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Week 4 Practice

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December 2022 – ALY 6150

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1. **What is the approximate financial cost of healthcare in the U.S.?**

According to CMS.gov, in 2020 the total cost was $4.1T which translates in $12,530 per person.

*“U.S. health care spending grew 9.7 percent in 2020, reaching $4.1 trillion or $12,530 per person. As a share of the nation's Gross Domestic Product, health spending accounted for 19.7 percent.”*

https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical

1. **What percent of overall GDP does this account for?**

See the quote from CMS above, this is 19.7% of GDP (in 2020)

1. **How does this spending compare to the rest of the World?**

The world bank has a great graph and table on this subject here: <https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=OE&most_recent_value_desc=true>

See the data below for the top 5 nations of healthcare spending as a percentage of GDP (2019)

|  |  |  |
| --- | --- | --- |
| Country | Most Recent Year | Most Recent Value |
| United States | 2019 | 16.77 |
| Germany | 2019 | 11.70 |
| Switzerland | 2019 | 11.29 |
| France | 2019 | 11.06 |
| Sweden | 2019 | 10.87 |

**4. Is healthcare spending in the U.S. increasing, decreasing, or staying constant?**

Healthcare spending in the US is increasing and costs are also rising faster than overall inflation. See this article from healthsystemtracker which contains a chart that shows how Medical Costs have been exceeding overall CPI (Consumer Price Index) since at least the year 2000.

<https://www.healthsystemtracker.org/brief/how-does-medical-inflation-compare-to-inflation-in-the-rest-of-the-economy/#Cumulative%20percent%20change%20in%20Consumer%20Price%20Index%20for%20All%20Urban%20Consumers%20(CPI-U)%20for%20medical%20care%20and%20for%20all%20goods%20and%20services,%20October%202000%20-%20October%202022>

The percentage of GDP associated with Healthcare Costs has also been increasing and accounts for roughly 1 / 5th of the US GDP.

1. **What are some reasons for the high healthcare costs in the U.S.?**

In my research on the subject, I believe the reason the US has exceptionally high costs compared to the rest of the world can be attributed to:

1. Innovation
2. High Wages
3. Lack of negotiating power

This is not an exhaustive list, but contains some of the primary drivers.

**6. With an unpaid $1,000 annual deductible and $800 medical bill, how much will**

**insurance pay?**

Insurance will pay $0, insurance only kicks in after the deductible has been paid in full.

**7. If a person’s insurance plan has a copay of $20, an 80/20 co-insurance (i.e., 80% insurance company, 20% patient), and a $200 premium, what is the set price this person has to pay at the doctor’s office (just for showing up)?**

This person has to pay $20 just for showing up and will get a bill for 20% in the mail after the visit

**8. Given the following plan: $500 deductible and an 80/20 co-insurance (i.e., 80% insurance company, 20% patient), what amount will a patient have to pay out of pocket for a $7,500 medical bill (assuming no prior services rendered for the year)?**

You need to pay the $500 deductible + 20% of $7,000 = $1,900

**9. What is one way that insurance companies utilize analytics?**

Insurance companies utilize analytics to compare costs across healthcare providers, calculate premiums for customers and to find alternative treatments to expensive brand name medications.

**10. How can analytics be leveraged to reduce healthcare spending?**

Analytics can be used to find anomalous price discrepancies and empower healthcare consumers with more information when shopping around for where to receive their healthcare. Analytics is also helping in drug discovery which in the short-term is leading to higher costs, but I do believe that it will reduce overall costs in the long-term as more drugs come to market and eventually have their patents expire.