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## Comparative Study of Health Insurance Systems in Various Countries

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### Abstract

Health insurance systems in various countries vary in many dimensions. We develop a framework for discussing these dimensions and then use this framework to compare the health insurance systems of India, Germany, Japan, Singapore and the US. These countries span a wide array of dimensions, including who in the system bears risk, what choices are allowed, how much health spending is done etc. There is an enormous literature evaluating and comparing health insurance systems around the world, which this article attempts to synthesize while emphasizing systems in some of the main countries. Our approach is to provide an overview of the dimensions along which health insurance systems differ and provide immediate comparisons of various countries in tabular form.

**Keywords:** Insurance, secondary insurance, health savings accounts, cost sharing, India, Germany, Japan, US, Singapore

### 1. Introduction

Health Insurance is one of the fast growing segments as far as Non-Life insurance sector is concerned. People have been quickly realizing the importance of Insurance. Earlier more importance was given to Life insurance products where return is a surety compared to Health Insurance product where indemnity is provided during the operation of the policy period only which is usually one or two or three years as per the offer made by the Insurer. Health Insurance in India has to learn a lot from that of in other countries. Study shows that India is lagging in many areas and thus penetration of Health Insurance is still in budding phase. Many people are not at all aware of the product. While in many countries Health Insurance is an obligation, in India it is not. The German government sponsors mandatory universal insurance coverage for everyone, including temporary workers residing in Germany. Germany's primary insurance system is a social health insurance system that covers about 90 percent of the population. Japan has a mandatory insurance system which is comprised of an employment-based insurance for salaried employees, and a national health insurance for the uninsured, self-insured and low income, as well as a separate insurance program for the elderly. The 2010 Affordable Care Act (ACA) dramatically changed many features of the US health care system and should greatly reduce the number of Americans who are uninsured. Starting in 2014 consumers who are without insurance will have to pay a tax penalty, and employers above a certain size will have to offer insurance to their full time employees or pay a penalty. Singapore has a unique-to-the-world health care system where the dominant form of insurance is mandatory self-insurance supported by sponsored saving, although complementary and special insurance programs are also central to their system. The lack of awareness and low penetration has resulted in high out of pocket expenditures. There is lot to learn from US, Singapore and other countries. The paper makes good comparison of various dimensions of health insurance indicators.

As shown in Table 1, insurance systems in these five countries span much of the diversity exhibited by health insurance systems around the globe. These countries include both the most expensive system (US) and the least expensive (**Singapore**), single player as well as multiple insurer, government sponsored and employer sponsored insurance. As evidenced from the Table 1, though in many countries under study Health insurance is mandatory, in India it is not. There is also a significant gap in the number of health insurers playing in the market. Though the population of India is second highest in the world and it is highest among the countries under study, still number of health insurers is far lagging behind. Singapore with population of not even 1 crore has 48 health insurers while Indian market has only 28 health insurers.

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This difference can be attributed to the stringent rules and regulations brought in the market by the regulatory authority.

**Table 1:** Overview of health insurance systems in five countries

	INDIA	GERMANY	JAPAN	SINGAPORE	USA
Simple Characterization	Universal Mutli player	Universal Multi player	Employer sponsored	Subsidized self-insurance	Employer sponsored
Primary sponsor	Self	Gov.	Employers	Self	Employers
Mandatory	No	Yes	Yes	Yes	No
Number of Insurers	28	130	120	48	136
Population (as on 2014)	127 Cr	8.06 Cr	12.8 Cr	53.9 Lacs	32.7 Cr

**2. Breadh of Coverage**

With the exception of the US, all developed countries have universal coverage for their own citizens through their primary insurance programs. Insurance coverage approaches 100% of the population in Germany, Japan, and Singapore, while 83% of the US population has coverage & 50% of Indian population will have coverage by 2015. The 2010 Affordable Care Act (ACA) in the US will increase the percentage covered, but there is considerable uncertainty about how much coverage will increase.

