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Pay for Performance on Quality of Health Care Justified Transition?

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Pay for Performance on Quality of Health Care Justified Transition?

by:
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An Honors Thesis Submitted in Partial Fulfillment of the Requirements for
Graduation from the Western Oregon University Honors Program

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Table of Contents

Introduction	4
Part One	13
-What is Pay-for-Performance and Value-Based Purchasing?	
Part Two	21
-The Stage: Where Our Health Care System Ranks	
Part Three	28
-How the World Pays for Health Care (And America too!)	
Part Four	42
-The Patient Protection and Affordable Care Act: Obamacare	
Part Five	60
-Title III of the PPACA and Value-Based Purchasing	
Part Six	70
-Conclusions	
References	79

Introduction:

Making Sense of Health Care

Health care... Or rather should it be healthcare? Is the term capitalized or hyphenated? Ubiquitous in policy debate, health care is relevant and familiar to almost all residents of economically advanced nations. Despite this fact, what health care essentially means and entails is oftentimes vague and varies between different nations. By the conclusion of these pages I will elucidate commonly misunderstood concepts. Additionally, I will analyze one of the specific changes in policy occurring currently in the United States; the transition from Pay per Service (PPS) to Pay-for-Performance (P4P) reimbursement. And by the way, *health care* and *healthcare* are both acceptable.

This thesis begins with a walk through the aspects of medicine familiar to most - well understood by few. In my initial thesis proposal, many of the critiques I received were about the thesis being 'too political.' The scientific rigor of my methods and statistical analysis were well received. Even the ethical analysis through the lenses of Kant and John Stuart Mill received praise. However, I could not quite understand why I could not escape the perception that I was "Debating Obamacare" or advocating for a politically hot topic. An exposé on Obamacare could likely have made it through the

Selection Committee. However, Gavin Keulks, the Honors Program Director, repeatedly made the differences between a persuasive essay and a Thesis clear.

“Absurd.” I thought, tossing and turning awake at night, upset at the prospect of another revision. “This is about Pay-for-Performance. Not Obamacare. Not Romneycare. This is about whether aligning incentives yields results.” Lacing my frustrations with expletives, I came to the conclusion that there is a degree to where any paper on health care will have political ramifications. Similarly so, any paper on economics and the economy will have comparable effects. This is not because the fields of health care and economics are overtly political, but because their subject matter is closely tied to how humans govern themselves. The notion holds especially true in affluent, advanced economies. I was personally pleased with my revelation; certainly not *every* scientist studying climate change was a “tree-hugging-fossil-fuel-hating-Prius-driving-liberal” set out to damage the American way.”

“Obamacare-pusher.” Still in bed, I could hear the critique being shouted at me by the Honors Committee. In the nightmare, I was imagining myself sitting at an oak desk, looking up at the committee towering, perched atop a semi-circular panel. Sitting in a hollow room, an off-white paint on the

walls trying in vain to portray a semblance of warmth in a room cold and sterile.

“What about the Death Panels?” I imagined them drilling.

“If my thesis is unacceptable... then I hope I’m their next victim.”

Slowly it became apparent my thesis could not simply be a statistical analysis of the effectiveness of Value-Based Purchasing. It could, but it wouldn’t be understood. Although the statistical analysis is still included, more depth was needed to prevent the relationship between Pay-for-Performance and Patient Satisfaction from erroneously digressing into an extension of the political fodder that saturates American policy discussion in the 24-hour news cycle. To do this, I had to start from the beginning.

First of all, health care is separate from, but not independent of medicine. Medicine is an applied science, and it is one of the few sciences that can claim its advent preceded the invention of the written word ^[1]. Before man first began inscribing his thoughts into stone, he was cutting out plates in the skull in a procedure known as trepanning ^[1].

Trepanning was the earliest surgical procedure known to have occurred, being first performed 8,000 to 10,000 years ago ^[1]. Thought to cure headaches, evidence of the procedure has been found in small missing sections in skull remains found in skeletons carbon-dated to the period. By

the lamellar bone deposition♦ in some of the ancient skulls found proves the holes were not intended to be fatal ^[1].

Even though it was shamans and healers, not medical doctors, that performed surgeries in ancient times, the inception of medicine in antiquity perhaps gives a slight insight into human nature. Tools designed to heal and cure various afflictions have been unearthed by archaeologists from all over the world—from different cultures, in different places, at different times. While medicine is the diagnosis, treatment and prevention of disease; its ubiquity demonstrates an ingenuity and compassion for members of our fellow species that motivates us to find cures for our varying afflictions.

The notion of any science being rooted in emotions such as empathy and compassion may seem counterintuitive, but is genuinely an inseparable part of the field. Today, the interaction between the science of medicine, compassion, and empathy is most-easily recognized through what is commonly referred to as the Hippocratic Oath. Created by the Greek scholar Hippocrates (or one of his scholars) in around 400 B.C. ^[2], the oath provides the framework that relates the practice of medicine to morality and the goals of the field.

♦ Lamellar bone deposition occurs during the healing process, after bone breakage or damage ^[1].

In reality, modern medical practitioners do not recite the original Oath because of its allusions to the Greek gods, but rather recite the Declaration of Geneva. It was established in 1948 ^[2]. Below is the most current version of the Declaration of Geneva.

I solemnly pledge myself to consecrate my life to the service of humanity. I will give to my teachers the respect and gratitude which is their due; I will practice my profession with conscience and dignity; the health of my patient will be my first consideration; I will respect the secrets which are confided in me; I will maintain by all means in my power the honor and noble traditions of the medical profession; my colleagues will be my brothers; I will not permit considerations of religion, nationality, race, party, politics, or social standing to intervene between my duty and my patient; I will maintain the utmost respect for human life, from the time of conception; even under threat, I will not use my medical knowledge contrary to the laws of humanity. I make these promises solemnly, freely, and upon my honor. ^[3]

The oath asserts the mission of medical practitioners and the mission of the field in general, but the oath is voluntary. Governments can establish their own laws around the conduct, but the Declaration of Geneva does not grant authority to any specific regulatory body ^[2]. In the United States; federal laws, state laws, and various medical board associations regulate physician conduct and potential abuse. Additionally, citizens can file civil lawsuits against physicians for alleged medical malpractice. Reciting an oath may verbalize the mission of a field, but it does not exempt practitioners from human error.

Despite the serious tone of the Declaration of Geneva, it doesn't confer any tangible authority. It is worth noting that it stands as the only declaration of its type in the scientific field (e.g. there is no such declaration for scientists and research in the physical, biological and chemical sciences). Proposals for other sciences have been made and brought before the G8[♦] summit⁺ before, but no such declaration currently exists ^[4]. In conclusion, medicine is a field of science; different from all other scientific fields because of its inherent moral responsibility towards other people. Because of this tie, there is room for criticism something along the lines of "should we cure and treat this person?" In health care, the question is not asked. The field does not differentiate such questions, only asking if it is possible to treat a patient. To try to pin the industry itself, however, as belonging to any certain political ideology would be a fallacy. Democrats and Republicans get sick.

Health care, differing from medicine, is an economic industry. According to the fourth revision of the International Standard Industrial Classification (ISIC) of all economic activities, health care encompasses hospital activities; medical and dental practice activities; and other human

[♦] G8 (group of 8) Summit is an annual gathering of the heads of the governments of France, United States, United Kingdom, Russia, Germany, Japan, Italy, and Canada where various international agreements are discussed.

⁺

health activities ^[5]. The ISIC is produced by the United Nations and acts as an interface between global policies in economics, social, and environmental action. Essentially, the ISIC provides International Standards for how data from specific economic activities are compiled. For example, under §Q.8610 of the 4th Revision, “Hospital Activities” includes: activities related to all hospital inpatients, but excludes laboratory testing ^[5].

The importance of the ISIC becomes clearer when comparing health care and health systems from one country to another (to be discussed in Part One). However, from the ISIC we can learn health care is categorized alongside economic activities such as agriculture, mining, manufacturing, real estate, public administration, arts, entertainment, education, financial activities, and real estate activities ^[5].

Physicians and health practitioners, a majority of whom have taken the Declaration of Geneva Oath stating their own personal, noble intentions, administer health care. They are the functional units of the health system that carry out its economic services. Health care is a cog in the economy and subject to the same pressures and realities that all economic activities face, specifically the reality that the system has to make its financial ends meet to assure current and future viability.

If medicine were autonomous and independent from health care, every sick person would be treated for their ailments, and given the absolute best treatment modern science had established. However, one cannot ignore the practical ramifications of not living in a perfect, ideal society. Practitioners still need to make money, earn a living, perhaps raise a family and participate in the economy. Doctors have student loans from the high cost of medical school, mortgages, and families just as other citizens do. Saving lives has an economic cost, and that is where Pay for Performance aims to step in and align incentives to work for all parties.

You will find in these pages varying analyses on a very minor portion of Health Care reform; Pay for Performance (P4P) or Value-Based Purchasing (VBP). The stage will be set, the problem elucidated, the varying impacts of the policies, a comparison of other countries, and a statistical analysis. The document will not judge “Obamacare,” chiefly because the Pay-for-Performance policy shift predates his administration. The policy and its aims are discussed. The bill’s value, worth, effectiveness, unforeseen consequences and things of that nature at this point are functionally speculative because the law has not been implemented (at the time of writing) enough to quantitatively assess.

Part One

What is Pay-for-Performance and Value-Based Purchasing?

Pay for Performance (P4P) and Value-Based Purchasing (VBP) are two separate names for the same thing. Both aim to spend money based on outcomes, instead of being based on services or treatments rendered. In the writing of the Patient Protection and Affordable Care Act (PPACA), the term that is used is Value-Based Purchasing. This thesis avoids political connotations, but I assume VBP sounded better to the bill's writers and the politicians involved in shaping the bill and its many revisions. The difference in preference is wholly semantic. I use P4P and VBP interchangeably.

The concept of Pay for Performance is a paradigm shift within the United States health system. Prior to passage of the PPACA, hospitals and insurers negotiated reimbursement contracts for health services rendered, regardless of the necessity or quality of said services. For example, Hospital A might negotiate a contract with Insurance Company A, where Insurance Company A would reimburse Hospital A for 75% of all medical costs that Hospital A bills for patients covered for Insurance Company A. And Hospital B, a smaller hospital with a lower market share, negotiates a contract with the same Insurance Company A where 72% of all costs incurred by covered

patients of Insurance Company A are reimbursed. This is what is known as Pay Per Service (PPS).

PPS creates an incentive for hospitals to have patients in the hospital longer. Consider this example; two patients are admitted to the hospital with identical symptoms and illnesses. Patient A is given outstanding care and is discharged in two days, while patient B is given average care and spends 5 days in the hospital. Because hospitals are not reimbursed for the outstanding care given to Patient A, they ultimately will bring in more revenue from Patient B. There is an incentive to give average care because the hospital will take in more revenue for the additional services rendered over the extra 3 days Patient B spent in the hospital. Every hospital will aim for high quality of care in its mission, but the PPS paradigm presents hospitals with the option of giving high quality care and making less money; but bringing in more revenue by giving not-as-stellar care ^{[1][2][3]}.

Pay for Performance, amongst other things, aims to eliminate the financial disincentive found when administrators give high quality of care for the patient. In the model, reimbursements and payments are linked to the value (defined by quality and efficiency) of care provided; joint accountability between physicians and providers for the quality and financial fairness in the health care provided; evidence-based care that is outcomes-driven to better

manage diseases and prevent complications; increased transparency of quality, cost, and safety of health care given; and the transition to electronic health records ^[2].

