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Optimality, Efficiency, and Equity: A Comparative Analysis of Australia's Healthcare System

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Optimality, Efficiency, and Equity: A Comparative Analysis of Australia's Healthcare System

Abstract

With entitlement spending dramatically increasing, poised for further increases, healthcare has been placed at the forefront of economic domestic policy. In surveying the international landscape, few countries have successfully sustained an efficient and equitable healthcare industry. In this sense, the central question in the health care debate becomes balancing the desire for cost-effectiveness & efficiency with equity. As such, this article will describe the historical and economic developments that contributed to the development of the American medical system. The article will also examine the success of Australia's two tiered health care system and provide policy recommendations based on the findings.

Keywords

Health care, medical services, economics, competition, Australia, United States

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Abstract:

With entitlement spending dramatically increasing, poised for further increases, healthcare has been placed at the forefront of economic domestic policy. In surveying the international landscape, few countries have successfully sustained an efficient and equitable healthcare industry. In this sense, nexus question in the health care debate becomes balancing the desire for cost-effectiveness & efficiency with equity. As such, this article will describe the historical and economic developments that contributed to the development of the American medical system. The article will also examine the success of Australia's two tiered health care system and provide policy recommendations based on the findings.

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Introduction

Healthcare has remained a focal point for discussion throughout history. However, with entitlement spending dramatically increasing, poised for further increases, healthcare has been placed at the forefront of public policy. In order to understand the costs and benefits of various policy proposals, an in depth economic analysis must be conducted. In surveying the international landscape, few countries have successfully sustained an efficient and equitable healthcare industry. For that reason, Australia serves as an excellent model for healthcare policy because their system balances the need for efficiency via the use of the free market, as well as equity via the existence of a base “safety net” for individuals wherein health care can be accessed. There are three main purposes of this article. First, it will examine major developments in American health care and consolidate some existing information that is relevant to understanding health care policy. Second, it will analyze Australia’s two tiered medical system and highlight it in comparison to the United States’ system. And, third, it will create a discussion for policy recommendations, arguing in favor of eliminating state based insurance laws that restrict healthy competition.

Historical Developments in American Healthcare

In order to understand the developments in the healthcare industry, one must examine the historical transformations that have taken place. The medical field has undergone many shifts with continual struggles between different interest groups. At the core of every major issue in the healthcare industry has been the concept of sovereignty. Distinct from other fields, healthcare is unique because of three core factors that underpin physician sovereignty: authority, autonomy, and boundary maintenance. This first major section will review the distinguishing characteristics of the healthcare industry, predominantly in context of one of the most seminal and

comprehensive pieces of literature in healthcare economics, a genealogy and historical analysis by Paul Starr.

Sovereignty in the Medical Market

Unlike other business professionals, physicians maintain a higher degree of cultural and emotional authority over their clients, or patients. By the mere nature of the patient/doctor relationship, clients trust physicians with decisions concerning their lives; when one is weak, the other is strong. Although sources of authority can develop through force or totalitarianism, emotional authority that develops through dependence achieves compliance most effectively (Starr; 1984). In this sense, the doctor/client relationship is one of the most intimate forms of authority because, by the mere nature of the service, physicians place themselves in a unique position to provide invaluable input over a non-quantifiable subject – life and death. For this reason, physicians are provided with unprecedented sovereignty, impacting their potential to enhance their patients' lives.

Yet, this authority is not hostile. Physicians claim authority as members of a community seeking to improve overall welfare. Professional judgment is offered not only as a business service, but also as a genuine and deep personal interest in the patient's life. Moreover, because most individuals have limited medical knowledge, at best, only physicians are able to interpret and diagnose signs and symptoms. The ability to implicitly deliver authoritative commands is most evident in the medical industry because of its unique attributes.

In addition to having emotional and cultural authority, the medical industry operates with greater autonomy than other industries. Historian and political scientist Paul Starr illustrates that the American medical industry developed differently than other countries' systems because of pluralism:

For both medicine and religion, the nineteenth century in America was a period of growing sectarianism. The society was not just pluralist as many have described it, but pluralizing: it created new divisions as well as incorporating traditional ones (Starr; 1984)

Unlike homogeneity in European nations, the United States harbored a wide array of ethnicities and religious sects, contributing to its non-traditional roots. As such, the “cliquishness” of medical politics necessitated the inevitable exclusion of counter-movements. During the 19th century, there were powerful incentives to differentiate oneself from other doctors for the purposes of establishing greater authority over one’s patients. In this sense, competition among sects was pervasive and resulted in the acquisition of power by certain interest groups and the assimilation of other groups. For example, homeopathy and Eclecticism (two forms of alternative based medicine) were assimilated into the medical profession (Starr; 1984). Through these historical and social developments, the medical industry ultimately consolidated its power and autonomy within the market; certain groups were displaced, centralizing power.

Yet, the American medical movement cannot be fully understood without an understanding of the actions of its leaders, in particular the American Medical Association (AMA) to consolidate its authority. In this sense, boundary maintenance by the medical complex involved three main objectives: the institutionalization of licensing laws, the promotion of physician sovereignty among their colleague base, and the emphasis on scientific advancement as a source for their legitimacy.

Through a series of initiatives, the AMA attempted to increase the standards for physicians with the intention of creating an exclusive network of like-minded individuals. Most notably, the AMA functionally became an “accrediting agency” for medical schools, acting as an arbitrator for medical acceptance (Starr; 1984). Although these practices are now commonplace, licensing laws were radical at the time; licensing was, at first, an un-necessary complication for

medical professionals and served little tangible purpose, aside from its goal to consolidate authority in the medical complex. Similar to their licensing goals, medical societies sought to institute codes of ethics in an attempt to isolate “quacks,” or individuals that they deemed unworthy to enter the medical practice. By implementing an array of reforms that filtered the medical profession, physicians developed strong loyalty among each other. Although dissention did exist, physicians began to increasingly rely on each other’s good will for decision-making and authority. To further support this trend, the courts began adopting the “locality rule,” which granted significant power to local medical societies in an attempt to complicate claims against the medical industry (Starr; 1984). These maneuvers by the medical industry would not have withstood the pressure from competing interests if the industry did not have a firm reliance on scientific and technological advancements. With major scientific breakthroughs by Louise Pasteur and Robert Koch, medical knowledge allowed for substantial value to be added to the hygiene and overall welfare of societies; no longer were there as many medical mysteries concerning bacteria formation, surgery, etc (Starr; 1984). In this sense, new technological developments further entrenched society’s dependence on medical authority.

That said, the medical industry, like every other capitalist industry, pursues monopolization of the market in an attempt to galvanize higher profits; profit maximization, not altruism, is at the source of every business. Although many of the tactics that the medical complex used were net unproductive, the medical complex’s actions positioned it to become a differentiated industry in the overall market economy. Without a firm understanding of the pressures, thought processes, and actions that the medical industry took to consolidate its power, the medical industry’s differentiating characteristic – sovereignty – is lost.