**3. Per Capita Health Expenditure**

Per capita health expenditure is the sum of public and private health expenditures as a ratio of total population. It covers the provision of health services (preventive and curative), family planning activities, nutrition activities, and emergency aid designated for health but does not include provision of water and sanitation. While USA and other countries have considerable per capita health expenditure, for India, it is very low.

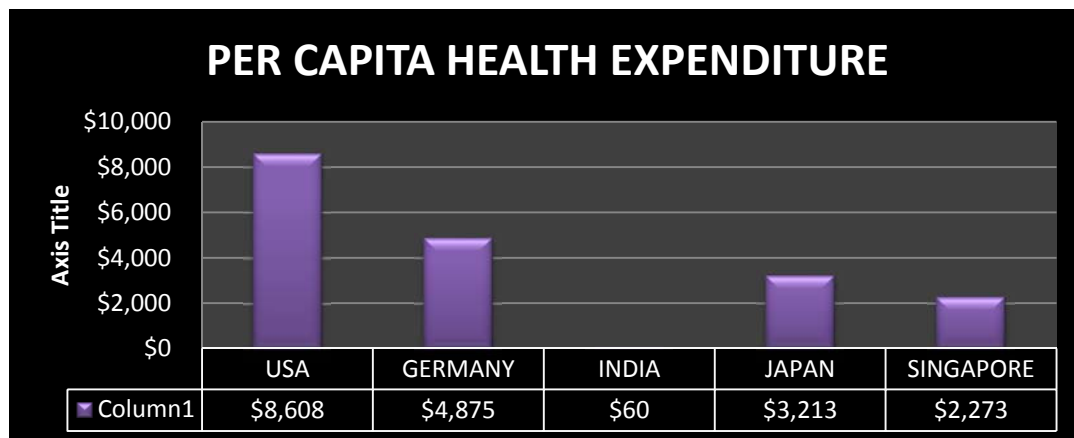


Chart - 1

**4. Percentage of GDP Spent On Health Care**

The gross domestic product (GDP) is one the primary indicators used to gauge the health of a country's economy. It represents the total dollar value of all goods and services

produced over a specific time period. Good portion of GDP goes into health care in case of USA and Germany. While India spends around 4% of GDP on health care.

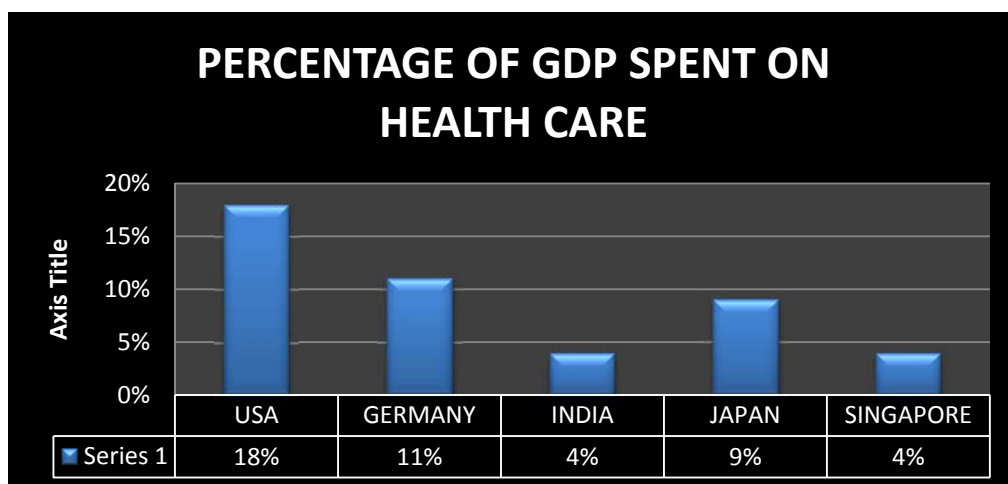


Chart - 2

**5. Percentage of Private Out-Of-Pocket Expenditure**

An **out-of-pocket expense** is a non-reimbursable expense paid by a patient. This could include any medical benefits

that the health plan doesn't consider "covered services." Out of pocket expenses are a big problem and leaving USA, Germany, almost in all countries it is considerably very high.

