

# The Impact Of Economic And Social Factors On Demand For Health Insurance: Case Study Of Metropolitan Cities

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## Abstract.

*The present study reports the comprehensive study on socioeconomic aspects of health refer to social and economic factors that influence the living conditions of a person, family, or society. Health insurance is a health financing guarantee that needs to be chosen to face health risks and increasingly expensive medical costs. Socioeconomic status is related to the level of ability a person has in purchasing health services. This research aims to determine the influence of socio-economic factors on the demand for health insurance in metropolitan cities. This research uses a literature review research method which is part of qualitative research, which is related to the research subject. The results of this study show that the impact of economic and social factors or socio-economic factors can influence the demand for health insurance in metropolitan cities. The health insurance has a positive impact, there are still challenges related to the low penetration of health insurance among Indonesian people, especially in remote and rural areas. Apart from that, inadequate health insurance protection and a lack of understanding of the benefits of health insurance itself are also things that need attention. The role of the government, financial institutions and the insurance industry in increasing awareness, accessibility and reliability of health insurance products in the future will be key in strengthening the positive social and economic impact of health insurance in Indonesia.*

**Keywords:** Demand, health insurance, socioeconomic factors and metropolitan cities.

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## I. INTRODUCTION

A healthy life is the dream of every society and is a human right that should be obtained. Health is something that is desired by all living creatures on this earth. Due to a sick body condition, it will make a person unproductive and could risk death [1]. One of the state's efforts to improve welfare for all Indonesian people is by implementing National Health Insurance like JKN, using an insurance system, with the existence of JKN, all Indonesian citizens have a great opportunity to protect their health better. Health insurance is a type of protection insurance that covers medical, surgical, drug and similar costs for the insured or policy holder [2]. This health insurance can cover medical expenses due to illness or injury, as well as pay for medical care costs directly. The reason why health insurance is important is to provide protection for yourself and your family. By having health insurance, we and our beloved family will get health protection. If at any time you need care and treatment, insurance will cover these needs. Health insurance is a financial product that is quite familiar to the Indonesian people[3].

In 2018 alone, the Central Statistics Agency (BPS) in Indonesia recorded that of the 262 million Indonesian population, 208 million of them or the equivalent of 79.4% were covered by health insurance. This means that for every 1,000 residents, there are 794 people who already have health insurance. This figure shows an increase compared to 2017, where only 716 people were known to have health protection out of 1,000 residents[4]. The presence of the BPJS Health Program in Indonesia starting in 2014 can be said to be the main reason for the increase in health insurance coverage in Indonesia. It cannot be denied that this government facility provides easier access for the public to obtain health protection, both for individuals and their families[5], [6]. Public awareness about health insurance is related to socio-economic factors. Socioeconomic growth in Indonesia over time has had a major impact on people's lives. This influences the mindset and lifestyle of Indonesian people, to pursue better education and work to earn sufficient income. Through a better understanding of these factors, policy makers can design appropriate strategies to improve the accessibility, sustainability and quality of health insurance[7].

## II. METHODS

This research uses a literature review research method which is part of qualitative research, which is related to the research subject. This research is descriptive in nature. Based on this research, the research objective is to describe the factors that influence the demand for health insurance, especially economic and social factors. In this section, an assessment of the concepts and theories used is carried out, based on existing and available literature, especially from articles published in various previous scientific journals[8]. The data collection technique used by researchers in collecting data and information is by taking secondary data where the information comes from relevant government regulations, the internet, online books and the latest scientific journals. The method used in this research is a journal literature review, which aims to describe the factors that influence demand for health insurance[9].

