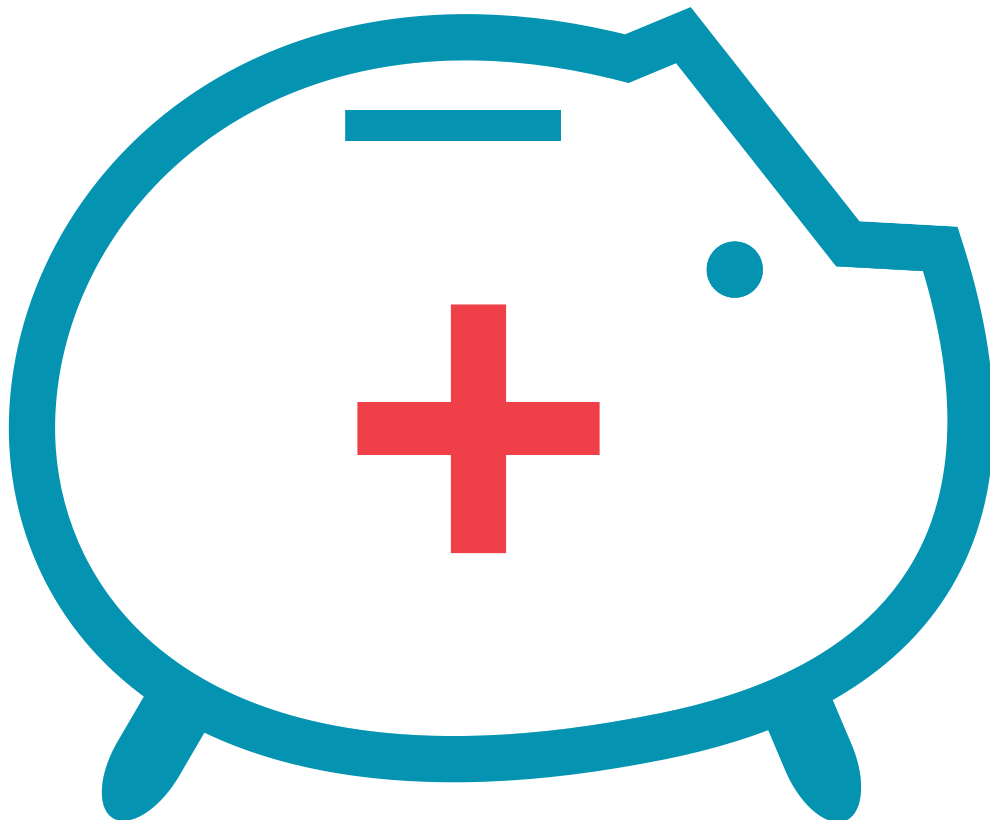
THE COSTS OF HEALTH CARE



Paul D. Hooper

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Introduction

As the world changes and adapts to an era of globalization and an ever-increasing use of technology, humankind is faced with a number of issues. Of particular concern is the fact that the cost of health care is sky-rocketing, especially in the industrialized portion of the world. In the United States alone, there was a staggering $2.5 trillion dollars spent on health care in 2009. That's an additional $134 billion more than only a year before. And, health care spending has increased to a record 17.3% of the U.S. gross domestic product (GDP) (Levey, 2010). This compares to France, where healthcare spending was 11.2% of its' GDP (ranking #2), Germany 10.2%, and the United Kingdom 8.7%.

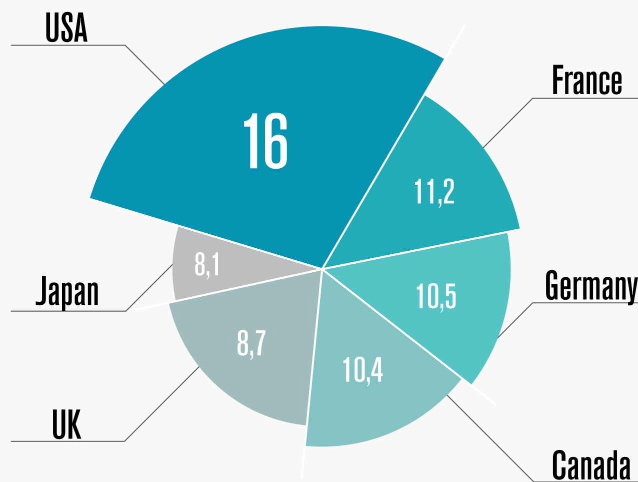

Figure 1
Healthcare spending as a % of GDP (from Organization for Economic Cooperation and Development, 2010)

