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A Health Care Autopsy

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Abstract: This paper analyzes each of the factors responsible for the rapid rise in health care spending in this country. This includes an in-depth analysis of prescription drug expenditures, which has been the fastest growing component of health care costs. Lastly, this paper will address whether there is anything particularly unique about health care spending in California.

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Introduction

The United States spends far more on health care than any other country in the world. This is true from both a per capita and as a percentage of GDP basis. U.S. health care spending is expected to have reached $2.5 trillion in 2009, up 5.7 percent from the previous year despite a decline in GDP. As a result, health care’s share of the economy grew 1.1 percentage points to 17.3 percent, the largest one-year increase in GDP share since the federal government began keeping track in 1960.1 For the last 40 years, growth in health care spending has been averaging around 4.9 percent per year in real terms, while per capita GDP only grew 2 percent per year.2 As a result, total spending on health care as a share of GDP has tripled.3 The problem is only going to get worse. According to projections by the Congressional Budget Office (CBO), under current law the share of GDP devoted to health care will rise to 31 percent by 2035, 41 percent by 2060, and 49 percent by 2082.4 Left unchecked, health care will cripple this country.

Does our high spending at least buy us the best health care? By many objective and subjective measurements, the answer is no. The United States is the only country in the developed world, except for South Africa, that does not provide health care for all its citizens.5 The U.S. was tied for last out of the 55 Organization for Economic Cooperation and Development (OECD) countries in fairness in financing.6 The U.S. ranks 26th among

3. Id. at 5.
4. Id.
6. Id. at 6.
industrialized countries in infant mortality. The WHO ranks the U.S. 24th in the world on disability-adjusted life expectancy. Of the high-income OECD countries, only Denmark ranks lower, at 28th. And the WHO ranked the U.S. 37th in the world for performance. Subjectively, only 40 percent of U.S. citizens are satisfied with their health care system. The 2 countries with the highest percentage of people satisfied were Denmark and Finland, at 91 percent and 81 percent respectively.

In order to understand how to fix health care, one must first understand how it became a problem. The CBO has concluded that about half of all the growth in health care spending has been due to changes in medical care made possible by advances in technology. Rising income, changes in insurance coverage, changes in demographics, rising prices, increasing physician costs, overuse of medical technology, as well as defensive medicine account for the rest of the growth. This paper analyzes each of the factors responsible for the rise in health care spending in this country. Lastly, this paper will address whether there is anything particularly unique about health care spending in California.

I. The Uninsured

According to the Centers for Disease Control and Prevention, 59.1 million people had no

7. Id. at 5.
8. Id.
9. Id. at 7.
10. Id.
11. Technological Change and the Growth of Health Care Spending, supra note 2 at 1.
12. Id.
health insurance for at least some part of the 12-month period that ended in March of this year.\textsuperscript{13} That is up 400,000 people from 2009. Of that 59.1 million people, about 50 million aged 18 to 64 years had no health insurance, which is the most ever recorded in that age group. Between 2006 and the first quarter of 2010, the number of people without insurance in the 18- to 64-year-old age group has increased an average of 1.1 million Americans per year.\textsuperscript{14} And this is not all due to the poor. Half of the overall increase is among people with family incomes 2 to 3 times higher than the federal poverty level of about $22,000 for a family of four.\textsuperscript{15}

There are no studies that estimate the impact of uninsured Americans on health care costs as a whole, although it clearly has an effect. The CDC report also found that adults without health insurance were three times more likely to skip or delay care because of cost.\textsuperscript{16} Last year, more than 40 percent of adults aged 18-to-64 years that had chronic diseases such as diabetes, asthma or high blood pressure and did not have insurance went without care. Delays such as these can lead to poorer patient outcomes and higher costs. Specifically, a high proportion of uninsured increases expenses because conditions that could have been prevented or treated inexpensively in early stages grow into a health crisis. When untreated illness progresses to a serious stage, this leads to more emergency room treatment and intensive care.\textsuperscript{17} It is estimated that 42 percent of the cost of treating uninsured patients is shifted to private insurance, which


\textsuperscript{14} \textit{Id}.

\textsuperscript{15} \textit{Id.} at 3.

\textsuperscript{16} \textit{Id.} at 3-6.

\textsuperscript{17} \textit{Id.}
raises private insurance rates. 18 25 percent is paid by individuals themselves, and the rest from state and federal governments. 19

II. Price Inflation

The CBO estimates price inflation to account for anywhere from 11 to 19 percent of the rise in health care spending. 20 Price inflation is a rise in the price of medical goods and services relative to prices outside the health care sector. However, the CBO notes the inherent problems in trying to measure the impact of price changes in general. Specifically, many of the available measures of price change are misleading because they obscure vast improvements in the value and quality of care. 21

Despite spending more than any other country in the world, both per capita and per GDP, on health care, compared to the median OCED country the United States actually has fewer physicians per 1,000 citizens, physician visits per capita, acute care beds per capita, hospital admissions per 1,000 citizens, and acute care days per capita. 22 This data suggests that Americans receive fewer real resources than people in the median OCED country. In essence, we are paying more and getting less.

