

Rising Cost of Prescription Medications and Effective Management of Healthcare Costs in the United States

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Abstract

In 1995, total US spending on healthcare was about \$2.9 trillion, representing around 17% of 2013 GDP and a sharp increase from the 12% of GDP it represented in 1995. A large chunk of the healthcare spending was on pharmaceutical products, which represented about 2% of GDP in 2013. Many reasons have been expounded for why medications cost the highest in the United States compared to any other country. This paper aims to (a) Explore the reasons for this high cost and (b) Propose possible solutions to this problem.

Keywords: Prescription Costs; Medication; Healthcare Costs; United States; Cost Management.

1. Introduction

The population of the United States is only 5% of the total world population, however, research and development costs in the U.S for pharmaceutical drugs represent 36% of global spending [1]. Spending of Prescription medication is increasing significantly in the U.S. Based on a survey [2], “33% of Americans paid an average of \$39 more out of pocket for their regular prescription medications, and 10% were paying as much as an extra \$100. Among the drugs that saw the highest increases were medications for asthma, high blood pressure and diabetes, which went up by more than 10% last year”. The United States spends about 17% of its GDP on healthcare, far above any other developed country. Germany, the only other country with healthcare spending above 10% of GDP, spends about 11% of its GDP on healthcare despite the fact that it heavily subsidizes the healthcare of citizens compared to the mostly private sector driven model in the United States. The gap between the percentage of GDP spent on healthcare between the US and Germany doubled from a difference of 2.4 percentage points in year 2000, to 5.7 percentage points by year 2013. The difference between the United States and other OECD countries is even more profound, when compared to OECD countries, the expenditure on healthcare in the United States as a percentage of GDP is twice the OECD average of 8.7%. (Figure 1)

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In 2014, total U.S. spending on health care was \$3trillion, representing a 5.3% increase over previous year figures or an average of 9,523 per individual. This was almost double the 2013 growth rate of 2.9 percent, the lowest figure recorded in the 55yr history of the National Health Expenditure Accounts [3]. Prior to 2014, the growth in healthcare spending had averaged 3.7 percent for five years continuously before accelerating in 2014. A rapid rise in the spending on prescription medications from a low of 2.4 percent in 2013 to a high of 12.2 percent in 2014 also contributed to the high expenditure/spending on total health care recorded in 2014.

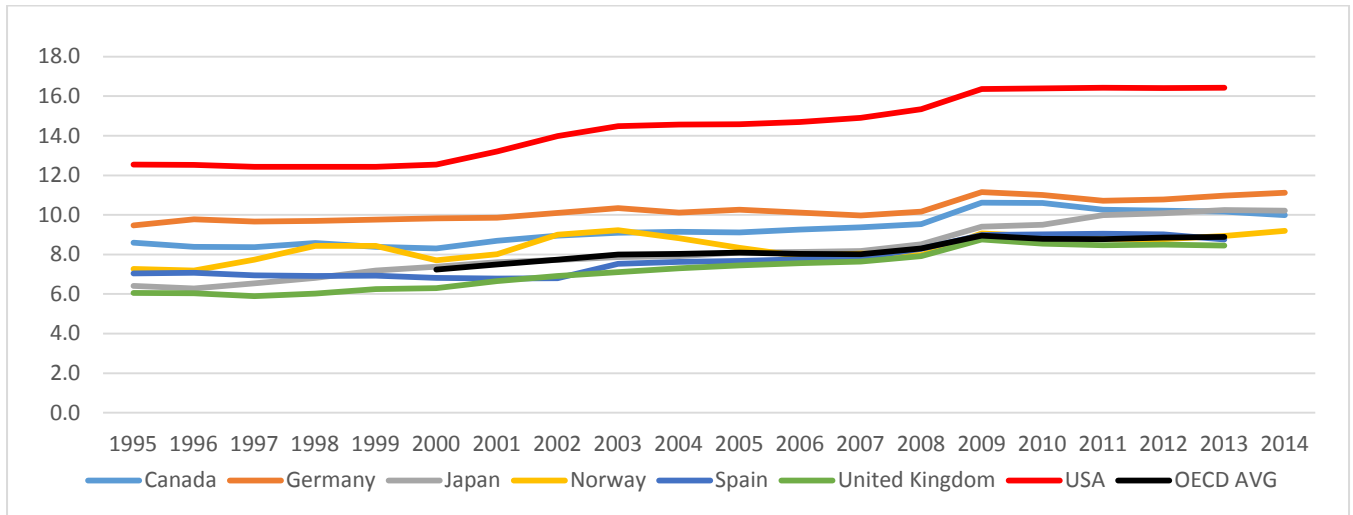


Figure 1: % of GDP spent on healthcare (1995 - 2014)