Major Historical Developments From the 1700s to Early 1900s	
1747	John Wesley writes <i>Primitive Physic</i> which argues that ‘ordinary’ people are able to treat disease – professional knowledge is not required
1760	New York city passes licensing laws; licensing laws, thus, begin to take root
1765	University of Pennsylvania, specifically John Morgan, opens the first medical school
1769	William Buchanan writes <i>Domestic Medicine</i> and provides knowledge on disease, also attacking the notion that medicine is a mystery
1786	First dispensary in Philadelphia is opened, to take care of the poor till death
1848	The New England Medical College is established as the first medical school for women
1860-1870	Major scientific breakthroughs by Louise Pasteur and Robert Koch; newfound focus on targeting specific diseases
1860	Growth of the factory, urbanization, as well as decreased transportation costs; these transformations increase the frequency to which individuals visit doctors
1893	John Hopkins requires all medical students to have an undergraduate degree; this begins to take root among all medical schools
1898	The Supreme Court rules that licensing is acceptable if there is definitive character in the candidate; licensing gains legal legitimacy
Early 1900s	The social distance between doctor/patient increases, impacting the sovereign relationship inherent in the health care industry
1900-1910	Raging battle takes place between physicians and patent companies to gain control over the market
1922	The idea of personal medical examinations begins to fully take root; individual hygiene and clinical medicine supersedes public health initiatives

From Monopolization to Distortionary Economics: Dysfunction in the Medical Industry

Physicians’ ability to prevent entry into the market, as well as enhance their own relative position, has resulted in massive distortions to the competitive marketplace. By subtly maintaining their boundaries, the medical community had been in a position to silence criticism and dominate the domestic marketplace. This section will recognize and briefly demystify the major roadblocks to competition in the medical industry.

Kenneth Arrow’s research and findings in health care economics has truly been influential. At the root of the health care industry has been a lack of certainty and price information – both are shortcomings that severely distort the supply and demand for health care services.

Essence of Demand

The nature of demand in the health care industry is unique because it concerns the question of life and death – a non-quantifiable subject in its essence. Although food is indistinct in terms of life and death, starvation can be easily avoided with sufficient income through the purchasing of nutrients. For health care services, the same cannot be concluded. Uncertainty in the quality of the product is much more acute than any other commodity; recovery from illness is unpredictable and not guaranteed. In addition to the uncertainty inherent in the quality of the service, medical knowledge is complicated, and, therefore, adds another tier of uncertainty for consumers, namely that consumers cannot evaluate the quality of information nearly as well as with other commodities (Arrow; 1963). Even though inequality of information pervades the supply/demand relationship, there is a significant and material difference here that ultimately impacts the sovereignty of the doctor/patient relationship.

Essence of Supply

In a competitive market, the supply of goods and services is a function of the profitability latent in the industry. Yet, the conditions of supply in the medical industry mark a significant departure from competitive theory through two main barriers to entry: licensing laws have restricted competition and the real cost of medical education has been accelerating quicker than nominal returns on investment (Arrow; 1963).

Although licensing laws are theoretically designed to cultivate the quality of medical professionals, the reality is not as optimal as original theory once suggested. Although occupational regulation, the institution of licensing, does serve as a filter over the quality of medical professionals, it has also decreased consumer choice while simultaneously raising costs (Young; 2002). By heightening the barrier to entry, fewer physicians have been able to enter the

market. This would be a net beneficial regulation if licensing had a material benefit, but research illustrates its ineffectiveness.

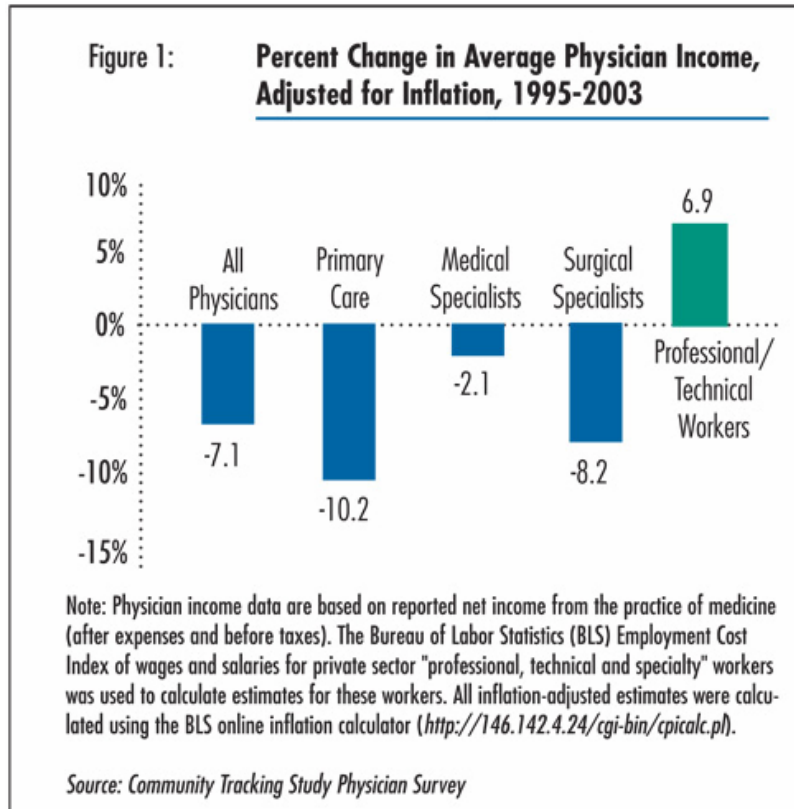
As previously noted, licensing arose due to a grab for authority and sovereignty by medical societies. The historical development of licensing statutes is sourced in custom within the medical industry – not in sound economic and managerial theory. Although sound economic theory would potentially suggest a mechanism for filtering medical professionals (in addition to price signals because of the inherent liability that malpractice poses in the industry), the problem and solution would have been approached differently, in an attempt to more effectively limit the amount of “quacks” that enter the medical profession. As such, licensing has not been nearly as effective as some may have initially hoped.

Some states have even gone as far to impose citizen requirements on aspiring professionals, although most efforts have been struck down by the courts (Young; 2002). Because licensing boards have instituted what appears, at times, as arbitrary examinations, requirements are not always based on actual levels of knowledge, skill and ability; instead, licensing exams have become superficial source of professional validation. Economic research performed by the U.S. Department of Labor, specifically the economist Elton Rayack, as well as Young (1988) document the failure of licensing exams. Rayack shows that licensing standards have been manipulated during tough economic times, demonstrated by significantly higher rejection rates during times of high unemployment. This, in turn, illustrates that licensing statutes are not developed as an absolute standard that all medical professionals must aspire to and surpass. Another side effect of licensing statutes has been the increasing reluctance of professionals to “turn in” one of their own for poor practice and incompetence. Again, the concept of the “rule of locality” pervades the medical complex’s thinking; group loyalty among

licensed physicians remains high, restricting entry to aspiring medical professionals. In this sense, the higher costs for licensing would be accepted if there is a measurable increase in quality; however, because licensing has a relatively ineffective role in increasing the quality of individuals in the medical field, consumers suffer and the market becomes less competitive (Young; 2002).