The government-controlled health regimes of the European countries, Canada, and Japan allocate considerably more market power to the buy side. 23 These monopsonistic buyers use


19. Id.

20. TECHNOLOGICAL CHANGE AND THE GROWTH OF HEALTH CARE SPENDING, supra note 2 at 11.

21. Id.


23. Id. at 102.
their market clout to drive down the prices paid for health care and health care inputs. In comparison, the highly fragmented buy side of the U.S. health care system, despite the huge Medicare and Medicaid programs, have relatively less market clout overall when negotiating prices. Because spending is a product of both goods and services used and their prices, and the U.S. spends more and uses less goods and services, this implies that the prices of those goods and services are much higher than in other countries.

III. RISING PERSONAL INCOME

Economists agree that rising personal income leads to higher spending on health care. What they do not agree on, though, is by how much. The CBO cites studies that estimate rising personal income to account for anywhere from 5 to 23 percent of the increase in health care spending.24

Medical care is a desired service, and people naturally demand more of it as their income rises. So, rising income will lead to an increase in the quantity of medical care demanded and, therefore, higher total spending. Income elasticity estimates from studies within the U.S. yield estimates between 0.2 and 0.4, meaning a 10 percent increase in income would raise health spending between 2 and 4 percent.25 Because the United States has a relatively high per capita income, this is also often cited by economists as explaining part of the difference in per capita health spending between the United States and other countries.26

IV. CHANGES IN 3RD PARTY PAYMENT

The CBO cites studies which estimate that changes in third-party payment account for 10

25. Id.
26. Id.
to 13 percent of the growth in health care costs.\textsuperscript{27} As a share of all per capita spending on personal health care, consumers’ out-of-pocket costs have fallen dramatically, from 52 percent in 1965 to 15 percent in 2005.\textsuperscript{28} This reduction in out-of-pocket costs is due largely to the creation of Medicare and Medicaid and subsequent changes to these programs, as well as greater private insurance coverage.

There are two main reasons why third-party coverage increases spending. First, expanded third-party coverage insulates consumers from part of the cost of medical services, which in turn encourages them to consume more services than they otherwise would. This increased demand for services, in turn, contributes to rising health care costs, which further increases consumers’ demand for third-party coverage.\textsuperscript{29} In essence, third-party coverage shields patients from the true costs of the services they are consuming. Second, health insurance also affects spending through its influence on the development of new technologies. Wider access to health insurance coverage, as well as the greater coverage of health insurance plans in general, makes investment in new medical technologies more profitable by allowing larger financial returns.\textsuperscript{30} This is because both of these factors contribute to demand for new medical services. Thus, a falling share of out-of-pocket health care spending should accelerate the development of new technologies, which will lead to higher spending overall.

\textbf{V. Administrative Costs}

There are no definitive studies as to how much administrative costs have led to an increase in health care costs. Even if reliable comprehensive data were available, they would be

\begin{enumerate}
\item \textit{Id.} at 8-9.
\item \textit{Id.}
\item \textit{Id.} at 9.
\item \textit{Id.}
\end{enumerate}
difficult to interpret because certain types of administrative activity probably help reduce health care spending, making the net effect on total cost growth unclear. The CBO cites studies that estimate administrative costs accounting for anywhere between 3 and 13 percent of the growth in health care spending.\textsuperscript{31}

Currently, 2 percent of Medicare’s spending goes to administrative costs. However, that number is a bit misleading because Medicare’s billing is outsourced to private insurers.\textsuperscript{32} Some believe a closer estimate would be between 5 and 6 percent. The CBO found that administrative costs account for 12 percent of the average insurance dollar.\textsuperscript{33} There was, though, significant variation among insurers. The largest employer-based plans had 7 percent administrative costs, while plans covering fewer than 25 employees had 26 percent administrative costs. In the individual market, 30 percent is spent on administrative costs.\textsuperscript{34} This shows that the difference is not necessarily private versus public, but rather large versus small. What is clear, though, is that administrative costs in the U.S. are higher than other countries. Canada’s single-payer system, for example, is vastly more efficient. A 2003 article in the New England Journal of Medicine found that, using 1999 data, that the U.S. spent $1,059 per capita on administration costs compared to just $307 per capita in Canada.\textsuperscript{35} Furthermore, between 1969 and 1999, the share of the U.S. health care labor force accounted for by administrative workers grew from 18.2 percent to 27.3 percent. In Canada, between 1971 and 1996 it grew from 16.0 percent to just 19.1

\textsuperscript{31} Id. at 11.


\textsuperscript{33} Id.

\textsuperscript{34} Id.
percent. 36

VI. AGING POPULATION

Although commonly cited as a major factor in rising health costs, the aging of the population has had a surprisingly small economic impact on health care. Although the elderly portion of the population has increased in the last 40 years, the CBO estimates that this is responsible for only 3 percent of the cumulative increase in spending. 37 They cite other studies that have estimated it at 2 percent. The growth of the elderly fraction was simply too gradual and insubstantial to account for much of the increase in per capita spending. 38 A different change in the population, the obesity rate, has had a much larger impact on health care costs.