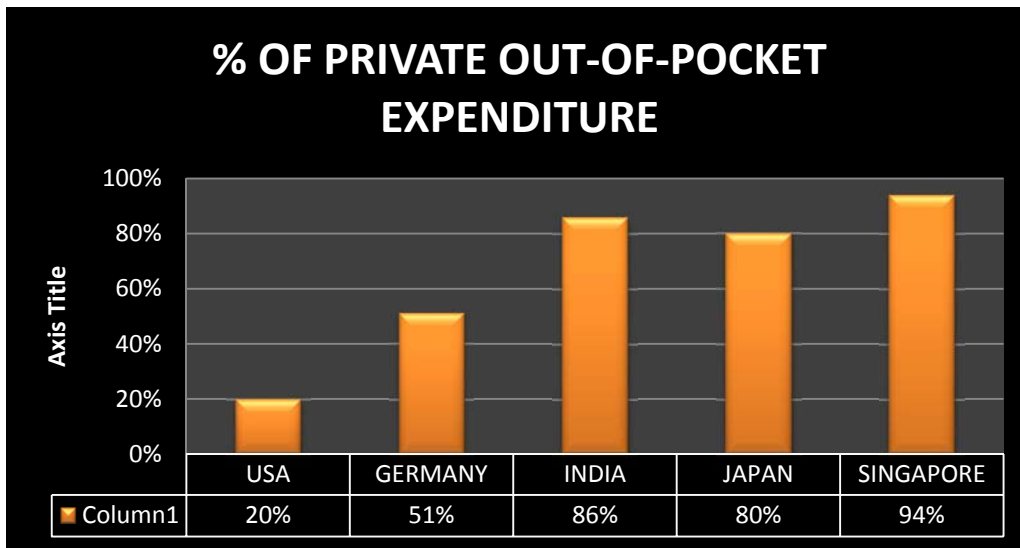


Chart - 3

**Important Facts**

With 95% of its total GDP spend on health care, Cuba has the highest government health spending globally. It also logs 67 physicians per 10,000 people, the most in the world. Oil rich Qatar spends the least on health care, 1.9% of its GDP.

**6. Specialized and Secondary Insurance**

Some countries have separate *specialized insurance* programs, for which only certain individuals are eligible, such as the elderly, people with a serious disability, children, low income individuals, individuals with high medical costs, the unemployed, the self-employed, and individuals employed in small firms. In some cases these programs cover a sizeable fraction of the population and an even higher fraction of total health care spending.

In addition to specialized insurance for which only certain individuals are eligible, many countries have secondary insurance programs that reduce the cost to consumers for spending not covered by the primary insurance policy.

**7. This can be of four forms**

- Supplementary insurance covers services *not* covered under the primary insurance;
- Complementary insurance provides additional reimbursement for services not covered by the health plan;
- Duplicate insurance provides coverage for services that are already included in the primary insurance program;
- Replacement insurance serves as a substitute for primary health insurance coverage.

**8. Country Specific Comparisons**

**i) Germany**

The German government sponsors mandatory universal insurance coverage for everyone, including temporary workers residing in Germany. Germany's primary insurance system is a social health insurance system that covers about 90 percent of the population in approximately 200 competing health plans (called Sickness Funds), with the remainder of the population (primarily high income consumers) purchasing private replacement health insurance system.

Although employers play a role in tracking plan enrollment, collecting revenue from employees and passing it along to a quasi-government agency, they are not sponsors. Insurance is not employment based in that all plans are available without regard to where a consumer works. Germany spends about 12 percent of GDP on health care.

