthcare systems. The methodology used was based on a series of performance indicators to assess the overall level and distribution of population health as well as the responsiveness and financing of health care services. More specifically, the rankings were based on an index of three factors: Health (50%) – disability adjusted life expectancy, Responsiveness (25%) – Speed of service, protection of privacy, and quality
of amenities, and Fair Financial Contribution (25%) – cost per capita (Musgrove et al., 2000).

American Healthcare Paradox Theories

Dartmouth economist Jonathan Skinner first used the term ‘paradox’ to explain how between 1986 and 2005, the geographic regions with the largest increase in Medicare spending were not the ones with the largest survival gains (Skinner et al., 2006). A number of rationales have been offered to explain this paradox including: blaming greedy insurance companies, inefficient and wasteful hospitals and government programs, skyrocketing costs of pharmaceutical drugs, expensive hospital overhead and administrative costs, and an inadequate attention to an investment in services that address the broader determinants of health. Each of these factors is a significant contributor to the high costs and will be explored further in this paper.

Lack of Access

Additional facets that have been speculated to contribute to America’s mediocre to poor health systems include: lack of access to care, fragmentation between public and private sectors, medical malpractice, and advancing technologies. However, these culprits might not play as significant of a role in rationalizing America’s healthcare paradox. Health policy scholars and political leaders often blame lack of access to care to the unaffordable high costs of care. They say underinsurance results in poor prevention and inadequate adherence to medical recommendations (Schoen et al., 2008). Those that believe in this fundamental problem point to the fact that about 25% of the American population lacked health insurance as of 2011 (Bradley and Taylor, 2013). Their
argument for improvement is to ensure access to preventative and acute care in order to
improve health outcomes. Providing universal health insurance would indeed improve
access to needed care, but it would require additional and substantial costs. In addition,
data suggests that American health outcomes among insured populations still lag
substantially behind those of other countries (Woolf and Aron, 2013). Thus, reforms such
as the recent Affordable Care Act (ACA) being implemented in isolation are unlikely to
resolve the paradox.

*Fragmentation Between Public and Private Players*

Other critics point to the fragmentation between public and private players
creating inefficiencies in our healthcare system as a primary driver of cost. They also
point to the lack of primary care resources as a major cause for poor health outcomes. In
addition, physicians who use a fee-for-service payment arrangement can result in
unnecessary duplication of medical testing. Those who believe the problem can be
attributed to fragmented financing systems and the lack of primary care physicians to
coordinate care have developed health systems known as medical homes. These homes
are designed to reduce fragmentations and duplication and help individuals navigate the
health care sector. They are physician-led, team-based health care delivery models that
seek to provide comprehensive, continuous and well-coordinated medical care (Bradley
and Taylor, 2013).

Medical homes implement care coordination services and limit fee-for-service
reimbursement in favor of various managed care payment schemes, thus reducing
financing incentives for physicians to provide unnecessary services. However, studies on
the effectiveness of these Medical homes have been very ambiguous with many cases showing increased spending. The main issue associated with these medical homes is the lack of practical methods by which these models can be implemented, replicated, and scaled up nationally (Peikes et al., 2009).

**Medical Malpractice Costs**

Some people blame physician medical malpractice lawsuits and insurance plans for increasing costs in the healthcare system. They say physician fear of medical malpractice compels them to screen for every conceivable disease and use the most aggressive treatment available to avoid being sued for not doing everything. In efforts to combat high medical malpractice costs, some states have made efforts to reduce this problem, but the impact has been largely unimpressive. For example, in 2004, Texas conducted what is now referred to as the “failed experiment” (Lincoln, 2011) In an attempt for medical malpractice reform, the state capped medical liability expenses. Six years later, the state’s health spending per Medicare enrollee rose from seventh to second highest in the United States. Private health insurance premiums also rose higher than the national average and the percentage of uninsured Texans rose (Bradley and Taylor, 2013).

Although the number of medical malpractice payments did decrease considerably, the clear beneficiaries of this reform were the insurance companies whose payouts for medical malpractice damages were 65% lower, while the premiums paid by physicians decreased only 50%. This initiative clearly failed to promote financial savings broadly, and the impact on health outcome is unclear (Lincoln, 2011).
Sophisticated and Expensive Medical Technologies

Finally, some blame cultural demands for the most sophisticated medical technology as the main driver of cost (Smith et al., 2009). There is undeniable evidence that shows America’s high utilization of advanced medical technology is a main reason for high costs, but efforts to restrain their use are weak. Once a technology is approved for federal reimbursement via Medicare, dramatic increase in its use will be observed. Some will argue that advanced medical technologies have allowed for faster and more efficient care to decrease length of hospital stays and allow for care in less expensive outpatient settings. However, overall medical technology has undoubtedly contributed to the national healthcare spending. It also does not help that physicians believe the greater use of technology may improve health outcomes, especially if that technology is paid for by insurance plans. Current research is being conducted to study the relative cost effectiveness of new technologies and pharmaceuticals prior to their large-scale use, but reducing the use of technology advancements remains an unlikely solution given the current economic, political, and cultural landscape of American healthcare.

Although policymakers and some practitioners have sought to address these problematic downfalls in the health care system, there has not been much success in delivering the same level of health per dollar found in other industrialized countries. Past reform efforts have tried to lessen the impact of these issues, but none have been extremely successful.
Purpose of Thesis and Important Questions

The American Healthcare System is a complex system, and there is no simple or single solution to repair its deficits. The majority of Americans and even some professionals in the healthcare field are in the dark about how the American healthcare system is run and they do not care to delve into its mysteries because of its sheer complexity. Both patients and physicians deal with second and third party players like insurance companies and administrative staff to deal with payments, so there is very little incentive to understand costs. The purpose of this paper is break down some major components of the healthcare system in terms so that the average American can begin to understand current frustrations that medical professionals and health policy workers are experiencing. Although there is no simple solution to mitigating the American healthcare paradox, this paper strives to answer the following questions:

• How does the United States Healthcare system compare to that of other OECD nations? How are other nations able to keep costs comparatively low while achieving better health outcomes?

• Why is the United States healthcare system so expensive and how are finances actually allocated?

• Why is there such an enormous gap between spending and health outcomes?

• What are some potential solutions to ameliorate these problems in the future?
COMPARISON TO OTHER COUNTRIES

Every public health official, health policy maker, and most professionals in the medical field are aware of the OECD graphs documenting the high rates of American Healthcare spending; additionally, they are aware that United States health outcomes are worse compared to other nations. However, they might not be able to point out what in particular is costing more than other nations. Unfortunately, there is a complex answer to that question because spending in almost every area of healthcare is higher in the United States than in other countries.

Broad Categories of Health Expenditures Among OECD Countries

Health expenditure can be broken down into different categories of spending including: hospital and nursing home costs, ambulatory care, pharmaceutical costs, and public health and administrative costs. Figure 3 compares United States spending with other OECD countries that also spend a lot on healthcare, including countries with substantial private insurance such as Switzerland, France, and Germany (OECD, 2011).
Figure 3. Comparison of Health Spending by Categories of Care Amongst OECD Nations in 2010. Categories of care include: Hospital/Nursing Homes costs, Emergency Care Costs, Pharmaceutical and Medical Goods Costs, and Public Health and Administration Costs. The United States outspends other developed countries in every category of care. Source: OECD Health 2011

Hospital Costs and Medical Provider Salaries

A 2010 OECD study (Koechlin et al., 2010) found the price of hospital services in the United States to be over 60% higher than the average of 12 other OECD countries. Spending on Ambulatory care providers – physicians, nurses, technicians, and dentists – get paid much higher than in the other OECD countries. Their salaries and their training cost almost two-and-a-half times the average of the other five countries. One possible explanation for this occurrence can be attributed to the increase of same-day surgery in the U.S. These services are an important innovation in health care delivery, and patients
appreciate a quick procedure opposed to staying overnight in a hospital. Estimates of spending on same-day surgeries performed by independent physicians from 2003 to 2006 suggests that this has been the fastest growing area of health care over this period (Mckinsey Global Institute, 2008).

The higher costs of hospital care in particular, which accounts for the largest percent of healthcare spending, can be partially explained for by services costing more in the U.S. When looking across a broad range of hospital services (both medical and surgical), the average price in the United States is 85 percent higher than the average in other OECD countries (OECD, 2011). To put this in perspective, a hospital stay in the United States costs over $18,000 on average. Across OECD countries, the average cost of a hospital stay is about one-third that of the U.S., at $6,200 (OECD, 2011). As mentioned previously, many OECD countries use strong regulation to set prices hospitals can charge for different services, and some even set budgets for how much hospitals can spend total. These methods do not hinder the quality of care delivered in hospitals in these countries and universities are still able to attract the best students to medicine.

Table 2 provides examples of the prices of some common procedures in the United States compared with some of the countries with the best quality health systems in the world. Looking at specific interventions:

- Coronary bypasses in the United States costs nearly 50 percent more than in Canada, Australia and France, and are double the price in Germany.
- The price of a normal delivery in the United States was estimated to be more than 50 percent higher than in France or Canada, while the price of a caesarean section
was 30 percent higher than in France and more than 50 percent higher than in Canada.

- The price of a knee replacement was about 20 percent higher in the United States than in France and 50 percent higher than in Canada, while a hip replacement cost 45% more in the United States than in these two countries.

- In summary, all of these relatively common medical procedures listed in Table 2 (appendectomies, baby delivery, hip and knee replacements, coronary surgeries) cost more in the United States than other countries with equally high quality health systems.

**Table 2. Prices for Relatively Common Medical and Surgical Procedures in Countries with High Quality Health Care Systems.** The cost for the same procedures in the United States are more expensive compared to other countries.
Source: Koechlin et al., 2010

**US prices for certain procedures are much higher than in other OECD countries**

(US dollars, 2007)

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<td>5 574</td>
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<td>22 694</td>
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<td>10 348</td>
<td>14 946</td>
</tr>
</tbody>
</table>

*Source: Koechlin et al. (2010).*
It is difficult to decipher precisely why prices for procedures are almost always higher in the United States, but two things are apparent: U.S. physicians are paid higher incomes than in other countries and the U.S. uses more expensive diagnostic procedures (Kane, 2012). In addition, America’s multi-payer system with numerous different kinds of insurance creates huge complexities, providing no one organization to have strong incentives to cut out wasteful practices and ensure that all Americans get a good value for the very high levels of expenditure incurred for healthcare.

Additionally, the United States is known for comprehensive testing, which often leads to unnecessary ordering of tests and procedures. Over-testing has become a severe and wasteful component that drives up costs. The United States is a leader amongst OECD countries in regards to ordering tests and procedures, without actually treating a larger number of patients. The U.S. ordered about 90 MRI tests and 230 CT tests for every 1000 people in 2010—twice the average of other OECD countries (OECD, 2011) (Table 3). It orders more tonsillectomies and more knee replacements than any other OECD country. America also performs more Caesarean sections and coronary bypass procedures than in most other countries.
Table 3. Frequency of Medical Procedures and Tests Ordered, United States Comparison to other OECD Nations. The United States ranks very high in terms of physicians ordering tests and procedures such as MRIs, CT Scans, and C-sections. Source: OECD Health Data 2011

<table>
<thead>
<tr>
<th>Procedure</th>
<th>United States (pop = population)</th>
<th>Rank compared with OECD nations</th>
<th>OED Average (pop = population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI units</td>
<td>25.9 per million pop</td>
<td>2nd</td>
<td>12.2 per million pop</td>
</tr>
<tr>
<td>MRI exams ordered</td>
<td>91.2 per 1000 pop</td>
<td>2nd</td>
<td>46.6 per 1,000 pop</td>
</tr>
<tr>
<td>CT scanners</td>
<td>34.3 per million pop</td>
<td>5th</td>
<td>22.8 per million pop</td>
</tr>
<tr>
<td>CT exams ordered</td>
<td>227.9 per 1000 pop</td>
<td>2nd</td>
<td>131.8 per 1,000 pop</td>
</tr>
<tr>
<td>Tonsillectomy</td>
<td>254.4 per 100,000 pop</td>
<td>1st</td>
<td>133.8 per 100,000 pop</td>
</tr>
<tr>
<td>Coronary angioplasty</td>
<td>377.2 per 100,000 pop</td>
<td>3rd</td>
<td>187.6 per 100,000 pop</td>
</tr>
<tr>
<td>Knee replacements</td>
<td>212.5 per 100,000 pop</td>
<td>1st</td>
<td>118.4 per 100,000 pop</td>
</tr>
<tr>
<td>Caesarean sections</td>
<td>32.3 per 100 live births</td>
<td>8th</td>
<td>25.8 per 100 live births</td>
</tr>
</tbody>
</table>

The occurrence of these procedures and the use of expensive diagnostic tests all depend on physician opinion on whether the patient should receive them or not.

American physicians decide that more procedures and tests are desirable compared to their peers in other countries. Mark Pearson, head of Division on Health Policy at OECD, offers a few explanations for this phenomenon. First of all, American physicians are taught to have a fear of litigation. They order extra tests and comprehensive screening to cover themselves in case a patient decides to sue for malpractice. This forces physicians test for everything so that they cannot be blamed for not having covered all their bases, thus keeping their malpractice insurance premiums as low as possible. Secondly, many hospitals and health clinics use a fee-for-service policy where physicians receive payments for ordering or performing more interventions, regardless of medical necessity. Thirdly, patients themselves tend to be more satisfied if they receive more tests and services. They feel comforted to know that medical problems are being diagnosed or
treated, regardless of whether they are medically necessary. It does not help that all these services and test are often paid for by insurance policies, so the immediate cost of extra treatment for a patient is often zero or very low (Kane, 2012).