VII. OBESITY

Since the 1980's, the adult population in the United States has become significantly heavier. From 1987 to 2007, the fraction of adults who were overweight or obese increased from 44 percent to 63 percent. 39 The share of obese adults in particular rose rapidly, more than doubling from 13 percent to 28 percent. 40 That sharp increase in the fraction of adults who are overweight or obese contributed to rising health costs in this country. Overweight adults are more likely to develop serious illnesses, including coronary heart disease, diabetes, and


36. Id.

37. TECHNOLOGICAL CHANGE AND THE GROWTH OF HEALTH CARE SPENDING, supra note 2 at 8.

38. Id.


40. Id.
hypertension.\textsuperscript{41}

The CBO examined the effect of obesity on spending by calculating how much would be saved if obesity rates returned to 1987 levels while using the 2001 levels of spending for each respective category of body weight. Using that approach, the CBO found changes in the prevalence of obesity to account for around 12 percent of the spending growth between 1987 and 2001.\textsuperscript{42} The two different results found using the two methods reflects the large change in the relative magnitude of spending on obese people compared with spending on people of normal weight. In 1987, spending per morbidly obese person was about 18 percent higher than spending per person of normal weight, but by 2001 it was 70 percent higher.\textsuperscript{43}

One possibility for why obese adults are incredibly more costly is that adults who are currently obese might be in poorer health than those who were obese in 1987 because medical advances may have reduced the mortality rates for some obesity-related conditions.\textsuperscript{44} This would lead to some obese individuals who would have died relatively young in the past to live longer and thus continue spending high amounts on health care. Furthermore, the adverse effects of obesity on an individual’s health seem likely to accumulate over time, so obesity-related health care spending for adults who have been obese for a prolonged period is probably higher, in general, than for those who recently became obese.\textsuperscript{45}

The problem is probably only going to get more severe. The CBO modeled three scenarios about the future. If distribution by body weight remains unchanged and the share of

\begin{itemize}
\item \textsuperscript{41} Id.
\item \textsuperscript{42} Id.
\item \textsuperscript{43} Id.
\item \textsuperscript{44} How Does Obesity in Adults Affect Spending on Health Care?, supra note 39 at 8.
\item \textsuperscript{45} Id.
\end{itemize}
obese adults remains at 28 percent, then spending per adult in 2020 would rise to $7,500 from $4,550 in 2007.\textsuperscript{46} This increase is largely a result of the underlying trends in healthcare that are projected to increase spending for everyone regardless of weight. If, however, distribution by body weight changes at the average annual rates for the 2001 to 2007 period, then the share of obese adults would climb to 37 percent and projected spending per capita would be $7,760, which is 3 percent higher than in the first scenario.\textsuperscript{47} If somehow the United States manages to reduce obesity to 20 percent by 2020 (which seems unlikely),\textsuperscript{48} then projected spending per capita would be $7,230 - 4 percent lower than in the first scenario and 7 percent lower than in the second scenario.\textsuperscript{49} How changes in body weight distribution would affect total (as opposed to per capita) health care spending is ambiguous. The savings of lower obesity might be offset by the subsequent increase in life spans. The net impact would depend on the magnitude of these opposing effects, which is unclear.\textsuperscript{50}

\textbf{VIII. OVERUSE OF MEDICAL TECHNOLOGY}

The CBO concludes that roughly half of the increase in health care spending over the last several decades is due to the expanded capabilities of medicine brought about by technological

\begin{quote}
46. Id. at 9.
47. Id.
48. According to a November 2010 survey, almost one-quarter of young women who are overweight actually perceive themselves as being normal weight. A different Harris Interactive/HealthDay poll found that 30 percent of adult Americans in the "overweight" class believed they were actually normal size, while 70 percent of those classified as obese felt they were simply overweight. Among the heaviest group, the morbidly obese, 39 percent considered themselves merely overweight. The study’s lead author concluded that the results show that being overweight has become the norm. Amanda Gardner, \textit{1 IN 4 OVERWEIGHT WOMEN THINK THEY’RE NORMAL SIZE: STUDY, BLOOMBERG BUSINESSWEEK}, Nov. 22, 2010, http://www.businessweek.com/lifestyle/content/healthday/646384.html.
49. \textit{HOW DOES OBESITY IN ADULTS AFFECT SPENDING ON HEALTH CARE?}, supra note 39 at 9.
50. Id. at10.
\end{quote}
This category includes new drugs, devices, services, or techniques. Certainly, an incredible number of advancements have been made in medicine that enable physicians to treat conditions they previously could not. In such cases, new financial costs are incurred where none had been incurred before. The CBO analyzes costly coronary artery disease treatments, for example, and how they were non-existent before the 1970's but relatively common today.

However, new technology is not always a good thing. A Rand Corporation study estimated that one-third or more of the care that patients in this country receive could be of little value. For the FDA to approve medical devices and imaging equipment, no evidence has to be shown that they benefit patients; only that they are safe and provide accurate images. And cost-benefit analysis, which is required by many countries before a new treatment can be approved, is non-existent in the U.S. The FDA is forbidden by law from considering the cost of a new device or drug when deciding whether to approve it. And once the FDA approves a test or device, Medicare rarely requires evidence that it is beneficial to patients before paying for it.

The Congressional Budget Office has estimated that less than half of all medical treatments are supported by rigorous evidence proving they work.

As one small example, CT angiograms have never been proven to be better than older,

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51. TECHNOLOGICAL CHANGE AND THE GROWTH OF HEALTH CARE SPENDING, supra note 2 at 12.