In addition to the ineffective licensing statutes, the real cost of a medical education has been climbing faster than the real incomes associated with average physician employment salaries. Although there is still a strong incentive for specialists, general practitioners have been earning much less in comparison to the rising costs for education. For the past 20 years, the cost of obtaining a medical education has dramatically increased. Tuition and fees at public medical schools during the 2003-2004 academic year totaled \$16,153; the respective total for private schools was \$32,588. With \$20,000 to \$25,000 for living expenses, books, and equipment, the average cost for four years has approximated \$140,000 for public schools and \$225,000 for private schools (Morrison; 2005). Yet, juxtaposing these figures with the 1984-1985 academic year, average annual tuition and fees were \$3,877 at public medical schools and \$12,973 at private schools. In evaluation of the heightened costs, 19 years yielded an increase in 317% and 151% respectively, despite low levels of inflation (Morrison; 2005).

Yet, these figures are insignificant without a meaningful comparison to the statistical trend of real incomes for physicians. Between 1995 and 2003, average physician net income declined roughly 7%, adjusting for inflation, according to a comprehensive 2004-2005 Community Tracking Study Physician Survey, the results are depicted below (Ginsburg et al.; 2006).



The results from the Bureau of Labor Statistics illustrate that, on average, the real incomes of the medical profession have dramatically decreased. With the recent passage of the health care legislation, the trend for decreasing real incomes looks even more likely.

The results of licensing statutes and increasing costs for medical education have drastically undermined the level of competition on the supply in the health care market. By creating stronger barriers for entry while doing little to cultivate the quality of suppliers, ideal competition has become a mere illusion. That said, the argument here is not that the health care industry would achieve optimal efficiency without any licensing statutes. Rather, medical licensing examinations and qualifications must align with reasonable expectations of what medical professionals must know to succeed as effective practitioners and ethical decision-makers.

Comparing Developed Health Care Markets

The next major section of the paper will describe the Australian health care market, highlighting its achievements and why it has been successful thus far. Key emphasis is placed on the liberalism¹ in their market and how the United States can apply Australian free market principles into our economy. Recognizing the reality of path dependence, there are, nonetheless, lessons that can be learned to facilitate the free market's effectiveness. Although efficiency and equity are often characterized as inevitable trade offs, this section will illustrate that Australia has found a balance between the two goals. By constructing a system with a guaranteed safety net, Australia's system creates a base minimum for the poor while also cultivating market principles for the majority of the population through private insurance.

History of the Australian Health Care Market

Australia's health care system is a derivative of what developed in Great Britain. Seeing that Australia's traditional ties are with Britain, they adopted many similar practices. However, prior to 1972, Australia's health care system was particularly uncoordinated, resulting in an inability for the majority of Australian citizens to attain health care services. That year, Australia enacted a publicly financed insurance system called Medibank, although it was not implemented until 1975 (OM; 1992). As a result, Australia fashioned a two-tiered (similar to a split-level) health care system. To fund its comprehensive health care service sector, Medibank, Australia implements a 1.25% federal income tax; additional revenues are also earned at the state and local level to fund hospital care (OM; 1992). In this sense, the public sector funds basic health care services, allowing the private sector to complement public medical growth (DHAC; 2000).

The Australian Commonwealth, specifically the Department of Health and Ageing, develops and maintains the national health care agenda. By collecting national revenue and

¹ This refers to the classical notion of liberalism, that the free market should set price signals

administering subsidies, the Commonwealth funds and administers resources to the Medicare Benefits Schedule, the Pharmaceutical Benefits Schedule, and the Australian Health Care Agreements (Hilless et al.; 2001).

Medicare Benefits Schedule	Payments to practitioners; this payment system facilitates access to all eligible Australian residents to free or low-cost medical, optometric and public hospital care, while also leaving them free to choose private health services
Pharmaceutical Benefits Schedule	Subsidized drug purchases; generics and other drugs that are purchased and sold at discount
Australian Health Care Agreements	Formerly referred to as Medicare Agreements; it contributes funds to states for the purposes of running public hospitals

In addition to federal funding of health care services, the state level is comprised of six state and two territory governments that fund and provide health care services. The nation's decentralized market practices have allowed the states to become autonomous administrators of health services (Hilless; 2001). In this sense, traditional federalism has allowed path dependent local systems to flourish. For example, state health departments undertake their own budgeting, financial and cost controls, standards for operation, negotiations, personnel issues, etc. Their autonomy exists mainly due to federal efforts to decentralize their system, beginning in the mid-1980s (Hilless; 2001). By not requiring a one-size-fits-all approach, the Australian government is approaching a balance between state and federal control.

With that said, the private sector also drives major innovation and funding in the health industry, contributing a third of total health care expenditures (Hilless; 2001). The private sector is comprised of physicians, private hospitals, diagnostic services, and private health insurance. Because the majority of physicians in Australia work under private practices, they have had the opportunity to provide influence and judgment in national health care matters. The reality is that

their strength is derived from the magnitude of private practitioners, providing them with leverage in the overall health care agenda. Private hospitals also serve as a significant share of the market. The growth of large corporations has ceded additional power to private hospitals by providing them with further negotiating power. As a result, private hospitals now dominate 32% of the market with hospital beds. The diagnostic services industry, a relatively new phenomenon that gained power during the 1990s, also marks a material share in the overall health care industry. With over \$1.3 billion in turnover, pathology and diagnostic services mark a noticeable share of the market. Lastly, private health insurance is a central element of the Australian health system. With the decreasing number of individuals covered by private health insurers, roughly a third of the population, regulation has also increased. Now, private insurance must submit to the regulatory framework espoused by the Private Health Insurance Administration Council (Hilless; 2001).

The Australian government is working to provide a better balance between public and private sector investment in the health care system by encouraging people to hold private health insurance, while also providing Medicare as a universal safety net. One of the ways that the Australian government incentivizes private health insurance is by offering a 30% rebate for the cost of private health insurance premiums. In addition, the Extended Medicare Safety Net legislation, passed in 2004, provides further assistance by helping to meet 80% of out-of-pocket costs for medical services once an annual threshold is reached. For that reason, the Australian government has been able to manage health care costs from draining a significant portion of federal funds. While the United States spends over 16% of its gross domestic product on health care, Australia now spends approximately 9.8% of its total gross domestic product on health care (AG; 2010).

Health Care Expenditures

Total Health Care Expenditures with Nominal and Real Rates

Year	Amount (\$ in million)		Change from Previous Year (%)	
	Current	Constant	Nominal Change	Real Growth
1997–98	44,802	62,305	-	-
1998–99	48,428	65,679	8.1	5.4
1999–00	52,570	69,637	8.6	6.0
2000–01	58,269	74,321	10.8	6.7
2001–02	63,099	77,886	8.3	4.8
2002–03	68,798	82,020	9.0	5.3
2003–04	73,509	84,657	6.8	3.2
2004–05	81,060	89,634	10.3	5.9
2005–06	86,685	92,191	6.9	2.9
2006–07	94,938	97,720	9.5	6.0
2007–08	103,563	103,563	9.1	6.0
Average Annual Changes				
1997–98 to 2002–03			9.0	5.7
2002–03 to 2007–08			8.5	4.8
1997–98 to 2007–08			8.7	5.2

Notes:

- i. *Constant price health expenditures for 1997-98 to 2007-08 are expressed in terms of 2007-08 prices*
- ii. *Nominal changes in expenditures from year to year refer to changes in current price estimates. Real growth is derived from expenditures in constant prices.*
- iii.