The P4P model creates performance assessment protocols to score a hospital's performance on a specified set of measures, where the scores would then be used as a Total Performance Score in allocation of payments based on an incentivized scale ^[1]. Despite this, P4P is not intended to be the only purchasing plan available. Each disease is unique in its characterization and pathology, and similarly so, there are different plans tailored to varying illnesses. P4P is most effectively applied in the evaluation of preventable disease, hospital infections, medication errors, surgical-site infections, and other services that are preventable in the hospital setting when quality and attentive care is given ^[5]. Simply, when applied medical science advances treatment systems and methodologies of a specific ailment or illness to the point where said ailment is preventable, P4P is claimed to be a way to ensure sustainable treatment ^[5].

Developing systems to quantitatively reduce preventable conditions is important for expanding P4P because of its inherent limitations. If a patient is sick and at the end of their life and there are no effective treatments available, a hospital should not be reimbursed through a P4P plan because the

services rendered were the best medical science has proven to be able to offer. Some hospitals serve populations of people that are extremely ill, dying, or from a low socioeconomic status, so withholding payments or reimbursement because a hospital wasn't able to meet its contracted "outcomes" would no longer incentivize the interest of patients and hospitals [2][3][5]. While there is room for expansion, P4P can only be used for conditions that are hospital acquired, preventable, and/or a result of any form of negligence.

In terms of financial viability and transparency, skeletons of the PPS purchasing paradigm have begun to surface as the Centers for Medicare and Medicaid Services have released information regarding how much they pay for various procedures. In a New York Times article published in May 2013, "*Hospital Billing Varies Wildly, Government Data Shows*," costs for medical procedures were compared in various places across the country [6].

In Saint Augustine, FL, one hospital typically billed nearly \$40,000 to remove a gallbladder using minimally invasive surgery, while one in Orange Park, FL, charged \$91,000 [6].

The report, from a public relations standpoint, was damning for providers of health care. The article compares costs across the country, and costs varying within individual cities. There is somewhat of an explanation for average prices varying between cities due to different costs of living. However, the

correlation isn't precise in the case, and it still makes it hard to discern which costs are apples and which are oranges when drawing the comparisons between health costs in different domestic locations. Of more interest, however, are the comparisons between hospitals in the same geographic area. Why should a procedure cost thousands of dollars more if the only difference is a few blocks distance between *where* the procedure is performed?

The answer is Pay Per Service. Using the payment model, when hospitals needed to increase revenue, for whatever reason, hospitals and administrators would increase the cost of their procedures. They would increase the cost of a feeding tube on the billing sheet, or the daily cost of an inpatient stay. Doctors who want or need to bring in additional revenue do similar things. What happens is each hospital, in an attempt to parry their own administrative costs, increase the amount they bill for procedures. Because contracts traditionally have been established based on the PPS purchasing plan, administrators know purchasers will reimburse a certain amount of the bill, regardless of 'fairness' of prices ^{[1][2][5][6]}. There are other factors taken into consideration as well; some hospitals may be teaching

hospitals; critical access hospitals[♦], or the hospital may care for sicker patients overall. However, alternative reasons do not detract from the financial incentive of health care providers to inflate prices to meet overhead costs.

Establishing protocols and procedures to establish efficient protocols for scoring and evaluating providers is an aim of P4P because it links efficiency and quality. When Hospital A can achieve the same patient outcomes and patient satisfaction as Hospital B (hospitals located 15 miles apart) for a procedure at a lower price, purchasers can then establish Hospital B did not give efficient care. Price slashing without sacrificing quality is rewarded in bonuses, and price inflation is assessed ^{[1][2]}.

There are concerns about P4P, however. In considering the paradigm shift, it must be evaluated how all parties are affected. How does P4P affect doctors, hospital administrators, taxpayers, insurance providers, nurses, support staff, patients, and all other parties affected by the economic activity known as health care? Typically, policy changes shift burdens and responsibilities previously held by one group on to another group.

Before implementing P4P, purchasers have to answer whether or not communities are ready for the changes. Does P4P target minorities and the

[♦] Critical access hospitals are rural, acute-care hospitals that are eligible for cost-based reimbursement by Medicare based on either State designation as a “necessary provider” or distance from nearest acute-care facility ^[5].

socioeconomically disadvantaged ^{[4][5][7]}? Should hospitals or physicians be targeted by the plans first ^[5]? Should participation be mandatory or voluntary? Should there be punishments and rewards, or only rewards ^[5]? When creating the performance criteria, should hospitals be held to absolute or relative performance thresholds? How should the system be evaluated? How should the system be structured for phasing in and sustainability?

These questions do not have the current evidence to be completely answered. Many of the concerns will be addressed in the final Part of this thesis, where more attention can be spent on the finer details. This section only serves to elucidate the general principle of P4P and its aims. A more thorough discussion of its effectiveness, flaws, benefits, and practical implementation will be discussed later on.

The next Parts of the thesis address some of the overarching structures and functional aspects of health care systems in America and other countries. They also address why reforms have been part of the American policy debate, the changes in Obamacare, and the structure and effective parts of health care systems in other countries.

Part Two

The Stage: How Our Health Care System Ranks

If it isn't broken, don't fix it - a simple, yet important phrase. If the United States Government didn't feel its health care system's economic viability was threatened, or if the system was performing adequately, minor health care reforms like Pay-for-Performance could occur. On the other hand, history would suggest unless a large problem existed, reform of the magnitude of the Patient Protection and Affordable Care Act (PPACA) of 2010, commonly referred to as Obamacare, simply would not happen. So how, exactly, did the United States Government come to conclude its health system needed reform?

The answer, in part, relates to the International Standard Industrial Classification of All Economic Activities. Without the ISIC, comparing one country to another in terms of medical care would be apples to oranges. By using the ISIC as a guide to governments in the compilation of economic data and statistics, governments have the ability to accurately compare data compiled from nations with different health care systems and laws ^[1].

Using the ISIC data for different economic activities (e.g. health care), data can be compiled and rankings comparing countries established. In the year 2000, the World Health Organization (WHO) ranked the United States

health care system 37th overall globally [2]. The rankings were compiled based on disability-adjusted life expectancy; health equality in terms of child survival; responsiveness level; responsiveness distribution; fairness of financial contribution; performance on level of health and overall health system performance [3].

The table at the top of the following page is taken from the World Health Organization’s report in the year 2000, where all countries have their health systems ranked according to the criteria of the World Health Organization for what makes a good health system [2][3].

Member State	ATTAINMENT OF GOALS						Health expenditure per capita in international dollars	PERFORMANCE	
	Health		Responsiveness		Fairness in financial contribution	Overall goal attainment		On level of health	Overall health system performance
	Level (DALE)	Distribution	Level	Distribution					
Syrian Arab Republic	114	107	69 – 72	79 – 81	142 – 143	112	119	91	108
Tajikistan	120	124	125	136	112 – 113	127	126	145	154
Thailand	99	74	33	50 – 52	128 – 130	57	64	102	47
The former Yugoslav Republic of Macedonia	64	85	111	95	116 – 120	89	106	69	89
Togo	159	170	155	162	152	156	180	159	152
Tonga	75	84	61	97	108 – 111	85	73	114	116
Trinidad and Tobago	57	75	141	108 – 109	69	56	65	79	67
Tunisia	90	114	94	60 – 61	108 – 111	77	79	46	52
Turkey	73	109	93	66	49 – 50	96	82	33	70
Turkmenistan	128	131	88 – 89	113	121	130	128	152	153
Tuvalu	119	116	132 – 135	153 – 155	26 – 29	120	151	128	136
Uganda	186	138	187 – 188	165	128 – 130	162	168	179	149
Ukraine	70	47	96	63 – 64	140 – 141	60	111	101	79
United Arab Emirates	50	62	30	1	20 – 22	44	35	16	27
United Kingdom	14	2	26 – 27	3 – 38	8 – 11	9	26	24	18
United Republic of Tanzania	176	172	157 – 160	150	48	158	174	180	156
United States of America	24	32	1	3 – 38	54 – 55	15	1	72	37
Uruguay	37	68	41	53 – 57	35 – 36	50	33	50	65
Uzbekistan	100	144	105 – 107	71	131 – 133	109	120	112	117
Vanuatu	135	127	127	132	62 – 63	134	132	120	127

Table 1 – Portion of Annex table 1 of year 2000 World Health Organization’s World Health Report: Health Systems: Improving Performance (page 155).

Based on the table, The United States is the best in the world for the level of responsiveness of our health system. Where the US falters is

disability-adjusted life expectancy (DALE), distribution of care and performance on the level of health.

The population of Americans without health insurance accounts for the United States' low rankings in DALE and distribution. Similarly so, those who must pay out of pocket, or lack insurance, bring down the rankings for performance on the level of health because the rankings are assessed for performance for the poorest levels of society. The rest of the thesis will examine more in-depth the Americans lacking insurance, and the impact they have on the country's health system, but the main takeaway is that other countries who provide universal health care (by whatever means) fare better in the WHO's system overall.

The ranking of 37th, however, is somewhat dubious. For example, The United States ranks low in "Fairness of contribution." This metric used in the overall evaluation does not necessarily reflect each country's value system. There is an argument to be made certainly that every person should be accountable for his or her own health insurance, and it should not be a responsibility of the wealthier citizens of a country to pay a larger proportion of the costs of the system. "Fairness" is a metric that is open to criticism, and for that reason the WHO's report has received criticism, including from a former editor, Dr. Philip Musgrove.

Dr. Musgrove argues that many variables involved in the computation of the figures aren't reliable enough to confer reliability in overall rankings.

According to Dr. Musgrove:

“The number 37 is meaningless, but it continues to be cited, for four reasons. First, people would like to trust the WHO and presume that the organization must know what it is talking about. Second, very few people are aware of the reason why in this case that trust is misplaced, partly because the explanation was published 3 years after the report containing the ranking. Third, numbers confer a spurious precision, appealing even to people who have no idea where the numbers came from. Finally, those persons responsible for the number continue to peddle it anyway...Analyzing the failings of health systems can be valuable; making up rankings among them is not. It is long past time for this zombie number to disappear from circulation.” ^[4]

Dr. Musgrove does not denounce the report itself, just the overall rankings.

The data contained does highlight areas where the United States does not perform as highly as other countries, and areas where the United States performs better.

Another frequent criticism is the favoring of “socialized medicine” by the World Health Organization. Journalist John Stossel notes, “a country with high-quality care overall but ‘unequal distribution’ would rank below a country with lower quality care but equal distribution” ^[5].

A link between health care systems and the values of a country is inseparable, especially in democratic societies. I don't focus on values for this exact reason. The consensus is too hard to reach, and the effectiveness of

appealing to virtue with rhetoric simply not quantifiably justifiable. However, the United States *does* quantifiably spend more on health care as a share of GDP compared to every country it was ranked alongside in the WHO report.

Health Care, as a field, does not assert itself into politics. It simply aims to improve privacy, quality, access, fairness, and responsiveness of the systems. There are real problems, and the lack of distribution of health care in many countries does cause countless preventable illnesses and deaths from those illnesses. However, for the purpose of this thesis, the noble advancement of the health care field and its aims cannot be addressed. I will not appeal to any value system, or comment on which is preferable because in the end there simply is no need as far as P4P is concerned.

Regardless of how one values access, quality, and fairness, other advanced nations and economies do provide health care for more people, at the same quality (or better), and do it for less than in the United States of America. The World Health Organization aims to advance the field of health care and to provide data that can help improve the quality of life for people around the globe; an admirable disposition to be sure, but not appropriate for this thesis because of my aversion to qualitative and anecdotal data.

Quantitatively, the United States pays more for the same medications and procedures. The United States insures a lower proportion of its

population compared to other advanced economies; has a higher number of bankruptcies due to health care costs; and delivers lower quality of care overall when gauged by our own expectations ^[6]. Without comparing America to other nations, we still unnecessarily injure hundreds of thousands of patients by medical mistakes every year ^[6]. In fact, the Center for Disease Control estimates 90,000 people in America die annually from hospital acquired infections alone. VBP aims to incentivize and/or penalize those kinds of preventable mistakes.