Source: OECD Health expenditure and financing: Health expenditure indicators [4]

Some criteria characterize a health system that can be said to be successful. The first one is having a population that is able to achieve the highest level of care and health available; the other attribute is being able to provide effective, efficient, safe, timely, patient-centered, and equitable care [5]. Despite the huge expenditure on health, the United States does not successfully outperform comparable developed countries on metrics that measure patient outcomes or efficiency. When assessed on the basis of various aspects of performance, including quality, access, efficiency, and equity, a 2010 systematic comparison of how the health systems of countries such as Australia, Canada, Germany, Holland, New Zealand, United Kingdom, and the United States by The Commonwealth Fund showed that the United States lagged all others; it did not outperform any of these countries [6].

This is not to say however that all the changes in the US healthcare environment have been bad, advances in therapeutic areas like immuno-oncology, for example, have helped to increase the 5-year survival rate across all cancers by 42%. 90% of people that undergo treatment for Hepatitis C can now be cured, and advances in areas such as endocrinology has greatly improved our understanding of diseases like diabetes and obesity, with many more options available to manage them [7]. On a more positive note, the growth rate in per capita health expenditures in the United States slowed over the past decade, from a 8.4% between 2001 and 2002 to around 3.1% between 2008 and 2009 [8]

2. Methodology and Data

In order to provide an objective assessment of the cost of prescription medications in the United States, data on total healthcare spending and pharmaceutical spending as a percentage of GDP was gotten from the Organization for Economic Development (OECD) health spending report. This number as opposed to raw currency amounts spent was used in order to ensure that numbers were comparable across different countries. Additionally, various reports, journal articles, government publications, newspaper publications and articles were reviewed to examine the reason for increasing cost of prescription medications in the United States and what can be done to improve the situation.

3. Discussion

3.1 Overview of Cost of Prescription Drugs

The use of prescription medications in the U.S. has grown rapidly in the last five decades due the effect of a couple of factors. They include the positive effects of new drug entities and innovate treatments developed by pharmaceutical companies to prevent diseases and restore health, the growth of marketing campaigns by pharmaceutical and biotechnology companies, and the expansion of coverage for prescription medications by commercial health insurance companies and government payors like Medicaid and Medicare [9].

This increase in usage has also come at significant cost. For example, looking at the 12 medications approved by the FDA (Food and Drug Administration) in 2012 to treat various cancers, patients will have to pay more than \$100,000 for a year's worth of treatment for 11 of them. In the last 10yrs, the prices for cancer medications have doubled to \$10,000 per month on average from the previous \$5,000 average monthly price [10]. "Total Medicare spending on drugs increased from \$400 million in 1992 to \$7 billion in 1999, by another \$1 billion in 2000, and then an additional 26% from 2001 to 2002. The growth in spending was attributed to the increased volume of new and more expensive medications that were being substituted for older therapies" [2]. Overall in year 2013, pharmaceutical spending accounted for 2% of the GDP (Figure 2 below). The rapid increase in prescription drug costs for the year 2014 was due in part to the launch of new medications to treat Hepatitis C and Multiple Sclerosis [11]. With drug spending from 2015 to 20124 projected to be about 14 cents out of every dollar spent on healthcare, the rise in prescription medication costs is likely to be sustained even when nonretail medications, such as those administered by physicians, are accounted for [12].

Prescription medication prices in the US are some of the highest in the world even when compared to Europe countries where cancer drug prices are 20% to 40% lower [7]. The hepatitis C drug Sovaldi in the United States costs \$80,000 to \$160,000 for a 3- to 6-month course, but in Egypt and India, the drug company has an agreement to give the total course of treatment to an individual patient for \$900

3.2 Main Causes of the High Cost of Prescription Medications

Research and developments costs associated with bringing a new drug to market: Only around 11% of drugs in the R&D pipeline of pharmaceutical companies eventually make it through FDA approval. Because of

this low probability and the high costs of research and development, pharmaceutical companies argue that high prices are needed in order to continue to fund research [13]. As a result, the high drug prices in the United States is influenced by the lengthy research and development process and a complex health delivery system [14], as development costs for a new drug can range between \$60 million and \$90 million [15]. However, even after taking this into consideration, the United States outspends any other country when it comes to prescription medications. In 2012 for example, the United States was projected to spend \$883 per person on prescription drugs, an amount that is more than double the spending by other comparable developed countries [16]. For example, “Canada spends about \$0.70 for each dollar spent in the United States per person, the United Kingdom spends just under \$0.40, and Denmark spends only \$0.35”, according to the Center for Economic and Policy Research [16].