Current conversations by politicians, employers, labor leaders, and lay groups in the United States revolve around various modifications to the health care system. As the upcoming Presidential election gears up, health care reform is likely to be a popular topic once again. While the modifications that are being discussed are often labeled as "health care reform" they really don't address any health care issues. Instead, much of the discussion is about how health care is going to be paid and which system is to be used. Will it be all inclusive and government funded system (as seen in the U.K.), one that places higher demands on employers (as in the U.S.), or one in which the user pays the bill? Or will it be some form of hybrid: a mix of the best (and worst) of each system? Perhaps, instead of discussing "health care reform", the topic should be entitled "health care reimbursement reform".

There are numerous factors that lead to the rising costs of health care. Unfortunately, in spite of the fact that we are spending more and more on health care, particularly in the U.S., there is considerable debate about whether or not we are getting our money's worth. As an example, the U.S. spends more on health care than any other country in the world yet, our population is not considered all that healthy. In fact, the World Health Organization (WHO) recently ranked 191 countries based on five health related criteria. In their report, the U.S. ranked number 37, behind countries such as Chile and Cyprus (WHO, 2000). In contrast, the U.S. ranks number one in money spent as a percent of gross domestic product (GDP) and first in money spent per capita (+$7000 per person). And, the cost of health care is expected to rise significantly in the near future.

Granted, in the U.S., as in most industrialized countries, the incidence and severity of many diseases are limited. But many of these reductions in disease come principally as a result of public health achievements, such as clean drinking water and sanitation improvements, rather than from any direct actions by the health care system. While many of the deadly diseases of yesterday are for the most part under control (e.g. influenza, smallpox, cholera), we are now faced with an assortment of diseases such as diabetes and heart disease, risk factors of which may include those which are lifestyle related. These "new" diseases tend to be very expensive, and with a rapidly aging population, this demographic will add significantly to the costs.

Direct versus Indirect costs

Most often when a discussion of health care costs occurs, the focus is largely on direct costs. This includes all of those costs that are directly related to the various health care services: e.g. visits to the doctor's office, prescription medications, hospital services, and diagnostic tests. In addition there are a variety of additional, direct non-medical costs. These are also directly related to an illness but are not considered to be health care costs: e.g. travel and incidental costs that are necessary to attend any appointments, such as trips to the doctor's office or hospital, or to physical therapy. They also include any modifications that may be necessary to make a house or facility accessible to an injured or ill person.