Value-Based Purchasing and Pay-for-Performance measures, however, are not designed to be Silver Bullets for the aforementioned woes of the American Health Care System. The measures are designed to align incentives and cut costs, while improving health care. Their effectiveness is discussed in later sections of the thesis, but the next two sections deal with health care systems around the world, and the legislation commonly known as “Obamacare.” Including these sections wasn’t necessary, but were provided as a general resource and quick summary of health care systems and the legislation.

The next two Parts of the thesis attempt to separate misconceptions about our own health care system because of its complicated nature. Where other countries ranked higher in the WHO have set systems, the United States

health system channels the models used in other countries in a patchwork fashion, covering certain populations and omitting others. Additionally, there is a section on the Patient Protection and Affordable Care Act of 2010, which elucidates much of the misinformation I have heard about the legislation since I began researching and talking about my thesis to others.

Part Three

How the World Pays for Health Care (And America too)

Problems with the United States Government's system of health care were discussed in the previous section. In short, the United States Federal Government spends more on health care as a percentage of GDP and also per capita than any other country. The return on the investment is lower overall quality than what other developed nations deliver to their respective citizens. In short, The United States spends more on health care but receives lower quality of care ^[1].

In order for governments to align the costs of health care with the quality of care received, governments must find ways to lower spending without sacrificing quality. However, no matter how much the cost of care is lowered, someone will be left with a bill. The essential differentiator between the world's health care systems is who takes responsibility for the bill once medical care has been received. This section will address four different basic models of health care from around the world, and will also touch on how the systems relate to health care in America.

Discussing different models of healthcare is somewhat tricky. The health care model in each country is a reflection of their economy, national values, and political system. For example, Americans are not typically

characterized as patient people, so an egalitarian system where there are long waiting times for treatment, but everyone is treated, as is the case in the Canadian system, would probably not be the structure Americans would want in their health care system. There is also the issue of national wealth. Poorer countries, and rural areas of wealthier countries would surely benefit from increased access to medical care, but lack the economic resources and wealth to do so.

First System: The Out-of-Pocket Model ^[2]

Government health care systems are a modern invention. The Romans did not provide universal health care to their citizens, nor did England in the days of the British Empire. The quality of health care an average citizen in those jurisdictions would receive was poor, evidenced by short life expectancies roughly one half of what they are today ^[3]. However, the governments themselves did not have to worry about the bureaucratic and systemic problems associated with a health system. To relate to the United States system, the long-term viability of Medicare and Medicaid would not be a policy issue if the policies did not exist. Essentially, the first health care system to be discussed is technically not a system at all, but a lack thereof

where governments do not administer health care or reimburse health care providers. This model is referred to as the *Out-of-Pocket Model*.

In this system, health care bills are the same as any other bill a person may receive (e.g. restaurant bill, phone bill, etc.). This makes intuitive sense: if the government isn't paying anything, then the citizen is. There are perceivable benefits to this. For one, nobody's tax dollars are going to the government for their own, or anyone else's health care. The point is subjective, however, as some people would like to be or would not mind to be taxed to pay for a universal health system. This subjectivity is a natural product in comparisons of health care systems because such systems are reflections of national values and the politics associated with said values.

The Out-of-Pocket model of health care is the most common in the world, though far from most popular. Only around 40 countries have systems that are not the Out-of-Pocket model ^[2]. Most nations are either too poor or disorganized to provide mass health care, and as a result the people who receive the care are generally the ones that can afford it. There are places in rural regions in India, China, Africa and South America where people may live their whole lives without a trip to the doctor (more specifically, a doctor trained in Western Medicine). A great number of traditional healers and/or

village shamans still exist in the world, and they are reimbursed out of the pockets of those they treat.

In the model, there is the simple economic reality that people who cannot afford their treatment will be denied treatment; and only those who can afford treatment will receive it. If you receive treatment, you are required to pay. I experienced this firsthand in Kenya, working in St. Joseph's Mission Hospital where I was introduced to the concept of 'Discharge In' and 'Discharge Out.'

Asante was a 5-year-old male when I arrived at St. Joseph's. Both parents had died in a motorbike accident while Asante was in the hospital being treated for a hernia. Following the death of his parents and unable to pay for the treatment he received, Asante was kept at St. Joseph's after his injuries had been cured in what is known as "discharge in" situation. A steel fence surrounds St. Joseph's Mission Hospital; entry and exit is only granted with security clearance, so Asante was unable to leave the hospital grounds until he had paid his medical bills, and would be kept until he was able to do so.

The obvious problem was Asante was five years old. He could not gain employment in a rural region where 80% of the residents lived on less than the US equivalent of a dollar every day ^[2]. Additionally, the longer Asante

stayed, the higher his bills were because he was still being billed for hospital costs associated with keeping him, like food. For Asante, the hospital that cured him trapped him in somewhat of an economic prison. Over the next month, goats and chickens were donated to the hospital as St. Joseph's tried to solicit donations from towns-folk to help pay Asante's medical bills. After a few weeks, enough donations and animals had been raised to pay off Asante's bills, only then was he released.

Asante's circumstances are in a way both rare and common. Not too often is a child orphaned while in a hospital. His parents could've paid his medical bills, but without them the duty of paying for his treatment was on him. However, Asante's story shows that there is not much room for compassion in Asante's part of the world. For St. Joseph's, patients would only be admitted once the hospital felt confident they could pay, which is where the advent of "discharge in" comes into play; patients who the hospital knows can pay but haven't are kept at the hospital until the bill is paid. There is no "Bill Me Later" or "Send in Mail" option for most hospitals in countries lacking an organized health system. There is no "Bill by Mail" option in the countless parts of the world without a courier system and/or address system, as well.

The common part of Asante's story is the economic prison he was in. In America, the uninsured have to pay their medical bills out-of-pocket. For

them, the cost of the bills themselves represents the prison. According to a joint study by Harvard Medical School and Harvard Law School, 700,000 people annually file for bankruptcy because of an inability to pay their medical bills ^[2]. The number is 0 in Britain, France, Japan, Germany, the Netherlands, Canada, and Switzerland ^[4]. Having the choice between medical treatment and the ability to support oneself/ one's family is a choice uninsured Americans must make under the current health care system, which is one reason why the United States was ranked 54th of 191 countries when ranked on 'fairness' by the World Health Organization ^[3].

The Out-of-Pocket system currently could not be fully implemented in America. In 1986, President Ronald Reagan signed into law the Consolidated Omnibus Budget Reconciliation Act (COBRA). Within the pages of the bill is the Emergency Medical Treatment and Active Labor Act (EMTALA), which required hospitals to provide care to anyone needing emergency health care treatment ^[5]. Regardless of citizenship, legal status, or ability to pay, hospitals were required to give treatment. Ultimately, this bill made it illegal for "participating hospitals" to implement an Out-of-Pocket system. Under the bill, "participating hospitals" constitutes any hospital that receives any money from Medicare, Medicaid, or the Department of Health and Human Services ^[5].

The stipulations of the EMTALA essentially ensures that the only hospitals that could afford to not provide emergency medical care are for-profit hospitals, where there may be private insurance reimbursements, but all patients are screened for the ability to pay, and any patient with only Medicare/Medicaid will be turned away. More importantly, the EMTALA alters who ultimately foots the bill for the emergency treatment administered to those without insurance.

In a true Out-of-Pocket system, those who cannot afford treatment do not receive it. This may strike some as morally wrong, but not others. Remembering that health care systems are reflective of national values, it is possible without EMTALA to structure the American health care system so those who cannot afford health care will not receive it. However, with EMTALA, those who cannot afford treatment do receive treatment, and the EMTALA shifts the burdens of the cost of said treatment away from those who cannot afford it. If a patient cannot afford treatment, is billed, can't afford the hospital bill and files for bankruptcy, the hospital still does not receive reimbursement.

Second System: Bismarck Model

In the 19th century, Otto von Bismarck unified Germany and Prussia, becoming the First Chancellor of Germany ^[6]. As part of the unification, Bismarck established the welfare state, and as part of the unification, established a national health care system designed to benefit the workers of Germany. At the time of unification, two main political parties existed: socialists and conservatives. Bismarck's policies were designed to protect the workers of Germany without angering conservatives ^[6].

Bismarck's way of proposing social-welfare based legislation that would appeal to conservatives was to protect workers who had earned, through their years, a certain amount of government assistance. His views are expressed in his words promoting what he called *Practical Christianity*.

The real grievance of the worker is the insecurity of his existence; he is not sure that he will always have work, he is not sure that he will always be healthy, and he foresees that he will one day be old and unfit to work. If he falls into poverty, even if only through a prolonged illness, he is then completely helpless, left to his own devices, and society does not currently recognize any real obligation towards him beyond the usual help for the poor, even if he has been working all the time ever so faithfully and diligently. The usual help for the poor, however, leaves a lot to be desired, especially in large cities, where it is very much worse than in the country ^[7].

Conservatives in Germany at the time resented handouts that were, by their point of view, undeserved. In the system, both health care providers and payers of health care are private entities. Bismarck established private health

insurance plans, financed jointly by employers and employees via payroll reductions. Under the Health Insurance Bill of 1883, employers contributed 1/3 to the private insurance plans and 2/3 were contributed by the employees^[6].

Joint insurance coverage paid by both employers and employees is the health care model that Americans under the age of sixty-five are familiar with. However, the Bismarck model differs from America's when it comes to the actual insurance companies.

Insurance companies in the Bismarck model are not for profit, unlike American insurance companies. The insurance companies in countries with the Bismarck model are not-for-profit, and are required to cover everybody, not just workers and their families ^[2]. The system is a multi-payer system, which is different from the next two models to be discussed.

The system itself is not a silver bullet, however. To keep everyone insured and health costs low, there is a tight regulation of services and fees. Essentially, the Bismarck model makes the funding of health care private, using a multi-payer model that controls its costs by fees and tight regulation of services. In return, everyone in Germany is covered. The model is also used in Japan, Switzerland, Belgium, and some areas in Latin America ^[2].

Third System: Beveridge Model

The third model is named after Britain's social reformer, William Beveridge. Beveridge's model is the basis of Britain's National Health Service [2]. Differing from the multi-payer Bismarck model, the Beveridge model is single-payer, and publicly financed. Taxes are collected by the government, and in return are used to pay for and finance health care.

Britain treats its health care system the way America treats public services such as police officers, firemen, libraries, etc. Under the system, many hospitals, physicians, clinics, medical practitioners, etc. are either employed or under the control of the government. However, there are still private physicians who collect fees from the government.

One of the benefits Britain touts from their health care system is the low per capita spending cost. Another key aspect of Britain's system is that the person receiving medical treatment does not ever receive a bill. Because the British government is the sole payer of medical bills, it controls what procedures doctors can perform and the amount they can charge for such procedures. This system is closest to what may be thought of as "socialized medicine" in America.

Controlling procedures and cost is something that may be controversial. As British health minister John Reid said once, "We cover

everybody, but we don't cover everything." These sorts of issues can create an issue because it ultimately will tie a person's life to the cost, effectiveness, survival rate, expected years of prolonged life, and other factors. In the same way an auto-insurer will weigh the cost of a 18-year old female driver to a 27 year old male with a DUI on his record, Britain decides what it will cover based on the cost to society contrasted to its benefits. To give an example, a 97 year-old woman with breast cancer may not be given the same treatment a 40 year-old woman with the same disease would receive. The British government and its system decide the 40 year-old's life has more value to society based on their own metrics, resigning the 97 year-old to hospice care or an alternative form of end-of-life care.

While it may seem odd that an institution without any personal knowledge of patients will make decisions about what health care they may receive, the same thing occurs by private insurance companies in America. Additionally, Native Americans, military personnel, and veterans are all part of a system where they are covered by the government, are never billed, and treated at government-owned facilities by government-employed physicians.

Great Britain, Spain, Italy, Cuba, Hong Kong and Scandanavia all use the Beveridge model. Each country has their own personal twists to the system, but the Beveridge model is the blueprint.