Other OECD countries avoid this problem of over-treating by investing in creating national ‘clinical guidelines’ to promote a more rational use of MRI (magnetic resonance imaging) and CT (computed tomography) exams. In the United Kingdom, since the creation of the Diagnostic Advisory Committee by the National Institute for Health and Clinical Excellence (NICE), a number of guidelines have been issued on the appropriate use of MRI and CT exams for different purposes (Kane, 2012).

**Pharmaceutical Drugs and Medical Equipment**

Spending on pharmaceuticals and medical goods is also higher in the U.S. than in any other country. Again, cost for pharmaceutical drugs exceeds costs in other countries by over two times (OECD, 2011). The major reason why drugs in America cost more than the exact same drugs in other countries is because of American pharmaceutical company patents products that then allows the company to control costs. In other European nations, government regulation can cap prices on drugs to contain costs (OECD, 2011). This type of regulation does not exist in the United States and corporate pharmaceutical companies would most likely deem such strict regulation as unconstitutional.
Public Health and Administration Costs

Finally, spending on Public Health and Administration is particularly high in the United States – more than two-and-a-half times the average (OECD, 2011). In the U.S., nearly $900 per person per year goes towards administrative costs. This is three times higher than France, which only spends $300 per person on administrative costs, despite having a system in which health care services are reimbursed in a similar way to the U.S. Similarly, systems such as Switzerland and Germany also have multi-payer systems, yet their spending on administration is less than half that of the United States. In comparison, Canada and Japan are countries that do not utilize multi-payer insurance systems and these countries devote significantly less spending on administration personnel (Kane, 2012).

Part of the problem of why Administrative costs in the U.S. are higher is because the U.S. has been slow to embrace the advantages of information and communications technology in improving the administration of its system and in cutting down on waste. In Sweden, for example, all drug prescribing is done electronically — a message is sent directly from the doctor’s office to the pharmacy (Kane, 2012). Not only does this cut down on medical errors, but also aids pharmacists in being more efficient. In recent years, the Affordable Care Act will require a complete conversion of patient paper files into electronic files and many doctors in America are also switching to electronic prescriptions. However, this is an ongoing and tedious process that not all American physicians agree with.
Where the United States Does Less than other OECD Countries

On the other hand, Table 4 shows where the United States does less than other OECD countries (OECD Health Data 2011). The U.S. has fewer physicians and less physician consultations relative to its population. The U.S. also has fewer hospital beds for its population size and shorter average stays in hospital relative to other countries. The lower numbers of physicians could definitely help explain why they receive much higher salaries; there is less competition for patients.

Table 4. Where The United States Underperforms other OECD Countries. The United States on average has fewer physicians, less hospital beds, and shorter hospital stays compared to other OECD nations. Source: OECD Health Data 2011

<table>
<thead>
<tr>
<th></th>
<th>United States (pop = population)</th>
<th>Ranke compared with OECD nations</th>
<th>OECD Average (pop = population)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing physicians</td>
<td>2.4 per 1000</td>
<td>26th</td>
<td>3.1 per 1000 pop</td>
</tr>
<tr>
<td>Doctor consultations</td>
<td>3.9 per capita</td>
<td>29th</td>
<td>6.5 per capita</td>
</tr>
<tr>
<td>Hospital beds</td>
<td>3.1 per capita</td>
<td>29th</td>
<td>4.9 per 1000 pop</td>
</tr>
<tr>
<td>Hospital discharges</td>
<td>130.9 per 1000 pop</td>
<td>26th</td>
<td>158.1 per 1000 pop</td>
</tr>
<tr>
<td>Average length of stay in hospitals</td>
<td>4.9 days</td>
<td>29th</td>
<td>7.2 days</td>
</tr>
</tbody>
</table>

Having fewer hospital beds and shorter hospital stays can be considered beneficial. Fewer hospital beds could signify that wasteful overuse of hospitals is being avoided in the U.S. system. Medicare in the U.S. has pioneered how hospitals are paid – this government insurance provides a fixed amount for a patient with a particular condition, which means that hospitals have an incentive to treat patients as quickly as possible (Kane, 2012). The data from Table 4 depicts where the United States does less compared to OECD countries should suggest that U.S. health spending should be low
compared with other countries (OECD Health Data 2011). America does more of some activities such as testing and procedures, but less of others such as number of physicians and hospital beds. Therefore, higher prices are the more relevant and important cause of high spending.

**Commonwealth Fund 2014 Assessment of International Healthcare**

The Commonwealth Fund is another organization that has large investments in understanding health systems and promoting high standards of care. The Commonwealth Fund’s 2014 report studies how the United States care system compares internationally (Davis et al., 2014). This report takes a closer look at 11 countries including: Australia, Canada, France, Germany, Netherlands, New Zealand, Norway, Sweden, Switzerland, the United Kingdom, and the United States. This report ranks each nation based on Quality, Access, Efficiency, Equity, and Healthy Lives. It incorporates patient and physician survey results on ratings for care experiences, medical practices and views on their countries health systems.

According to the Commonwealth Fund’s report, the most obvious way that the United States differs from other industrialized countries is the absence of universal healthcare (Table 5)(Davis et al., 2014). This is a major reason why the U.S. underperforms in statistics regarding access and equity between populations. The U.S. is also lacking in other measures such as health outcomes, quality, and efficiency of care. Physicians in the US have reported difficulties in receiving timely information, coordinating care, and dealing with administrative hassles. Unlike other countries, the U.S. has been slow in adapting modern health information systems. However, the
Affordable Care Act will ensure this transition for the purpose of efficient organization and delivery of health care (Davis et al., 2014). Although there is always room for improvement in every nation, there is a considerably larger problem for the United States. Some of the major findings of this study focused on Quality, Access, Efficiency, Equity, and Healthy lives:

**Quality:** Four categories were assessed for quality of care – effective care, safe care, coordinated care, and patient-centered care. Compared with the other 10 countries, the U.S. ranked higher at provision of patient-centered care. However, lower scores on safe and coordinated care pull the overall U.S. quality score down. Gradual and continued adoption of health information technology should enhance the ability of U.S. physicians to better identify, monitor, and coordinate care for their patients, particularly those with chronic conditions (Davis et al, 2014).

**Access:** Given the previous absence of universal coverage, people in the U.S. do not seek needed health care due to the extraordinary costs of care that are unseen in nations with universal healthcare. Although patients in the United States have rapid access to specialized health care services, they are less likely to report rapid access to primary care. In other countries, like Canada, patients have little to no financial burden, but experience wait times for specialized services. There is a frequent misperception that trade-offs between universal coverage and timely access to specialized services are inevitable; however, the Netherlands, the United Kingdom, and Germany provide universal coverage
with low out-of-pocket costs while maintaining quick access to specialty services (Davis et al., 2014).

**Efficiency:** On indicators of efficiency, the U.S. ranks last among the 11 countries, with the U.K. and Sweden ranking first and second, respectively. The U.S. has poor performance on national health expenditures and administrative costs as well as on measures of administrative hassles, avoidable emergency room use, and duplicative medical testing (Davis et al, 2014).

**Equity:** The U.S. ranks a clear last on measures of equity. Americans with below-average incomes were much more likely than their counterparts in other countries to report not visiting a physician when sick; not getting a recommended test, treatment, or follow-up care; or not filling a prescription or skipping doses when needed because of costs (Davis et al, 2014).

**Healthy Lives:** The U.S. ranks last overall with poor scores on all three indicators of healthy lives—mortality amenable to medical care, infant mortality, and healthy life expectancy at age 60 (Davis et al, 2014).

Overall, the United States ranks last among these 11 OECD nations, with particularly low scores in efficiency, equity and outcomes (Davis et al., 2014) (Table 5 and Figure 4). The United States ranks high on preventive care, and has short waiting times for specialist care, but they scored low on access to needed services and they have
difficulty obtaining care from primary care physicians. These rankings summarize evidence based on national mortality data and the perceptions and experiences of patients and physicians.

Table 5. The Commonwealth Fund Healthcare Rankings of Developed Countries Based on Quality of Care, Access to Care, Efficiency of Care, Equity of Care, and Healthy Lives Outcomes. The United States ranked poorly for Efficiency, Equity, Health Outcomes, and Access. The United States’ Healthcare Overall ranking is last among these 11 industrialized nations.
Notes: Expenditures shown in $US PPP (purchasing power parity)
Source: Davis et al., 2014
Figure 4. The Commonwealth Fund’s Rankings of 11 Developed Nation Healthcare Systems in 2013. The United States received the overall lowest score while nations like the United Kingdom and Switzerland received the highest scores. Source: Davis et al, 2014

Disparities in access signal the need to expand insurance coverage. Under the Affordable Care Act, low- to moderate-income families will be eligible for financial assistance in obtaining coverage. Concurrently, the U.S. has accelerated the adoption of health information technology and U.S. providers are encouraged to utilize integrated medical records that are accessible to providers and patients. These efforts will likely help clinicians deliver more effective and efficient care. According to this Commonwealth fund report, some things the U.S. can learn from other countries include: public reporting of quality data, payment systems that reward high-quality care, and a team approach to management of chronic conditions (Davis et al., 2011).
Where the United States Outperforms other Nations

Despite all the inefficiencies and high costs of American health care while receiving comparatively poor health outcomes, there are some aspects of America’s healthcare system that outperforms other countries. If insured, waiting times for U.S. patients are among the lowest in OECD countries. Patients in the United States also benefit from better cancer outcomes. OECD Health Data shows that the five-year survival rate for breast cancer is higher in the U.S. than in other OECD countries; 89.3 percent compared to an OECD average of 83.5 between 2004 and 2009 (OECD, 2011). Survival from colorectal cancer is also among the best; 64.5 percent compared to an OECD average of 59.9 percent, 2004-09 (OECD, 2011). The quality of acute care in hospitals is generally good in the United States, compared with other OECD countries. In-hospital case fatality for myocardial infarction and ischemic stroke is also lower than the OECD average (OECD, 2011).

Most obviously, the U.S. leads the world in health care research. The Food and Drug Administration’s (FDA) comparatively shorter drug approval processes means that cutting-edge drugs and treatments are available more quickly to American patients than elsewhere. The U.S. is also trialing more new procedures and treatments, with the National Institutes of Health currently registering 119,469 clinical trials underway in the U.S., vastly more than any other OECD country (Kane, 2012).

Although net healthcare spending increases annually, the rate of growth has been on a significant slowing trend. This is primarily due to price changes in the pharmaceutical and hospital sectors. The slowdown has been gradual and decelerated to
around 2 percent in 2011 and 2012. This lower growth rate remains higher than the OECD average, which includes some European countries that made significant reductions in health spending (OECD Health Statistics 2014) (Figure 5).

![Health expenditure growth rates (in real terms) since 2004, United States and OECD average](image)

**Figure 5. Health Expenditure Growth Rate Trends – The United States and OECD Averages.** Although the net spending on healthcare grows each year in every nation, OECD data shows that the growth rates are actually decreasing. OECD average growth rate has declined more steeply than United States growth rates.

Source: OECD Health Statistics 2014
HISTORY OF AMERICAN HEALTHCARE

Besides assessing the current state of America’s healthcare system, the historical perspective of America’s healthcare sector demonstrates how it evolved to be this way and it allows the public to understand the potential impediments to reform. The professionalization of medicine and the emergence of insurance companies has been a long and gradual process. Several previous Presidents have developed blueprints for healthcare reform with varying degrees of success. This section explores the growth of healthcare in America from its colonial days throughout the twentieth century.

Development of American Healthcare Sector: Colonial Era to Twentieth Century

From the colonial era until the early 1800s, healthcare in America was terribly unorganized and unfounded on scientific basics. Physicians practiced procedures such as bloodletting to restore balance in the body. Sweating, urinating, defecating, and vomiting were all believed to be pathways by which a patient could restore balance and remove toxins. Thus treatments often included laxatives and other purgatives, which are now known to worsen the condition and leave blisters in the body. Medicine at this time included poisons such as mercury, which was used for the treatment of syphilis. When Jacob Bigelow from the Harvard Medical School studied medicine in Paris in 1835, he said: “[It is] the unbiased opinion of most medical men of sound judgment and long experience that the amount of death and disaster in the world would be less, if all disease were left to itself.” (Bradley and Taylor, 2013).
Even in the early 1900s, hospitals were regarded poor and even dangerous. If one could afford treatment at home, that was much preferred opposed to hospitals that housed the destitute, mentally ill, outcasts, paupers, and runaways. The major hospitals were in urban areas such as Boston, Philadelphia, New York, New Orleans, and St. Louis. Most people paid out of pocket for medical attention during this time (Bradley and Taylor, 2013).