## III. RESULT AND DISCUSSION

The social and economic influence of society is one of the factors that can influence various human lives, for example the demand for public health insurance from the upper to lower middle classes. Health insurance is an effort to bring closer access to health services for small communities. As is known, so far health costs in Indonesia are relatively expensive, and still unaffordable for majority of Indonesian people. Socioeconomic aspects of health refer to social and economic factors that influence the living conditions of a person, family, or society[4], [5]. Socio-economic aspects can influence a person's health through factors such as: access to health services, employment status, education, environmental conditions, lifestyle, stress, social inequality. It is important to pay attention to the socio-economic aspects of health and provide equal opportunities for everyone to have adequate access to health services, good nutrition, a healthy work environment and adequate social support. Some examples of socio-economic factors that can influence health include[10]:

### **Access to health care**

People who have low incomes may not have the same access to quality health care compared to people who have higher incomes. This can result in a lack of preventive care and early treatment which can worsen health conditions. Some steps that can be taken to increase access to health care include strengthening health infrastructure; providing affordable health services; optimizing information technology; increasing health literacy; and building social support.

### **Access to a safe work environment**

People who work in unsafe or unhealthy environments, such as in hazardous areas or exposed to hazardous chemicals, may be more susceptible to injury or illness. Some steps that can be taken to increase access to a safe working environment include carrying out risk assessments; provide training and education; provide adequate equipment and protection; maintaining working environmental conditions; and implementing appropriate occupational safety and health standards.

### **Access to adequate health services**

People living in remote or less developed areas may not have adequate access to health services, including medicines and medical care. Several steps that can be taken to increase access to health services include improving health service infrastructure; improving accessibility to health services; provide education about the importance of maintaining health and how to prevent disease; providing subsidies or affordable prices; and improve the quality of health services

### **Health service costs**

These costs may include doctor's visit costs, medication costs, or medical procedure costs. Several steps that can be taken to improve the accessibility of health service costs include providing subsidies for people who cannot afford health service costs; improving health insurance programs; increasing transparency of health care costs; improving primary health services such as community health centers; and establishing partnerships with the private sector such as pharmaceutical companies.

### **Employment status**

People who have unstable jobs or jobs that pay low wages may not have health coverage or enough sick leave, which can make it difficult for them to get necessary medical care. Some applications to improve

employment status and improve public health include increasing access to employment; improving workers' rights; provision of health facilities in the workplace; increasing work safety; and increased health insurance rights for workers.

### **Social inequality**

People living in poverty and inequality may experience higher stress and lack access to adequate health care. Several steps that can be taken to overcome social disparities in health include increasing ease of access to health services for people in lower social groups; health education about the importance of healthy living and how to prevent disease; immunization programs for lower social groups; maintaining mental health; improving social and economic conditions; and increasing awareness about the importance of a healthy lifestyle in all social groups.

### **Income gap**

Large income gaps between economic groups can affect access to healthy food, housing, and adequate health services. This can affect a person's physical and mental health. Applications to reduce income disparities can be done in several ways, including increasing access to work, especially for people with low incomes; increasing skills and education that are relevant to job market needs; social protection such as social assistance, health insurance and pension benefits, for people who are unable to earn sufficient income; increasing access to credit for people who want to start a business or expand their business; and increasing fair and decent minimum wages for workers, so they can meet their basic needs and have a better income.

### **Access to healthy and safe work**

People who work in unsafe environments or are exposed to hazardous chemicals may be more susceptible to work-related injuries or illnesses. Implementing access to healthy and safe work can be done in the following ways: improving occupational safety and health regulations such as tightening occupational safety and health requirements in the workplace, checking and monitoring their implementation, and providing sanctions for violators; improving occupational safety and health training; increasing access to health services for workers, including routine health checks, management of work injuries, and treatment of work-related illnesses; increase access to information about healthy and safe work through print and online media, such as brochures, posters or official websites; and increasing cooperation between government, companies and workers in improving occupational safety and health.

### **Health capacity and facilities**

Limited health facilities or a shortage of medical staff may not be able to provide adequate health services or may result in long waiting times. Several ways to apply the capacity of health facilities to improve public health: improving health infrastructure such as building houses hospitals, health centers, clinics and laboratories to help increase the capacity of health facilities; development of health human resources through training, education and career development; improving health information systems to assist health facilities in planning, managing and allocating available resources effectively; increased use of health technologies such as electronic health information systems, telemedicine, and medical devices; and collaboration between health facilities, to provide integrated and holistic health services, through the development of referral networks and collaboration between health facilities. Insurance is a tool used to reduce the risk or uncertainty that always exists in the economy. To reduce this risk, it can be done by combining parties that have the same risk so that the possibility of loss can be predicted and proportional to all parties involved if the prediction occurs[11].