The Fourth System: National Health Insurance Model

The National Health Insurance Model is a polymer of both the Bismarck and Beveridge models. Health care providers are private, but the payer is a government-run insurance program that is paid through taxation. This model provides cheap, universal health care because there is a non-profit, single payer for the services.

Where private insurance companies must factor in overhead costs like corporate compensation, advertising, underwriting offices, etc., the non-profit government insurance plan covers all, and saves administrative costs that are unavoidable in private, competitive insurance markets (e.g. United States). An added benefit to the single-payer comes with a concept known as 'market power,' which enables the government to negotiate lower health care prices because of all of the capital it has to invest.

The American System

America's system has elements of each system of health care, but lacks any of the cost-saving benefits. For the uninsured, it's out-of-pocket aside from care delivered in Emergency Departments under provisions contained within EMTALA. For veterans, Native Americans, and military it is the

Beveridge system. For those over 65, the American system resembles the National Health Insurance model. Everyone else (working class) experiences a health care model like the Bismarck system.

In America's case, combining elements of all the health care models has not improved quality of care, or cost of care. That is not to say America has below-average health care. On the contrary, America has the most technologically advanced and well-trained doctors in the world. However, the best care is afforded to those who can afford such treatment, whereas the statistics cited relate to the country as a whole.

Probably the biggest difference between America's systems is that medical insurance companies and agencies operate for profit. In the Bismarck, National Health Insurance and Beveridge models, the payers do not operate for profit. Whether it is the government via tax collection, private insurance companies, or public insurance companies, they do not operate at profit.

Eleven United States health insurance companies are ranked in the Fortune 500. Using data from 2012, these are; UnitedHealth Group (Fortune 500 rank #22), WellPoint (F500 #45), Humana (F500 #79), Aetna (F500 #89), Cigna (F500 #130), Coverntry Health Care (F500 #219), Health Net (F500 #221), Amerigroup (F500 #385), WellCare Health Plans (F500 #401), Centene

(F500 453), and Molina Healthcare (F500 #500)^[8]. Combined, these companies made 170 billion dollars (USD) in profits in 2012 alone^[8].

While blaming Insurance companies, or trying to legislate a non-profit health care insurance industry may seem like a silver bullet solution, it is only one thing that increases the United States' per capita spending on health care. From the CIA fact book, the US GDP in 2010 was 14 trillion dollars. In the same year, the US spent 17.9% of the GDP on health care.

The profits made from the Fortune 500 health care insurers were part of the health care spending in the country. If these profits were not allowed, the spending on health care, as a % of GDP would only shift from 17.6% of GDP to 16.3% of GDP. Essentially,

Part Four

Patient Protection and Affordable Care Act: Obamacare

Health Care is a somewhat bitter, polarizing topic in American society. While the World Health organization ranked the United States' health care system as 37th Overall in 2001, it was not the first time the health care system was the subject in American policy debate. Former presidents George H.W. Bush, Bill Clinton, and George W. Bush all had various initiatives and proposals during their presidencies; significant reform failed each time.

In 2008, Senator Barack Obama (D-IL) won the office of President of the United States of America. He won 53% of the popular vote and defeated Republican challenger John McCain by an electoral vote count of 365-173, nearly 100 points above the 270 votes needed to secure a victory ^[2].

After the 2008 elections, the Democratic Party had majority control of the House of Representatives, the Senate, and held the Executive Branch. Using their majority, the 111th Congress, during their second session, passed the Patient Protection and Affordable Care Act (PPACA; Public Law 111-148)^[1]. This is the document/law popularly referred to as "Obamacare."

This section covers the law itself, and what it entails. The Patient Protection and Affordable Care Act is around 1000 pages, so the following analysis covers many main points of the bill, but an in-depth analysis on the

bill itself would be an entirely new thesis, possibly even a dissertation. Regardless, over my last three years of work on this thesis the conversation has, without fail, turned to the PPACA. Because of the great many conversations I have had about the subject, most points addressed in the section deal with points of contention within society, or common arguments and concerns.

Keeping this in mind, I am not an economist. How some of the legislature will affect various aspects of the markets and United States economy is beyond my training and capacity. However, most of the legislature's intentions are clear in the bill, which are not hard to report.

Can you tell I'm treading lightly yet? Ultimately, the Patient Protection and Affordable Care Act was passed with the goal of improving access to healthcare for millions more Americans, while decreasing per capita spending. There are costs to all health care systems, the Patient Protection and Affordable Care Act in the broadest of terms controls its cost through regulations and a shift in where financial burdens are placed in comparison to the American health system prior to the bills passage.

Lastly, there are a few versions of the bill on the Internet. It's the same law, but formatting differences between various versions online disables me from citing specific page numbers. The citations in this section will be listed by

sections of the bill, but all notations contained within the bill fall under the version I read and analyzed ^[1]. There are over 10,000 sections in the bill, categorized under 10 titles. Each of the 10 titles will be discussed to some length, however, Title I, does receive a standalone section. Contained within Title I of the PPACA are most of the reforms that alter the landscape of health care in the country.

Legislation contained within Title I shifts a large percentage of our citizens living by the “Out-of-Pocket” model to both the Bismarck and Beveridge models. It maintains the private payer system, and private insurance companies, but does not go as far as the Bismarck system as to make private insurers essentially non-profit organizations. It does, however, cap profits (more on this later). Additionally, the PPACA expands the Beveridge aspect of the health care system through the expansion of Medicare and Medicaid.

The rest of the Titles have important legislature, but they are mostly regulations, reforms, protocols, and procedures: “nitty-gritty” aspects of the law not entirely pertinent to the layman, and as such, my audience. Title III will not be discussed in this Part of the thesis, because it deals specifically with the question of my thesis: Value-Based Purchasing.

After the roughly 30-page Table of Contents, the Patient Protection and Affordable Care Act of 2010 begins with Title I.

Title I—Quality, Affordable Health Care for All Americans

Title I begins with amendments to the Public Health Service Act that redesign and reform the aforementioned act (§1001, Part A). The amendments and reforms pave the road for the rest of the bill, parts that would be in contrast with the Public Health Service Act.

Subpart II of Title I establishes a prohibition on lifetime and annual limits to health care coverage (§2711). There is a transition period from group health and insurance plans previously established, but effective Jan. 1, 2014 annual and lifetime limits are prohibited within group health and insurance plans (§2711 (a)(2)). When this section of the law goes into full effect, a ban on rescission of such plans will be in full effect (§2712). Essentially Sections 2711-2712 of the Patient Protection and Affordable Care Act guarantee consumer protection from insurance companies and group health providers from either cancelling plans because the insured party is incurring, in the eyes of the insurer, too many costs. If, for example, an employee paid into a private health insurance plan through their company over the course of 20

years before succumbing to a chronic illness like Multiple Sclerosis, the insurance plan could not be cancelled or capped. This portion of the law attempts to decrease the annual average of 700,000 bankruptcy filings by mandating that insurers offer plans that will continue service, even if the insured party develops an illness that will be more costly to the insurer than the insurer would like, or originally factored into the cost of the plan.

The bill mandates insurance plans include minimums of care without any additional costs (§2713). Certain procedures and services such as mammograms, colonoscopies, immunization, and women's contraceptives fall under this umbrella (§2713 (a)(1-5)). This measure is designed to lower cost through preventative medicine, which is cheaper, overall, than prescriptive medicine. For example, less money is spent by insurance companies when offering mammograms at no additional cost and finding breast cancer at stage one, than would be spent absent of the mammogram where the cancer is found at stage 3 or 4. In foreign health care systems, the emphasis on allocating resources towards preventing illnesses before they occur has been shown to reduce overall health care costs.

Within this section there was a point of contention from various religious organizations. Not yet discussed, but the requirement of businesses and companies of a certain size to provide health care for their employees led

some religious organizations to assert their First Amendment rights to religious freedom was infringed on by §2713. This was because some religious institutions do not condone the use of contraception, and to be mandated to provide plans where contraception was included did not sit well with some organizations.

Eventually, an agreement was reached in which insurers created plans specifically for religiously-owned organizations that do not include contraception, thereby removing any mandate to provide coverage for contraception. Insurers, however, must themselves pay the cost of such contraceptive services to women in religiously operated organizations where contraception is not included ^[3]. Under this language, religiously-operated organizations (e.g. Catholic hospitals) do not have to provide insurance that includes services against religious convictions, but should an employee of theirs seek such treatment, the insurance company will pay for the service themselves. That way; the organization is not mandated to provide insurance for the service, the employee does not have to pay any additional costs or fees, while the insurance companies pay for the service *themselves* ^[3].

A point of contention here is that now the PPACA mandates and places cost burdens upon insurance companies, and those increases in costs will be passed on to consumers. The logic being an increase in the up front costs of

providing coverage for contraceptives will lead to ultimately greater costs of insurance premiums. A study in the year 2000 by the National Business Group on Health found *not* providing contraceptive coverage in employee health plans winds up costing employers 15% to 17% more than providing free contraceptive coverage ^[4]. Again, this relates back to preventative medicine being more cost effective overall than prescriptive medicine; the medical costs associated with pregnancy are greater than the costs of contraception.^[4]

[Aside: I have written four pages on the first two pages of the PPACA summarizing two components of the law. At said rate just this section of my thesis would balloon to over 2000 pages. Understand this is a summary of various aspects of the law, and I could write a thesis simply covering the complexities of §2713.]

Other ways Title I attempts to expand coverage and quality of care is by extending the basic preventative care measures and insurances plans of dependants until the age of 26 (§2714) and a series of mandates that require that the government work with insurance agencies to be more transparent (§2715-2719). For example, insurance companies must make public how much they spend on claims, their profit margins, and establishment of rebates (§2718). This aligns somewhat with the Bismarck model because it establishes limits on the profit margins of insurance providers. It differs because the

Bismarck system has essentially non-profit private insurance companies, but the PPACA moves the US somewhat in this direction by placing a cap on profit margins of insurance companies, and when exceeded, the profits are funneled back to the purchasers in the form of rebates.

Differing from before, customers can appeal denied claims and are entitled to have the appeal heard in an external review process (§2719). Customers can choose their own doctors, and are guaranteed coverage in all emergency rooms (§2719 (a)).

A four-year transition period was established at passage, but a number of changes (including all in this paragraph) are set to occur on Jan. 1, 2014. Under §2701, insurance companies are limited in the metrics they can use to evaluate premiums to whether the consumer wishes to cover themselves or their family, age and tobacco use. In this section, states can further add criteria, but the nationally applicable version only has three. Insurance companies must provide coverage for all who apply (§2702), renew coverage for those who already have insurance (§2703), must work with all doctors and hospitals who wish to work with them (§2706), must not have any waiting periods in excess of 90 days (§2708). Perhaps most applicable to the overall intention of increased access is the mandate that insurers can not restrict customers from purchasing a plan based on (1) health status, (2) medical

condition, (3) claims experience, (5) medical history, (6) genetic information, (7) domestic violence history, (8) disability, or (9) “any other health status-related factor determined appropriate by the Secretary (§2705 (a)(1-9)). Ultimately, if you qualify for a plan, you can get the plan (§1312).

Sections 1300-1343 of the Patient Protection and Affordable Care Act establish certain regulations and establish certain protocols regarding the formulation of health plans. Contained within these sections are methods for companies established in multiple states to reconcile the differences in state laws (§1333), a government assistance program to help with the transition insurance companies will face (§1342), it allows states to create their own plans as long as they provide the same level of care (§1332). These sections establish rules and protocols for the functional interaction between what must be provided and how to *actually* provide the services.