Louis Pasteur’s development of germ theory led to major changes in the latter half of the 1800s. With public acceptance of Pasteur’s germ theory, people learned that microbe sized life forms were to blame for illness, rather than evil spirits or an imbalance of bodily humors. By identifying the correct culprit for disease, progress for defeating disease could occur more quickly. Concurrent technological advances and major educational reforms also elevated the prestige and impact of medical doctors and surgeons.

In the earlier years, physician education relied on apprenticeship models. Many of the students pursing apprenticeships to become a physician had not completed high school. In the late 1800s, large-scale medical reforms would change the standards of medical education to an elevated level of prestige. Medical schools began affiliating with hospitals, a college degree became a prerequisite for admission, and high standards for curricula were developed. With more stringent standards, the number of medical schools dropped precipitously from 160 in 1904 to only 66 in 1935 (Zinner and Loughlin, 2009). Concern over the state of American medicine gave rise to a marked influx of philanthropy to medical education across the country from both private donors and state
governments. By the 1920s, economic prosperity and tremendous scientific progress increased America’s faith in and demand for physician services. Over the course of half a century, medicine went from being a poor, underappreciated craft to a now lucrative and prestigious profession. Hospitals were transformed from a place of filth, danger, and poverty to a place of cleanliness, order, and optimism (Zinner and Loughlin, 2009). The discovery of penicillin in 1928 and the rise of sulfa drugs in the 1930s bolstered the ability to manage disease. Successful drugs and surgeries brought physicians middle class clientele and reasonable compensation, and thus American medicine began to emerge as an effective and even profitable industry.

The century between the end of the Civil War and the beginning of the civil rights movement saw hospital use increase 200 fold while the population increased 5 fold. Healthcare infrastructure expanded markedly during the 1900s. The Hill Burton act of 1946 provided major expansion money from the federal government to increase hospital beds, and by the late 1960s, the number of people admitted to a hospital each year was more than 29 million (Porter, 1998). By 2010, 80% of adults in the US had seen a doctor in the past year with the average number of visits being 3.8 times a year (Bradley and Taylor, 2013). Fueled by increasing demand for valued services, the United States health care industry – medical treatment, mental health care, life sciences and pharmaceuticals, and nursing homes – is now the largest industry in the world.

**Emergence and Development of American Medical Insurance Companies**

The beginning ideas of health insurance came about in the 1930’s. Justin Ford Kimball, vice president at Baylor University developed the first system that can be
recognized as modern American insurance (Cunningham and Cunningham, 1997). He noticed that the Baylor University hospital had many unpaid bills, particularly by teachers in the university systems in Dallas, Texas. When faced with the declining revenues due to the Great Depression, Kimball developed a payment scheme to bolster the financial stability of the university (Cunningham and Cunningham, 1997). The Kimball plan was unique because it not only covered work-related accidents and disability, but it also covered any hospitalization expenses incurred at Baylor Hospital. For a prepaid premium of six dollars a year, the plan guaranteed payment for up to 21 days of hospital care at Baylor Hospital. Kimball’s plan was a success on a local level and attracted national attention, which inspired several similar plans to emerge around the country (Cunningham and Cunningham, 1997). In 1937, the American Hospital Association (AHA) consolidated a group of nonprofit plans that met certain standards, and choose 38 plans covering more than one million Americans as the newly formed Blue Cross network.

The concept of insurance for physician services, opposed to hospital care, first appeared in the lumber and mining camps of the Pacific Northwest. Employers wanted to provide medical care for their workers so they paid monthly fees to a bureau that comprised a group of physicians. These pioneer programs led to the first Blue Shield Plan, which was established in California in 1939 to cover physician services (Cunningham and Cunningham, 1997). In 1982, the Blue Cross Association and the National Associated of Blue Shield Plans merged to form the modern Blue Cross Blue Shield Association.
While Americans were demonstrating characteristic entrepreneurship in providing insurance on a local level throughout the early 1900s, European countries were developing or had developed national, compulsory insurance plans that were planned and managed by their central government. Germany led the way in 1883 with national, compulsory sickness insurance with government-subsidized funds. Although the plan was originally developed for low-income citizens and government workers, it had expanded to include the entire population by 1950. Other nations followed the German example of universal health insurance, including Austria in 1888, Hungary in 1891, Denmark in 1892, Norway in 1909, Britain in 1911, and the Netherlands in 1913 (Flora and Heidenheimer, 1981). By the 1970s, Germany, the United Kingdom, Sweden, Canada, France, and Italy all had compulsory public insurance programs for industrial accidents, pension insurance, unemployment insurance, family allowances, and health insurance.

In 1917, president Theodore Roosevelt supported comprehensive public insurance, including compulsory health insurance because he believed the country could not be strong if people who fell ill were made poor on account of growing medical liabilities (Bradley and Taylor, 2013). The United States entry into WWI in 1917 created anti-socialist sentiments, so national health insurance became inconsistent with American values. Post war fears of communism further suppressed any remaining interest in compulsory insurance by hopeful Progressive Party members.

However, the onset of the Great Depression reopened up the discussion for universal healthcare as an increasing number of people struggled to afford medical care. The American Medical Association (AMA) firmly opposed any government control of
medical care, particularly through financing of physician work (Bradley and Taylor, 2013). The AMA appealed to the national ideology of individualism and focused on the fact that expanded government involvement in healthcare would be unaffordable to argue against universal health insurance. By 1950, lobbying efforts from the AMA stated that national health insurance would make doctors “slaves” and linked national insurance plans to communism and socialism (Starr, 1982).

WWII and the cold war era further discouraged the country from desires for federal provision of health insurance. Fears of socialism fueled American skepticism of government expansion. Employer based insurance schemes began to emerge as viable, privatized alternatives. The offer of medical insurance to employees began as an innovative and effective method of attracting workers. Given the rising expenses of medical care, employees gladly accepted employer-paid health insurance in lieu of salary increases. Congress amended the Internal Revenue Code to make employer-sponsored health insurance tax exempt and health insurance could be bargained as part of the union-employer contracting. The private insurance market has grown tremendously from $1 billion in 1950 to $848.7 billion in 2010 (Bradley and Taylor, 2013). With this eight hundred fold increase in private insurance in the past 60 years, the notion of employer based health insurance has become entrenched in American society.

In 1965, the largest government-run health insurance programs were signed into law, known as Medicare and Medicaid. Both conservatives and liberals supported the Medicare program, which was a federally funded and government-administered program to provide health insurance for older adults. Medicaid and Medicare were funded both by
national and state governments, but administered by the states. This insurance was designed to protect people with low incomes who met state-specific categories (pregnant women, blind, disabled, etc.). While health care spending was increasing steadily from 1935-1965 before Medicare and Medicaid (from 4 to 5.7 percent of GDP), spending blew up in the three decades after by 140.4% (from 5.7 to 13.7 percent GDP) (Bradley and Taylor, 2013). This growth was first fueled by improvements in medical education, then by an enormous expansion of hospital beds, and finally by major funding for the Medicare and Medicaid government insurance programs.

This explosion of healthcare costs captured political attention in the 1970’s, propelling President Nixon to seek methods to restrain costs without compromising quality or access. Nixon recruited experts to develop a model to improve health of a defined population at a reasonable cost. Eventually they developed the Health Maintenance Organization (HMO) or the HMO Act of 1973. This HMO model allows employees to pay into a plan and obtain their medical care from the physicians that the insurance plan employs. HMO covers care by doctors and other professionals who have agreed by contract to treat patients in accordance with the HMO's guidelines and restrictions in exchange for a steady stream of customers.

The reason why HMOs were more cost effective is because the plan could oversee and approve physician decisions such as whether to admit a patient, how long to keep the patient in the hospital, and whether to order expensive diagnostic tests for the patient. Normally, physicians made these decisions autonomously. The HMO “managed” care, with the goal of limiting high costs, without compromising patient outcomes. In the
next three decades, health insurance plans adopted tactics introduced by the HMO model to limit expenditures and health care use. Managed care grew to encompass 97% of the employer-sponsored health insurance market, which represents approximately half of all insured Americans (Bradley and Taylor, 2013). Since the managed care systems lowered costs, Medicare and Medicaid programs also began to increase their managed care tactics, instituting greater control over physician and hospital decision-making, to further rationalize their spending. Thus, managed care efforts began to slow the acceleration of health care costs during the 1990’s; however, this attenuation could not be sustained. Public complaints of overly harsh rationing by managed care companies reduced their popularity in the employer insurance market and cost acceleration resumed in the early 2000’s.
CURRENT SPENDING

Thus far, the discussion on expensive healthcare has mostly been focused on net expenditures, percentage GDP, and per capita spending. Spending allocations have been briefly mentioned in an OECD report, but this section looks at domestic data on where American dollars are divided in healthcare. The Center for Disease Control and Prevention (CDC) gathered National Health Statistics data on a great variety of health measurements in the United States. Highlights of the report include: national health expenditures, percent distribution, and percent annual change by type of service.

National health expenditure can be broken up into two major categories: Health Consumption and Health Investment. Health consumption includes expenditures such as hospital care, physician and clinical professional services, nursing facilities, prescription drugs, medical equipment, government administration, health insurance, and government public health activities. On the other hand, investment in healthcare is mostly related to research and technologies that develop new treatments and more advanced equipment. United States data gathered from 2011 estimates the net spending of healthcare was 2.7 trillion dollars (CDC, 2013). When studying Table 6, it is apparent that the largest percentage of spending goes towards hospital care (31 percent, 850 billion dollars), and professional services (26 percent, 723 billion dollars). Another factor that stands out as particularly high is the cost of prescription drugs, which accounts for 9.7 percent of the total healthcare spending, at about 263 billion dollars. Government does not play a major role in regulating healthcare so government administration only accounts for 1.2 percent
of the spending or 32 billion dollars. Although research in the United States is at the forefront of innovation, America only spends about 1.8 percent of their healthcare dollars on research.

**Table 6. United States Health Expenditures in 2011 – U.S. Dollars and Percent Distribution.**

In 2011, the United States spend 2.7 Trillion dollars on healthcare with the majority of expenditures towards Hospital Care and Professional Services. A much smaller percentage of spending (less than 2%) went towards Government Administration and Research.


<table>
<thead>
<tr>
<th>Type of National Health Expenditure</th>
<th>Amount in billions</th>
<th>Percent distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>National health expenditures</td>
<td>$2,700.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Health consumption expenditures</td>
<td>2,547.2</td>
<td>94.3</td>
</tr>
<tr>
<td>Personal health care</td>
<td>2,279.3</td>
<td>84.4</td>
</tr>
<tr>
<td>Hospital care</td>
<td>850.6</td>
<td>31.5</td>
</tr>
<tr>
<td>Professional services</td>
<td>723.1</td>
<td>26.8</td>
</tr>
<tr>
<td>Physician and clinical services</td>
<td>541.4</td>
<td>20.0</td>
</tr>
<tr>
<td>Other professional services</td>
<td>73.2</td>
<td>2.7</td>
</tr>
<tr>
<td>Dental services</td>
<td>108.4</td>
<td>4.0</td>
</tr>
<tr>
<td>Other health, residential, and personal care</td>
<td>133.1</td>
<td>4.9</td>
</tr>
<tr>
<td>Home health care</td>
<td>74.3</td>
<td>2.8</td>
</tr>
<tr>
<td>Nursing care facilities and continuing care retirement communities</td>
<td>149.3</td>
<td>5.5</td>
</tr>
<tr>
<td>Retail outlet sales of medical products</td>
<td>348.9</td>
<td>12.9</td>
</tr>
<tr>
<td>Prescription drugs</td>
<td>263.0</td>
<td>9.7</td>
</tr>
<tr>
<td>Dental care</td>
<td>38.9</td>
<td>1.4</td>
</tr>
<tr>
<td>Other non-durable medical products</td>
<td>47.0</td>
<td>1.7</td>
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<tr>
<td>Government administration</td>
<td>32.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Net cost of health insurance¹</td>
<td>156.4</td>
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<tr>
<td>Government public health activities</td>
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<tr>
<td>Investment</td>
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</tr>
<tr>
<td>Researchs</td>
<td>49.8</td>
<td>1.8</td>
</tr>
<tr>
<td>Structures and equipment</td>
<td>103.7</td>
<td>3.8</td>
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</tbody>
</table>

In addition to understanding the distribution of American healthcare dollars, CDC data also shows that healthcare spending is growing at a decreasing rate. From 1980 to 2011, per capita spending on healthcare has grown from 256 billion to 2.7 trillion. Although net spending on healthcare increases annually, the percent change from previous years is decreasing. From 1980 to 2011, the percent change in healthcare
spending had decreased from 13.1 to 3.9 percent and continues to slow at the lower rate of 2 percent growth in recent years (CDC, 2013).

Finally, who pays for America’s healthcare? There are different methods of payment including out-of-pocket payments, private insurers, government insurance like Medicare and Medicaid, and other federal, state and local programs. According to the United States 2013 Health Report, 13 percent of health payments were ‘Out-of-Pocket’ expenditures while 78.1 percent were paid by insurance companies: 34 percent by private insurance companies, 23 percent by Medicare, and 16 percent by Medicaid (CDC, 2013). The other 8.4 percent were from other third party payers and programs – most likely from donations or fundraising (Table 7).