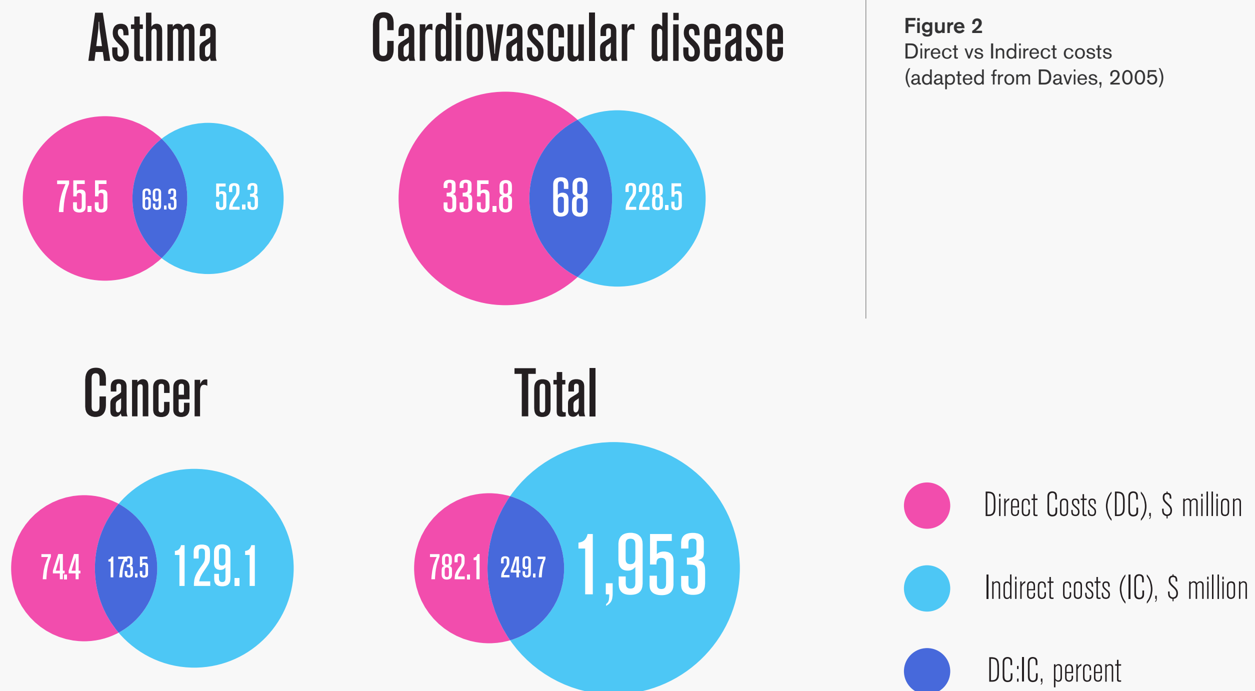

Figure 2
Direct vs Indirect costs
(adapted from Davies, 2005)

Besides these direct costs, a number of other costs are incurred. These are labeled as indirect costs and are not related directly to an injury or illness, but rather occur as a consequence of such a condition.

Indirect costs include such items as:

- loss of productivity that is due to an illness,
- hiring and training of substitute workers,
- damage to equipment, machinery, materials, facility,
- lower employee morale,
- delays in shipment or filling of orders, and
- administrative costs (human resources, filing paperwork, etc).

When total costs are assessed, indirect costs contribute an additional amount that some estimate may be as much as three to four times more than that of the direct costs (see Figure 2).

How is Health Care currently paid for?

There are several different ways in which the costs for health care are paid: 1) private insurance, 2), employer funded insurance and 3) government funded. Currently, in the United States, there are approximately 50 million people who do not have any type of health insurance (CDC, 2007). That's a full 16% of the population, or 1 in every 6 Americans. This group either pays directly for services, or takes advantage of some form of government funded health care services such as Medicare or Medicaid.

Private insurance – the vast majority of U.S. citizens who have health coverage (57%) get funding though some form of employer funded plan. An additional 29% are covered by some form of government plan. However, of the self-employed, or for those whose employer does not offer health insurance, the remaining choice is an individual health insurance plan; not an inexpensive option. It is sad to say that 60% of bankruptcies in the U.S. are the result of medical bills and 137,000 Americans die annually due to a lack of health insurance (Anderson, 2011).

Employer funding – this comes either as the result of group health insurance or workers' compensation. The Kaiser Family Foundation and the Health Research and Educational Trust conduct an annual survey of employers having three or more workers. In 2010, the survey indicated that employer-sponsored insurance was the leading source of health insurance, providing coverage to an estimated 157 million people in the U.S. It should come as no surprise that the key finding of the 2010 survey was an increase in average and single family premiums as well as the amount that workers had to pay for their coverage. The survey also showed an increase in deductibles with 27% of workers enrolled in plans with a deductible of at least $1,000.

> With more and more people losing their jobs, either to cutbacks or retirement, the burden on employers continues to rise. Employers are increasing worker contributions and reducing health care benefits in an effort to reduce overall costs.