Probably the most well known aspect of the PPACA is what is known as the “Individual Mandate,” which is contained under Subtitle F—Shared Responsibility for Health Care. Before the individual mandate, §1501 establishes the logic and reasoning behind the mandate. Prior to passage, United States Health Care spending was 2.5 trillion dollars in 2009 (17.6% GDP), and was projected to increase to 4.7 trillion by 2019 without the passage of the PPACA (§1501 (a)(1)(B)). Additionally, the economy loses 207

billion dollars per year because of the poorer health and shorter lifespan of the uninsured (§1501 (a)(1)(E)), so passage of the Patient Protection and Affordable Care Act reduces this economic cost.

One of the benefits of expanding the number of insured is to lower the increased premiums experienced because of the EMTALA. As mentioned previously, providers of care are required to give emergency care to all, regardless of ability to pay under the EMTALA. Because of this mandate, hospitals and other emergency service providers had 43 billion dollars in uncompensated care in 2008, the cost of which was transferred to the insured, increasing premiums by an average of 1,000 USD (§1501(a), (1)(F)). Section 1501 lays the groundwork and logic behind the “individual mandate,” and serves as a concession to insurers.

Without the mandate, people may simply decline to purchase health insurance until the insurance is needed. If insurance companies are mandated to provide insurance as mentioned in §2700-2708, the buyers must also be required to have insurance. It was the ruling of the lawmakers that refusal to purchase health insurance (if capable of doing so), is not solely an individual risk, but a risk to the economy and health care providers. Again, the risk is assessed based on the amount of money hospitals, insurers, health care providers and taxpayers incur because of the mandate on hospitals from the

Emergency Medical Treatment and Active Labor Act (EMTALA) to give emergency services (§1501; §5000).

The mandate is a tax on the uninsured, rather than a penalty, or infraction/violation (more on this later). If someone is able to afford health care, but does not purchase it, a tax will be imposed (gradually increasing from up to 1% of income in 2014, to 2.5% in 2016) to parry the taxpayer risk associated with not purchasing health care (§5000A). Employers with fewer than 50 employees are not mandated to provide insurance for their employees, but there is a penalty for businesses with 50 or more full-time employees who do not offer health insurance plans (§4980H).

There have been concerns about employers cutting hours, in efforts to prevent themselves from qualifying as having 50 full-time employees. These efforts are largely in vain, as §4980H calculates employees based on full-time equivalents. Basically, 100 part-time workers with 20 hours is the same as 50 full-time workers with 40 hours.

Title I is where most of the controversy and political discourse regarding the Patient Protection and Affordable Care Act stems. Rightfully so, the legislature in Title I alters the entire structure and financial landscape. It places a wealth of new requirements on insurance companies, essentially dictating how much an insurance company can make in profits, something

contrary to the nature of capitalism to many. Furthermore, the law establishes that “no man is his own island,” so to speak. By mandating individuals carry insurance, the law (and government) rejects said notion with financial and economic arguments. The argument was mentioned previously, but illness is an unavoidable aspect of the human condition. If being treated for ailments is guaranteed by a society, than those who do not contribute to parrying the cost of such luxuries become detriments and financial cancers to such a society, according to the law.

The individual mandate is the keystone of the bill. Without the mandate, the bill would run the risk of not being financially viable because of the burdens, or shifting of costs to insurance companies without adding additional revenue for such enterprises. However, the individual mandate also represents a possible infringement of the Constitution. The argument against the individual mandate is the Government cannot mandate Americans purchase insurance, or pay a “shared responsibility payment (§5000A). When put before the Judicial Branch, the United States Supreme Court upheld the law in a 5-4 vote ^[5]. The Supreme Court accepted the mandate as a “tax on the uninsured” versus a penalty, fee, or infraction similar to a common traffic violation ^[5]. The aspect of a tax is within the Government’s Constitutional

powers, but the IRS, in this case, is “barred from using some of its normal enforcement tools, such as criminal prosecution and levies” [5].

The Rest of the Patient Protection and Affordable Care Act of 2010

Keeping in mind the scope of my thesis, I am not here to give a point-by-point breakdown of the Patient Care and Affordable Care Act. This section gives the absolute briefest outlines of the next nine Titles in the PPACA, with a small aside for the section involving Medicare Expansion.

Title II in the PPACA deals with the “Role of Public Programs.” Within Title II is improved access to Medicaid (§2001-2007); enhanced support for the Children’s Health Insurance Program (CHIP) (§2101); a simplification of the procedures for Medicaid and CHIP enrollment (§2201-2202); improvements to Medicaid Services (§2301-2304); Medicaid prescription drug coverage (§2501-2503); methods to improve quality of Medicaid for Patients and Providers (§2701-2707); special rules for Indians and Alaska Natives (§2901), and available maternal and child health services (§2951-2955).

Title III will be discussed in *Part Four*.

Title IV deals with “Prevention of Chronic Disease and Improving Public Health.” The basic principles behind Title IV are laid out in Title I. By adopting different aspects of the health systems of other countries, the PPACA commits

more resources towards preventative medicine, because of its demonstrably, long-term, cost-cutting benefits that have been shown in other countries. By increasing access to outpatient, preventative and primary services, the aim is to spend less money on secondary, tertiary and quaternary care. Provisions include modernizing disease prevention and public health systems (§4001-4004); increasing access to clinical preventive services (§4101-4108); creating healthier communities (e.g. immunizations) (§4201-4207); and support for prevention and public health innovation (§4301-4306).

Where Titles I-IV deal with the landscape changes, increasing access, regulations and protocols, Title V covers the health care workforce. Title V contains innovations in the health care workforce (§5101-5104); increases the supply of the health care workforce (§5201-5210); enhances education and training within the workforce (§5301-5310); increases support for existing workers (§5401-5405); strengthens primary care and increases teaching capacity (§5501-5509), and improves access through spending (§5601-5606). Mostly, Title V tried to provide incentives to increase the number of health care workers in the primary care, preventative care, and community health sectors because of their proven cost-efficiency.

Also covering the health care work force besides Title V's increase in funding, support, and access are regulations, which are covered by Title VI.

Title VI is aimed at ensuring “transparency and program integrity.” The section requires physicians be more transparent in various regards (e.g. giving away prescription drug samples) (§6001-6005); imposes additional requirements and standardizes the transparent disclosure of information (§6101-6107); targets enforcement by adding monetary penalties (§6111-6114); focuses research on patient outcomes (as opposed to financial) (§6301-6302); and takes steps to ensure the program integrity of Medicare, Medicaid, and CHIP (§6401-6411, §6501-6508, §6601-6607).

One problem not yet addressed by the law is the future of the field and innovative therapies, whose effectiveness have not yet been proven through scientific rigor for insurance companies to be comfortable spending money on such treatments. In order to facilitate patient choice, Title VII aims to “improve access to innovative medical therapies.” This does not increase access necessarily to clinical trials, but imposes regulations on pharmaceutical companies so prescription drug prices cannot be gouged and will be fairer (§7001-7003). Additionally, Title VII increases access to the 340B* prescription drug program for children and underserved communities (§7101-7103).

* The 340B Drug Pricing Program requires drug manufacturers to provide outpatient drugs to eligible health care organizations and other covered entities at significantly reduced prices (US Dept. of Health and Human Resources)

Title VIII is short. It is the “Class Act,” which establishes a national insurance program for purchasing community living assistance and support (§8002). The enrollment in the program is voluntary (§8002).

At this point, the Patient Protection and Affordable Care Act has established all of its reforms and provisions regarding the service of health care. Title IX is entirely provisions for the sake of revenue; it covers how the legislature will be paid (§9001-9017). Most people wonder, “How much is Obamacare going to raise my taxes?” The only increase on income taxes is covered in (§9015), which increases taxes by .9% on individuals making greater than 200,000 per year. Title IX imposes annual fees imposed on health insurance providers (§9010); an excise tax on high cost employer-sponsored health coverage (§9001); an expansion of information reporting requirements (§9006), and an annual fee on prescription pharmaceutical manufacturers and importers (§9008).

Title X is the result of negotiations between both parties in both Houses of Congress. It contains amendments to the Patient Protection and Affordable Care Act that is organized by the Title the amendment seeks to replace, repeal, or add on. One of the criticisms that circulated around the PPACA was that the elected representatives did not have enough time to read the bill before they voted. This would have been a valid concern, but the bill

had circulated for around a year before it was voted on, passed, and signed into law. The changes to the law are contained within Title X, so any legislator who wanted to know what version they voted on only had to look at Title X to peruse the final compromises contained within the bill. And that is the Patient Care and Affordable Care Act of 2010.

To summarize, the Patient Protection and Affordable Care Act is aimed at expanding access of health care to more Americans as a way to parry the costs uninsured Americans impose on insured Americans. Additionally, the PPACA seeks to move towards eliminating the economic strains of the 700,000/year bankruptcies related to health care, which is 62% of all bankruptcy cases in America (\$5000). The keystone is the 'shared responsibility.' Other countries have more affordable health care, with higher overall quality because the entire country shoulders the costs, and as a result, costs for everyone can be kept lower due to an immense increase in buying power.

Whether or not the bill will accomplish this; goes far enough; goes too far, etc. - I cannot answer. Does the bill cripple insurance agencies? I can't say. The bill changes the national landscape of health care in America, that is to be sure. However, aside from the individual mandate, the bill really just places uninsured citizens who were previously in the 'Out-of-Pocket' model of

health care into the Beveridge or Bismarck systems; expanding the percentage of Americans who do not have to shoulder the entire cost of their health care.

Part Five

Title III of the PPACA and Value-Based Purchasing

When I first began my thesis, the Patient Protection and Affordable Care Act had not been passed. Value-Based Purchasing was still in its infancy in America. The program is borrowed from other systems, but before the Patient Protection and Affordable Care Act there were only safety-net studies in place designed to test out the program. Events advocating for the calculated transition into P4P occurred from about 2007-2010 ^[1], where the Centers for Medicare and Medicaid Services began considering P4P reimbursement methods for a variety of conditions ^{[1][2]}.

After passage of the PPACA, Value-Based Purchasing or Pay for Performance in the United States became law. Where in Part Four there was an analysis of many of the main chapters in the PPACA, Part Five deals with Title III, which aims at “Improving the Quality and Efficiency of Health Care.”

Under Title III, Subtitle A, Part 1; the PPACA requires the Secretary to establish a value-based purchasing program for hospitals (§3001 (o)(1)(A-C)). Unlike some provisions in the bill, the VBP portion of the law is already in full-effect, as of October 1, 2012 (§3001).

As mentioned earlier, one of the drawbacks currently with P4P measures is the variability between different hospitals and the patients they

treat. If a hospital deals with populations that are usually more ill (e.g. in close proximity to a nursing home), then failure to meet certain required outcomes becomes a problem. Outcomes in this case, could mean a cap on certain “never events,” such as ventilator-associated pneumonias. To phrase it better, P4P would not be viable if hospitals were punished because they serve a harder population than other hospitals with better quality indicators.

To account for this, Title III of the Patient Protection and Affordable Care Act implements VBP gradually, in order to prevent any “shock to the system.” For example, the Secretary of Health is granted the authority to determine the procedures and conditions where there will be VBP, but the PPACA only list five that are required to be enacted under the Secretary (§3001(o)(2)(B)). The procedures that are required to use VBP in their reimbursement are; Acute Myocardial Infarction, Congestive Heart Failure, pneumonia, surgical site infections, and nosocomial (hospital-acquired) infections (§3001(o)(2)(B)).

In addition to the gradual rollout of procedures and conditions that warrant VBP, Title III includes efficiency measures that adjust any scores given to account for factors such as age, sex, race and severity of the illness (§3001(o)(2)(B)). Because it is in the fundamental nature of the health industry to treat the sick and ailing, Title III makes concerted efforts to avoid

penalizing health care providers for providing health care. After all, P4P measures are designed to reward and incentivize quality care. Some of the efforts include abolishing minimum performance standards for reimbursement; weighting different procedures or conditions differently in hospital score calculations; and rewarding the top performing hospitals with larger reimbursement payments (§3001(o)(5)(B)), which are distributed from the total amount of funding saved through the improved quality measures (§3001(o)(5)(B)).