Total Expenditures to GDP using Current Prices

Year	Total Health Expenditure	GDP	Ratio of Health Expenditure to GDP
	(\$ in million)		%
1997–98	44,802	577,373	7.8
1998–99	48,428	607,759	8.0
1999–00	52,570	645,058	8.1
2000–01	58,269	689,262	8.5
2001–02	63,099	735,714	8.6
2002–03	68,798	781,675	8.8
2003–04	73,509	841,351	8.7
2004–05	81,060	897,642	9.0
2005–06	86,685	967,454	9.0
2006–07	94,938	1,045,674	9.1
2007–08	103,563	1,131,918	9.1

- iv. *These two statistical tables are derived from the informational excel sheets from the Australian Institute of Health and Welfare*

Cost Management and Financial Controls

Government implementation of services, by its essence, will involve inefficiency and excess expenditures. In an attempt to create more efficient processes and tax codes, the Australian government designed a new tax system in July of 2000 that abolished many of the past taxes, replacing them instead with a new 10% tax on goods and service tax (Hilles; 2001). The challenge that the Australian health care system faces parallels the challenges that other government-run systems face, namely that of moral hazard. Because medical treatment is functionally free and its use is unlimited, those under the provisions of Medicare are susceptible to over utilization. That said, the reality of a certain degree of rationing helps mitigate the effects of single consumers flooding the marketplace.

The Australian government has worked to implement an array of cost containment strategies in three central areas: medical and pharmaceutical benefits, hospital casemix funding, and price/volume agreements with providers. To address the challenge of moral hazard and over utilization, the Pharmaceutical Benefit Scheme (PBS) has increased co-payments. Legislated for the purposes of deterring inappropriate use of health services by patients and raise revenue, the policy has been an ineffective cost control mechanism because it has not sought to address the underlying dilemma in the system – the risk of moral hazard and inefficiency. Further, the lack of many material fiscal incentives for physicians to limit treatments and prescriptions has resulted in greater disbursement of over utilized services. To mitigate hospital funding, the Commonwealth created a ceiling for expenditures, while the states developed casemix funding². Price/volume agreements, on the other hand, have been developed with pathologists and radiologists. By adjusting fee related services, the Commonwealth capped total expenditures by

² Casemix funding refers to the mix of patients that a hospital treats. It is currently the central funding model in Australian health care services for reimbursing the cost of patient care. In essence, the casemix system measures hospital performance and rewards initiatives that increase efficiency.

creating new restrictions (Hilless; 2001). That said, these policies have fundamentally lacked an adherence to financial incentives, relying instead on a regulatory framework. And, as a result, the Australian system has faced un-necessary inefficiencies.

Taking A Step Back: How the U.S. System Compares with Australia's

Australia's two-tiered system benefits health care recipients by providing individuals with a base level of health care service that is available for all, while also providing incentives for individuals to consume private insurance coverage. For example, although all residential aged care is financed and regulated by the Commonwealth Government, there is an extensive array of private sector health insurance services that are given incentives by the federal government. Specifically, the Commonwealth government provides a 30 percent subsidy to individuals who purchase private health insurance; private insurance can not only serve as additional medical services, but can also cover private and public hospital charges and a portion of medical fees for in-patient services (DHAC; 2000). In contrast, the United States does not have a similar system whereby a base guarantee for health care services exists. (Medicare and Medicaid exist, but are not available to all persons; individuals must meet certain criteria to qualify, including age, income level, etc). Instead, health maintenance organizations functionally control the market via monopolies.

Given that the United States and Australian systems are so different, one must examine the sources for expenditure discrepancy. As it was previously explained, Australia spends approximately 9.8% of GDP, as opposed to U.S.'s 16.2%, on health care (Feldstein; 2007). The following table illustrates health care expenditures from 2001 to 2008:

Item	2001	2002	2003	2004	2005	2006	2007	2008
In billions of Dollars								
NHE	1469.2	1602.4	1735.2	1855.4	1982.5	2112.5	2239.7	2338.7
Private	807.0	880.6	956.6	1015.5	1082.8	1136.8	1201.0	1232.0
Public	662.2	721.8	778.6	839.9	899.8	975.7	1038.7	1106.7
State	464.9	509.1	552.0	599.8	641.4	709.6	755.3	816.9
Local	197.3	212.7	226.5	240.2	258.4	266.1	283.4	289.8

Notes:

NHE stands for National Health Expenditures

Statistics acquired from Centers for Medicare & Medicaid Services

<http://www.cms.gov/NationalHealthExpendData/downloads/tables.pdf>

Some key inferences that can be drawn from the data above:

- NHE grew 4.4% to \$2.3 trillion in 2008, or \$7,681 per person, and accounted for 16.2% of Gross Domestic Product (GDP).
- Medicare spending grew 8.6% to \$469.2 billion in 2008, or 20 percent of total NHE.
- Medicaid spending grew 4.7% to \$344.3 billion in 2008, or 15 percent of total NHE.
- Private spending grew 2.6% to \$1.2 trillion in 2008, or 53 percent of total NHE. (CMS; 2010)

The accelerated rate to which these expenditures are increasing is sourced in a variety of contributing factors, however, the most interesting – and avoidable – is the lack of focus on preventative care in the United States. The goal of public health policy must be to deliver quality care at a reasonable cost, reasonable being defined by the country's willingness to devote resources (in the case of the United States, it is clear that citizens and politicians alike are not willing to devote such a larger percentage of annual revenues to health care services; such devotion will sacrifice other national objectives, including security, research and development funding, etc). That said, increasing funding for medical services is not the answer. Instead, one must construct a "health production function" that examines the variables that affect

expenditures and aggregate public health (Feldstein; 2007). Feldstein's research in this area illustrates that funding for health care services is only one – small – variable in the equation. Of course, a certain amount of funding is essential, however, there is a point that is reached where the return on investment increases at a significantly decreasing rate, due to inefficiency and an inability to resolve consumer preferences. For that reason, funding becomes too costly to justify continued investment over other opportunities. This point is essential: the true cost of a program is not just the directly allocated funds, but also the opportunity cost trade offs that are made; the true cost includes alternative uses of funding. Empirical studies show that changing life style behavior, not increasing funding, offers the greatest promise for reducing mortality rates, at a much lower cost per life saved (Feldstein; 2007). For example, by reducing the number of women in high risk pregnancies, the number of unwanted births will decrease, rather than the conventional solution of investing in additional neonatal intensive care units. Further, changes in eating and exercise habits could drastically reduce the likelihood of other sources of death, including heart disease. It is interesting to note that the majority of health care expenditures occur at the end of one's life, rather than a relatively dispersed amount of funding throughout one's lifespan, or even a larger up front investment amortized over a period of time (Feldstein; 2007). For that reason, Australia's health care system, and other nations, is able to effectively deliver preventative care better than the United States. Rather than trying to earn a good return on investment at the end of one's life, health care services should invest earlier on for optimal results.