52. Id.


54. Id.


56. Berenson & Abelson, supra note 53.
cheaper tests in looking at the heart. They also expose patients to large doses of radiation, equivalent to several hundred X-rays, which increases the lifetime risk of cancer. When a physician or group of physicians purchases one of the $1 million machines, they face an undeniable economic incentive to utilize the machines. Just to pay off one of the scanners, doctors need to conduct about 3,000 tests. Still, more than 1,000 cardiologists and hospitals have installed CT scanners and in 2007 150,000 people were given CT angiograms at a cost of over $100 million. Fees from imaging have grown to half or more of a cardiologists’ $400,000 average income.

In June 2007, Medicare said it was considering paying for CT heart scans only on the condition that studies are done to show they have actual value for patients. This was met with fierce resistance from the relatively new 4,700 physician-member Society of Cardiovascular Computed Tomography. After intense lobbying, a dozen senators and 79 representatives lined up to support the society’s efforts and Medicare backed off and agreed to keep paying for the CT scans despite a lack of evidence of any measurable medical benefit.

New data also shows a high percentage of hospitals perform unnecessary MRI’s.

57. Id.

58. In October 2010, California Gov. Schwarzenegger signed a bill tightening oversight of diagnostic CT scans after 269 patients at Cedars-Sinai Medical Center received up to eight times the radiation that was expected over a period of 18 months. Five other California hospitals were also giving higher than expected doses. Walt Bogdanich, California Tightens Oversight of CT Scans, N.Y TIMES, Oct. 1, 2010, http://www.nytimes.com/2010/10/02/us/politics/02radiation.html?scp=6&sq=&st=nyt.

59. Berenson & Abelson, supra note 53.

60. Id.

61. Id.

62. Id.

63. Id.
According to Medicare guidelines, lower back pain usually resolves on its own and does not require an MRI. However, nationwide, 33 percent of Medicare patients received an MRI before trying other treatments. It does not have to be this way. Compared to the U.S., for example, Japan has three times as many MRI machines per capita, six times as many CT scanners as exist in the U.S., and twice the rate of dialysis. Despite this, Japan still only spends 7.9 percent of its GDP on health care.

IX. DEFENSIVE MEDICINE

Defensive medicine is the practice of physicians ordering tests and procedures principally to reduce perceived threats of medical malpractice liability. Considerable uncertainty surrounds estimates of defensive medicine costs. Determining the true costs of defensive medicine is difficult because so many factors go into decisions about ordering tests.

A 2003 study by the U.S. Department of Health and Human Services estimated the cost of defensive medicine at $60 billion a year, while the American Medical Association values it at $200 billion. A 2008 study by PriceWaterHouseCooper’s Health Research Institute calculated the cost of defensive medicine to be $210 billion a year, or nearly 10 percent of national health spending at the time. They viewed it as the top area of wasteful spending. A 2010 study found that a full 91 percent of physicians across all specialty lines practice defensive medicine


68. Id. at 3.
for fear of being sued for medical malpractice.\textsuperscript{69} They cite a fee-for-service system that rewards overuse as the principal culprit.

The newest study to come out is a September 2010 \textit{Health Affairs} article that estimates that annual medical liability system costs, including defensive medicine, to be $55.6 billion in 2008 dollars, which would be 2.4 percent of total health care spending.\textsuperscript{70} This study also includes in the total amount indemnity payments, administrative payments, and lost clinician work time. Defensive medicine by itself was estimated to cost $45.6 billion in 2008.\textsuperscript{71} This latest finding suggests that the amount of defensive medicine being practiced is not likely to be a source of significant savings. Another article in the September 2010 \textit{Health Affairs} suggests that tort reforms are not associated with a significant difference in physicians’ malpractice concerns.\textsuperscript{72}

Medical malpractice premiums rose by an average of 15 percent between 2000 and 2002.\textsuperscript{73} Rising malpractice premiums may also encourage physicians to practice defensive medicine. Interestingly, a 2005 study found that malpractice payments made on behalf of physicians does not seem to be the driving force behind increases in premiums.\textsuperscript{74} Rather, while premiums do respond to increases in payments, they do not increase dollar for dollar. From 1993 to 2001, premiums rose an average of 10.7 percent annually while payments rose an average of

\begin{footnotes}
\item[69] Crane, \textit{supra} note 66.
\item[71] \textit{Id}.
\item[72] Emily R. Carrier, et al., \textit{Physicians' Fears Of Malpractice Lawsuits Are Not Assuaged By Tort Reforms}, 29 \textit{Health Affairs}, 1588 (2010).
\item[74] \textit{Id}. at 30.
\end{footnotes}
only 4.3 percent annually.\textsuperscript{75} This suggests that other factors may also be important in explaining the increase in malpractice premiums, such as a less competitive insurance industry or a decline in insurers' investment income.

\textbf{X. PHYSICIAN SALARIES}

Another factor in the steady increase in health costs is physician salaries. A 2002 \textit{Health Affairs} article analyzed physician income and found that in 1996, the most recent year for which data was available at the time, the average U.S. physician income was $199,000 compared to an OECD median of $70,324.\textsuperscript{76} The article proposes three reasons why physician income is so much higher in the U.S. than in other countries. First, physicians in most other countries face a powerful single buyer for health services, which translates into lower prices for health services.\textsuperscript{77} Second, U.S. physicians must make a larger financial investment in their education than physicians in many other countries, and thus they must recoup their debt once they start practicing.\textsuperscript{78} Third, the incomes of highly skilled health care workers are partly determined by how much equally able and skilled professionals earn in the country, and the U.S. distribution of income for all occupations is wider than in most OECD countries.\textsuperscript{79}

A 1992 \textit{Health Affairs} article analyzed trends in physician income in the 1980's. National spending for physician services rose rapidly from $63.1 billion in 1980 to $117.6 billion in 1989,

\textsuperscript{75} Id.