After the installation of a VBP plan, the rest of §3001 deals with different measures involved with the funding of VBP, including studies to be conducted, and systems developed in order to ensure constant progression in the ability to treat various conditions (§3001(o)(7,11)). This reflects what J.D. Nance wrote in his book, *Why Hospitals Should Fly*, where many of the problems in our health system, specifically in cases of human error, isn't a flaw in the people within the system, but the system itself ^[4].

Nance draws parallels between the airline industry and the health care industry, hospitals more specifically. In the past, Nance says the airline industry generated a culture where pilots were thought to fit specific "hero" archetype. A problem with the archetype was the burden and responsibility it placed on pilots led to unavoidable human error^[4]. To combat said human

error, the airline industry began to implement rigid systems and protocols, where if followed, would prevent catastrophic errors by having systems in place to catch errors before they occur^[4]. Hypothetically speaking if every pilot on earth made perfect decisions 99.999% of the time without the system of checks and balances, there would be airline crashes and mass fatalities almost every single day of the year. On a mass scale, even errors that occur 1 out of every 100,000 times can be devastating to a system or industry.

The money allocated for future research of VBP systems, and research into the development of systems and protocols designed to reduce human error reflect a growing trend in the medical field. Similar to pilots, surgeons in America have long been thought of as “artists” and are popularly depicted on television as being unbelievably bright “heroes.” In popular culture, they are the Dr. Houses, the Doogie Housers, and the Patrick Dempseys . The problem with such a culture, as airlines realized, is that not every doctor is a television hero, and mistakes are made even amongst the best and brightest. However rare, mistakes by well-trained and qualified professionals happen, and Title III tries to give health providers a nudge through VBP and the research,

So far, though, everything mentioned has mostly applied to hospitals, and the legislature most pertinent to hospital administrators. However, §3002 of Title III attempts to improve quality through the improvement of Physician

Quality Reporting. Any time poor performance jeopardizes the financial bottom line of an organization, there is the incentive to cheat, or adjust performance scores to portray a more positive image than what may be factual in reality. In §3002 of the Patient Protection and Affordable Care Act, regulations are installed to create disincentives for physicians to improperly report data. Amongst these are progressive penalties, where physicians will only be reimbursed 98% of the amount they would otherwise be entitled to (§3002(B)(i)). Losing 2%, may appear harmless, becomes consequential for physicians because the annual total billed can easily reach well into the millions.

After the increased amount of pressure to deliver quality, cost effective care; an increase in research on systems where VBP could be used; and regulations mandating data reporting, §3003-3007 serve as expansions on the measures contained within §3001 and §3002.

Mentioned in Part One of this thesis, one question that was common in considerations of P4P and VBP systems was whether to only reward and not penalize, or to penalize and reward. The PPACA answers this dilemma in §3008, but only for cases where conditions are acquired in hospitals. As stated in §3001, there are various conditions and/or pathologies where implementing a P4P system of reimbursement can improve quality because

systems are established where the events should not occur. §3001 provides only “carrots” because hospitals are still reimbursed the same as in a fee for service or pay per service (PPS) system, but are given bonuses for achieving certain health goals from the funds that would otherwise be spent on poor health care. To simplify, because the P4P systems save money by delivering quality care, hospitals receive bonuses that make up for revenue that hospitals would otherwise lose when the conditions covered by P4P were acquired. For the government, this measure does not and is not designed to save money. For hospitals, there is no change in the money received when giving quality care versus allowing conditions covered by P4P. However, hospitals do save money on their overhead because there are less man-hours and supplies used in giving the higher quality of treatment because of the systems in place, giving hospitals a way to make more money, while delivering higher quality health care.

Financial disincentives were given to physicians, but not for their quality score metrics. The financial penalties in §3002 relate to errors and omissions in the data reporting on behalf of physicians. The PPACA is heavily reliant on data feedback for its various mandates, programs, regulations and reforms in order to grow with the changes that occur within the system, as the market and system itself changes.

Alluded to earlier though, §3008 diverges from the financial incentive-only approach, and implements a penalty, or financial disincentive, in the case of conditions acquired in hospitals. For these conditions, there will be a 1% deduction from the total reimbursement a provider would otherwise receive.

For non-profit 501(c) hospitals in large cities, it is not uncommon to have revenues in the billions, while having margins between 1-3%. Under the previous condition, a 1% deduction from annual revenues compounds into a 10% loss in margin. An avoidable 10% loss in margin places CEOs and hospital administrators, whose job description is to maximize the cost-efficiency of the hospital, in a hard position to defend.

Reimbursement of 99% may seem inconsequential to some, or not far enough to others, but it's important to point out the Patient Protection and Affordable Care Act does not aim to financially cripple health institutions for poor performance. The penalty is designed as a disincentive, and only applies to afflictions and conditions that are clinically proven in health literature to be preventable when adequate systems are in place.

On a theoretical level, Title III of the PPACA covers the bases in terms of aligning incentives between the parties involved. The government remains neutral in its budget forecast because the money saved in improved quality is funneled to providers of health care as bonuses, and into research designed

to improve protocols for the treatment of various conditions. Patients will receive higher quality care for conditions covered by P4P, and know that hospitals will be held accountable should they incur a preventable condition as a result of their hospital stay. The patient is at the center of the PPACA because they are the consumers and drivers of the system, but the system also affects other parties, such as physicians, nurses, insurers and administrators.

Physicians are harder to attest towards the impact of Title III because of the added responsibility placed on them does not come with an increase in salary. However, by following protocols and procedures for conditions, physicians cannot be blamed or sued for malpractice when “accidents” happen. This is because the actions of physicians cannot be proven to be negligent when a practitioner was simply following procedural protocols that have been established and replaced. By lowering the frequency of possible malpractice lawsuits by establishing protocols and procedures for various conditions, it is possible malpractice insurance could decrease for doctors; serving as an indirect financial bonus.

Parts Three and Four have given a brief look into the Patient Protection and Affordable Care Act of 2010. The law was designed to be implemented gradually, and most of the research it mandates has not yet been published

and released, as the bill is still (as of this writing), not fully implemented. My analysis addresses concerns, aims, and protocols involved with the Patient Protection and Affordable Care Act. However, it is as of yet undetermined how well the different aspects of the legislature will work together, and how it will affect the health care industry, so I can't make commentary about the overall effectiveness of any of its measures. Anecdotally and qualitatively, the bill replicates many of the more successful aspects of the health care systems of countries with high-performing health systems. It is possible implementing some foreign principles into our system will be beneficial, but it is also possible that the fragmented nature of the American health system could make any of the measures ineffective, as well.

In the next section, there is an analysis of how P4P and VBP measures were performing and the effects they were having prior to implementation of the Patient Protection and Affordable Care Act. It addresses the concerns with P4P that were established in Part One, but could not be elaborated on without first establishing the background information about health care systems abroad and in America, the PPACA, and the statistics that evaluate the American health system.

Part Six

Conclusions

The final section of this thesis is a literature review clarifying many of the concerns with P4P that have been mentioned throughout the thesis, and answers the main issue of the thesis: *does Pay for Performance increase quality of care and patient satisfaction?*

Addressing quality is the purpose of this thesis, but improvements in quality cannot be purely assessed numerically. If P4P has negative impact on access for minorities or physicians, the future viability of any P4P program would be in jeopardy. Because quality is not the factor affecting P4P, alternative impacts need to be evaluated.

In his primary research article, *Has Pay for Performance Decreased Access for Minority Patients?*, Andrew Ryan assesses the frequency of patient avoidance ^[1]. Ryan analyzed 100 percent of inpatient claims from 2000-2006 in participating hospitals to analyze if P4P measures caused decreased access to Coronary Artery Bypass Graft (CABG)[♦] procedures to minority patients diagnosed with Acute Myocardial Infarctions (AMI) ^[2]. , Ryan ran a two-tailed t-test to establish if there was a significant difference in the frequency CABGs

[♦] Coronary Artery Bypass Graft (CABG) is a common procedure performed to treat to AMI.

performed when an AMI case was presented between different racial/ethnic groups^[2]. If there were a significantly smaller amount of CABGs performed on minorities compared to whites where P4P systems were in place, then there would be evidence of avoidance by hospitals.

Avoidance was a problem previously mentioned in P4P schemes, where hospitals and/or would not give optimal care in cases where the condition had a higher chance of hurting performance scores for the provider. Because P4P is designed to improve quality, avoiding providing treatments and certain procedures would be contrary to the mission of the program.

Ryan ultimately found a moderate ($p=0.10$) significance in the frequency of CABGs, between different racial/ethnic groups. Because of Ryan's extremely large sample size, the lack of a significant disparity can be interpreted applied in several ways. 1—there is no discrepancy; and 2—even though there is not a significant discrepancy, the p-value is strong enough to allude to a need to ensure avoidance does not occur. 3—Ryan does not control for insurance coverage in his dataset, leaving the possibility that any avoidance could've been based on insurance coverage as opposed to race. In any way Ryan's findings are interpreted, there is a need for more research into avoidance in the case of the uninsured and cases involving minorities. The Patient Protection and Affordable Care Act places high value on data

reporting in part to prevent avoidance. Ryan's study analyzed data from before the implementation of the Patient Protection and Affordable Care Act, so the regulations addressing the potential avoidance problem were not applicable to his study. The p-value in Ryan's study warrants a replication of his research in the future, once the Patient Protection and Affordable Care Act has been in full effect.

Addressing the possibility of discrepancies in access of health care for the uninsured, underinsured, and minority/ethnic groups is a big concern among hospital administrators ^[3]. Along with concerns regarding discrepancies, researchers Salamon et. al ^[3] revealed in their discussion and compilation of conversations with over 100 hospital administrators that administrators are very concerned about all P4P measures ^[3]. In their article, administrators revealed worries related to the financial aspects of P4P, reimbursement, long-term viability, financial penalties, frequency of payments, and minority avoidance among other things ^[3].

The concerns of administrators have been mentioned before in this paper as general concerns with P4P systems as a whole ^{[4][5][6]}. Many of the concerns aforementioned were addressed in the Patient Protection and Affordable Care Act, and can be referenced in Parts Four and Five of this thesis. While the Patient Protection and Affordable Care Act addresses

concerns, the actual impact of P4P on administrations opposed to concerns cannot be elucidated until 2016, when most of the studies and analyses of P4P are mandated to be released, as defined by the measures contained within the Patient Protection and Affordable Care Act ^[7].

What has been said about administrators can also be said about Physicians. In White and Marmor's 2009 study ^[8], *P4P in Primary Care: Learning from Success and Failure*, P4P measures in the United Kingdom and the United States were analyzed. White and Marmor acknowledged that the amount of Pay for Performance measures in both countries showed improvements in conditions where established systems and protocols were established ^[8]. However, the authors used comparisons between the British system and the United States system of P4P and found that the lower rewards in the United States may have caused distrust in the system on the behalf of Physicians ^[8]. Physicians in the United States caused what White and Marmor explained as, "political ramifications" to the implementation of P4P in America. Because the switch to a P4P system, doctors surveyed from over 100 hospitals expressed a general "distrust" of P4P systems, in part because of the perception the systems are an "attack" on the work of physicians ^[8]. Moreover, McDonald and White concluded that while there is an abundance of positive reviews for P4P in primary practice settings, the context in which

the systems have been implemented have been largely ignored by primary literature, warning about possible negative ramifications ^[8].

Many of the reviews and input used in White and McDonald's study originated in the Great Britain, so there is a somewhat diminished applicability in their conclusions. Additionally, their study focused on surveys and attitudes of physicians in areas where P4P measures were being implemented. Notorious for resisting change, there is the possibility of bias within the surveys because those surveyed were being newly introduced to P4P schemes. McDonald and White provide a convincing warning of negative attitudes on behalf of physicians to implementation, but by neglecting any performance measures I feel the paper neglects the fundamental purpose and concerns associated with P4P—financial impacts and improved quality, respectively.