Table 7. United States Health Expenditures from 1960 – 2011: Annual Percent Change from Previous Year Shown. Although total spending on healthcare has continuously increased, the rate of spending growth has declined in recent years. Source: CDC: United States Health Statistics, 2013.
Despite the high costs of hospitals and medical professionals, the high cost of pharmaceutical drugs is declining rapidly in recent years. The annual growth in spending on retail prescription drugs slowed from 14.7% in 2001 to 2.9% in 2011. The growth in spending on prescription drugs was in the double digits from the mid-1990s through the mid-2000s, when it fell below 10% (Figure 6). This recent slowdown is the result of a variety of factors, including cost control efforts introduced by insurers, such as copays, formularies, tiered pricing, generic substitution, and the use of mail order pharmacies. In addition, several popular drugs ended their patent protection during this time frame (U.S. Health Report, 2013).

Figure 6. Retail Prescription Drug Expenditures, Annual Percent Change, and Spending by Payer: United States, 2001 – 2011. Retail drug prices have increased from 138.7 billion in 2001 to 263 billion in 2011. However, the annual percent increase in drug prices has been decreasing over this ten year time period.
Source: CDC, United States Health Statistics, 2013
Starting in 2014, spending is expected to pick up due to expanded insurance coverage as a result of the Affordable Care Act (ACA) and because fewer drugs are expected to lose patent protection in 2013 compared with 2012.
PHARMACEUTICAL DRUG COMPANIES

The United States spends substantially more per capita on prescription drugs than other members of the OECD. The Commonwealth Fund supported a research study that examined variation in drug prices among selected OECD countries in three years (2005, 2007, and 2010) to determine which nations paid the highest prices for brand-name drugs, to identify variations in per capita drug spending, and to isolate the factors contributing to drug spending rate increases (Kanovos et al., 2013). The study examined prices and spending for brand-name drugs in Australia, Canada, France, Germany, Switzerland, the United Kingdom, and the United States.

Costs of Prescription Drugs are Highest in the United States

OECD data from the past decade show that total prescription drug spending per capita rose significantly in Canada (84 percent between 2000 and 2010), the United States (81 percent), and Germany (79 percent). Other countries showed smaller increases (Figure 7). The United States had the highest level of per capita spending on prescription drugs in 2010 of the countries in this study—more than double that of the United Kingdom, the lowest spender. Prices for brand-name drugs were 5 percent to 117 percent higher in the U.S. than in the other countries in all three study years (Kanovos et al., 2013). These differences may not reflect price discounts negotiated by U.S. insurance companies.

In addition, taxes are traditionally higher in other countries than in the United States, thus reducing the differences in drug prices between the United States and other
countries. The effect of taxation can be considerable. For example, the value-added tax on prescription drugs is 19 percent in Germany but only 2.1 percent in France. Australia and the United Kingdom do not have any value-added tax on prescription drugs (Kanovos et al., 2013).

Figure 7. Total Pharmaceutical Spending per Capita in Seven Countries, 2000 and 2010. The United States leads in spending per capita on pharmaceutical drugs by a significant amount. The United States and Canada saw the highest increases in drug spending from 200 to 2010. Source: Kanovos et al., 2013

According to Kanovos et al. (2013), one of the key differences between the United States and other countries was that new medical products are introduced faster and have more intensive use in the United States. Differences in the introduction and distribution of new products may be attributed to the way value was assessed in different countries. Most countries in the study have regulatory agencies to assess the value of new medicinal products in terms of clinical benefit and cost-effectiveness. In the United States, the Patient-Centered Outcomes Research Institute (PCORI) examines the relative
health outcomes, clinical effectiveness, and appropriateness of different medical
treatments, but not their cost (Kanovos et al., 2013).

Differing pricing practices among the various countries in the study may also
explain why the United States and Canada had the largest price increases over time.
European countries and Australia use regulatory price setting, which makes it difficult—
if not impossible—to change prices over time. In the United States, there is no agency
that governs price increases for existing products.

In conclusion, this Commonwealth Fund study believes that U.S. policymakers
could consider requiring drug makers to provide more evidence about the value of new
drugs relative to their cost, as other OECD nations do. Evidence of cost-effectiveness
could be one of the criteria used in determining which patients are likely to benefit from
individual drug therapies. Other approaches, such as price modulation (manufacturers
raise prices for some drugs—often the newer products—while lowering prices for others)
could be used to control spending while encouraging uptake of innovative new therapies
(Kanovos et al., 2013).

History and Future of American Pharmaceutical Companies

David Belk, a practicing internal medicine physician who works in the San
Francisco Bay Area provides his research and anecdotal experiences through his website,
“The True Cost of Healthcare” (True Cost of Healthcare, 2014). He provides insightful
and relatable stories that allow medical and non-medical professionals to understand the
frustrations with cost and lack of transparency in the American healthcare system. Belk
acknowledges how the U.S. spends significantly more on prescription drugs than other
countries, but he also offers an explanation for why drug prices are expected to drop in the future.

The Golden Age for pharmaceutical companies lasted from the 1970’s to the mid 1990’s, when dozens of new medications changed the way doctors practiced medicine. Medications for heart disease and diabetes prolonged the lives of patients by years or even decades. New classes of oral antibiotics were more effective than the drugs that previously could only be administered in the hospital, so patients with severe infections could be sent home with pills. The golden age drew to a close in the 1990’s when the pharmaceutical companies began to tire of new ideas. New ideas are always expensive and risky and even the most brilliant sounding ideas were unsuccessful when tested clinically (Belk, 2014).

Although pharmaceutical company profits remained high, barely any new products were being created. In 2003, most of the prescription medications were still under patent, but several patents were lost in 2011 and 2012. The effect is easy to see in the following graph, which shows the dramatic loss of revenue when the patent Bristol-Myers Squibb owned on Plavix expired. United States yearly revenue from Plavix sales plummeted in 2011, and now costs about the same as it does in other countries (Figure 8) (Belk, 2014).
A New York Times article also explains how Pfizer lost its 10-billion-a-year revenue stream when the patent on its blockbuster cholesterol drug Lipitor expired and cheaper generics began to cut into the company’s huge sales (Wilson, 2011). The loss poses a daunting challenge for Pfizer, one shared by nearly every major pharmaceutical company. In 2011 alone, because of patent expirations, the drug industry lost control over more than 10 mega-medicines whose combined annual sales have neared $50 billion (Wilson, 2011). This is a sobering reversal for an industry that was the world’s most profitable business sector just a few years ago. This challenge casts a spotlight on the problems drug companies now face: a drought of big drug breakthroughs and research discoveries; pressure from insurers and the government to hold down prices; regulatory vigilance and government investigations; and thousands of layoffs in research and development. Drug companies cut 53,000 jobs in 2010 and 61,000 in 2009, far more than
most other sectors (Wilson, 2011). Several drug companies have also been bought out or were forced to merge.

As companies move beyond the blockbuster drug model, they are refining their approach toward personalized medicines. Instead of selling new drugs to millions of people, the new plan is to use genetic or other patient specific tests, to provide treatments for those who would most clearly benefit (Wilson, 2011). Nevertheless, the industry faces intense pressure from generic competition and has tried every tactic to ward it off. They have instituted a number of measures to help offset the amount they have been losing to lost patent protection.

They have fought to effectively delay the expiration of drug patents whenever possible. For example, they can apply for a new indication for an old drug just prior to patent expiration. They can change the delivery system to, say, an inhaler. They can alter the recommended doses of a drug by a small amount, they can create a pill that combines two ingredients--they have many tricks for delaying patent expirations and these tricks can often delay a patent expiration for several years. In 2013, the pharmaceutical companies convinced the U.S. Supreme Court to allow them to pay generic drug makers to delay the release of generic equivalents of medications for a time after the patent for a medication expires (Belk, 2014). In addition, they have substantially raised the prices of currently patented medications. Table 8 shows the average price pharmacies paid for medications for which there is no available generic equivalent yet. It shows the average cost for these medications in October 2012 compared to the average cost for the same
medications in May 2014. In just 19 months most of the listed medications increased 20-
30% in price (Belk, 2014).

**Table 8.** Select Medication Prices in the United States that Increased from 2012 to 2014.
Pharmaceutical companies increased the prices of their prescription drugs significantly before the
drug patents will expire. Source: Belk, 2014

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<tbody>
<tr>
<td>Abilify 20 mg</td>
<td>Depression</td>
<td>$26.35 per pill</td>
<td>$35.81 per pill</td>
<td>38%</td>
</tr>
<tr>
<td>Advair 250/50</td>
<td>Asthma</td>
<td>$3.97 per inhalation</td>
<td>$4.65 per inhalation</td>
<td>17%</td>
</tr>
<tr>
<td>Benicar 40 mg</td>
<td>Blood Pressure</td>
<td>$4.26 per pill</td>
<td>$5.21 per pill</td>
<td>22%</td>
</tr>
<tr>
<td>Byetta 10 mcg</td>
<td>Diabetes</td>
<td>$128.58 per dose pen</td>
<td>$161.27 per dose pen</td>
<td>25%</td>
</tr>
<tr>
<td>Cialis 20 mg</td>
<td>Antic. Baftin. Sex</td>
<td>$23.64 per pill</td>
<td>$30.88 per pill</td>
<td>30%</td>
</tr>
<tr>
<td>Crestor 20 mg</td>
<td>Cholesterol</td>
<td>$4.99 per pill</td>
<td>$5.94 per pill</td>
<td>19%</td>
</tr>
<tr>
<td>Dovan 160 mg</td>
<td>Blood Pressure</td>
<td>$3.43 per pill</td>
<td>$4.50 per pill</td>
<td>31%</td>
</tr>
<tr>
<td>Effient 10 mg</td>
<td>Heart Disease</td>
<td>$6.60 per pill</td>
<td>$8.01 per pill</td>
<td>16%</td>
</tr>
<tr>
<td>Geodon 40 mg</td>
<td>Psychosis</td>
<td>$9.16 per capsule</td>
<td>$10.35 per capsule</td>
<td>27%</td>
</tr>
<tr>
<td>Glivec 400 mg</td>
<td>Leukemia</td>
<td>$189.91 per pill</td>
<td>$248.92 per pill</td>
<td>31%</td>
</tr>
<tr>
<td>Januvia 50 mg</td>
<td>Diabetes</td>
<td>$7.30 per pill</td>
<td>$9.29 per pill</td>
<td>27%</td>
</tr>
<tr>
<td>Lyrica 50 mg</td>
<td>Pain</td>
<td>$3.00 per capsule</td>
<td>$3.93 per capsule</td>
<td>31%</td>
</tr>
</tbody>
</table>

Drug industry lobbyists have beaten back Democratic proposals to set prices at
the lower levels of nations like Canada or to allow Medicare to directly negotiate prices.
President Obama’s health care reforms contain new laws that could pose major threats to
drug industry profits by allowing centralized price-setting. Beginning in 2015, an
independent board appointed by the president could lower prices across the board in
Medicare unless Congress acted each year to overrule it (Belk, 2014). In addition,
managed care and government health programs are urging pharmaceutical companies to
cut prices and improve reimbursement terms for their most profitable pills. This follows
similar practices in Europe, where Germany and the Britain, among other countries, are all increasing pressure for lower drug prices (Wilson, 2011).

Americans have fueled the research engine by spending much more per capita on prescriptions than in any other nation. However, by observing recent trends, this criticism of high drug costs will be rapidly changing because the era of big pharmaceutical companies is declining very quickly. The good news is that future medications will continue to become less expensive as they become available as generic drugs. Consumers should see a financial benefit as lower-cost generics replace the expensive elite drug. On the negative side, so much of the research and development funding has been cut, thus jeopardizing potential new treatments for currently untreatable diseases (Belk, 2014).
INSURANCE COMPANIES

A major contributor to high healthcare costs in the United States is due to the presence of hundreds of insurance companies, all with their own set of rules for physician reimbursement. Not only does this create a complex network of payment schemes, extra paperwork, time demanding tasks, and increased administrative staff, it also accounts for the lack of transparency in understanding the actual costs of healthcare. A major problem with American healthcare is that it is difficult to identify medical costs. The patient is often unaware of costs and oftentimes the doctor does not even know true costs, making it very difficult to control the costs. Although a lot of stakeholders have some responsibility in contributing to the high cost of healthcare, insurance companies are found in the center of the system. They act as the middle-man – receiving payments from consumers and moving the money into the healthcare system.

While dealing with a plethora of medical knowledge and keeping track of patients, physicians often lose track of how much they are actually paid for a given service. The most difficult part of starting a medical practice is learning how to deal effectively with the insurance companies. In order to get paid by insurance companies, physicians have to work with the system, which can be tedious and time consuming.

Physician David Belk currently owns a private practice and he claims that insurance companies do not want to pay physicians. He states that the longer insurance companies can hold on to any dollar they owe, the more they profit. When a doctor starts a solo practice, they are almost guaranteed to work several months for free. Although
patients are paying premiums to insurance companies, the practice is required to get credentialed by the insurance companies before the physicians can actually get paid. Each insurance company requires medical practices to fill out detailed paperwork and then follow up with multiple phone calls. If they lose the application, or dislike an answer, physicians are required to fill out the applications again. Belk claimed that he was not paid for any of the services he provided before becoming accredited by insurance companies (Belk, 2014).