Article 246 of the Indonesian Commercial Code explains that insurance is a contract, where there is a relationship between the insurer and the insured by receiving a premium, to replace the losses suffered by the insured due to unexpected events. From the definition above, concluded that insurance consists of 4 (four) components, namely[12]:

1. The insured is a person who provides insurance premiums to the insurer in batches or according to type.
2. The insurer submits a claim to the insured if an unexpected event occurs
3. Unexpected events (accidents)
4. Interest rates can cause losses due to uncertain events.

Types of health insurance are divided into two, namely private health insurance and state health insurance. Private health insurance includes such as Prudential, AXA, Manulife, Allianz, Sinarmas, and others that already existing in Indonesia. Health insurance that is included in the state group, one example is the Health Social Security Agency (BPJS). Health insurance has several levels or levels related to facility services, for example in BPJS health insurance there are three levels of facilities for their segmentation, namely class I, class II, and class III. People who have middle to upper economic status tend to use private insurance because the services in the insurance program are considered better[13]. From the definition above, the author concludes that insurance is an organization with the function of transferring risk. Insurance occurs because of a contract between the insured and the insurer (insurance company) which is intended to reduce the financial risk due to unexpected future events[14]. According to Basuki in the Health System, health insurance is a form of insurance designed to ease the financial burden due to changes in health. Health insurance can act as a financing instrument that can achieve the goal of universal health coverage. The World Health Organization (WHO) encourages countries in the world to provide health insurance to their people, either in the form of commercial or social health insurance[15], [16].

According to there are five factors that influence the amount of demand for health insurance or guarantees, including[17]:

1. Costs that need to be borne. Especially, if the cost of health insurance premiums decreases, its use tends to increase as desired, as well as an increase in demand for health insurance, if other factors remain the same (*ceteris paribus*).
2. The possibility of getting sick personally is one of the factors why many people choose optional services over routine services, such as regular health checks and dental care.
3. Increased demand for health insurance purchases increases along with increased risk of lost income. Many people choose hospital services because they are worried about losing significant income.
4. Level of risk aversion. Individuals who avoid risk are people who gamble with the possibility of losing money because they are sick for a certain period, but also have an equal chance (50-50) of not losing money. This finding depends on personal judgment, which is often influenced by factors such as age, lifestyle, and health.
5. Loss of income commensurate with the cost of sick time.

The definition of demand for health insurance is inseparable from the definition of demand in Economics, namely the number of commodities in the form of goods or services that consumers are willing and able to consume in a certain period[18]. The demand for health services is a derivative of the demand for health itself, in this model it is assumed that everyone assesses the benefits of health expenditures which are analogous to expenditures for other commodities in the form of deciding their optimal health status[19]. Health expenditures are uncertain in terms of time and cost. Health expenditures can be direct or indirect expenditures due to a person's inability to work. Health insurance helps to reduce the risk of these uncertain health costs. Insurance can be interpreted as follows:

1. Exchange of large uncertain losses for small certain losses, namely paying insurance premiums.
2. Exchange of money now for money used to pay for uncertainty in the occurrence of an event.

According to summarizing the theory of demand for health insurance, attention should be paid to two areas, namely

1. Factors affecting the demand for health insurance
2. Welfare implications (are people better off) that require someone to buy health insurance against all types of medical illnesses, routine and cheap services.