\textsuperscript{76} Reinhardt, et al., \textit{supra} note 65 at 175.

\textsuperscript{77} Id.

\textsuperscript{78} Id.

\textsuperscript{79} Id.
in constant 1989 dollars.\(^{80}\) Using inflation adjusted data, the article found that average physician income grew 24 percent from 1982 to 1989.\(^{81}\) During this time, surgeons’ and medical specialists’ real incomes grew by 33 and 31 percent, respectively, while general practitioners’ average real income only grew 5 percent.\(^{82}\) While this rapid earnings growth was not unique, physicians remained the most highly compensated profession and their absolute income gain in the 1980's exceeded that of any other profession.\(^{83}\) The study found that the huge gains could not be explained by the changing demographics of physicians, work effort, number of patients treated, or practice expenses.\(^{84}\) Rather, the physician income growth was attributed roughly equally to a greater number of services offered per physician and higher profit per service.\(^{85}\) The article suggests that a primary cause of these changes was the implementation in 1983 of Medicare’s prospective payment system, which led to a shift from inpatient to outpatient care.\(^{86}\)

It would appear that physicians are doing everything they can to maintain their high incomes. A 1996 medical study found that obstetricians in areas with declining birthrates are much more likely to perform cesarean section deliveries than obstetricians in areas with rising birthrates.\(^{87}\) This seemed to suggest that as business declined, doctors used costlier procedures to offset their loss in income. Recent statistics also suggest many doctors have more than made up


\(^{81}\) *Id.* at183.

\(^{82}\) *Id.*

\(^{83}\) *Id.* at186.

\(^{84}\) *Id.* at186-188.

\(^{85}\) *Id.* at 188.

\(^{86}\) *Id.* at 190.

for the erosion in their Medicare fees by dramatically increasing the volume of services they provide. They perform not just a greater number of tests and procedures, but also more complex versions that allow them to charge Medicare more money. From 2000 to 2008, the volume of services per Medicare patient rose 42 percent. This explosion in the volume of services provided helps explain why Medicare's total payments to doctors per patient rose 51 percent from 2000 to 2008.

**XI. PRESCRIPTION DRUGS**

Prescription drug expenditures have been the fastest growing component of health care spending since the 1990s. Despite this, drugs remain a relatively small component of overall U.S. health care expenditures. Since 2002, prescription drugs have remained around 10 percent of overall spending. However, their impact on skyrocketing medical costs in this country should not be overlooked. From 1997 to 2003, prescription drug spending increased well over 10 percent per year each year, reaching a high of 18.1 percent in 1999. In 1980, prescription drugs constituted 4.7 percent of overall health care spending. By 1990, it had risen slightly higher to 5.6 percent and then it began its upward trajectory to the current 10 percent. By itself these

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89. Id.


91. Id.


93. Id.

94. Id.
statistics might seem troubling but not overly ominous in terms of drug spending compared to total spending. It must be remembered, though, that overall health care spending was also increasing remarkably over the entire time. So, prescription drugs are not simply a bigger piece of the pie. Rather, prescription drugs have been an increasing piece of an already rapidly expanding pie. Unadjusted overall health care spending has increased 923 percent since 1980; prescription drug spending has increased 1951 percent.\footnote{Id.}

The common defense that pharmaceutical companies give as for why their drugs are so expensive is that research and development (R&D) costs are incredibly high. This, however, is misleading for two main reasons. The first is that the pharmaceutical industry is literally one of the most profitable industries in the world. An astounding statistic is that in 2002, the combined profits of the 10 drug companies in the Fortune 500 were greater than the profits of the other 490 companies combined - $35.9 billion compared to $33.7 billion.\footnote{Marcia Angell, \textit{The Truth About the Drug Companies}, THE NEW YORK REVIEW OF BOOKS, Jul 15, 2004, http://www.nybooks.com/articles/archives/2004/jul/15/the-truth-about-the-drug-companies/?page=2#fnr10-638086881.}

According to Yahoo! Finance, major drug manufacturers have a net profit margin percentage of 22.00, by far the highest profit margin of all industries in the health care sector.\footnote{Yahoo! Finance, Healthcare Sector - Yahoo! Finance Industry Browser, http://biz.yahoo.com/p/5qpm.html.} Drug companies have a total market capitalization of around $1 trillion.\footnote{Id.} The major drug manufacturers on their own comprise approximately half the total market capitalization of the healthcare sector. Although one might expect the technology sector to have highly profitable industries, the only industry in the technology sector that has a higher net profit margin

\begin{itemize}
\item \footnote{Id.}
\end{itemize}
percentage is Internet information providers, at a barely higher 22.70 percent. In fact, the overall healthcare sector has by far the highest profit margin percentage of all sectors, in great part due to the drug manufacturers. The average profit margin percentage of the health care sector is 15.57; every other sector is under 10 percent. The remaining sectors in descending profit margin percentage are: utilities (9.23%), consumer goods (8.51%), technology (8.26%), basic materials (7.43%), conglomerates (6.80%), financial (6.61%), services (4.91%) and industrial goods (1.70%). Despite receiving the lion’s share of all the villainous news headlines, the health insurance industry is actually the fourth least profitable industry in the health care sector, with a 4.80 percent net profit margin. It ranks only ahead of medical practitioners, long-term care facilities, and diagnostic substances. Kaiser Health News calculated that outright eliminating insurer’s profits and executive compensation would lower health care spending by just 0.5 percent.