Analyzing the financial effects of P4P; Werner, Kruse, Polsky, and Stuart ^[9] tested changes in hospital costs, revenues, and Medicare payments in 260 hospitals participating in safety-net Medicare trials for P4P. From the year 2002-2005, all Medicare claims regarding Acute Myocardial Infarction (AMI) were analyzed, totaling over 420,000 cases ^[9]. The study tested for changes in costs of P4P measures compared to forecasted costs and revenues prior to implementation. What the study concluded was a minimal impact on costs to

both hospitals and Medicare after the changes were implemented for AMI patients ^[9]. Because of the minimal impact on cost, the authors concluded; more needs to be learned after the Patient Protection and Affordable Care Act in order to properly determine financial stability.

The findings of Werner, et. al highlight a recurring problem in the implementation of P4P, which is the lack overall of streamlined, consolidated data that assesses quality indicators. P4P by nature encourages development of systems for preventable ailments, but there is no system for evaluating P4P that accurately connects the impact of the system on affected parties. Additionally, P4P's ability to lower costs have been shown to be minimal in terms of overall cost ^[9], so there is a cost/benefit analysis gap where future research could clarify where P4P should rank in terms of priorities in health reforms in the American system.

Despite varying conclusions on aspect of P4P, this thesis attempts to answer simply if P4P systems lead to higher patient satisfaction and higher quality of care. Unfortunately, dear reader 75 pages into my thesis, there is not sufficient information at this point in time to evaluate either claim in the medical literature ^{[1-4][8-9][10]}. If analyzing the British system and applying the findings to the Medicare and Medicaid Programs were acceptable, then more data would be available for assessment. However, to date P4P is still too new

in America, specifically with the regulations contained in Title III to draw any conclusions.

At the current time, there is a gap in statistical knowledge and outcomes. As Tanenbaum points out in her article, *Pay for Performance in Medicare: Evidentiary Irony and the Politics of Value*^[11], there is insufficient data available in medical literature to prove that the decrease in preventable illnesses is causally linked to P4P, despite the numerous studies highlighting a correlation^[11]. Ultimately, Tanenbaum shows current evidence suggesting a correlation between P4P and improved outcomes for the conditions listed in Title III of the Patient Protection and Affordable Care Act does not exhibit causation^[11]. To be concise, current data that shows improved outcomes can not, as of yet, prove it was P4P causing the improvements, rather than a natural improvement of systems.

In conclusion, P4P cannot be characterized as a policy fad after passage of the Patient Protection and Affordable Care Act, as it is now a part of the American Health System. It's effectiveness and viability will be evaluated in the following years as more data becomes available and research funded into discovering it's effectiveness, but as of now, no body truly knows if the program will be effective in America. There are positive aims within the program, and is popularly advertised as a way to align incentives of providers

and patients alike to meet the best outcomes. However, P4P still faces the challenges of implementation, and a domino effect that could negatively impact financial viability in some cases if proper systems are not installed.

Should P4P continue to be used in health systems? To answer that I will defer judgment until more research is done into P4P. Currently, the industry is focused on implementing the changes mandated in the PPACA and not on data collection and compilation. Because of this, P4P and VBP are still too much in their infancy as a program to offer any definitive insight. Theoretically, P4P programs are strong, and offer a great way to ensure ongoing quality of care for the conditions covered, however the devil can be in the details. For P4P, much care needs to be taken into how it is implemented in order for the parties involved to be advocates, and for the reimbursement methods to ultimately work.

References

Introduction:

- [¹] Parapia, L. *Trepanning or trephines: a history of bone marrow biopsy*. British Journal Of Haematology [serial online]. October 2007;139(1):14-19. Available from: Academic Search Premier, Ipswich, MA. Accessed April 29, 2013.
- [²] Press Release. World Medical Association Meeting in Paris. 8-10 May 1997. Accessed on 1 Jun 2013. <http://www.wma.net/en/40news/20archives/1997/1997_14/index.html>
- [³] Wolstenholme; O'Connor (Eds) (2008). *Ciba Foundation Symposium: Ethics in Medical Progress: With Special Reference to Transplantation*. John Wiley & Sons, Inc. p. 222.
- [⁴] MacLeod, D. *Ethics Code Seeks to Regulate Science*. 5 Jan 2006. Guardian News and Media Limited. Accessed 1 Jun 2013 <<http://www.guardian.co.uk/education/2006/jan/05/highereducation.uk>>
- [⁵] International Standard Industrial Classification of All Economic Activities. United Nations. Series M. No. 4, Rev. 4. 2008.

Part One

- [1] Centers for Medicare and Medicaid Services Report to Congress. *Plan to Implement a Medicare Hospital Value-Based Purchasing Program*. Prepared for U.S. Department of Health and Human Services. 21 Nov. 2007.
- [2] Centers for Medicare and Medicaid Services. *Roadmap for Implementing Value Driven Healthcare in the Traditional Medicare Fee-for-Service Program*. Prepared for U.S. Department of Health and Human Services.
- [3] Centers for Medicare and Medicaid Services. *U.S. Department of Health and Human Services Hospital Value-Based Purchasing Plan Development Issues Paper*. 17 Jan 2007.
- [4] Tanenbaum, SJ. *Pay for Performance in Medicare: Evidentiary Irony and the Politics of Value*. Duke University Press. *Journal of Health Politics, Policy, and Law*. Vol. 34, No. 5. Oct. 2009. DOI 10.1215/03616878-2009-023
- [5] Rosenthal, MB; Dudley, RA. *Pay for Performance: A Decision Guide for Purchasers*. Prepared for Agency for Healthcare Research and Quality. AHRQ Publication No. 06-0047. Apr 2006.
- [6] Meier, B; Craven McGinty, J; Creswell, J. *Hospital Billing Varies Wildly, Government Data Shows*. New Yorks Times. Published 8 May 2013. Access 1 Jun 2013.
<http://www.nytimes.com/2013/05/08/business/hospital-billing-varies-wildly-us-data-shows.html?pagewanted=all&_r=2&>
- [7] Ryan, A. *Has Pay for Performance Decreased Access for Minority Patients?*. *Health Services Research*. Vol. 45, No. 1. Feb 2010. DOI: 10.1111/j.1475-6773.2009.01050.x

Part Two

- [1] International Standard Industrial Classification of All Economic Activities. United Nations. Series M. No. 4, Rev. 4. 2008.
- [2] World Health Organization. *The World Health Report 2000: Health Systems: Improving Performance*. Geneva. 2000. P 155.
<http://www.who.int/whr/2000/en/whr00_en.pdf>
- [3] World Health Organization. *The World Health Report 2000: Health Systems: Improving Performance*. Geneva. 2000. P 144. Accessed on 1 Jun 2013.
<http://www.who.int/whr/2000/en/whr00_en.pdf>
- [4] Shafrin, J. *Are WHO Rankings Entirely Worthless?* Healthcare Economist. 27 Apr 2010. Accessed on 1 Jun 2013. <<http://healthcare-economist.com/2010/04/27/are-who-rankings-entirely-worthless/>>
- [5] Stossel, J. *Why the US Ranks Low on WHO's Health-Care Study*. Real Clear Politics. 22 Aug 2007. Accessed on 1 Jun 2013.
<http://www.realclearpolitics.com/articles/2007/08/why_the_us_ranks_low_on_whos_h.html>
- [6] Nance, JD. *Why Hospitals Should Fly; The Ultimate Flight Plan to Patient Safety and Quality Care*. pp. vii-x. Second River Healthcare Press. Montana. 2008.

Part Three

- [1] *While the US Spends Heavily on Health Care, a Study Faults the Quality*. Accessed on 1 Jun 2013. <http://allcountries.org/health/usa_health_care_2008_nyt.html>
- [2] Reid, T.R. *The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care*. Penguin Books. 2010.
- [3] World Health Organization. *The World Health Report 2000: Health Systems: Improving Performance*. Geneva. 2000. Pp. 133-144. Accessed on 1 Jun 2013. <http://www.who.int/whr/2000/en/whr00_en.pdf>
- [4] Himmelstein, D; et al., "MarketWatch: Illness and Injury As Contributors to Bankruptcy," *Health Affairs*. Web Exclusive, February 2, 2005, pp. W5-62
- [5] *Emergency Medical Treatment & Labor Act (EMTALA)*. Centers for Medicare and Medicaid Services. Modified 26 Mar 2012. Accessed 1 Jun 2013. <<http://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/index.html?redirect=/emtala/>>
- [6] Holborn, H. *A History of Modern Germany from 1840–1945*. Princeton University Press, 1969. pp. 291–93.
- [7] Hollyday, FBM. *Great Lives Observed: Bismarck*. Prentice Hall. 1970. P. 65.
- [8] *Fortune 500 Ranking of Industry: Health Care: Insurance and Managed Care*. CNNMoney. 21 May 2012. Accessed on 1 Jun 2013. <<http://money.cnn.com/magazines/fortune/fortune500/2012/industries/223/>>
- [9] *United States GDP*. The World Bank Group. Reported by Trading Economics. Accessed 1 Jun 2013. <<http://www.tradingeconomics.com/united-states/gdp>>

Part Four

- [1] Patient Protection and Affordable Care Act. Legislative Counsel. 111th Congress. U.S. House of Representatives. May 2010. Accessed 1 Jun 2013. <<http://housedocs.house.gov/energycommerce/ppacacon.pdf>>
- [2] *2008 United States of America Election Map*. National Public Radio. Accessed on 1 Jun 2013. <<http://www.npr.org/news/specials/election2008/2008-election-map.html#/president?view=race08>>
- [3] *Group Health Plans and Health Insurance Issuers Relating to Coverage of Preventative Services Under the Patient Protection and Affordable Care Act*. Federal Register. Vol. 77, No. 31. 15 Feb. 2012. Accessed 1 Jun 2013. <<http://www.gpo.gov/fdsys/pkg/FR-2012-02-15/pdf/2012-3547.pdf>>
- [4] *Testimony of Guttmacher Institute; Submitted to Committee on Preventative Services for Women*. Institute of Medicine. 12 Jan 2011. Accessed 1 Jun 2013. <<http://www.guttmacher.org/pubs/CPSW-testimony.pdf>>
- [5] *National Federation of Independent Business et. al. v. Sebelius, Secretary of Health and Human Services, et. al.* Supreme Court of the United States. Certiorari to the United States Court of Appeals for the Eleventh Circuit. October Term, 2011. p 11.

Part Five

- [1] Centers for Medicare and Medicaid Services Report to Congress. *Plan to Implement a Medicare Hospital Value-Based Purchasing Program*. Prepared for U.S. Department of Health and Human Services. 21 Nov. 2007.
- [2] Patient Protection and Affordable Care Act. Legislative Counsel. 111th Congress. U.S. House of Representatives. May 2010. Accessed 1 Jun 2013.
<<http://housedocs.house.gov/energycommerce/ppacacon.pdf>>
- [3] Kane, J. *Health Costs: How the U.S. Compares with Other Countries*. PBS Newshour. 22 Oct 2012. Accessed 1 Jun 2013.
<<http://www.pbs.org/newshour/rundown/2012/10/health-costs-how-the-us-compares-with-other-countries.html>>
- [4] Nance, JD. *Why Hospitals Should Fly; The Ultimate Flight Plan to Patient Safety and Quality Care*. pp. vii-x. Second River Healthcare Press. Montana. 2008.