Germany's health spending, excluding private insurers, is mostly funded by an income tax. This tax is a fixed portion of income, usually 10-15%, depending on age, that is the same no matter which health plan an individual is enrolled in, and is shared equally by the employee and employer. Health plans are required to accept all applicants and pay all valid claims. Health plans are free to set premiums but due to strong competition there is almost no variation in price. Germans stop having to pay any payroll tax for health care at age 65 even while continuing to receive health care benefits. Patients are also expected to pay a quarterly co-payment to their primary care doctor. Collection of payroll taxes and premiums is managed by employers, although employers play no role in defining choice options and merely pass along taxes and premiums to an independent government agency. Government subsidies are provided for the unemployed or those with low income. Risk adjustment is used to reallocate funds among the competing health plans, based on age, gender and diagnosis. In response to the acceleration of health care costs, Germany has implemented various cost cutting measures. These include accelerating the transition to electronic medical records, introducing quarterly consumer payments to primary care doctors (although visits remain free).

Non-price rationing methods are also used; for example in order to see a specialist, patients must first be diagnosed and receive a referral from a physician who acts as a gatekeeper. Selective contracting by health plans is allowed, but rare. The primary insurance coverage offered through the funds is among the most extensive in Europe, and includes doctors,

dentists, chiropractors, physical therapy, prescriptions, end-of-life care, health clubs, and even spa treatment if prescribed. There are also separate mandatory accident and long-term care insurance programs. A majority of consumers also purchase supplemental coverage from private insurers, and the supplemental coverage typically provides patients with dental insurance and access to private hospitals.

## ii) Japan

Japan has a mandatory insurance system which is comprised of an employment-based insurance for salaried employees, and a national health insurance for the uninsured, self-insured and low income, as well as a separate insurance program for the elderly. Employment-based insurance system is the primary insurance program in which employers play a significant role as sponsors and health plans have considerable flexibility in designing their benefit features. Employment-based insurance is of two kinds, distinguished between small and large firms. Health insurers offer employer-based health insurance provides coverage for employees of companies with more than five but fewer than 300 workers and cover almost 30% of the population.

Large employers (an additional 30% of the population) sponsor employee coverage through a set of society managed plans organized by industry and occupation. Employer-based health insurance coverage must include the spouse and dependents. A public national health insurance program covers those not eligible for employer-based insurance, including farmers, self-employed individuals, the unemployed, retirees, and expectant mothers, who together comprise about 34% of the population. Health insurance for the elderly covers and provides additional benefits to the elderly and disabled individuals. Finally, any household below the poverty line determined by the government is eligible for welfare support.

Altogether Japan spends about 9 percent of GDP on health care.

Health insurance expenditures in Japan are financed by payroll taxes paid jointly by employers and employees as well as by income-based premiums paid by the self-employed. Fees paid to the health care workers and institutions are standardized nationwide by the government according to price lists. The largest share of health care financing in Japan is raised by means of compulsory premiums levied on individual subscribers and employers. Premiums vary by income and ability to pay.

Employers have little freedom to alter premium levels, which range from 5.8 to 9.5 percent of the wage base. Premium contributions are evenly split between employees and employers. Cost-sharing includes a 20% coinsurance for hospital costs and 30% coinsurance for outpatient care. Employer-based insurance is further subdivided into society-managed plans, government-managed plans and mutual aid associations. Patients may choose their own general practitioners and specialists and have the freedom to visit the doctor whenever they feel they need care. There is no gatekeeper system. All hospitals and physician's offices are not-for-profit, although 80% of hospitals and 94% of physician's offices are privately operated. Japan has a relatively low rate of hospital admissions, but once hospitalized, patients tend to spend comparatively long periods of time in the hospital, notwithstanding low hospital staffing ratios.

In Japan, the average hospital stay is 36 nights compared to just six nights in the United States.