Given that health care expenditures are only going to increase – at an increasing rate due to the baby boomer generation – economically sustainable action in the delivery of health care services is imperative. Without a system that effectively manages the cost of care, while also

delivering optimal services, the United States will continue to devote a larger and larger share of annual revenues to health care.

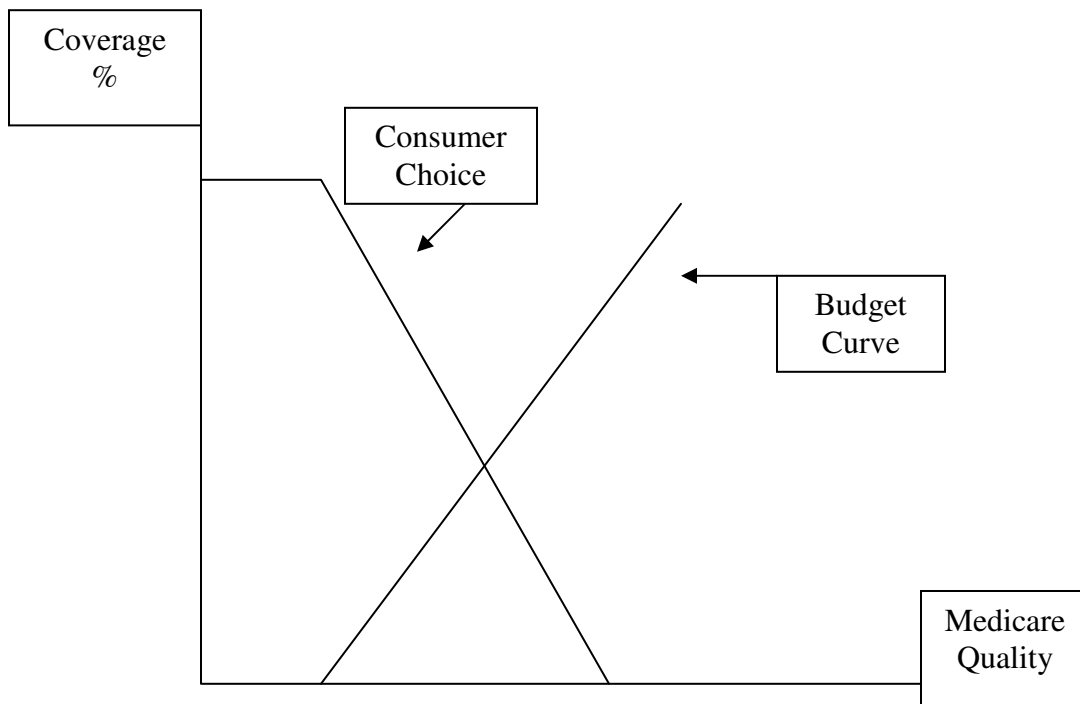
A Look at Private Insurance in Australia

Even though Australia's health care system appears to control costs much more effectively, careful examination must be given to determine whether or not appearance fits reality. One of the most pressing arguments against the inclusion of private insurance is that the benefits that private insurance offers do not outweigh the costs that it imposes on the federal government. Specifically, Sharon Willcox, an official in the Department of Human Services in Melbourne, Australia, argues that the 30 percent subsidy for private health insurance cost the government US\$868 million in 1999–2000; in addition, spending contributed by private health plans decreased from 32.7 percent in 1995 –1996 to 24.7 percent in 1999 – 2000 (Willcox; 2001). For this reason, there exists a significant debate regarding the effectiveness of private health insurance given that it has not resulted in material increases in health care coverage.

However, private insurance must be given a deeper look in an economic context that approaches the health care system holistically. One cannot assume, given the aforementioned statistics, that a single payer system would necessarily be more efficient. It is evident that many single payer systems, that exclude the existence of private insurance, result in massive inefficiency and bureaucracy. The recent deregulation in Britain's National Health Service illustrates that the costs under their past program were unsustainable (Lyll; 2010). A government cannot efficiently manage & control costs while also ensuring an acceptable level of quality care.

Philip Manners, a senior economist at the Centre for International Economics, produced a seminal research study that provides a model for evaluating private health care insurance in

Australia. Simply put, Australia's private health insurance industry can be modeled with a relationship between private insurance choices and Medicare's budget allocation. The implications of this are twofold: increases in quality/coverage in Medicare improves, fewer people will be attracted to private insurance; yet, a decrease in coverage implicates the government's ability to provide a lower quality of Medicare with a fixed budget. Manners produces the following graph:



The downward sloping line represents the consumer's demand for health care services, while the upward sloping represents the availability of supply via Medicare.

Increases in Medicare quality result in a higher demand for services, whereby there becomes a shortage. This in turn reduces the quality of medical care and threatens consumer surplus.

We assume that consumers have the main role in determining the health care market, because insurers take a reactionary role, given general market assumptions. It should be recognized that this is an assumption – the health care market behaves atypically; however, there is greater assurance given that this is an isolated example for the demand/supply of services between public and private market.

This visual representation of the model that Philip Manners creates proves the initial stated implication, namely that an increase in government funding for Medicare will not change the quality of services that are delivered. This is because quality expands commensurate to coverage; as more funding is devoted to Medicare, more individuals will leave the market for private insurance. Although an argument can be made that in the short term government funding for Medicare will increase the real quality of the services delivered, the spread of information will result in an eventual transition from consumers in the market for private health insurance to government funded Medicare.

Another key implication that this model has is that a shift in government health care policy could be potentially disastrous for the private insurance market. A rapid influx in resources for public health care would result in a rapid shift from private insurance to Medicare, negatively impacting the economic sustainability of the private health insurance industry. Because the private industry would not be able to cope for a long period of time, consumers would enter into the market for Medicare. However, the potential economic ramifications on the private health industry would result in serious shortfalls prior to the increase in coverage that would result from additional funding for Medicare. As such, consumers and private industry would be worse off: private health care insurance would be unable to compete with the

government's rapid influx of funding and consumers would suffer from long term decreases in the quality of care from Medicare/public health care.

That said, one of the main reasons why private health insurance has been a vital component in Australia's health care system is because it has alleviated pressure on Medicare. Simply put, resources are finite and no country has the ability to sufficiently fund complete medical coverage; the question is whether medical services will be rationed via government set standards of price signals (Feldstein; 2007). Although there exists an argument that private health care insurance risks over utilization of medical services, such an argument is dubious at best. Because one does not have alternate worlds to compare and falsify the direct correlation between a moral hazard effect and the provision of private health insurance, it becomes impossible to quantify the specific implication (Colombo et al.; 2003). More importantly, public health is better served by over utilization than a massive shortfall in health care services, which is the likely outcome of a system without private health insurance.