When considering the time demand of dealing with insurance companies, most private medical practices hire a billing services team responsible for interacting with insurance companies. Physicians provide a summary of the patients they saw along with the diagnosis and encounter codes, and the billing service creates billing statements for insurance companies and provides the doctor with a monthly check based on what was collected. Thus, the current medical payment system has middlemen dealing with middlemen, demonstrating how tedious the system has become. Neither patients nor physicians truly know how much healthcare can cost. The insurance company essentially decides for both sides – premiums for customers and reimbursements for physicians.

In general, most doctors and hospitals bill payers for an amount that exceeds what they expect to get paid. This tactic has been developed to obtain the maximum amount each insurance plan is willing to pay. Since most insurance companies reimburse office visits in a narrow pay range, doctor’s offices will bill for 20-30 percent above the expected amount to cover their bases and make sure that they actually get paid an appropriate amount (Belk, 2014). The problem arises when either the patient does not
have insurance or the insurance is denied for some reason. When this happens, the patient is responsible for the full amount billed regardless of how much this is above the expected insurance reimbursement. This overcharges uninsured people and anyone else who was not properly authorized. In other words, if a doctor fails to complete the required paper work properly, the patient may be liable for the full cost.

The reimbursement rates for office visits can be broken down as follows: The pay is different for a new versus an established patient since it takes extra time to get to know the new ones. The level of complexity of a patient visit is rated based on the number of diagnosis and amount of time spent with a patient. If a procedure is performed, it is added to the cost of the visit. A physical exam might pay very well for some insurance plans and nothing from others. This is why some doctors have learned to check a patient’s plan to see what is covered. Phone calls and authorizations pay nothing. Here are some sample rates: Initial visit: $100-$240, Follow up: $60-$175. If the doctor performs a procedure, it will be added to the cost. For example: a joint injection will pay $60-$90, abscess drainage $100-$130, a female pelvic exam $30-$100 and a physical exam might pay $100-$180 (Belk, 2014).

HMOs have a very different approach to payment. When doctor gets an HMO patient, the doctor gets a monthly stipend of $10-$35 to have them as a patient. Doctors receive this paycheck whether they see the patient or not, but they get paid a copay of $10-$40 when the patient comes into the office. HMO’s can also pay a doctor extra if the doctor provides a specific service. However, the rates for certain procedures change
frequently and without warning or explanation. Each month a doctor will get a check along with a list of their HMO patients.

It is clear that even in the narrow field of private practice, there is a range of what a doctor gets paid and how they get paid, all depending on the organization of a patient’s insurance company. In order to receive a decent amount of payment for their services, doctors send a bill to all the insurance companies for an amount that exceeds the actual costs of procedures and accept whatever the insurance company chooses to pay for. Over the years, physicians have learned to bill for what they know insurance companies will pay and to avoid mentioning things that do not get reimbursed. The main problem with this approach to billing is that it punishes customers by substantially overcharging them if they try to pay out-of-pocket for medical services.

Other countries also have insurance companies and use similar tools to those used in the United States to pay their physicians. However, they have much greater abilities to control cost-containment. Some nations control costs by implementing a common fee schedule so that hospitals, doctors and health services are paid similar rates for most of the patients they see (Kane, 2012). In the United States, how much a health care service gets paid depends on the kind of insurance a patient has. This means that health care services can choose patients who have an insurance policy that pays them more generously than other patients who have lower-paying insurers, such as Medicaid (Kane, 2012).

According to Mark Pearson, head of Division on Health Policy at OECD, other countries are flexible in responding if they think certain costs are exceeding what they
budgeted for. In Japan, if spending in a specific area seems to be growing faster than projected, they lower fees for that area (Kane, 2012). Similarly, in France, a public service organization closely monitors spending across all kinds of services and if they see a particular area is growing faster than they expected (or deem it in the public interest), they can intervene by lowering the price for that service (Kane, 2012). These countries also supplement lowering fees with other tools. For example, they monitor how many generic drugs a physician is prescribing and can send someone from the insurance fund to visit physicians’ offices to encourage them to use cheaper generic drugs where appropriate. In comparison, United States payment rates are much less flexible. They are often statutory and Medicare cannot change the rates without approval by Congress. This makes the system very inflexible for cost containment (Kane, 2012).
LACK OF TRANSPARENCY IN HOSPITAL BILLING

Research at the Dartmouth Institute has documented that there are large variations in medical practices across different regions in the United States, which cannot be explained by differences in population structure or differences in illness (Kane, 2012). They found that the rate of coronary bypass was five times greater in certain hospital referral regions in the United States than others. Similarly, regional variations in hip and knee replacement are substantial, with the rates four to five times higher in some regions compared with others (Kane, 2012). The federal government released prices that hospitals charge for 100 of the most common inpatient procedures in 2013. Until then, these charges were closely held by facilities that see a competitive advantage in shielding their fees from competitors. What the numbers reveal is a health-care system with tremendous, seemingly random variation in the costs of services.

An article from the Washington Post details wide ranging price differences from many hospitals in the United States. In the District of Columbia, George Washington University’s average bill for a patient on a ventilator was $115,000, while Providence Hospital’s average charge for the same service was just under $53,000. For a lower joint replacement, George Washington University charged almost $69,000 compared with Sibley Memorial Hospital’s average of just under $30,000. Elsewhere, Las Colinas Medical Center just outside Dallas billed Medicare, on average, $160,832 for lower joint replacements. Five miles away and on the same street, Baylor Medical Center in Irving, TX, billed the government an average fee of $42,632. In downtown New York City, two
hospitals 63 blocks apart varied by 321 percent in the prices they charged to treat complicated cases of asthma or bronchitis (Kliff and Keating, 2013).

Experts attribute the price disparities in America’s health system to the fact that consumers are often unaware of price — and rarely shop for discounts. Although the government has collected this information for years, it was housed in a bulky database that researchers had to pay to access. Adding another layer of opacity, Medicare and private insurance companies typically negotiate lower charges with hospitals. But the data shed light on fees that the uninsured could expect to pay.

“It’s true that Medicare and a lot of private insurers never pay the full charge,” said Renee Hsia, an assistant professor at the University of California at San Francisco Medical School whose research focuses on price variation. “For uninsured patients, they face the full bill. In that sense, the price matters” (Kliff and Keating, 2013).

The public release of the data is part of an effort by Medicare to increase transparency in the health system. Deputy Medicare Administrator Jonathan Blum stated that his “mission has shifted to be a trusted source in the marketplace for information. We want to provide more clarity and transparency on charge data.” “There’s tremendous variation between hospitals,” Blum said. “Geography doesn’t seem to explain it” (Kliff and Keating, 2013).

For-profit hospitals tended to bill Medicare at a 29 percent higher rate, on average, than nonprofit or government-owned hospitals (Kliff and Keating, 2013). The bills that hospitals submit to Medicare have little relationship with the amount that the government actually paid the provider. In many cases, hospitals that submitted higher
bills ultimately received lower payments than competitors. Las Colinas, the Texas hospital that billed more than $160,000 for a joint replacement, was reimbursed, on average, $12,643. Nearby Baylor Medical Center submitted significantly lower charges but received a larger reimbursement: $14,202 (Kliff and Keating, 2013). Medicare analysts said that teaching hospitals such as Baylor Medical Center receive a higher overhead in their payments to cover the costs of treating low-income patients and also to fund medical education.

David Belk also discusses hospital billing on his website, “The True Cost of Healthcare,” and provides several examples of how much hospitals charge, how much a medical test or procedure should really cost, and how much insurance companies end up paying. During a typical annual check-up, physicians perform a physical exam and order a few tests such as urine tests and blood tests. Most blood and urine tests are done with simple chemicals that have minimal costs. Because labs are pretty efficient at running tests, the time commitment of laboratory personnel only cost a couple extra dollars. There are a few expensive tests, such as genetic tests, but these are not frequently used in a routine screening or diagnostic work ups. The cost of radiology tests can be broken down in a similar fashion. There is the original cost of the X-ray machine, CT scanner, or MRI, which are usually bought and paid for by the hospital or diagnostic center. In addition, there are the costs of maintaining the machinery, paying the staff, preparing certain patients for the tests and the radiologist’s fee for reading the X-ray.

Insurance companies are more aware of the actual costs for these tests and try to reimburse the minimum amount that the institution running the test is likely to accept.
Routine blood work, for example, only gets paid a few dollars but a CT scan or MRI will bring in a few hundred dollars. All tests, procedures, office visits and hospitalizations are billed for an amount that exceeds what they expect from any insurance company in order to get the maximum amount possible from reimbursement (Figure 9) (Belk, 2014). This means that anyone who does not have insurance, or for whom the insurance is denied, has to pay five, ten or even twenty times what any insurance company would pay.

<table>
<thead>
<tr>
<th>Blood Tests:</th>
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<tbody>
<tr>
<td><strong>Comprehensive Metabolic Panel:</strong> A blood test that assesses liver and kidney function as well as electrolytes</td>
</tr>
<tr>
<td>Hospital Charge: $179 Private Insurance: $15 Medicare: $15</td>
</tr>
<tr>
<td><strong>Lipid Panels:</strong> A blood test that checks total cholesterol and breaks it down to good and bad components</td>
</tr>
<tr>
<td>Hospital Charge: $68 Private Insurance: $19 Medicare: $19</td>
</tr>
<tr>
<td><strong>Complete Blood Count:</strong> A blood test that checks your hemoglobin, hematocrit, white blood counts</td>
</tr>
<tr>
<td>Hospital Charge: $51 Private Insurance: $11 Medicare: $11</td>
</tr>
<tr>
<td><strong>Urine Analysis:</strong> Looks for blood, signs of infection or protein in urine</td>
</tr>
<tr>
<td>Hospital Charge: $92 Private Insurance: $5 Medicare: $4</td>
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</tbody>
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<tr>
<th>Cardiology:</th>
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<tbody>
<tr>
<td><strong>EKG:</strong> A screening test for abnormal heart rhythms and other signs of heart disease</td>
</tr>
<tr>
<td>Hospital Charge: $367 Private Insurance: $26 Medicare: $26</td>
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<tr>
<th>Radiology:</th>
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<tr>
<td><strong>Chest x-ray:</strong> To check for lung disease and some forms of heart disease</td>
</tr>
<tr>
<td>Hospital Charge: $375 Private Insurance: $42 Medicare: $41</td>
</tr>
<tr>
<td><strong>Mammogram:</strong> Screening test for breast cancer</td>
</tr>
<tr>
<td>Hospital Charge: $336 Private Insurance: $191 Medicare: $146</td>
</tr>
<tr>
<td><strong>Ultrasound of the Abdomen:</strong> Can assess Kidneys, Liver, Gall Bladder and other organs.</td>
</tr>
<tr>
<td>Hospital Charge: $1,440 Private Insurance: $184 Medicare: $181</td>
</tr>
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</table>

**Figure 9. Commonly Ordered Medical Tests, Typical Billing Charges and Reimbursement from Medicare and Insurance Companies.** Hospitals charge over ten times more for medical procedures than the amount they get reimbursed by insurance companies. Source: David Belk obtained the billing charges by calling several different hospitals in the San Francisco Bay Area.
The method of reimbursement for a hospitalization differs substantially for different insurance companies, because different payers will reimburse different services. Medicare, for example, bases their reimbursement rate solely on the patient’s diagnoses. A diagnosis of pneumonia will get a fixed Medicare payment regardless of how long the patient stays in the hospital, what tests are ordered, or what treatment is given (Belk, 2014). Other payers might pay for each individual service. Hospitals have standardized their billing to create similar billing statements, despite the particular payer. Thus, the best way for hospitals to receive payment is to record anything and everything that might be reimbursed by any payer on every bill.

An insurance company will ignore items it does not cover, but will never add anything the hospital leaves out. In other words, there is no penalty for billing too much for a service, but not billing enough will cause the hospital to lose money. The only potential penalty would be for billing for a service not provided or a diagnosis not justified. An insurance company pays the hospital based on pre-negotiated rates, despite the amounts listed on hospital bills. The hospital can turn away all patients with that insurance, but that would mean turning away a lot of patients. Clearly, the insurance companies have become highly influential.

The process of hospital billing is no longer a normal business transaction, but it seems to work as long as it remains between the hospital and the insurance company. Hospitals send bills to insurance companies for five to ten times the amount they expect and the problem occurs when a patient becomes responsible for the entire amount. Most
hospitals have a policy that allows people to negotiate for a lower amount, but most people are unaware of these policies and hospitals are not about to advertise them.

Rather than trying to collect a fair amount for each affordable service directly from patients, hospitals turn to the insurance companies for even the most mundane fees. Due to the complexity of dealing with insurance companies, each hospital requires a large staff of billers, who spend thousands of hours each year filing paperwork and claims for reimbursements from insurance companies. This accounts for a large majority of administrative costs. Since each patient only brings in a small profit after insurance companies have negotiated low prices, so each denial positions hospitals into a financial hole. The hospitals solution is to put more pressure on the patients who owe them money that was not covered by their insurance.

One of the biggest problems with medical costs is that the real costs are so well hidden that almost no one knows what they are, let alone how to correct the deficits. This applies to doctors as much as patients. Patients can be easily confused into buying drugs for far more than they cost, just because their insurance covers it so their doctors prescribe it. Doctors also loose some control over their practice since they are forced to comply with the system of insurance reimbursement. Even the hospitals are spending billions a year on administrative costs to comply with the complex, inefficient, and wasteful payment system.