Health insurance benefits designed to provide basic medical care to everyone are similar. They include ambulatory and hospital care, extended care, most dental care and prescription drugs. Not covered are such items as abortion, cosmetic surgery, most traditional medicine (including acupuncture), certain hospital amenities, some high-tech procedures, and childbirth. There is a specialized insurance program for childbirth expenses. Expenses that fall outside the normal boundaries of medical care are either not covered, dealt with on a case-by-case basis, or covered by a separate insurance system.

## iii) United States

The US system is at its heart an employment-based health insurance system in which employers play a key role as sponsors of their employees. By one count, there are over 1200 private insurance companies offering health insurance in the US, which are regulated primarily by the 50 states and not at the federal level. These companies offer tens of thousands of distinct health insurance plans, each with their own premiums, lists of covered services, and cost sharing features. In addition to this private system there are also many overlapping public specialized insurance programs designed to cover consumers who are elderly, disabled, or suffering from end stage renal disease (Medicare program), the poor or medically needy (Medicaid), children, veterans, and the self-employed. Because the US relies on both private and public insurance it is sometimes called a mixed insurance system.

About 17 percent of the US population was without primary insurance, although many of these consumers are in fact eligible for Medicaid coverage but do not realize it. The US spends nearly 18 percent of GDP on health care, the highest of any developed country.

Although the government acts as the sponsor to all of the public specialized insurance programs, employers are the key sponsor for most Americans. Choice is available to almost every agent in the US system. Consumers choose providers, health plans, and sponsors; and employers, health plans and providers can generally turn down consumers who they prefer not to insure/employ, enroll or provide services to. Employers generally contract with health plans while trying to control costs, but find little competition to hold down prices or control utilization. Many health plans negotiate fee reductions with provider groups, who tend to have substantial market power, but fees for medical care services in the US are with few exceptions the highest in the world. Although the US Medicare program sets provider fees for all regions without negotiation, all health plans must negotiate prices to be paid to providers, and the resulting fees reflect bilateral bargaining with market power.

The 2010 Affordable Care Act (ACA) dramatically changed many features of the US health care system and should greatly reduce the number of Americans who are uninsured. Starting in 2014 consumers who are without insurance will have to pay a tax penalty, and employers above a certain size will have to offer insurance to their full time employees or pay a penalty. This US system also entails setting up insurance exchanges to cover the self-employed and small employers, who have the hardest time obtaining insurance in the US. The ACA does relatively little to address cost

containment issues, but does work towards expanding the number covered by insurance.

#### iv) Singapore

Singapore has a unique-to-the-world health care system where the dominant form of insurance is mandatory self-insurance supported by sponsored saving, although complementary and special insurance programs are also central to their system.

Remarkably, despite having a per capita GDP of approximately US\$ 55000 in 2013, Singapore reports spending a mere 4% of GDP on health care. The centerpiece of its system is a mandatory income-based individual savings program, known as **Medisave**, that requires consumers to contribute 6% to 9% (based on age and up to a maximum of \$41,000 per year) of their income to a health savings account (HSA). This HSA can be spent on any health care services a consumer wishes, including plan premiums. Funds not spent in a consumer's HSA can be carried forward to pay for future health care, used to pay for health care received by other relatives or friends, or if over age 65, cashed out to use as additional income, though there are some restrictions.

A complementary insurance plan, known as **Medishield**, is available to cover a percentage of expenses arising from prolonged hospitalization or extended outpatient treatments for specified chronic illnesses, though it excludes consumers with congenital illnesses, severe pre-existing conditions and those over 85 years old.

As of 2013, this specialized MediShield program, which is optional, covered approximately 65% of the population. The government also supports a second complimentary catastrophic spending insurance program, known as **Medifund**, which exists to help consumers whose Medisave and Medishield are inadequate. The amount consumers can claim from this catastrophic insurance fund depends on their financial and social status. Singapore's system also includes a privately available, optional insurance program covering long term care services (called **Eldershield**), with fixed age of entry based payments. Consumers are automatically signed up for Eldershield once they reach 40 but they may opt out if they wish. Subsidies are available for most services, but even after the subsidies consumers must pay something out of pocket for practically all services. Some, but not all, subsidies depend on the consumer's income, and consumers often have a choice over different levels of coverage.