The second reason why R&D costs are not the primary driver of rising drug prices is that pharmaceutical companies spend at least as much on marketing. Pharmaceutical promotion involves direct-to-consumer (DTC) advertising, visits by sales representatives, samples, journal


102. Id.


advertisements, and promotional meetings.\textsuperscript{105} There is not a consensus as to how much the drug manufacturers spend on promotion versus R&D. However, even PhRMA, the drug industry’s own lobbying group whose values would undoubtedly be the most conservative, acknowledges that promotional activities nearly equal R&D spending: $29.6 billion on R&D in 2004 in the U.S. as compared to $27.7 billion for all promotional activities.\textsuperscript{106} One independent study estimated the total amount spent on promotion in 2004 as $57.7 billion, more than twice PhRMA’s figure. That would mean that as a percentage of U.S. domestic sales of $235.4 billion, promotion consumes 24.4\% of the sales dollar versus 13.4\% for R&D.\textsuperscript{107} The study also estimated that the amount spent on promotion directed towards physicians by the industry equaled $61,000 per physician in the US.\textsuperscript{108} In 2000, the industry employed 87,000 marketing representatives, which was a 59 percent increase from just 1995.\textsuperscript{109} The deleterious effects of such practices are already beginning to show. In the past three years, pharmaceutical companies have paid nearly $7 billion for settlements in cases stemming from payments to physicians to get them to promote “off-label” uses of the drugs, which is a marketing tactic banned by federal law.\textsuperscript{110}


\textsuperscript{106} Id.

\textsuperscript{107} Id.

\textsuperscript{108} Id. In 2013, a national sunshine law will require all drug companies to report all their payments to physicians. Until then, a new website was launched in October 2010 that features a searchable database of companies already in compliance that enables a user to find out if a specific doctor is receiving money. Dollars for Docs, http://projects.propublica.org/docdollars/.


There has also been a large movement towards DTC advertising. Spending on DTC prescription drug advertisements have gone from $12 million in 1989 to $2.38 billion in 2001, an increase of 200-fold in only 12 years.\textsuperscript{111} By 2004, it had almost doubled to $4 billion.\textsuperscript{112} New Zealand is the only other country in the world that allows DTC advertising of prescription drugs.\textsuperscript{113} Clearly, a chief concern is that these advertisements spur the use of new, higher-cost drugs when there are cheaper alternatives available. One study found that the number of prescriptions written for the top 50 most heavily advertised drugs increased at six times the rate of all other drugs.\textsuperscript{114} A 2002 AARP article noted that in 2000, Merck spent $161 million advertising Vioxx, which was more than the $125 million spent promoting Pepsi or the $146 million spend promoting Budweiser. That year, sales of Vioxx quadrupled to $1.5 billion.\textsuperscript{115}

This is not to say that an increase in pharmaceutical sales has been an entirely negative proposition. There have been other studies that have shown that money spent on prescription drugs actually reduces overall health spending. Certainly that is true in some areas. For example, since protease inhibitor drugs launched in the 1990's, the U.S. HIV/AIDS death rate has dropped 80 percent.\textsuperscript{116} As a result, treatment costs have gone down: a 43 percent reduction


\textsuperscript{112} Gagnon & Lexchin, supra at note 105.

\textsuperscript{113} Palumbo & Mullins, supra note 111 at 431.


\textsuperscript{115} Barry, supra note 109.

\textsuperscript{116} Pew Ctr on the States, supra note 18 at A12.
in in-patient hospital care, which results in a cost savings of $16-24,000 per patient.\footnote{117} However, there are other areas for which the results are not as clear-cut.

The profit-driven industry encourages drug development that is not always revolutionary, but in many cases redundant. Of the 78 drugs approved by the FDA in 2002, only 17 contained new active ingredients. Of those 17, only 7 were classified as improvements over older drugs. The other 71 approved drugs were either variations of old drugs or found to be no better than current drugs.\footnote{118} Part of this is made possible because the FDA usually approves a drug if it is simply better than a placebo; there is no requirement that it be better than an older drug used to treat the same condition. For example, there are 6 statins on the market to lower cholesterol, which are all variants of the original.\footnote{119} Consumer Reports Health found that the newer drugs for managing diabetes are not better than the older ones; in fact, several of the newer drugs are less effective than the older ones.\footnote{120} The newer drugs are also no safer as they all have potential side effects, both minor and serious. One common older medication costs $18 per month, while a similar new medicine costs $241 per month.\footnote{121}

A major problem is the regulatory framework in this country. Insurers will typically pay for a drug if Medicare pays. And Medicare usually pays if the FDA has approved the use.\footnote{122} In fact, Medicare is legally prohibited from considering price when deciding to pay for a new

\footnote{117}Id.

\footnote{118} Angell, \textit{supra} note 96.

\footnote{119}Id.