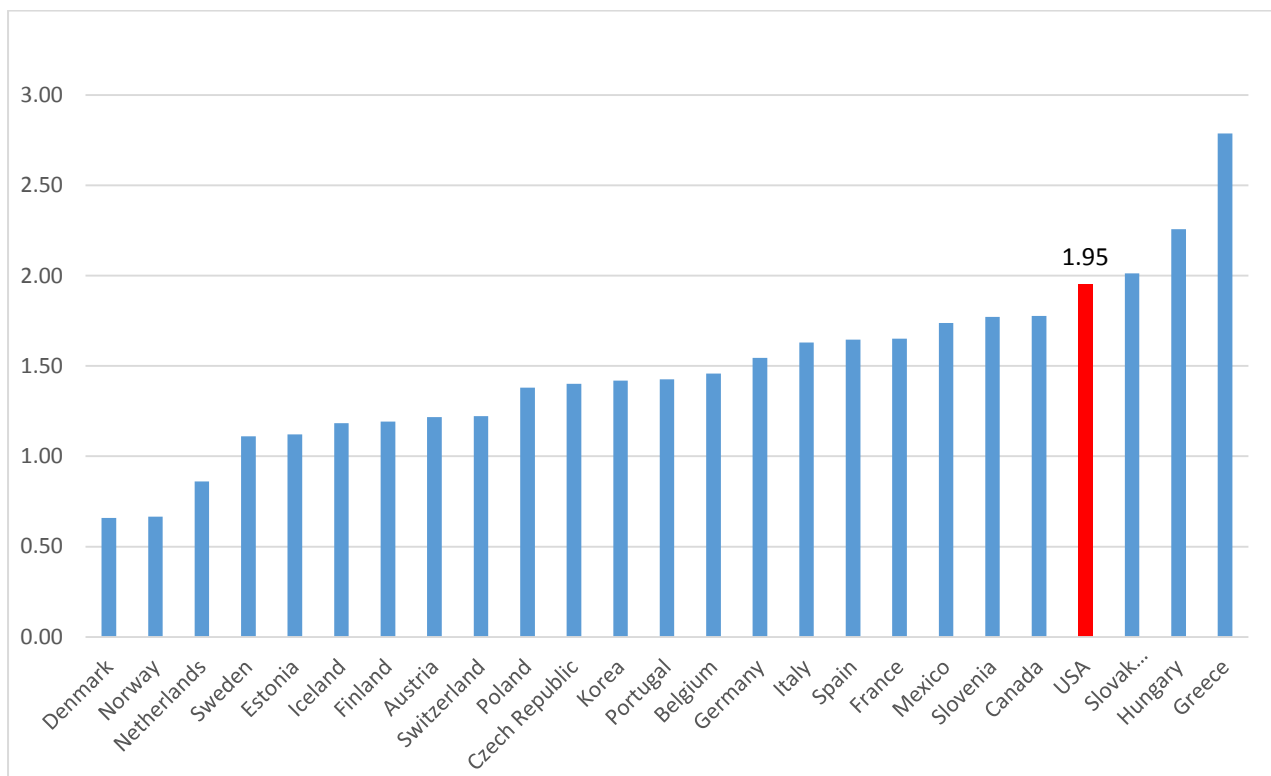


Figure 2: 2013 Pharmaceutical spending as a percentage of GDP

Source: OECD Health expenditure and financing: Health expenditure indicators [4]

Multiple factors have contributed to the increases in drug development costs, and some are beyond the control of pharmaceutical companies. The increasing regulatory requirements by health agencies such as the National Institutes of Health, National Cancer Institute (NCI), FDA, and Office of Human Research Protection also contributes to high cost of prescription medications [17]. Even though there has been little change in the applicable regulatory laws guiding drug development over the years, the interpretations of the existing laws by the regulatory authorities have become more stringent, adding delays and costs to the process of drug development and approval with little upside seen in form of patient protection. Pharmaceutical and Biotechnology companies trying to get a drug to the market may thus have to spend about \$350 million before

the drug goes to market. When costs expended the large number of drugs that eventually fail is taking into consideration large pharmaceutical companies may end up spending about \$5 billion for each new drug that is successful [17]

Low negotiating power of consumers: In the United States, price negotiations take place on an individual level with each private insurance company negotiating with each drug company for the price of each product. The law prevents Medicare from negotiating drug prices or obtaining any sort of volume discounts or establishing a list of preferred drugs. However, Medicaid with no such legal encumbrances is able to get lower prices by negotiating with drug manufacturers [18]. This resultant effect of this is that lower prices that other countries like Germany and the UK enjoy due to volume discounts granted as a result of the government negotiating with pharmaceutical companies for all citizens is not effectively taken advantage of in the United States.

