**BUSINESS MODEL OF US MEDICARE INDUSTRY**

The healthcare system in the United States is complex and diverse, with a mix of public and private funding and delivery mechanisms. There are several key components of the U.S. healthcare system, including:

1. Private health insurance: A majority of Americans obtain health coverage through private health insurance plans, either through their employer or by purchasing a plan on the individual market.
2. Medicare: Medicare is a federal health insurance program for those over 65 years of age, as well as for some younger people with disabilities.
3. Medicaid: Medicaid is a joint federal-state program that provides health coverage to low-income individuals and families.
4. Out-of-pocket spending: Many Americans pay for a portion of their healthcare costs out of their own pockets, including co-pays, deductibles, and other cost-sharing requirements.
5. Medical providers: The U.S. healthcare system includes a wide range of medical providers, including physicians, hospitals, nursing homes, and other long-term care facilities.

Despite having a highly developed healthcare infrastructure, the U.S. still faces numerous challenges in providing affordable, accessible, and high-quality healthcare to all its citizens. These include high costs, disparities in access to care, and persistent problems with quality and patient safety. In recent years, there have been efforts to reform the U.S. healthcare system in order to address these challenges, including the implementation of the Affordable Care Act (ACA) in 2010.

**What Is Medicare?**

Medicare is a federal health insurance program in the United States that provides health coverage to eligible individuals who are 65 years of age or older, certain younger people with disabilities, and people with End-Stage Renal Disease (ESRD) (permanent kidney failure requiring dialysis or a transplant).

Medicare is funded through payroll taxes, premiums, and general revenue, and covers a range of medical services, including hospital stays, doctor visits, and certain preventive services. Medicare is divided into four parts:

* Medicare Part A (Hospital Insurance): covers inpatient hospital stays, skilled nursing facility care, hospice care, and some home health care services.
* Medicare Part B (Medical Insurance): covers outpatient medical services, including doctor visits, preventive services, durable medical equipment, and some home health care services.
* Medicare Part C (Medicare Advantage): is an alternative to Original Medicare (Parts A and B) that is offered by private insurance companies. Medicare Advantage plans generally cover everything that Original Medicare covers, but may also offer additional benefits such as vision, hearing, and dental coverage.
* Medicare Part D (Prescription Drug Coverage): helps cover the cost of prescription drugs and is offered by private insurance companies that are approved by Medicare.

Medicare is an important aspect of the U.S. healthcare system, providing health coverage to millions of eligible individuals and helping to ensure access to quality medical care.

**Why Healthcare is expensive in USA?**

The United States healthcare system is complex and most costs are market driven. High, unregulated prescription drug costs and healthcare providers' salaries rank higher than in other western nations, and hospital care accounts for 31% of the nation’s healthcare costs. Administrative regulations regarding billing and coding also add to an individual's cost.

**Importance of Health Insurance**

There are 3 key reasons why you need health insurance.

* You don't have enough savings to pay for healthcare - Getting treated at a top healthcare facility is costly. People find it challenging to manage their finances when a family member gets diagnosed with a dreaded illness. Nearly 44% of India's population is not covered by health insurance`. In such situations, people dip into their savings or take loans or sell assets to fund treatments. However, the smart thing to do, is to take a health insurance plan- this will help you to secure your finances and health at the same time.
* Healthcare costs are rising fast - The rate at which medical costs are rising makes it necessary to have health insurance. Medical trend rate, i.e., the increase in per-person cost due to medical inflation. In India itself, this rate is expected to rise at double the inflation rate. The forecasted medical trend rate will be 10% in India, while inflation will be at 5%. Cancer and diseases of the circulatory system remain the top two highest claims reported by most insurers, followed by gastrointestinal diseases and respiratory conditions. With a fixed benefit health insurance cover, you can effectively fight critical illnesses like cancer and conditions related to the heart.
* Hospital costs includes various items - Treatment at hospital is not merely related to surgery. Medical check-ups, doctor fees, and medicines can account for a higher chunk than the actual hospitalisation expenses. Separately, there are diagnostic tests, post-operative care such as having a medical attendant at home, which also cost a lot. Add up all, to understand why medical treatment seems so expensive. Health insurance plans offer coverage for several types of ailments and surgeries. They also cover other aspects of medical treatment. Fixed benefit health insurance plans give the money without asking for a detailed description of all the aspects of treatment costs. It is paid upfront to the policyholder on the submission of first diagnosis report.

**Medicare business model in USA**

The Medicare program in the US operates as a government-run, single-payer system that provides health insurance coverage to eligible individuals over 65 and some younger individuals with disabilities. It contracts with private insurance companies (Medicare Advantage plans) and supplement insurance companies (Medigap plans) to provide alternative coverage options and fill gaps in traditional fee-for-service Medicare. Medicare is funded through payroll taxes, beneficiary premiums, and general tax revenues. The business model aims to provide accessible and affordable healthcare coverage to eligible individuals while facing challenges such as rising healthcare costs and an aging population.

**Other approaches may include:**

**Regression analysis**

Regression analysis is a statistical method that can be used to model and analyse the relationship between a dependent variable and one or more independent variables. In healthcare, regression analysis can be used to study the relationship between various factors and health outcomes, such as the impact of a certain treatment on patient outcomes or the relationship between patient characteristics and health outcomes.

**Forecasting analysis**

Forecasting analysis is a statistical technique used to make predictions about future events or trends based on historical data. In the healthcare industry, forecasting analysis can be used to predict various outcomes, such as patient demand for services, the spread of infectious diseases, or the impact of a new treatment or technology on health outcomes.

**Your Role**

You are heading a department that oversees handling marketing analytics. It belongs to this leading Healthcare Insurance Company and they want to analyse the causes of patients having insurance or not and what they buy after viewing a particular Insurance. Also, you belong to decent analytics background and you go very well with the various data teams which are meant to support you in any action that helps in improving customer contact and increasing revenues. The context focuses on the healthcare insurance business for evaluating products offered by them and coming up with the appropriate market segments. You are bestowed with confidential data from over 80000 hospitals related to their billing information. You must scrutinize and probe the different payment methods and ascertain the association between Insurance and payment methods.

**Points to Ponder:**

**Generic Case Inquiry**

* What Business Objectives can be achieved from the analysis of the pilot data?
* What techniques of Analytics could be deployed to bring workable insights?
* How can the learning obtained in the pilot test can be deployed to the remaining

database to achieve the objectives of achieving optimisation in healthcare?

* Where does the above activity fit in the overall Analytics Life Cycle of an Analytics

Project?

**Specific Case Inquiry**

* What is ratio of male and female those who have claimed the insurance?
* Identify potential customers for healthcare insurance.
* To achieve the objective of target customers who are been insured.
* Identify the problems in given dataset & give the required measures by justifying the techniques used for same.
* What is the metrics deployed for the accuracy of dataset which fits the model for this case?
* Is there a way to predict the sales of insurance for next 5 years in US?

**Suggested Reading:**

1. <https://www.ibm.com/services/client-stories/health-insurance>
2. <https://formotiv.com/blog/predictive-analytics-in-insurance/>