\footnote{121} Id.

treatment. Furthermore, even if a cancer drug’s use is not one approved by the FDA (i.e. for a
different type of cancer than originally approved for), and as much as 75 percent of cancer drug
use is for such “off label” use, Medicare must pay if the drug’s use is listed in a compendium. However, this compendium is compiled by cancer specialists and has looser standards than the
FDA. Also, insurers are often forced by state laws to pay for cancer drugs in uses not approved
by the FDA.

It poses a difficult moral dilemma - how much is a life worth? The most widely
quoted figure for a cost-effective drug is one that adds a year of life for $50,000. One of the
most popular cancer drugs is Avastin, despite the fact that its price can reach $100,000 per
year. It had 2007 sales of $3.5 billion, with $2.3 billion of that in the United States. Initial
studies showed that the drug prolongs life for only a few months, and newer studies suggested
that it might be even less effective. Britain has decided that it can only afford $44,500 to save

123. Medicare panel backs $93K cancer drug Provenge, USA TODAY, Nov. 18, 2010,

124. Gina Kolata & Andrew Pollack, Costly Cancer Drug Offers Hope, but Also a Dilemma, N.Y TIMES, Jul. 6,

125. Id.

126. In April of 2010, the FDA approved Provenge, a prostate cancer drug that extends life for an average of four
months at a cost of $93,000. Medicare panel backs $93K cancer drug Provenge, supra note 123. However,
Medicare took the unusual step of conducting their own review before agreeing to pay for it. In late November, a
panel of outside experts recommended that Medicare pay for Provenge, and a final ruling is expected in March
2011. Experts believe that Medicare’s review of Provenge is a signal to drug manufacturers that they will no longer
automatically pay for drugs just because they have been approved by the FDA. In addition, many of the world’s top-
selling drugs are set to lose United States patent protection from 2011-2014, including the top two: Lipitor and
Plavix. This will result in $70 billion in savings over the next four years as use of generic drugs are expected to
grow from the current 77 percent of prescriptions to as much as 85 percent. Lewis Krauskopf & Bill Berkrot,
Generics to Cut U.S. drugs bill by $70 billion, REUTERS, Nov. 8, 2010,

127. Marchionne, supra note 122.


129. Id.
six months of a citizen’s life. Britain’s National Health Service provides 95 percent of the nation’s care from an annual budget; such a zero-sum system means paying for new costly treatments requires reducing or eliminating other treatments or services.130 Britain’s National Institute for Health & Clinical Excellence (NICE) recently recommended against using Avastin for early treatment for lung and breast cancer because it did not believe the data supported the high price.131 Because the National Health Service balks at paying the exorbitant prices of many new cancer drugs, many drug companies offer the British discounts unavailable anywhere else.132 This is an example of the kind of negotiating power that was specifically barred in the U.S. when Congress created Medicare Part D in 2003.133 The House Committee on Oversight found in 2008 that the prices the government pays for drugs through Part D are about 30 percent higher on average than the prices it pays for Medicaid recipients.134

XI. CALIFORNIA HEALTH CARE SPENDING

Health care spending has become an increasingly large problem for the states as well as the federal government. According to GAO data, state and local expenditures on health care have grown from 12 percent of expenditures in 1978 to 20 percent in 2008.135 After analyzing the main drivers of health care costs as a whole, the next question is whether California faces any unique factors responsible for its rising health care costs. Despite all the dire headlines about


131. Arnst, supra note 55.

132. Id.


134. Id.

135. GOV. ACCOUNTABILITY OFFICE, STATE AND LOCAL GOVERNMENTS: FISCAL PRESSURES COULD HAVE IMPLICATIONS FOR FUTURE DELIVERY OF INTERGOVERNMENTAL PROGRAMS 7-8 (2010).
California’s $20 billion budget gap and its inability to pass a budget on time, it would appear that Medicaid, while still an increasing drain, is no worse a problem here than in most other states.

For fiscal 2008, the most recent year with complete data available, total Medicaid spending accounted for 20.7 percent of total state spending. When looking only at general fund spending, Medicaid accounts on average for 16.3 percent of spending. In fiscal 2008, California spent 19.7 percent of its total expenditures on Medicaid, lower than the all state average. California general fund spending on Medicaid was 12.3 percent, well below the average as well.

However, as California is the most populous state and accounts for such a large percentage of expenditures, one might suspect that California is “skewing” the average upward. Analysis, though, reveals this to not be the case. After removing California’s values from total state expenditures and total Medicaid expenditures, the average percentage of total expenditures spent on Medicaid spending actually increases from 20.7 to 20.8.

Historical data from the last 20 years also shows that California is not necessarily in a worse position than other states. From 1990 to 2001, CA had 10.6 percent average annual growth in Medicaid spending (state and federal combined) compared to the national average of 10.9%, tying it for the 32nd faster rate. From 2001 to 2004, CA had 8.5 percent average annual

136. NATIONAL ASSOCIATION OF STATE BUDGET OFFICERS, 2008 STATE EXPENDITURE REPORT 44 (2009), (http://www.nasbo.org/LinkClick.aspx?fileticket=%2fZWITvJG8j0%3d&tabid=38).
137. Id. at 3.
138. Id. at 48.
139. Id. at 6, 47.
140. Id.
growth compared to the national average of 9.4 percent, tying it for the 30th fastest rate.\textsuperscript{142} It was not until 2004 to 2007, when CA had 5.1 percent average annual growth, that it grew faster than the national average of 3.6 percent.\textsuperscript{143} Still, 10 other states, including the next most populous, Texas, had faster growth.\textsuperscript{144}