Australia has not implemented nearly as many cost control measures as the United States has. Insurers, in Australia, rely primarily on demand side mechanisms, such as front end deductibles, exclusions, and reimbursement limits (Colombo et al.; 2003). The contracts with hospitals mainly focus on prices, rather than the volume of care or limit claims growth. (However, there are certain controls that necessitate competition between private insurers in Australia more so than the United States). For that reason, public health care cost containment measures have been ineffective at limiting moral hazards and over utilization; this remains a pivotal argument in advancing incentives for private health care insurance, namely that the government's inability to manage health care costs necessitates greater emphasis on the private sector due to its proven ability to control costs. That said, it must be noted that the private

industry's ability to leverage negotiating power with medical suppliers has fared worse than the government's ability to do so; this has resulted in an increase in spent resources (Colombo et al.; 2003).

Although private health insurance firms have attempted to manage health care costs, they have not done so at an optimal rate – there is still much more they could have done (and could be doing). There are a few reasons that may explain the lack of cost control measures, however, two dominant and related explanations exist: reinsurance mechanisms inhibit the incentives for cost effective management of high risk cases and there are incentives for funds to shift costs over a continuum of care rather than manage health risk and cost independently (Colombo et al.; 2003). Reinsurance mechanisms could be reformed to enhance efficiency by introducing risk base capitation models that take into account inherently risky insurance situations. This contrasts with current mechanisms that only retrospectively insures based on differences in actual costs in risk categories. (In this sense, a more proactive approach could be useful, like a risk based capitation model). In addition, current incentives for private insurance funds are fragmented in areas. For example, there are currently incentives to challenge decisions by the Acute Care Advisory Committee, a committee that advises on the needs for particular patients to receive acute care in hospitals; this is because insurers benefit if an insuree is treated as a long term patient, rather than an acute patient, because risk exposure is smaller and the public system finances a large portion of the cost (Colombo et al.; 2003). This indicates that there are very misaligned incentives. Even though Australia touts incentives for private health insurance, these incentives are not entirely effective; some incentives do indeed provide useful benefits, however, many result in inefficiencies between public and private sources of resource allocation. For that reason,

the private health care industry is not entirely to blame for its failure to institute adequate cost control mechanisms.

Private health care insurance must be evaluated when discussing health care policy. The best method for increasing the quality of Medicare is by influencing the supply/demand incentives for private health care insurance. A short sighted policy that simply increases funding for Medicare will have an asymmetrical effect, undermining social welfare – both consumer and producer surplus – and result in a decrease in long term public health care.

Private Health Care Insurance & Increased Flexibility

The above arguments and evidence indicate a clear need for private health care insurance. Without Australia's incentives for the private market, Medicare would be increasingly more inefficient and unable to deliver quality care. In addition to these arguments, private health care insurance creates a wider array of choice flexibility. Choice is provided on a variety of levels. Most importantly, individuals have a choice between different funds and can adjust their decisions based on their personal preferences for health care services. Individuals also have a better choice over the timing of timely care, particularly for elective surgery. Depending on the type of treatment, this choice carries significant weight. For these reasons, increased choice and availability of private health insurance creates competition within the market, raising the quality and cost effectiveness of care (Colombo et al.; 2003).

One of the cornerstone elements of a market economy is that price signals ration the consumption of goods and services. For those that value health care higher than others, they will consume a greater amount of health care services. Particularly for medical care, having the ability to choose from a wide array of insurers is vital. Also, having timely care is a critical

factor. For these reasons, private health care insurance enhances consumer surplus and overall social welfare. The costs of private health care insurance are outweighed by its benefits.

Policy Recommendations: A Conclusion from the Australia and United States Experiences

This third portion of the article will provide policy recommendations based on the established research and information presented earlier. It will advocate for an increase in healthy competition that can be facilitated through nation-wide health insurance competition. Current regulatory policies hinder – do not promote – lower prices and higher quality. In addition, the United States should re-work Medicare to include individuals below the age of 65 as well. This approach would allow intense and productive competition between private insurers while also creating a base guarantee for low income families.

Economic theory argues that competition in the health care industry will result in greater quality and more effective cost measures. Although the standards by which results are judged are often disputed, an analysis of social welfare – consumer and producer surplus – provides an objective evaluation of a policy's effect. Theoretical – and practical – research is clear regarding what types of policies best optimize consumer welfare: price signals, not regulatory policies, guide demand and supply; when price is above marginal cost, competition results in higher quality (Gaynor; 2006). In contrast, government regulation leads to fixed prices that negatively distort market equilibrium. For example, Medicare sets a fixed price for hospitals based on a patient's diagnosis and doctors are paid fixed prices for their services; this has resulted in sub-par quality care and uncontrollable costs (Gaynor; 2006). That said, current inefficiencies and inadequate cost control measures can potentially be remedied with greater competition; in an environment with healthy competition, relentless improvements in internal & external processes,

product & service quality, and innovation will ensue (Porter; 2004). For this reason, the lack of optimal competition in the health care market is at the root of current market dysfunctions.

The lack of competition does not necessitate an advocacy for what is often mischaracterized as a more efficient way for handling claims, namely the development of a single payer system. Indeed, a single payer system sacrifices competition for theoretical efficiency through the government. Although single payer systems consolidate information better than multiple sources do, they result in other more harmful forms of inefficiencies. For example, levels of bureaucracy limit the velocity of information in a program. More importantly, without an incentive to innovate, via the constant pressure of competition, single payer systems have less of a necessity to cut un-necessary spending and increase efficiency. The fact is that reform has never truly taken place; the creation of Medicare and other public/private programs have failed to alter the way that competition is conceptualized and implemented (Porter; 2004). However, for Medicare to effectively target the relevant population, it must seek to provide services to low income families as well. Current conceptualizations of Medicare are that it is a wasteful and low quality program. By consolidating resources and working to alter individuals' foundational mindset, Medicare and private insurance competition can act in synchrony.

Although the beginning portion of the article examined the distinct characteristics latent in the health care industry, the examination should serve as guiding characteristics for creating an optimal system – they should not be used as excuses to justify regulating competition in the health care market. Health care unequivocally operates with different market constraints, including a lack of information and real price for services, but this is also somewhat true in other industries as well. Consider the market for highly intricate software designs or energy production and distribution mechanisms; consumers cannot be completely knowledgeable about the service

at hand – by definition, they are hiring a service because the consumer lacks the particular skills necessary for job completion. That said, misconceptions in the health care industry have resulted in a distorted view of competition, namely that it is zero-sum based (Porter; 2004). For example, zero sum competition necessitates the pursuit of greater bargaining power (monopolization of the market) rather than an effort to genuinely deliver better care to the consumer, therein earning higher profits. (It is assumed that the goal of the firm is to profit maximize, but the emphasis on innovation and consumer satisfaction is emphasized here because of the deadweight loss that monopolies create). In addition to failing to enhance quality care and better services, zero sum competition restricts choice and access to services because of irrational health care policies, namely the tendency for health plans to refuse to pay for certain services because of unrealistic market expectations. These two examples illustrate how the understanding of zero sum competition has influenced health care policy. Specifically, the result has been the pervasive growth of managed care as a way to decrease costs for the supplier, without delivering substantial value to the consumer. For this reason, competition must be pursued out of the desire to maximize profit through the delivery of more valuable services (innovative technology, better care, etc) rather than prioritizing cutting costs as the first concern.