Charging of higher practices by practitioners: The provider landscape is consolidating, hospital systems are increasingly acquiring independent physician practices – oncologists inclusive- and then charging a higher price than was initially charged when the practice was independent for the same service. A 2013 Milliman survey for example showed that when chemotherapy was administered to patients in hospital outpatient settings instead of a physician's office, costs were higher by as much as 53%. *This so-called "buy and bill" practice can create a very substantial incentive to use more expensive drugs. As an example, a \$6 mark-up on a \$100 treatment is very low, but a \$600 mark-up on a \$10,000 treatment is quite another story* [19].

4. Potential Solutions

Negotiate drug prices on a large scale: There will be significant savings if Medicare was allowed to negotiate lower drug prices with drug manufacturers as is the practice in other countries. For example, it has been estimated that if Medicare beneficiaries paid the same price for medications as people in Canada, the Federal government would realize \$230 billion in savings over the next 10 years, states will save \$31 billion and beneficiaries will be able to save \$48 billion. If the price negotiated was equivalent to those paid in Denmark, the Federal government would save \$541 billion with states saving \$73 billion and beneficiaries' saving \$112 billion [16]. A number of bills are being considered that will allow Medicare to negotiate some drug prices, these include the Medicare Prescription Drug Price Negotiation Act of 2013 (S. 117, H.R. 1102); the Medicare Prescription Drug Savings and Choice Act of 2013 (S. 408, H.R. 928); and the Medicare Drug Savings Act (S. 740, H.R. 1588).

Relax restrictions on purchasing medications overseas: Allowing people to purchase some medications from countries where they are cheaper might be a way to reduce skyrocketing costs of prescriptions in the United States. The U.S. Customs estimates that 10 million people bring in medications bought overseas – where they are usually cheaper - at land borders annually. Also, 2 million packages of medications are shipped by mail every year from Thailand, India, South Africa and some other countries [20]. About 2% of consumers brought in prescription drugs from overseas in years 2011 and 2012, but this is not seen as a viable long term solution because of its public health implications [21]. Restrictions on purchasing prescription drugs in other countries and bringing them to the United States -- both through travel and on the internet -- should be relaxed. This will

drive up competition and allow companies to compete on lower prices [22]. However, public safety should be borne in mind to shield the populace from ineffective and low-quality medications manufactured overseas.

Make better use of generic drugs:As much as 90% of all U.S. prescriptions written in the United States are filled with generics that are much cheaper than their brand name counterparts [7]. This helps to reduce the cost spent on prescription medications. Therefore whenever possible, physicians should be encouraged to prescribe generic medications to patients as long as the efficacy of treatment is not compromised.

Tie reimbursement for medications to the value they provide:In the United Kingdom the National Institute for Health and Care Excellence (NICE) evaluates new treatments and determines whether they provide significantly more value when compared to existing ones. Treatments that have a better value proposition are thus priced higher than the ones that do not. In 2013, for example NICE recommended against coverage of all six cancer medications it reviewed [23]. For most new oncology drugs brought to the market for example, there is little correlation between the actual efficacy of a new drug and its price, as measured by cost-efficacy (CE) ratios, prolongation of patient life in years, or quality-adjusted life-years (QALYs) [24]. The downside to this approach however is that patients may experience barriers in accessing many important new cancer treatments because of the unwillingness to pay for it.

5. Conclusion

Whereas it is essential to accelerate scientific and medical progress by allowing pharmaceutical companies to reap the reward of the innovation and risk they take in developing new drugs, it is also critical to ensure that patients have affordable access to the care they need, want, and deserve. For the sake of patients, care should be taken to formulate and implement policies that encourage biopharmaceutical innovation but does not sacrifice patient access to these new drugs [7]. This is particularly important considering the number of people in the United States that are either under-insured or even uninsured. Due to financial barriers occasioned by out of pocket costs, the uninsured are more likely to delay in seeking care and they may completely forego needed care in addition to skipping preventive care services [25]. This will lead to underuse of needed medications and eventually result in poorer health and increased use of other health care services such as the emergency department [26]. Attempts have been made in the past to pursue strategies that integrate multiple solutions. In 2005, for example, the Commission on a High Performance Health System inaugurated by The Commonwealth fund in its 2007 report identified 15 changes in policy, prevention, pricing, and payment that, when implemented together could save as much as \$1.5 trillion over a decade [27]. Although the implementation of the Affordable Care Act had reduced the number of uninsured people in the United States, even if it is fully implemented, the ACA will not represent a complete solution to the problem of affordability. Until the major sources of waste and impediments to a high performing and affordable health system are removed, the United States will continue to have a very costly health system compared to its peers, while delivering considerably less health benefits [28].

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