This system hurts the patients if they are uninsured or denied coverage for a particular reason. Hospitals often blame insurance companies to try to justify their burdensome pricing. The insurance companies blame the hospitals for over treating and
ordering unnecessary procedures. This system is frustrating for all parties – insurance companies, hospitals, private practices, nursing homes, and unfortunate patients who end up with overpriced medical bills.
ADMINISTRATIVE COSTS

The discussion of lack of transparency in the medical billing system dealing with numerous insurance companies with different policies lead to the issue of excessive administrative costs in the United States. Administrators have become indispensable to modern health care. Their tasks include ensuring that supplies are on hand, that records are filed, and that medical staff receives payment (Woolhandler et al., 2003). However, some regard much of administration as superfluous. They believe that it caters to the complexity of the payment system rather than anything clinically related. Physician private practices, which are more common in the United States, incur substantial costs in time and labor when interacting with multiple insurance plans about claims, coverage, and billing for patient care and prescription drugs (Morra et al., 2011).

Administrative Costs: United States Versus Canada

Several studies have compared the administrative costs in the United States with that of Canada. The clear consensus is that much higher administrative spending in the United States relative to that in Canada does not improve care outcomes. According to a 2003 article by Woolhandler et al. in the New England Journal of Medicine, several factors augment U.S. administrative costs compared to Canada. Private insurers, which have high overhead costs, have a larger role in the United States than in Canada. The interaction between health insurance plans and physician practices are one prominent component of administrative costs. Physician practices in the United States must interact with many health plans in the U.S. multipayer system. Furthermore, these interactions
increase with each plans’ attempt to “manage care.” Insurance companies will require prior authorizations for many specialists, imaging tests, and hospital services. Each health plan offers many different insurance products to consumers, and each may have its own list of approved drugs; prior authorization requirements; and rules for billing, submitting claims, and adjudication (Morra et al., 2011). In contrast, Canadian physicians generally interact with a single payer, and thus Canadian hospitals are subject to fewer managed care requirements. The American system with multiple insurers is intrinsically costlier than a single-payer system like that found in Canada.

In America’s multipayer system, providers are forced to determine a patient’s eligibility for certain treatments and they must to keep track of the various copayments, referral networks, and approval requirements specific to each insurance company. On the other hand, Canadian physicians send virtually all bills to a single insurer. Canadian hospitals and government authorities negotiate an annual budget based on past budgets, clinical performance, and projected changes in services to create a global-budget system (Woolhandler et al., 2003). Hospitals receive periodic lump-sum payments – for example, 1/12 of the annual amount each month. Canada’s global-budget healthcare system has eliminated most billing discrepancies and minimized internal costs for accounting, since charges do not need to be attributed to individual patients and insurers.

These costs should be balanced against possible benefits generated by such a system—for example, benefits that may arise from competition, innovation, and choice among insurance products. Prior authorization requirements increase administrative costs for physicians and health plans but may reduce the amount of inappropriate care
providing; savings and increased quality generated by reducing inappropriate care should be matched against the costs of prior authorization. Currently, no reliable estimates of these savings exist (Morra et al., 2011).

A more recent study from the Health Affairs Journal conducted surveys with physicians and administrators in the province of Ontario, Canada, and compared the results with a national companion survey in the United States. These surveys contained questions about how much time medical personnel and administrative staff spent interacting with payers. Physician practices in Ontario are estimated to spend $22,205 per physician per year interacting with Canada’s single-payer agency. This accounts for only 27 percent of the $82,975 per physician per year spent in the United States (Morra et al., 2011). In addition, American nursing staff and medical assistants spent 20.6 hours per physician per week interacting with health plans, which was nearly ten times that of their Ontario counterparts (Morra et al., 2011). If hospitals and providers in the United States had administrative costs similar to those of Ontario physicians, the total savings would be approximately $27.6 billion per year (Morra et al., 2011). The notable difference between the United States and Ontario is that non-physician staff members in the United States spend large amounts of time on billing and obtaining prior authorizations. Many U.S. health care leaders interviewed for this study agree that interactions between physician practices and health plans could be performed much more efficiently.

Propositions to Reduce Administrative Costs in the United States

Recently, specific recommendations—with a good deal of overlap—have come from the Institute of Medicine, the Massachusetts General Physicians Organization,
UnitedHealth Group, and the broad-based Healthcare Administrative Simplification Coalition (Morra et al., 2011). Key recommendations include the following:

- Creating common, possibly mandatory standards for interactions such as billing, claims payment, prior authorization, etc.
- Making all standard interactions electronic, rather than through multiple phone calls or snail mail.
- Using a single credentialing process for all insurance companies to avoid excessive paperwork and potential duplications.
- Using a single quality measurement process to decrease complexity in what insurance companies will and will not cover.
- Using automated verification at the point of care of patient eligibility for health insurance benefits, opposed to potentially subjective decisions made by insurance companies.

Some progress is being made. The Council for Affordable Quality Healthcare makes it possible for physicians to submit materials for credentialing electronically (Morra et al., 2011). Health plans and hospitals can use these materials to credential physicians, avoiding the costs of submitting materials multiple times and in different formats. Section 1104 of the Affordable Care Act instructs the secretary of health and human services to take steps to simplify interactions between providers and health plans (Morra et al., 2011). The reform bill also supports the implementation of new payment methods such as bundled payments and increased emphasis on pay-for-performance, as well as new forms of organization such as Accountable Care Organizations.
In the short run, these new reforms and organization of the payment system are likely to increase the administrative burden for physicians and health plans. In the longer term, these new reforms should move the system away from fee-for-service payment and thus reduce the administrative costs involved in producing, reviewing, and processing claims for each service provided. In addition, accountable care organizations and organizations that receive bundled payments would have incentives to be cost-conscious, so the heavy costs associated with prior authorizations and formularies would probably be reduced.

**International Comparison of Healthcare Administrative Costs**

Although there is a copious amount of information comparing Canadian and American healthcare administrative costs, a more recent article by Himmelstein et al. compares administrative costs amongst developed countries. They assembled a team of international health policy experts to analyze the hospital administrative costs across eight nations: Canada, England, Scotland, Wales, France, Germany, the Netherlands, and the United States. To assess the impact of a range of payment strategies, they chose nations with widely varying health care systems. Three of the nations—England, Scotland, and Wales—are within the United Kingdom. Each has a public National Health Service (NHS) funded by taxes, but the three systems vary in their hospital funding. Canada has a single-payer public insurance system in each province. France has a system analogous to a single-payer social insurance model. However, payments are funneled through several supposedly separate insurance funds. Germany and the Netherlands have compulsory, multipayer social insurance systems, but the Netherlands is transitioning to a
market-based payment system. The United States has a largely private, multipayer health care system (Himmelstein et al., 2014).

In all nations, hospital administrators must obtain and coordinate the facilities, supplies, and personnel needed for good care. In nations where administrators have few responsibilities beyond these logistical matters, administration seems to require about 12 percent of hospital expenditures. Unsurprisingly, administration costs were the highest in the United States, at 25.3 percent. This was more than twice the percentages for Canada and Scotland, which spent the least on administration. The next highest nations were the Netherlands (19.8 percent) and England (15.5 percent), both of which are transitioning to market-oriented payment systems similar to the U.S. (Himmelstein et al., 2014).

Garnering operating funds requires little administrative work in nations such as Canada, Scotland, and Wales, where hospitals receive global, lump-sum budgets. In contrast, per patient billing requires additional clerical and management personnel and special-purpose IT systems. This is true even in countries—such as France and Germany—where payment rates, documentation, and billing procedures are uniform. Billing is even more complex in nations where each hospital must bargain over payment rates with multiple payers, whose documentation requirements and billing procedures often vary, as is the case in the United States and the Netherlands (Himmelstein et al., 2014).

Differences in how hospitals obtain capital funds also appear to affect administrative costs. The combination of direct government grants for capital with separate global operating budgets—as in Scotland and Canada—are associated with the
lowest administrative costs. Hospitals in France and Germany, where direct government grants account for a substantial share of hospital capital funding, have relatively low administrative costs despite per patient billing. Administration is costliest in nations where surpluses from day-to-day operations are the main source of hospital capital funds: the United States and, increasingly, the Netherlands and England. In such health care systems, the need to accumulate capital funds for modernization and expansion stimulates administrators to undertake the additional work that is needed to identify and pursue profit opportunities. This entrepreneurial incentive rewards hospitals that cut unnecessary operating costs and thereby improves efficiency. However, it can also reward hospitals for devoting resources to activities that decrease efficiency, such as advertising; exaggerating the severity of patients’ illnesses in order bill for more procedures; and cherry-picking profitable patients, physicians and services while avoiding unprofitable ones (Himmelstein et al., 2014).

Compared to other U.S. hospitals, for-profit institutions spend less on clinical personnel such as nurses but provide costlier care. Similarly, in Germany for-profit hospitals do not appear to be more efficient than other hospitals. The divergence between Scotland and England is also instructive. Administrative costs are low in Scotland, where hospitals do not bill for individual patients and capital projects are funded by direct government grants—which leaves administrators little leeway for financial entrepreneurship. In contrast, the administration share of costs is higher and rising in England, where per patient billing has largely replaced global hospital budgets and recent market-based reforms encourage entrepreneurialism.
Hospital administrative costs appear to be driven by the complexity of the reimbursement system and the mode of capital funding. Overall, there is no evidence that the high administrative costs in the United States translate into superior care (Himmelstein et al., 2014). Reducing U.S. per capita spending for hospital administration to Scottish or Canadian levels would have saved more than $150 billion in 2011 (Himmelstein et al., 2014). This study suggests that the reduction of U.S. administrative costs would best be accomplished through the use of a simpler and less market-oriented payment scheme.
SOCIAL DETERMINANTS OF HEALTH

Thus far, the focus has been elucidating the costs involved in healthcare, but now the discussion shifts to healthcare outcomes and how to improve overall health in the United States. In “The American Healthcare Paradox,” Elizabeth Bradley and Lauren Taylor propose a new approach to understanding the American failure to achieve top-rated health outcomes despite its enormous investment in health care (Bradley & Taylor, 2013). They first take a closer look at what is being measured in international health reports and what is not considered. The OECD defines health expenditure as “the spending for the final consumption of all health goods and services plus the capital investment in health care infrastructure. These expenditures include curative care, rehabilitative care, long term care, mental health care, ancillary services (diagnostic imaging, laboratory tests, patient transport), outpatient medical goods, prevention and public health services, health administration, public health insurance, new healthcare building and facilities, health education and training, and health research and development” (OECD, 2015).

What is NOT included as health care spending is social services and environmental wellbeing, which both play considerable roles in affecting health outcomes. These social factors include housing, nutrition, education, environmental conditions, exercise incentive and unemployment support. Given the WHO definition of health as “a state of complete physical, mental and social well-being” one can see how health spending limited to what the OECD measures might result in an incomplete
picture. When looking at inpatient populations in hospitals, most are from disadvantaged backgrounds who are much more likely to experience serious illnesses and premature death. Poverty, social isolation, lack of control in one’s life and work, psychological stresses, risky lifestyle choices, food insecurity, lack of educational support and housing, and job insecurity have all been shown to compromise health (Bradley and Taylor, 2013).

According to the OECD definition of health spending, the United States is spending an exorbitant amount. However, the United States is not spending as much as other industrialized countries on fortifying social services that help maintain healthy lifestyles. The US spends about 10-13% of its GDP on Social Services whereas countries like France, Sweden, Austria, Switzerland, Denmark, and Italy spend about 20% of its GDP on Social Services (Figure 10) (OECD, 2009). According to Figure 9, the United States no longer spends the largest percentage of GDP if spending for healthcare and social services are combined. With this new scale of percent GDP for health spending, the US now ranks 13th among OECD countries (Bradley and Taylor, 2013). Thus, the United States is not necessarily spending more than everyone else. Americans spend more on healthcare to compensate for what they are not paying in social services—and the tradeoff is not good for the country’s health.
Figure 10. Total Health Service and Social Service Expenditures for OECD Countries (2005). In OECD countries, for every $1 spent on healthcare, $2 is spent on social services. In the U.S., for every $1 spent on healthcare, 55 cents is spent on social services. Source: OECD Health Data 2009

Bradley and Taylor’s 2010 study found that countries with high healthcare spending relative to social services spending had significantly lower life expectancy and higher rates of infant mortality and low birth weights (Bradley et al., 2011). In terms of social conditions, America allows more children to remain in poverty than any other industrialized nation, it offers unmarried mothers with less help with daily needs, it provides fewer citizens with public housing, and it spends less on job training and job creation than its European counterparts (Bradley and Taylor, 2013). Why is the United States social services sector so underdeveloped compared to other countries? Among
political science scholars, America is generally viewed as lagging behind when it comes to its social welfare policies. In addition to being unwilling to provide federally funded health insurance, the United States government has been even slower to fund social welfare programs such as unemployment insurance and family allowances. The reasons for this can be found by looking at America’s history and ideologies.