Part Six

- [1] Ryan, A. *Has Pay for Performance Decreased Access for Minority Patients?*. Health Services Research. Vol. 45, No. 1. Feb 2010. DOI: 10.1111/j.1475-6773.2009.01050.x
- [2] Werner, R.M. *Does Pay-for-Performance Steal From the Poor and Give to the Rich*. Annals of Internal Medicine. Vol. 153, No. 5. 7 Sep 2010.
- [3] Salamon, J.; Weinick, R.M.; Chien, A.T.; et. al. *Hospital Executives' Perspectives on Pay-for-Performance and Racial/Ethnic Disparities in Care*. SAGE. Medical Care Research and Review. 67(5) 574-589. 2010. DOI: 10.1177/1077558709354522
- [4] Young, G.; Meterko, M.; White, B.; et. al. *Pay-for-Performance in Safety Net Settings: Issues, opportunities, and Challenges for the Future*. Journal of Healthcare Management. Vol. 55, No. 2. Mar/Apr 2010.
- [5] Centers for Medicare and Medicaid Services. *U.S. Department of Health and Human Services Hospital Value-Based Purchasing Plan Development Issues Paper*. 17 Jan 2007
- [6] Centers for Medicare and Medicaid Services Report to Congress. *Plan to Implement a Medicare Hospital Value-Based Purchasing Program*. Prepared for U.S. Department of Health and Human Services. 21 Nov. 2007.
- [7] Patient Protection and Affordable Care Act. Legislative Counsel. 111th Congress. U.S. House of Representatives. May 2010. Accessed 1 Jun 2013.
<<http://housedocs.house.gov/energycommerce/ppacacon.pdf>>
- [8] McDonald, R.; White, J.; Marmor, T.R. *Paying for Performance in Primary Medical Care: Learning about and Learning from "Success" and "Failure" in England and California*. Journal of Health Politics, Policy and Law. Vol. 34, No. 5. Oct 2009. DOI 10.1215/03616878-2009-024
- [9] Werner, R.M.; Kruse, G.B.; Polsky, D.; Stuart, E.A. *The Impact of Pay-for-Performance on Hospital and Medicare Costs*. Health Services Research. Vol. 47, No. 6. Dec 2012.

^[10] Volpp, K.G.; Long, J.A.; Helweg-Larson, M. *Patient Opinions Regarding 'Pay for Performance for Patients*. Society of General internal Medicine. Jul 2008. DOI: 10.1007/s11606-008-0739-1

^[11] Tanenbaum, S.J. *Pay for Performance in Medicare: Evidentiary Irony and the Politics of Value*. Duke University Press. Journal of Health Politics, Policy, and Law. Vol. 34, No. 5. Oct. 2009. DOI 10.1215/03616878-2009-023

Comprehensive Reference List

- 2008 United States of America Election Map*. National Public Radio. Accessed on 1 Jun 2013. <<http://www.npr.org/news/specials/election2008/2008-election-map.html#/president?view=race08>>
- Centers for Medicare and Medicaid Services Report to Congress. *Plan to Implement a Medicare Hospital Value-Based Purchasing Program*. Prepared for U.S. Department of Health and Human Services. 21 Nov. 2007.
- Centers for Medicare and Medicaid Services. *Roadmap for Implementing Value Driven Healthcare in the Traditional Medicare Fee-for-Service Program*. Prepared for U.S. Department of Health and Human Services.
- Centers for Medicare and Medicaid Services. *U.S. Department of Health and Human Services Hospital Value-Based Purchasing Plan Development Issues Paper*. 17 Jan 2007
- Emergency Medical Treatment & Labor Act (EMTALA)*. Centers for Medicare and Medicaid Services. Modified 26 Mar 2012. Accessed 1 Jun 2013. <<http://www.cms.gov/Regulations-and-Guidance/Legislation/EMTALA/index.html?redirect=/emtala/>>
- Forrest, C.B.; Fagan, P.J.; Schuster, A.B.; et. al. *Chronic Care Improvement in Primary Care: Evaluation of an Integrated Pay-for-Performance and Practice-Based Care Coordination Program among Elderly Patients with Diabetes*. Health Services Research. Vol. 45, No. 6. DOI: 10.1111/j.1475-6773.2010.01166.x
- Fortune 500 Ranking of Industry: Health Care: Insurance and Managed Care*. CNNMoney. 21 May 2012. Accessed on 1 Jun 2013. <<http://money.cnn.com/magazines/fortune/fortune500/2012/industries/223/>>
- Group Health Plans and Health Insurance Issuers Relating to Coverage of Preventative Services Under the Patient Protection and Affordable Care Act*. Federl Register. Vol. 77, No. 31. 15 Feb. 2012. Accessed 1 Jun 2013. <<http://www.gpo.gov/fdsys/pkg/FR-2012-02-15/pdf/2012-3547.pdf>>
- Heitin, L. *Hospitals Should Plan now for Value-Based Purchasing, Which May Be a Game-Changer*. AIS Health Business Daily. 11 Aug 2013. Accessed on 1 Jun 2013.
- Himmelstein, D; et al., "MarketWatch: Illness and Injury As Contributors to Bankruptcy," *Health Affairs*. Web Exclusive, February 2, 2005, pp. W5-62
- Holborn, H. *A History of Modern Germany from 1840–1945*. Princeton University Press, 1969. pp. 291–93.

- Hollyday, FBM. *Great Lives Observed: Bismarck*. Prentice Hall. 1970. P. 65.
- International Standard Industrial Classification of All Economic Activities. United Nations. Series M. No. 4, Rev. 4. 2008.
- Kane, J. *Health Costs: How the U.S. Compares with Other Countries*. PBS Newshour. 22 Oct 2012. Accessed 1 Jun 2013.
<<http://www.pbs.org/newshour/rundown/2012/10/health-costs-how-the-us-compares-with-other-countries.html>>
- Lipner, R.S.; Holmboe, E.S.; Weng, W.; et. al. *The Comprehensive Care Project: Measuring Physician Performance in Ambulatory Practice*. Health Services Research. Vol 45, No. 6. Dec 2010. DOI: 10.1111/j.1475-6773.2010.01160.x
- Luft, H.; Chung, S.; Palaniappan, L.; *Does the Frequency of Pay-for-Performance Payment Matter?—Experience from a Randomized Trial*. Health Services Research. Vol. 45, No. 2. DOI: 10.1111/j.1475-6773.2009.01072
- Luft, H.; Chung, S.; Palaniappan, L.; *Effect of Physician-Specific Pay-for-Performance Incentives in a Large Group Practice*. The American Journal of Managed Care. Vol. 16, No. 2.
- MacLeod, D. *Ethics Code Seeks to Regulate Science*. 5 Jan 2006. Guardian News and Media Limited. Accessed 1 Jun 2013
<<http://www.guardian.co.uk/education/2006/jan/05/highereducation.uk>>
- McDonald, R.; White, J.; Marmor, T.R. *Paying for Performance in Primary Medical Care: Learning about and Learning from “Success” and “Failure” in England and California*. Journal of Health Politics, Policy and Law. Vol. 34, No. 5. Oct 2009. DOI 10.1215/03616878-2009-024
- Meier, B; Craven McGinty, J; Creswell, J. *Hospital Billing Varies Wildly, Government Data Shows*. New Yorks Times. Published 8 May 2013. Access 1 Jun 2013.
<http://www.nytimes.com/2013/05/08/business/hospital-billing-varies-wildly-us-data-shows.html?pagewanted=all&_r=2&>
- Nance, JD. *Why Hospitals Should Fly; The Ultimate Flight Plan to Patient Safety and Quality Care*. pp. vii-x. Second River Healthcare Press. Montana. 2008.
- National Federation of Independent Business et. al. v. Sebelius, Secretary of Health and Human Services, et. al.* Supreme Court of the United States. Certiorari to the United States Court of Appeals for the Eleventh Circuit. October Term, 2011. p 11.
- Parapia, L. *Trepanning or trephines: a history of bone marrow biopsy*. British Journal Of Haematology [serial online]. October 2007;139(1):14-19.

- Available from: Academic Search Premier, Ipswich, MA. Accessed April 29, 2013.
- Patient Protection and Affordable Care Act. Legislative Counsel. 111th Congress. U.S. House of Representatives. May 2010. Accessed 1 Jun 2013.
<<http://housedocs.house.gov/energycommerce/ppacacon.pdf>>
- Press Release. World Medical Association Meeting in Paris. 8-10 May 1997. Accessed on 1 Jun 2013.
<http://www.wma.net/en/40news/20archives/1997/1997_14/index.html>
- Reid, T.R. *The Healing of America: A Global Quest for Better, Cheaper, and Fairer Health Care*. Penguin Books. 2010.
- Rosenthal, M.B.; Chien, A.T.; Li, Z. *Improving Timely Childhood Immunizations through pay for Performance in Medicaid-Managed Care*. Health Services Research. Vol. 45, No. 6. Dec. 2010. DOI: 10.1111/j.1475-6773.2010.01168.x
- Rosenthal, MB; Dudley, RA. *Pay for Performance: A Decision Guide for Purchasers*. Prepared for Agency for Healthcare Research and Quality. AHRQ Publication No. 06-0047. Apr 2006.
- Ryan, A. *Has Pay for Performance Decreased Access for Minority Patients?*. Health Services Research. Vol. 45, No. 1. Feb 2010. DOI: 10.1111/j.1475-6773.2009.01050.x
- Salamon, J.; Weinick, R.M.; Chien, A.T.; et. al. *Hospital Executives' Perspectives on Pay-for-Performance and Racial/Ethnic Disparities in Care*. SAGE. Medical Care Research and Review. 67(5) 574-589. 2010. DOI: 10.1177/1077558709354522
- Shafrin, J. *Are WHO Rankings Entirely Worthless?* Healthcare Economist. 27 Apr 2010. Accessed on 1 Jun 2013. <<http://healthcare-economist.com/2010/04/27/are-who-rankings-entirely-worthless/>>
- Stossel, J. *Why the US Ranks Low on WHO's Health-Care Study*. Real Clear Politics. 22 Aug 2007. Accessed on 1 Jun 2013.
<http://www.realclearpolitics.com/articles/2007/08/why_the_us_ranks_low_on_whos_h.html>
- Tanenbaum, SJ. *Pay for Performance in Medicare: Evidentiary Irony and the Politics of Value*. Duke University Press. Journal of Health Politics, Policy, and Law. Vol. 34, No. 5. Oct. 2009. DOI 10.1215/03616878-2009-023
- Testimony of Guttmacher Institute; Submitted to Committee on Preventative Services for Women*. Institute of Medicine. 12 Jan 2011. Accessed 1 Jun 2013. <<http://www.guttmacher.org/pubs/CPSW-testimony.pdf>>

- United States GDP*. The World Bank Group. Reported by Trading Economics. Accessed 1 Jun 2013. <<http://www.tradingeconomics.com/united-states/gdp>>
- Volpp, K.G.; Long, J.A.; Helweg-Larson, M. *Patient Opinions Regarding 'Pay for Performance for Patients*. Society of General internal Medicine. Jul 2008. DOI: 10.1007/s11606-008-0739-1
- Werner, R.M. *Does Pay-for-Performance Steal From the Poor and Give to the Rich*. Annals of Internal Medicine. Vol. 153, No. 5. 7 Sep 2010.
- Werner, R.M.; Kruse, G.B.; Polsky, D.; Stuart, E.A. *The Impact of Pay-for-Performance on Hospital and Medicare Costs*. Health Services Research. Vol. 47, No. 6. Dec 2012.
- While the US Spends Heavily on Health Care, a Study Faults the Quality*. Accessed on 1 Jun 2013. <http://allcountries.org/health/usa_health_care_2008_nyt.html>
- Wolstenholme; O'Connor (Eds) (2008). *Ciba Foundation Symposium: Ethics in Medical Progress: With Special Reference to Transplantation*. John Wiley & Sons, Inc. p. 222.
- World Health Organization. *The World Health Report 2000: Health Systems: Improving Performance*. Geneva. 2000. Accessed on 1 Jun 2013. <http://www.who.int/whr/2000/en/whr00_en.pdf>
- Young, G.; Meterko, M.; White, B.; et. al. *Pay-for-Performance in Safety Net Settings: Issues, opportunities, and Challenges for the Future*. Journal of Healthcare Management. Vol. 55, No. 2. Mar/Apr 2010.