California’s health spending per capita has actually been lower than the national average since 1993.\textsuperscript{145} According to 2007 data, spending per Medicaid enrollee in CA (state and federal combined) is $3,168, compared to the national average of $5,163.\textsuperscript{146} In fact, spending per Medicaid enrollee in CA is the lowest out of all 50 states. This holds true even when accounting for California’s low Federal Medical Assistance Percentage (FMAP). California spends less per enrollee than other states due to lower provider rates and a higher proportion of children and adult enrollees.\textsuperscript{147} California actually ranks 42nd in physician reimbursement rates.\textsuperscript{148} California also spends less on long-term care than almost every other state (around $5,000 per elderly

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\textsuperscript{142} Id.
\textsuperscript{143} Id.
\textsuperscript{144} The one caveat is that not all states spend the same share when it comes to Medicaid spending. The Federal Medical Assistance Percentage (FMAP), based on state average per capita income, determines what percentage the federal government will match. California has historically had among the lowest FMAP of any state (usually 50%), in part, due to its low high per capita income. This means that when Medicaid spending (state and federal combined) increases, California is harder hit economically than states with higher FMAP’s. Still, this does not appear to diminish the fact that Medicaid spending in California has grown slower than the national average from 1990 to 2004. Of the 12 states that also typically receive the minimum FMAP, about half still had higher growth percentages during that time period. Id.
\textsuperscript{148} Id.
\end{flushleft}
enrollee versus a national average of around $10,000). 149

Further proof that California is not alone is that a majority of states, including California, are making cuts to Medicare in fiscal 2010. For fiscal 2010, 32 states planned on reducing provider payments. 150 15 states have frozen or plan to freeze provider payments. Other strategies are being employed as well: 13 states are limiting prescription drugs, 10 states are delaying expansions, 9 states are expanding managed care, and 9 states are limiting benefits. 151 Three-quarters of the states are planning to contain Medicaid costs in fiscal 2011. 152 All of the above data seems to show that Medicaid is not more of a driver of health care costs in California than it is in other states. This points to the conclusion the primary factors contributing to health care costs in California are the same ones previously discussed on a national scale. 153

XIII. FISCAL OUTLOOK 2010

There are no signs of the problem abating in California. According to the Legislative Analyst’s Office (LAO) Fiscal Outlook report, $400 million of budgeted Medi-Cal savings for

149. Id.


151. Id.

152. Id.

153. California does spend more than average in other areas though. California vastly outranks states in percentage of expenditures spent on public assistance (5.1 compared to an average of 1.7) and also in percentage spent on education (24.2 compared to an average of 21.6). Looking at the numbers, California accounts for 45.5 percent of nationwide state general fund spending on public assistance. 2008 STATE EXPENDITURE REPORT, supra note 136 at 3. It is not entirely clear because of the different data sets used and lack of complete explanations in the State Expenditure Report, but it seems as if public assistance would include California’s Children Health Insurance Program (CHIP). This would make sense, as CHIP appears to disproportionately drain California compared to elsewhere. In 2007, California was responsible for 11.4 percent of total nationwide Medicaid spending, yet 19.6 percent of total CHIP spending. Kaiser State Health Facts, http://www.statehealthfactsonline.org/comparecat.jsp?cat=4&rgn=6&rgn=1. All told, California spent around $2 billion on CHIP that year. This seems to be a result of less stringent enrollment restrictions. 19 percent of California CHIP enrollees are above 200 percent of the federal poverty line, compared to 10 percent nationally. In fact, overall
2010-11 are unattainable due to both the late passage of the budget and the inability to achieve an unallocated budget reduction of $323 million. This will only be exacerbated by the American Reinvestment and Recovery Act (ARRA) funds getting phased out at the end of 2010-11. The state’s hands are tied because provisions in the federal health care reform law require maintaining maintenance-of-effort requirements. The LAO predicts that Medi-Cal general fund spending will jump $5 billion in 2011-12 from the previous year once the ARRA funding stops, a 40 percent increase. Even after that, the numbers still do not look good. Medi-Cal general fund spending is expected to grow 8 percent from 2011-12 to 2015-16, which is by far the largest area of budget growth. All told, in 2009-10, California spent around $10 billion from its general fund on Medi-Cal; in 2015-16 that number is expected to rise to nearly $24 billion. Other than the loss of federal funding, a primary cost-driver is the LAO assumption that the cost per person of Medi-Cal will increase 5.5 percent per year, a rate clearly greater than inflation. This reflects a continuation of the above-stated reasons why health care costs have been steadily rising. Additionally, the LAO expects annual caseload growth of 4 percent.

XIV. CONCLUSION

Health care in the United States is a mess. We already pay more than anyone else in the world, and that does not appear to stop. Clearly medical advancements have both saved and improved countless lives, but tough choices will have to be made about the future.

California accounts for 43 percent of these types of enrollees nationwide. Clearly though, the absolute amount is small when considering the state’s budget as a whole, and cannot be solely blamed for the current crisis.

155. Id. at 8.
156. Id. at 24.
157. Id. at 31.
Understanding how we got here is the first step to thinking about solutions.