The research of Porter and Teisberg suggests that healthy competition can be generated with a focus on treating disease and developing more effective treatments. The question that must be asked is, “How can the firm enhance consumer experience such that the consumer prefers to do business with us over competitors?” This question shifts the emphasis into value creation – the cornerstone of innovation and economic progress. To facilitate healthy competition, there should be a concerted effort to disclose prices and make information more accessible. This would allow consumers to make more thoughtful decisions based on which

insurance plans satisfy their given utility preferences. Further, insurance companies should be more willing to negotiate with consumers without discriminatory practices, given that risk pools mitigate the costly effects that individuals with poor health would have on the firm. That said, the recent health care legislation aims to remedy this dilemma by removing the restriction on pre-existing conditions. However, the dilemma with top-down regulatory legislation is that it fails to create an incentive within the market. Incentives, not legislation, are at the root of altering corporate/individual behavior; without pressure to change otherwise constant preferences, individuals will continue them. For that reason, the most effective solution will include incentives, developed at the federal level, for private insurers, which will compel employers to take the initiative and shift their focus onto authentic economic objectives. These incentives can be used to stimulate the private insurance market, which would, therefore, relax the high demand for public medical services. Already, we see evidence of this type of policy in Australia, where there are material federal incentives for individuals to purchase private insurance. Their system has been successful because it has developed a better synchrony, compared to the U.S., between regulatory and market based action.

Publicly Funded Health Care: A Failed Model

The objective to facilitate healthy competition can only be achieved in a free market economy, complemented by positive government policy-based and monetary incentives. Here, we will briefly discuss the implications of having a health care market run solely by the government.

Every major country has the government playing a role in the delivery and financing of health care, however, the degree to which the government makes decisions varies among countries. On the aggregate, countries that use public funding for health care delivery result in

inefficient resource allocations and are generally unresponsive to the preferences of consumers. Further, publicly run health care systems monopolize the market – leaving no incentives for private based innovation (Le Grand; 2009). For this reason, government health care systems lack the ability to deliver a high quality of care at a reasonable cost, purely because the government faces an entirely distinct budget constraint and incentives. For example, many health care budgets are determined historically – not based on their actual performance and requirements for resource allocation (Le Grand; 2009). However, it is true that government run health care systems can work – for a (relatively) short period of time; Britain's NHS is a perfect example of a health care system that began as a model for government run health care, but only recently it recognized its inability to satisfy finance and delivery obligations (Lyll; 2010, Le Grand; 2009). However well government run plans work in the short term, command and control type policies are unsustainable in the long term because they fail to drive innovation and create incentives for efficiency. For this reason, governments must serve to complement private growth in the health care industry, not attempt to drive it with unreal expectations.

A Glance at Policy Recommendations

The debate about health care reform is incredibly complex. Although a simple conventional market based approach may fail to effectively account for the nuances in the health care industry, this study has shown that competition and market based actions must serve as the cornerstones for policy proposals. The United States can learn from Australia's example: the optimal health care market will maintain a minimum safety net for low income families while also providing incentives for the middle and upper class to purchase more valuable insurance coverage. To create an environment that is conducive to private industry, the government can seek to remedy inefficient regulation that does not generate material benefits.

One of the most harmful regulations in the market for health care concerns state health insurance licensing. Because each state requires insurers to acquire a license from the state's respective government in order to sell insurance within state borders, licensing laws effectively allow state monopolies – oligopolies in the aggregate market for the United States health care market (Cannon; 2009). As it was discussed earlier, licensing laws are critical to set certain standards, however two key points must be considered: licensing laws must be representative of the risk they are trying to obviate and licensing laws must not serve to dramatically decrease competition. In the case for state health insurance, many physicians have used state licenses to shield their incomes from market forces that would otherwise decrease the cost of medical care. To examine a few cases where regulatory policy undermines competition, consider the following:

- Ophthalmologists use licensing laws to prevent optometrists from performing surgical procedures
- Anesthesiologists use licensing laws to block competition from nurse anesthetists
- Physicians use licensing laws to restrict nurse practitioners' ability to prescribe drugs and retail clinics.

These three examples indicate that current regulatory procedures, whether it is state based licensing laws or general licensing statutes, inhibit competition – creating additional barriers to entry. Whether or not these licenses are net positive or negative in other realms is another argument, however, it stands that they have a significant impact on competition. It is estimated that eliminating half of the state health insurance regulations would result in an increase of \$1,000 savings for families per premium (Cannon; 2009). Truly, the regulation in the current market has created a dysfunctional form of supply and demand.

Although there are many measures that need to be taken to enhance competition within the health care market, this research will conclude with support for the removal of statutes that prohibit purchasing of health care insurance across state lines. A seminal health care economics study examines the economic implications of state based insurance care. This evidence complements the argument advanced in this study, namely that competition fosters higher quality and lower prices, which benefits social welfare. Parente's study includes a simulation of three different scenarios: competition among the five largest states (California, Texas, New York, Florida, Illinois), competition among all fifty states, and competition within regions (health insurance is divided into four regions: Northeast, South, Midwest, West). Using a national mean of \$45,000 for income, Parente illustrates clear benefits for the average consumer, especially for the states with more stringent regulation (Parente et al.; 2008). Significant evidence indicates that the number of uninsured can be drastically reduced and allowed to purchase health care across state lines under this scenario. The research in Parente's study confirms the hypothesis advanced in this article. Removing the barrier for state line purchased health insurance, individuals will have greater access to medical care and quality will increase, due to a rise in competition that necessitates innovation and superior consumer satisfaction.

Aside from economic model simulations, empirical results exist that confirm the importance of competition, especially in the health care market. Australia's system allows for among private insurance companies, while the government's public insurance program is shielded from competition. As such, Australia fosters innovation within the private sector, which ultimately has technological and social spill over benefits for the public sector. Competition is essential in the health care market to maintain continued research and development, market prices (not artificial prices that don't reflect consumers' preferences), and quality services

(Feldstein; 2007). For that reason, Australia's medical system is a testament to the effectiveness of private sector competition augmenting the public sector.

The main argument that individuals use against this policy proposal is that breaking states' regulatory monopolies would result in a loss of key consumer protections to capture health insurance premiums. There are three important answers to this. First, consumer protection in the status quo is not working – the effect is not measurable. If existing consumer protection was effective, there would not be nearly as high of a demand to reform United States health care. Second, competition would bankrupt firms that do not consider customer satisfaction; individuals have the entire nation to choose from in terms of medical providers. Third, courts in other states, and even the Supreme Court, would challenge inequity perpetuated by firms that abuse the consumer. For these three reasons, the probability that removing state based health insurance would result in a loss of consumer protection is functionally zero. Regulatory federalism would permit each state to set its own malpractice rules and force incompetent physicians out of the market (Cannon; 2009). For this reason, eliminating this regulation would result in few costs, but is likely to lead to significant benefits, including increased access to coverage, higher quality services, and more authentic market prices, as opposed to artificially inflated prices.