America was built on individualism and the belief that hard work will allow anyone to climb the socioeconomic ladder from rags to riches and achieve the American Dream. Idleness was perceived as sinful so handouts should be provided sparingly. Even today, many Americans scoff at increased taxations and government welfare programs because they believe that public aid will weaken an individuals’ work ethic. Since the formation of states, there has been perpetual tension between the autonomy of the states and the authority of the federal government. As a result, the United States did not develop a unifying law for social welfare like European nations (Germany, Great Britain, etc.). Instead, they depended on state and local governments to create programs that would best suit their populations. Today, social welfare programs in America remain highly decentralized with significant variation in benefit levels across the state. Even though financing for social programs are received through taxpayer dollars, they are distributed as grants to a plethora of private nonprofit agencies and employers.

The U.S. health care sector is suffering severely from its inadequate social services sector. Physicians are increasingly aware that unmet social needs contribute significantly to worse health for Americans and their reports highlight the growing negative influence of the social environment on people’s health. Physicians believe that
one out of seven prescriptions they write should address social needs including fitness, nutritional food, employment assistance, education, and housing (Bradley and Taylor, 2013).

Although the U.S. does not have a comprehensive social service sector, they do boast an expansive emergency medicine system. A lot of cases that do not require medical attention are treated in the Emergency Department (ED) as a last resort (Bradley and Taylor, 2013). For example, emergency departments may see frequent visits from an inebriated homeless man or the lonely elderly who grow more anxious about their health as they age. The ED will admit patients and deal with temporary problems, but they do not perform follow-ups nor do they spend more than 15 minutes with patients on average. The ED has become an extremely expensive, but rather routine route for care for vulnerable populations (Bradley and Taylor, 2013).

Front line medical personnel are stretched to respond to patient concerns because they are not equipped with the proper resources. Providers of health care, whether physicians, nurses, or administrators, say that time has become a scarce resource as they fight a tide of paperwork and bureaucracy of administrative, legal, and financial realities. Even primary care physicians, who are expected to collect a strong patient history and assess current lifestyle, claim to experience difficulties in effectively treating their patients. Recent evidence suggests that the average time a patient spends with the physician at a primary care visit is less than 15 minutes and nearly half of a primary care physician’s time is spent on documentation and follow-up, outside the examination room without the patient present (Gottschalk and Flocke, 2005).
Nurses also experience inadequate time to address both the patient’s medical needs, which they are trained to do, and their social needs, which they cannot avoid. For example, a pediatric nurse in Boston describes taxing interactions with drug-addicted mothers and their babies. Nurses end up with the responsibility of managing a relationship with the mothers, prompting them to feed their babies according to schedule, holding their hand through social work consultations, and teaching them how to manage the stresses of caring for a newborn, often with little lasting impact (Bradley and Taylor, 2013). Time spent on these activities result in enormous opportunity costs for nurses highly trained in medical care and less prepared for social work and counseling care they end up dealing with.

The need for a more holistic approach to caring for people’s health and social needs is widely acknowledged but requires professional collaboration between health and social services. Physicians, social workers and others at the front line fully acknowledge the importance of recognizing a patient’s full range of needs including physical, emotional, social and even spiritual dimensions of health. A partnership between health professionals and social service workers is lacking or absent in many hospitals. Hospitals run 24/7 while social service workers have regular 9-5 hours Monday through Friday where there just is not enough time to deal with all the social issues experienced by patients. Effective coordination between the health and social service sectors is rare, and the causes of this lack in partnership are many.

First of all, there is an apparent lack of resources in the social services sector itself. As a result of underfunding and a lack of rigorous training, social service programs
are understaffed and unable to cover a large client base with their little time. Secondly, differences in professional culture between doctors and social workers create a barrier. Their distinct mission statements and models of care can lead to conflicts and personal disagreements. The ethos in social services is to meet the client where he or she is and to assess the client’s motivation to change. In contrast, many health care entities have a more narrowly defined mission to provide medical treatment meant to address specific illnesses (Bradley and Taylor, 2013). In addition, concerns over privacy and technical barriers to information sharing also prohibit interdisciplinary collaboration between sectors.

A third formidable barrier between healthcare and social services is the lack of financial incentives to do so. Health care providers are generally rewarded for increased numbers of patients treated and the complexity of medical care provided. If social service workers can adequately take care of nonmedical needs so people no longer need to seek medical attention, this coordination may not be in the physician’s financial interest. The executive director of a health and social service organization describes such a situation, “At [hospital name], we had a super successful outpatient diabetes center; so successful that it reduced the number of hospitalization, amputation, etc., dramatically. So the hospital shut it down because it lost them money. In a country like the United States in which there is limited central management and every industry (healthcare, social services) stand on its own, it is extremely difficult to get one organization to voluntarily collaborate with another that has the potential to put the first one out of business” (Bradley and Taylor, 2013). Efforts at holistic medicine continue to be undermined by
fears among health care organizations that successful collaboration with social services may diminish their potential for revenue.

**Learning from Scandinavian Nations**

Scandinavia is often used as an example of a national system that does integrate health and social services. Scandinavia also leads in achieving superior health outcomes for its people. The United States usually looks to culturally familiar counties like Canada or the United Kingdom for more successful health care models. While these countries do have moderately better health outcomes, Scandinavian countries, such as Sweden, Denmark, and Norway, truly outperform the United States. However, these countries have social democracies, which is a political ideology a lot of Americans are vehemently against. In terms of health outcomes, these Scandinavian countries are global leaders (Table 9) (OECD, 2007).

**Table 9. Comparison of Health Outcomes Between United States and Scandinavian Countries.** Scandinavian countries generally have better health outcomes than the United States, the United Kingdom, and Canada. Source: OECD Health Data 2007

<table>
<thead>
<tr>
<th>Country</th>
<th>Infant Mortality (Deaths per 1,000 live births)</th>
<th>Life Expectancy (Years)</th>
<th>Low Birth Weight (% of total Live Births)</th>
<th>Maternal Mortality (Deaths per 100,000 live births)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweden</td>
<td>2.5</td>
<td>81.0</td>
<td>4.1</td>
<td>1.9</td>
</tr>
<tr>
<td>Denmark</td>
<td>4.0</td>
<td>78.4</td>
<td>6.7</td>
<td>14.0</td>
</tr>
<tr>
<td>Norway</td>
<td>3.1</td>
<td>80.6</td>
<td>5.1</td>
<td>6.8</td>
</tr>
<tr>
<td>Canada</td>
<td>5.1</td>
<td>80.7</td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4.8</td>
<td>79.7</td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>United States</td>
<td>6.8</td>
<td>77.9</td>
<td>8.2</td>
<td>12.7</td>
</tr>
</tbody>
</table>

The Scandinavian countries have publicly financed health insurance systems that cover 100% of citizens. In addition, these Scandinavian countries spend about half of
what the United States spends per capita on health care. The Scandinavian approach has consistently achieved the best health outcomes in the world at a reasonable cost for the last decade (OECD, 2011).

A major and fundamental difference between American and Scandinavian societies is their view on government function. Scandinavians place strong emphasis on the value of universalism and they believe services should be available to all people (Bradley and Taylor, 2011). People in Scandinavia are more likely to argue that government ownership of business and industry should be increased and that government should take more responsibility to provide for everyone as needed. This Scandinavian enthusiasm for an expansive government in multiple domains of their public and private lives is likely to be unpopular among many Americans. Americans typically desire independence and value the hard work and success of the individual. Even if Americans can accept that others in their country need support, substantial discomfort is observed when sacrificing one’s own hard-earned income to support others. In contrast, many Scandinavians accept taxation as a necessary insurance to their own vulnerability. They believe that the taxes they pay are going to fund programs for people who need them, which might one day include their own family, or even themselves (Bradley and Taylor, 2013).

In Denmark, they do not share the same American fear that people can become dependent on social welfare programs and therefore stop working hard (Bradley and Taylor, 2013). Their social welfare system is based on the idea that every citizen has a right to a minimum income, but they also have a duty to work. If a citizen of Denmark
cannot find a job, the municipality will provide them with a job. These jobs often involved picking weeds from public parks, working in supermarkets, cleaning, and other labor-intensive work. Those who are not able to work due to sickness or old age have no duties. The level of welfare also has to be lower than the entry-level wage. If the citizens do not show up for work, they cannot get paid (Bradley and Taylor, 2013). The work offered by the municipality is usually unattractive which can encourage people to keep looking for higher paying jobs.

**Income Inequality in the United States**

The United States now tops most of their Western European and Scandinavian peers in income inequality and this widening gap could be attributed to the deficiencies in their social services sector. Today in the United States, the top quintile controls 84 percent and the bottom quintile controls about 1 percent and this gap continues to widen (Norton and Ariely, 2011). The equivalent ratio in Sweden was 3.5 to 1. Income inequality such as that seen in the United States has been linked to increased violence and distrust, poorer health, elevated anxiety, and poorer economic growth (Weede, 1981). Published studies show inequality as a major driver of a number of “social corrosions,” including lack of community life, violence, drugs, obesity, mental illness, and ill health. (Weede, 1981).

Scandinavian citizens pay 50 to 60 percent of their income to taxes, which would be intolerable to many U.S. citizens. Americans believe that the concept of redistributive justice may be unnecessary and even detrimental to the country’s economic well-being. They have developed the widespread belief that people are in control of their life
direction and can reach their goals through hard work and discipline. However, the data does not support this ideal vision of social mobility. Of the children born in the United States to a family in the bottom quartile, 40 percent stay in the bottom quartile and 30 percent move up one quartile (Delgado, 2007). While 40 percent of the offspring born to families in the lowest quintile stay in the lowest quintile in the US, the corresponding percentages are much smaller in Sweden, Denmark, and Norway (26, 25, and 28 percent, respectively). Thus, even as Americans may believe that people can pull themselves up in a democratic, free-market, capitalist society, the data reveals a “stickier” lower class that generally retains its constituents for generations (Delgado, 2007).

Every nation’s approach to health care must balance funding for physicians, hospitals, pharmaceuticals, and other health care enterprises. What Scandinavian governments do better than most is focus on balancing upstream work to keep people healthy, with downstream work of medical care for people after they have fallen to disease. In accepting a broad view of the upstream determinants of health, Scandinavian policies allow social and medical services to be planned and managed together in many cases. In recent years, Americans have also started to shift their views and many scientists have arrived at a similar conclusion that social conditions are equally as important for health outcomes as a healthcare system. The crucial need for attention to broader determinants of health is well documented, but the funding shift required to implement such a vision remains elusive in a political landscape characterized by diffuse power and uncooperative bipartisanship.
In summary, Scandinavia offers several lessons that the United States can learn from while addressing high spending and limited health outcomes. First of all, the responsibility for the health of the population should be delegated to locally elected government. This would enable coordinated budget allocation based on a communities needs and feedback. Secondly, the acceptance that health is determined by more than medical services is fundamental to shaping a different approach to health care. There needs to be a willingness to work closely and to streamline the interaction between health and social service providers. In addition, this would most likely involve a shift in funding from healthcare to the social service sector to create a more efficient and effective approach to holistic health.

Although Scandinavia displays much strength when discussing healthcare, they still have their own problems (Bergman, 1998). Waiting times for government services can be long by American standards. Wait times for specialty care, and emergency care are substantially longer in Sweden than in the United States (OECD data, 2011). In addition, healthcare expenditures are increasing everywhere, which requires greater taxation, which can be challenging for sustaining their government-based model.

What we learn from Scandinavian countries are not instructions of how the United States should move forward in terms of reform, but rather a broadened perspective and new ideas for approaching current healthcare challenges. Health policy in the United has thus far focused on curtailing spending, expanding access, and improving quality of healthcare services, but there is always room for continued progress. Investigating Scandinavian approaches highlights the cultural constructs that contribute to better health
outcomes including greater income equality, government (federal and local) accountability, conception of health, and integration of social services.
FUTURE OF HEALTHCARE/CONCLUSION

In conclusion, the United States outspends every country on every aspect of its healthcare system, yet their health outcomes have fallen behind most industrialized nations. However, America recognizes that there are problems with the healthcare system and has begun implementing large scale reforms through programs such as the Affordable Care Act that was signed into legislation in 2010.

Why are Healthcare Costs so High in the United States?

Financially, the biggest issues seem to relate back to the complexity of the payment schemes developed by insurance companies, which have resulted in the lack of transparency in hospital billing statements. This method of reimbursement pits insurance companies against hospitals and physicians in a war that sabotages patients when they must pay out-of-pocket for medical care. The exorbitant medical bills created for the purpose of garnering reimbursements from frugal insurance companies is completely unaffordable to the average patient. Currently, switching to a single payer model with global hospital budgets like those seen in Canada is highly unfeasible in the United States. Insurance giants and their lawyers and lobbyists would fight against such drastic reform and the American people would not support such a substantial increase in taxes required for a government-regulated system. America’s market based economy drives competition between insurance companies to develop innovative plans to attract clients and attempt to keep healthcare costs expenditures low. However, these unique plans that each insurance company develops creates difficulties in standardizing payments and thus
creates more work and headaches for hospital administrators. Eventually this payment fiasco needs to be simplified and the cost of healthcare needs to be more transparent for the purposes of efficiency.