#### v) India

The insurance industry of India consists of 52 insurance companies of which 24 are in life insurance business and 28 are non-life insurers. Among the non-life insurers there are four public sector insurers. In addition to these, there is sole national re-insurer, namely, General Insurance Corporation of India. Other stakeholders in Indian Insurance market include Agents (Individual and Corporate), Brokers, Surveyors and Third Party Administrators servicing Health Insurance claims. Since 1999, IRDA has licensed 24 new private insurance companies, of which 21 have foreign equity participation. Health insurance remains vastly under-developed in India.

Out of 28 non-life insurance companies, 4 are Public sector undertakings and 5 private sector insurers are registered to underwrite policies exclusively in Health, Personal Accident and Travel insurance segments.

Standalone Health Insurers	Public Sector Insurers
Star Health and Allied Insurance Company Ltd	New India Assurance Co Ltd
Apollo Munich Health Insurance Company Ltd	United India Insurance Co Ltd
Religare Health Insurance Company Ltd	National Insurance Co Ltd
Cigna TTK Health Insurance Company Ltd.	Oriental Insurance Co Ltd
Max Bupa Health Insurance Company Ltd	

Health insurance in India typically pays for only inpatient hospitalization and for treatment at hospitals in India. Outpatient services are not payable under health policies in India though some insurers have come out with such kind of policy but with exorbitantly high premium rates. The first health policies in India were Mediclaim Policies. In 2000 government of India liberalized insurance and allowed private players into the insurance sector. The advent of private insurers in India saw the introduction of many innovative products like family floater plans, top-up plans, critical illness plans, hospital cash and top up policies. Broadly health insurance plans in India can be classified into three categories:

- Hospitalization
- Hospital daily cash benefit plans
- Critical illness plans

#### 9. Health Insurance Schemes in India

Most of the population is covered by state insurance companies which includes mostly middle income group. This is due to subsequent subsidy in the premium rate.

#### 10. CGHS (Central Government Health Scheme)

It was started under the Indian Ministry of Health and Family Welfare in 1954 with the objective of providing comprehensive medical care facilities to Central Government employees, pensioners and their dependents residing in CGHS covered cities.

#### 11. Employees' State Insurance

Is a self-financing social security and health insurance scheme for Indian workers? For all employees earning ₹ 15000 (US\$250) or less per month as wages, the employer contributes 4.75 percentage and employee contributes 1.75 percentage, total share 6.5 percentage. This fund is managed by the ESI Corporation (ESIC) according to rules and regulations stipulated there in the ESI Act 1948.

#### 12. Rashtraya Swasthya Bima Yojana (RSBY)

This has been launched by Ministry of Labour and Employment, Government of India to provide health insurance coverage for Below Poverty Line (BPL) families. Beneficiaries under RSBY are entitled to hospitalization coverage up to Rs. 30,000/- for most of the diseases that require hospitalization for a mere payment of Rs 30/- as a registration fees.

#### 13. Concluding Thoughts

From the above descriptions, it is clear that there are an enormous number of ways that health care insurance programs vary around the world. Most country systems can be viewed as combinations or variations on the five systems described here. The article shows the numbers of ways where

Indian Health system is lagging and it would be wonderful if there were a ways of identifying the characteristics of the most effective systems and the most equitable ones and imbibe them into the Indian marketing condition. But the Introduction of health insurance portability is expected to boost the orderly growth of the health insurance sector. Penetration of health insurance is expected to more than double by 2020. Increasing penetration of health insurance is likely to be driven by government-sponsored initiatives such as RSBY and ESIC. Government sponsored programmes are expected to provide coverage to nearly 380 million people by 2020. Private insurance coverage is estimated to grow by nearly 15 per cent annually till 2020, thus giving a hopeful picture in future in case of Indian health insurance.

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