Unlimited medical care is not possible – health care is an economic good that faces severe constraints and is thus scarce. The question, therefore, should ask how best to allocate resources such that efficiency and equity can be balanced. There are many routes to increasing access to care. The current political climate favors regulator legislation. However, this study develops a compelling case for market based incentives because they offer the highest probability for changing preferences and overall business models. Regulatory action merely seeks to limit certain behaviors, of which even the regulation is not entirely effective (fraud,

failure to comply, etc). In contrast, market incentives alter individual and corporate behavior. For that reason, removing the regulation that prohibits the ability for state insurers to sell across state lines is vital to improve the access to medical care, increasing quality, driving innovation, and decreasing prices.

Conclusion

The American health care market is highly complex and consists of many contributing variables that affect the delivery and finance of medical care. Due to the conditions that the health care market grew, serious consideration must be given to its context. Indeed, path dependence implicates a degree to which countries cannot compare models in an attempt to replicate policy proposals. For that reason, the examination of Australia as a leader in the health care market should serve as a blueprint for United States policy action – not as an ideal replica for constructing U.S. health care policy. By providing a guaranteed level of medical services and incentives for private insurance, Australia uses the free market to enhance competition and equity. In comparison to the United States, there are many options that are available. However, the most important pragmatic change that can be achieved is the elimination of state based statutes that prohibit the purchasing of health care insurance across state lines. This regulatory policy undermines healthy competition within the market. That said, programs like Medicare can be maintained if the free market is able to deliver care to middle and upper income individuals, leaving Medicare to care for the low income individuals. In this sense, the United States can model the Australian health care system by mirroring its successful two tiered system, while also applying case specific policy proposals that are path dependent on the current situation in the United States. Ultimately, reform in the health care market requires healthy competition – not un-necessary and inefficient regulation.

Sources Cited

Arrow, Kenneth. "Uncertainty and the Welfare Economics of Medical Care." *American Economic Review* 53.5 (1963): 941-973. JSTOR. Web. 26 Sept. 2010. <<http://www.jstor.org/>>.

Cannon, Michael F. "Yes, Mr. President A Free Market Can Fix Health Care." Cato Institute. N.p., 21 Oct. 2009. Web. 4 Oct. 2010. <<http://www.cato.org/pubs/pas/pa650.pdf>>.

Colombo, Francesca, and Nicole Tapay. "Private Health Insurance in Australia A Case Study." Organisation for Economic Co-operation and Development. N.p., Oct. 2003. Web. 4 Oct. 2010. <<http://www.oecd.org/dataoecd/5/54/22364106.pdf>>.

Feldstein, Paul. *Health Policy Issues: An Economic Perspective*. 4th ed. Chicago: Health Administration Press, 2004. Print.

Gaynor, Martin. "What Do We Know About Competition and Quality in Health Care Markets?" John Heinz III School of Public Policy and Management. Carnegie Mellon University, Apr. 2006. Web. 4 Oct. 2010. <http://www.ftc.gov/be/healthcare/wp/05_Gaynor_WhatDoWeKnowAboutCompetitionandQuality.pdf>.

Ginsburg, Paul, and Ha Tu. "Losing Ground: Physician Income, 1995-2003." *Health System Change*. N.p., June 2006. Web. 26 Sept. 2010. <<http://www.hschange.com/CONTENT/851/>>.

Hilless, Melissa, and Judith Healy. "Health Care Systems in Transition." *European Observatory on Health Care Systems*. N.p., 2001. Web. 26 Sept. 2010. <http://www.euro.who.int/__data/assets/pdf_file/0008/96434/E74466.pdf>.

"Health Expenditure." Australian Institute of Health and Welfare. N.p., 2010. Web. 27 Sept. 2010. <<http://www.aihw.gov.au/expenditure/health.cfm>>.

"Health care in Australia." Australian Government Department of Foreign Affairs and Trade (AG). N.p., 2010. Web. 26 Sept. 2010. <<http://www.dfat.gov.au/facts/healthcare.html>>.

"Lessons learned from ... The Australian Health Care System." Oklahoma Medical Research Foundation (OM). N.p., 1992. Web. 3 Oct. 2010. <<http://www.coph.ouhsc.edu/coph/healthpolicycenter/pubs/1992/chpr9202a.pdf>>.

Lyall, Sarah. "Britain Plans to Decentralize Health Care." *New York Times*. N.p., 4 July 2010. Web. 4 Oct. 2010. <http://www.nytimes.com/2010/07/25/world/europe/25britain.html?_r=4&hp=&adxnnl=1&adxnlnx=1282071672-m6+5I4po8/F9q0ORVjCM5Q>.

Le Grand, Julian. "Choice and Competition in Publicly Funded Health Care." *Health Economics, Policy and Law* 4.4 (2009): 479-488. IDEAS. Web. 4 Oct. 2010. <http://ideas.repec.org/a/cup/hecopl/v4y2009i04p479-488_99.html>.

Manners, Philip. "Modelling Australia's Private Health Insurance Industry." National Centre for Epidemiology and Population Health. The Australian National University, July 2003. Web. 4 Oct. 2010. <http://nceph.anu.edu.au/Publications/Working_Papers/WP48.pdf>.

Morrison, Gail. "Mortgaging Our Future — The Cost of Medical Education." *The New England Journal of Medicine* (2005): 117-119. *New England Journal of Medicine*. Web. 26 Sept. 2010. <www.nejm.org/>.

"NHE Fact Sheet." Centers for Medicare & Medicaid Services . N.p., 2010. Web. 3 Oct. 2010. <<http://www.cms.gov/NationalHealthExpendData/downloads/tables.pdf>>.

Parente, Stephen, et al. "Consumer Response to a National Marketplace for Individual Insurance." *Health Systems Information*. N.p., June 2008. Web. 5 Oct. 2010. <http://www.hsnetwork.com/National_Marketplace_7-21-2008%20FINAL_Blind.pdf>.

Porter, Michael, and Elizabeth Olmsted Teisberg. "Redefining Competition in Health Care." *Harvard Business Review* (June 2004): 1 - 13. *Harvard Business Review*. Web. 4 Oct. 2010. <<http://www.hbr.org>>.

Starr, Paul. *The Social Transformation of American Medicine*. N.p.: Basic Books , 1984. Print.

"The Australian Health Care System." Financing and Analysis Branch Commonwealth Department of Health and Aged Care (DHAC). N.p., 2000. Web. 3 Oct. 2010. <[http://www.health.gov.au/internet/main/publishing.nsf/Content/EBA6536E92A7D2D2CA256F9D007D8066/\\$File/ozhealth.pdf](http://www.health.gov.au/internet/main/publishing.nsf/Content/EBA6536E92A7D2D2CA256F9D007D8066/$File/ozhealth.pdf)>.

Willcox, Sharon. "Private Health Care In Australia." *Health Affairs*. N.p., 2001. Web. 3 Oct. 2010. <<http://content.healthaffairs.org/cgi/content/full/21/1/277>>.

Young, David. "Occupational Licensing." *Library of Economics and Liberty*. N.p., 2002. Web. 26 Sept. 2010. <<http://www.econlib.org/library/Enc1/OccupationalLicensing.html>>.