Drug prices are another major contributor to cost and are clearly more expensive in the United States than in other countries. Pharmaceutical companies determine their drug prices and generic drugs can only be created when a drug’s patent expires. Again, governments in European countries can set caps and regulate drug prices, which is not something the United States government can lawfully control. Nevertheless, drug prices are dropping rapidly in the United States as pharmaceutical company drug patents are beginning to expire and cheaper generic drugs are being made available in the market. In addition, non-profit and government groups are pressuring pharmaceutical companies to lower their drug prices. Fortunately for consumers (but unfortunately for pharmaceutical companies), the costs of drug prices will continue to drop in the near future.

Finally, the third major driver of cost in the American healthcare system is the higher cost of procedures as well as the increased quantity of medical tests and procedures being order – whether they are necessary or not. The United States is unquestionably a leader in research and development, so they have the greatest access to cutting edge medical technologies. Once private and public insurance companies approve these expensive technologies for reimbursement, the frequency of their use increases without necessarily considering its cost-effectiveness. In addition, physicians are also taught to order comprehensive testing in order to avoid being sued for medical malpractice. It does not help that they get paid for each procedure separately, which
creates a financial incentive for physicians to order more tests and procedures. In the future, medical facilities will most likely change their fee-for-service payment schemes to managed care bundled packages which reward for quality of care rather than quantity of care. This new method for payments may help the healthcare system avoid over testing, unnecessary procedures, and high-tech interventions.

**Why are Healthcare Outcomes so Poor in the United States?**

A major reason that the United States ranks poorly in health outcomes like life expectancy, infant mortality, and low birth weight, is because its primary care sector is blatantly lacking. The United States is very focused on specialty care so its health outcomes for cancer treatment are quite high and they perform more surgeries than other countries. Most medical students are not attracted to practicing family care in the future and most hope to specialize their career opposed to being a general practitioner. Every year primary care spots do not get filled in the National Residency Match process. Due to the underdevelopment of the primary care sector, the United States ends up with costly hospital admissions for chronic conditions, which add financial burden to the health system. Costly hospital admissions have been high particularly for asthma and chronic obstructive pulmonary disease even though such admissions could potentially be avoided if appropriate care is provided in primary care settings (OECD 2011). This obvious problem of a shortage of primary care doctors will continue to grow as the Affordable Care Act covers more people with health insurance, but they will not actually be able to find a physician.
Poor health outcomes can also be attributed to an underfunded social services sector. By looking to examples set by Scandinavian countries, it is clear that their socialist views of taking care of their citizens in a holistic manner lead to better health outcomes. If a society can alleviate stresses cause by food insecurity, housing problems, unemployment, healthcare access, and other environmental conditions, the health and happiness of their citizens will undoubtedly improve. American physicians are also coming to the realization that they can no longer practice disease-centered medicine so medical school curriculums are shifting to teach students patient-centered medicine. This holistic approach to medicine allows doctors to better understand the upstream determinants of health and to treat patients as a whole instead of just as a disease. However, doctors and nurses are limited when dealing with social issues because they are medically trained. They require a robust support system of social workers that can provide the proper resources for patients at home, outside of a medical setting.

Although creating a team to take care of a patient’s social needs might be time demanding, it does not necessarily need to be extremely expensive. Hospitals are often located near colleges and universities with a plethora of students looking for volunteer opportunities. With proper and intensive training, these volunteers could help provide patients find the resources they need to maintain a healthier lifestyle – whether its help obtaining nutritional food, housing resources, navigating a public transportation system, looking for jobs etc. Instead of relying on the government to develop national social programs, it is probably more effective to develop local programs to meet the specific needs of a community.
What are the current impacts of reforms such as the Accountable Care Act on the United States healthcare system?

The United States understands that their current health system is unsustainable and lagging behind other countries, which has led to major efforts for reform. President Obama’s Affordable Care Act was signed into legislation in 2010. At its most basic level, the ACA was intended to reduce the number of Americans without health insurance. Measured against that goal, it has made considerable progress. A series of private sector surveys and a government reports have reached the same basic estimates: The number of Americans who have gained health insurance in the past year is around 8 to 11 million people.

Of that total, more than half are newly insured through Medicaid, especially in the states that broadened eligibility for the program. The rest enrolled in private health plans through the new online insurance marketplaces. This online marketplace forces insurance companies to be more transparent. It gathers insurances plans in one place for buyers to compare costs and benefits. It also requires insurance plans to present themselves in a cohesive manner so consumers can understand their benefits. In order to provide widespread coverage, the ACA has three mandates for insurance companies: they cannot deny policies to people with pre-existing conditions, they cannot drop customers who get too sick, and they must allow students to stay on their parents insurance until they reach the age of 26.

Health care remains one of the few industries in America that rely on paper records, so the Affordable Care Act will institute a series of changes to standardize
billing. New requirements include mandating health plans to begin adopting and implementing secure and confidential electronic exchange of health information. Using electronic health records will reduce paperwork and administrative burdens, cut costs, reduce medical errors and most importantly, improve the quality of care.

The ACA is also creating a “Bundle Payment” system opposed to the previous fee-for-service model. The law establishes a national pilot program to encourage hospitals, doctors, and other providers to work together to improve the coordination and quality of patient care. Under this bundling method, hospitals, doctors, and providers are paid a flat rate for an episode of care rather than the current fragmented system where each service or test are billed separately to Medicare. For example, instead of a surgical procedure generating multiple claims from multiple providers, the entire team is compensated with a “bundled” payment that provides incentives to deliver health care services more efficiently while maintaining or improving quality of care. It aligns the incentives of those delivering care, and savings are shared between providers and the Medicare program.

The ACA also encourages cooperative collaboration amongst medical facilities to offer better quality care. The new law provides incentives for physicians, hospitals, nursing homes, and other care providers to join together to form integrated health systems known as “Accountable Care Organizations.” These groups allow doctors to better coordinate patient care and improve the quality of care, help prevent disease and illness, reduce unnecessary hospital admissions, and avoid unnecessary duplication of services. If Accountable Care Organizations provide high quality care and reduce costs to the health
care system, they can keep some of the money that they have helped save for the Medicare program. These innovative Accountable Care Organizations will be carefully studied on a relatively small scale, before it can be scaled up nationally.

Although the Affordable Care Act was initially met with a substantial amount of controversy and many opposed the idea of universal healthcare in America, it is apparent that this new legislation has succeeded in implementing some huge improvements to the United States Healthcare System. The goals of the bill include increasing access to healthcare, standardizing and increasing the transparency of insurance companies, creating more efficient and less wasteful methods of delivering care, and a variety of other improvements to help regulate costs and improve health outcomes. Although physicians and insurance companies were initially skeptical about the implementation of this bill, it has clearly proved to be a step in the right direction.

**What are the Next steps to Help Progress and Improve America’s Healthcare System?**

The next steps for the United States health system include continuously researching and monitoring the recent changes and reforms. The whole world is watching as America has created theses Accountable Care Organizations and Medical Homes to offer better-coordinated care and more efficient care. Since these health models are only being implemented in recent years, both public programs and private research groups will be closely monitoring their benefits and downfalls, their cost-effectiveness and their ability to improve health outcomes while increasing patient satisfaction, and how they compare to the more traditional health systems. These programs will also receive bundle
payments through Medicaid, which will help simplify the currently complex payment schemes. If these programs prove to be successful, their methods will be adopted and scaled up nationally.

Another important factor to consider is investing in the education of the younger generations. Physicians, nurses, physician’s assistants, dentists, public health officials, and business administrators should learn about the current state of America’s healthcare system during their professional education. Teaching these topics in these professional graduate schools will not only allow for a more well-rounded education, but also for better prepared students that are aware of the systems they are going into. These students are the future of America’s healthcare system and they need to be aware of all the current problems before they can practice conscious medicine. These students are going to be tomorrow’s leaders that work together to keep improving the United States healthcare system and they need to collaborate not only to provide the best quality of care for their individual patients, but also to understand how to promote public health agendas and work with administrators and insurance companies to create a more harmonious environment.

National and State regulatory committees can create a set guidelines to help State and Local municipalities to implement wiser, more efficient, and more cost effective methods of delivering care. Organizations will more likely respond better to constructive suggestions rather than government mandates. Although many complain about how tedious the American healthcare system has become, the U.S. is continually assessing their system, comparing it to other countries, and reforming their policies to progress in a
positive direction. Slowly, but surely, with investments in the younger generations and continual reassessments of reforms, America has the potential to transform its healthcare system to be more cost effective and achieve better health outcomes.
REFERENCES


CURRICULUM VITAE

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EDUCATION

University of Wisconsin-Madison, Madison, WI
B.S. in Molecular Biology with Honors in Liberal Arts
Certificate in Global Health
Certificate in East Asian Studies
GPA: Cumulative 3.6/4.0, Major 3.8/4.0

Boston University School of Medicine Graduate Medical Sciences, Boston, MA
Candidate for M.S. in Medical Sciences
GPA: Cumulative: 3.91/4.0


WORK EXPERIENCE

Princeton Review Test Prep Company, Columbus, OH
Jan 2016 - Present
MCAT Teacher
- Teaching biology and biochemistry content for the 2015 MCAT

Boston University School of Medicine, Boston, MA
Sept 2015 – Dec 2015
- Tutored for three medical school courses: Biochemistry, Physiology, and Histology
- Aid graduate and medical school students in understanding concepts and developing effective study skills

UW-Madison PEOPLE Program, Madison, WI
Sept 2012 – May 2013
LaFollette High School, Tutor
- Tutor underprivileged minority high school students in biology, chemistry, physics, and math.

University of Wisconsin Madison, Madison, WI
Center for Educational Opportunity, Academic Coach (Biochemistry)
Jan – May 2013
- Provide academic advice and tutoring for first generation college students

UW-Madison School of Medicine and Public Health, Madison, WI
Department of Dermatology Spiegelman Lab, Research Assistant
Sept. 2009 – May 2013
- Isolated Basal Cell Carcinoma as a new cell line, elucidating protein-mRNA interaction in BCC
- Laboratory techniques: PCR, gel electrophoresis, western blots, genotyping, maintaining cell lines, Real Time PCR, transfections, Maxi and Mini Prep, mice dissections, and making solutions
- Presented Senior Thesis work at an Honors Research Symposium and in a Molecular Biology Seminar Course

Massachusetts General Hospital, Boston, MA
Program in Membrane Biology, Division of Nephrology, Summer Intern
June – Aug 2011
- Performed In Situ (zebra fish): immunostaining, probe hybridization, apoptosis assays, dissections
- Lab skills: bacterial transformations and midi preps, fluorescent and confocal microscopy techniques

Babcock Hall Dept. of Food Sciences, Madison, WI
Department of Food Science Steele Biofeuls Lab, Research Assistant
Sept 2011 – Dec 2011
- Plating/counting bacterial colonies and recording bacterial growth curves in fermentation apparatuses.
- Hourly work: chemicals inventory, washing and autoclaving lab glassware, filling pipette boxes

MEDICALLY RELEVANT EXPERIENCES

Meriter Hospital, Madison, WI
Jan 2012 – Feb 2013
- Emergency Room volunteer – Patient transport around hospital (CT, ultra sound, MRI, inpatient rooms). Clean patient rooms, stock EMS room, pick up medication from hospital pharmacy.
- Surgery Waiting Room Volunteer – Receptionist to receive patient families and coordinate surgery consults.

American Family Children’s Hospital, Madison, WI
Jan 2011 – May 2011
- Intensive care unit volunteer – facilitate patient activities, organize play room, and assist nurses

Milwaukee 16th Street Community Health Center, Milwaukee, WI
March 2011
- Joined AmeriCorps members to volunteer at SHARE, a food distribution center for low income families
- Job-shadowing program: Observed AmeriCorps members and learned their daily responsibilities

EXTRACURRICULAR ACTIVITIES

SquashBusters Academic Outreach Program, Boston, MA
June 2015 – Dec 2015
• Organized and led a summer science camp for inner-city Boston students
• Provided academic guidance for middle school and high school students during school year

**Biocore Outreach Ambassador, Madison, WI**
Sept 2010 – May 2013
• Science Expedition Events – Host science fairs to teach kids about concepts in science
• After School Science Club – Visit schools in rural WI to teach elementary level science lessons and activities

**Alternative Spring Break Trips (2012 and 2013)**
• Hurricane Katrina clean up: Rebuilding/painting houses and churches. Working alongside people with disabilities to recycle and repackage used mardigras beads. (New Orleans, LA) April 2012
• National Park Restoration at Fort Pickens National Park and Manna Food Pantry work – gardening, sorting non-perishable goods, warehouse maintenance work (Pensacola, FL) April 2013

**Delta Delta Delta Sorority, Madison, WI**
Sept. 2009 – May 2011
• Humorology: a student run musical to fundraise for OneHeartland, a organization that runs therapeutic camps for children with HIV/AIDS

**Earth Partnership Internship at the Madison Arboretum, Madison, WI**
Jan – May 2013
• Environmental education outreach with Native American Reservations and Spanish speaking communities.
• Helping with implementing ecological restoration curriculums in schools and communities – creating informational brochures, editing grant proposals, website design, office work.

**Leadership Roles**
• Relay for Life Team Captain
  o May 2009 (MA), April 2011(WI)
• Captain of Intramural Volleyball Team
  o Jan – May 2012
• Elementary Science Lesson Teacher
  o Sept 2012 – May 2013
• Assistant Coach for Special Olympics Swim Team