Of those who have some form of health insurance, many get either a portion or all of it through their employer. The burden to employers, therefore, is substantial with some estimating that health care costs are second behind the costs of payroll. A recent report by Hewitt Associates projected that employers could expect to pay nearly 9% more for health costs for their workers in 2011. The report also projects that the average health care cost per employee will rise to $9,821 in 2011 and that employees will pay $2,209 (22.5%) of the premium (Hewitt Assoc., 2010). Among workers with access to health benefits, average employer costs for health insurance rose from $1.60 to $3.35 per employee hour during the 1999 to 2010 period (KFF, 2011). This represents a 110% increase in average costs per hour. This has a greater impact on workers in low paying jobs, where health care costs represent a larger portion of wages.

In addition, the contribution provided by the worker has increased. For those workers who are insured through their employer, the average premium for a family plan was $12,680 in 2008 (healthreform.gov/reports, 2011). Declining employment trends, changing health care plans with higher deductibles and higher copays, and an aging population all contribute to an increased demand on employers and individuals to pay for health care services.

Government programs – The United States spent approximately $1.9 trillion for Medicare and Medicaid in 2005 (Orszag, 2008). The Congressional Budget Office (CBO) estimates that, without any changes in the current situation, federal expenditures for health care will continue to rise to 25% of the GDP by 2025 and 49% by 2082. And much of the current discussion about "health care reform" revolves around increasing the governments' responsibility in financing health care costs. However, given the current economic climate, governments (federal, state, and local) are looking for ways of reducing their expenditures. One thing that is often mentioned is the limited ability of government to fund health care.

In addition to the contributions from employers, the government pays a great deal of the health care tab. As early as 2011, more than half of the money spent on health care will come from the government, through programs such as Medicare and Medicaid.

Where does the money go?

It is worth asking: Where does all of the money go? Perhaps more importantly: Are we getting our money's worth? The U.S. spends more money on health care than any other country in the world, yet people in the U.S. are far from the healthiest population; thus it would seem reasonable to conclude that the money is not well spent.

Country	Life expectancy	Infant mortality	Physicians per 1000	Per capita expenditures on health care (U.S. $)	Health care costs as a % of GDP	% of government revenue spent on health care	% of health costs paid by government
Australia	*81.4*	*4.2*	*2.8*	*3,137*	*8.7*	*17.7*	*67.7*
Canada	*81.4*	*3.9*	*2.3*	*3,895*	*10.1*	*16.7*	*69.8*
France	*81.0*	*4.0*	*3.4*	*3,601*	*11.0*	*14.2*	*79.0*
Germany	*79.8*	*3.8*	*3.5*	*3,588*	*10.4*	*17.6*	*76.9*
Japan	*82.6*	*2.6*	*2.1*	*2,581*	*8.1*	*16.8*	*81.3*
Norway	*80.0*	*3.0*	*3.8*	*5,910*	*9.0*	*17.9*	*83.6*
Sweden	*81.0*	*2.5*	*3.6*	*3,323*	*9.2*	*13.6*	*81.7*
UK	*79.1*	*4.8*	*2.5*	*2,992*	*8.4*	*15.8*	*81.7*
US	*78.1*	*6.7*	*2.4*	*7,920*	*16.0*	*18.5*	*45.4*

Table 1
Comparison of health care expenditures (from oecd.org, 2010)

The costs of today's healthcare are allocated into five major categories:

Chronic disease – as the industrialized world has gained control of many of the infectious diseases (e.g. measles, mumps, cholera), the types of health concerns that we are now facing are changing. Instead of the problems encountered with acute and/or infectious diseases, we are now looking at an increase in the incidence of chronic degenerative diseases such as diabetes and heart disease. There are a number of reasons for this change. For example, the use of various public health efforts, such as vaccinations and clean drinking water, has enabled us to eliminate or at least reduce the number and severity of infectious diseases. At the same time, and partly because of this, the population is aging and is now vulnerable to a different assortment of ailments. It has been stated that we are now living long enough to get sick.

Some of the most common conditions of today include:

- heart disease – said to contribute $400 billion annually, with these costs expected to triple in the next 20 years;
- diabetes – according to the American Diabetes Association, diabetes cost the U.S. $174 billion in 2007;
- arthritis – the Arthritis Foundation estimates that arthritis and related conditions cost nearly $128 billion per year;
- asthma and allergies – nearly $18 billion;
- cancer – the American Cancer Society estimates that cancer costs $228.1 billion;
- obesity – $147 billion per year. This condition is particularly problematic and contributes significantly to many of the other chronic health problems that we face. In fact, some estimate that almost 10% of direct medical expenditures may be attributed to obesity (Finkelstein et al, 2009). Current trends are alarming, with somewhere between 25 and 35% of the population qualifying as obese.

Table 2
The cost of health care by weight category (Finkelstein et al, 2009)

	1987		2001	
	% of Population	Per Capita $ Spent	% of Population	Per Capita $ Spent
All persons	*100.0*	*2,352*	*100.0*	*3,166*
Underweight	*3.6*	*2,695*	*1.8*	*3,166*
Normal	*51.6*	*2,259*	*38.6*	*2,783*
Overweight	*31.4*	*2,322*	*35.8*	*3,103*
Obese	*12.2*	*2,655*	*20.7*	*3,737*
Mordibly Obese	*1.3*	*2,674*	*3.1*	*4,725*

As can be seen, the costs of many of the degenerative diseases are staggering. The good news is that many of these conditions may be prevented by simple changes in lifestyle. And, many of these changes cost little or nothing.

Throughout much of the last century, significant efforts were directed at reducing the number of occupational injuries and illnesses. We are seeing the results of these efforts in improvements in occupational health and safety and a reduction in on-the-job health concerns. In this regard, it has been stated that for every $1 spent on prevention and education, a savings of $4 is realized. Now, similar efforts need to be directed at promoting healthy living.

Research and development – one undeniable cost that must be factored in is the cost of research and development. It has been estimated that it costs approximately $1.3 billion dollars (2005 dollars) to bring a new drug to market (PhRMA, 2011). However, in a paper published in the Journal of Health Economics, DiMasi and his co-authors stated the average cost was only $403 million (2000 dollars) (DiMasi et al, 2003). Whatever the exact cost, research and development of new health care methods adds considerably to the total costs.

Aging population – for a number of reasons, the population of the world is aging. The “baby boomers” are now reaching retirement age. And, the life expectancy of individuals in the U.S. increased by nearly three decades during the twentieth century. At the turn of the 1900s, the life span of the average male was 46 years of age. By the year 2000, the life expectancy was 72. Unfortunately, as the population ages, the incidence of chronic health problems increases and with increasing age comes rising health care costs.

Hospital services – there is little question that, when health care services are delivered in a hospital setting, costs skyrocket. A study by Barnum and Kutzin (1993) stated that hospitals consumed 50-80% of all public sector resources. Even normal procedures such as non-prescription medications (e.g. aspirin) can significantly add to the cost of a hospital stay. According to one study, hospital costs increased 61% between 1997 and 2008 (4.4% per year), while the average hospital stay decreased (HCUP, 2010).

New services – the addition of new technologies such as magnetic resonance imaging (MRI), Position Emission Tomography scans (PET), whole body scans, etc. has added substantially to the costs of health care. So too has the use of many of these technological innovations as defensive medicine. Much of the increase in health care costs can be attributed to new and expensive technologies.

The good news is, partly because of the increasing sophistication of the health care system, we are now able to treat many conditions that were untreatable just a few years ago. For example, premature infants have a much better chance of survival. Also, many of those injured in recent military actions are now alive. But, at what cost?

What is the future?

One obvious question is: What is the future for health care? With ever-increasing costs and a limited supply of resources, what will happen to future generations? With defaults in Greece, the potential for defaults in Italy, and the recent financial troubles in the U.S., the question remains: Does the world have enough money to fund any more increases in health care costs?

The future for health care in the United States is, (to use medical terminology), “somewhat guarded”.

With new technologies, an improved understanding of health and disease, and advances in research we are now able to combat many of the diseases that have plagued mankind for centuries. However, the costs for many of these advances are beyond the reach of most individuals. Without assistance, either from the government or from the employer, many of the available procedures are simply too expensive. And, both government and industry are searching for ways to reduce expenditures.

There is little question that the United States spends more money on health care than does any other country and costs are likely to continue to spiral.

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