The greater the possibility of loss, the greater the premium they are willing to pay. That's mean when an individual is sick, the individual will face health costs, these expenses are assumed to fully restore the losses due to illness, for this reason, more people buy health insurance for hospitalization than health insurance for teeth or eyes now in Indonesia[20]. Avoiding the risk of costs due to illness can be transferred to the insurer, by paying a premium. The amount of the premium is related to the level of utility or the satisfaction. If the actual utility exceeds the expected utility, then the consumer will buy the insurance, and conversely the higher the price of insurance, the less "Willingnes to Pay" (WTP) for insurance[21]. The size

of people's income and wealth will affect the amount of premium price they are willing to pay for health insurance. At both low and high incomes, marginal utility income is either relatively high or low so that people may prefer to insure; the distance between the expected utility curve and the actual utility curve is less favorable for high and low incomes than for middle income levels. Low income will reduce the level of demand for insurance. Limited evidence suggests that consumers with higher incomes are less sensitive (inelastic) to price than those with lower incomes[22].

However, several observational studies used to estimate the income elasticity of demand consistently show that the demand for health insurance is inelastic with respect to differences in consumer income. Studies show that the income elasticity of demand for health insurance is  $<0.1$ . The results show that the demand for health insurance is generally price inelastic[12], [23]. Percentage changes in the price of insurance, for employees, employers, and individuals in the non-group market, result in smaller percentage changes in demand (inelastic), but the estimated elasticities have a wide range. In the individual market, estimates of the price elasticity of demand range from -0.2 to -0.6. Metropolitan cities are one form of urban development that has a high level of complexity and development. The metropolitan city type is the center of economic, political, social, and cultural activities in a wider area[24]. Generally, metropolitan cities have an integrated regional infrastructure network system and have a total population of at least 1,000,000 people.

The following are various characteristics that distinguish metropolitan cities from other types of cities in remote areas or regions[25]:

#### 1. Large Population

One of the characteristics of a metropolitan city is its large population. The city is home to millions of people from various backgrounds and cultures. High population density characterizes dense urban areas in the city center and the expansion of settlements around it.

#### 2. Advanced Infrastructure

Metropolitan cities have complete and sophisticated infrastructure. The city has a good transportation network, including international airports, connected toll roads, an efficient public transportation system, and modern logistics facilities. Supporting infrastructure, such as hospitals, shopping centers, business centers, and entertainment centers, is also very developed.

#### 3. Cultural Diversity

Metropolitan cities offer rich cultural diversity. The people who live in this city come from various backgrounds, ethnicities, and cultures. Complex social interactions, diverse cultural celebrations, and the presence of minority communities reflect the cultural diversity that is typical of metropolitan cities.

#### 4. Economic Center

Rapidly growing economic activity is the main characteristic of metropolitan cities. The city is the center of business, trade, finance, and industry in the region. Diverse job opportunities and abundant employment attract people from surrounding areas to work and make a living in the metropolis.

#### 5. Cultural and Educational Center

A metropolitan city is also a center of culture and education. The city offers a variety of entertainment, arts, and culture options, such as museums, art galleries, theaters, and cultural festivals. In addition, metropolitan cities often have leading universities and educational centers that provide various academic programs and professional training.

#### 6. Technological Advancement

Metropolitan cities are generally centers of technology and innovation. They are home to technology companies, research and development, and innovative startups. The presence of sophisticated technology and high connectivity are important characteristics of metropolitan cities.

### IV. CONCLUSION

Based on research findings regarding the influence of socioeconomics on demand for health insurance, the following conclusions can be drawn: The higher a person's level of avoiding risk (risk aversion), the higher the demand for health insurance. Income has a positive influence on demand for health insurance. Easy access to health is really needed by people with lower middle income. This means that the

higher income will increase people's demand for using health insurance. Education has a positive influence on health insurance, meaning that the higher the education, the higher the public's demand for using health insurance. Even though health insurance has a positive impact, there are still challenges related to the low penetration of health insurance among Indonesian people, especially in remote and rural areas. Apart from that, inadequate health insurance protection and a lack of understanding of the benefits of health insurance itself are also things that need attention. The role of the government, financial institutions and the insurance industry in increasing awareness, accessibility and reliability of health insurance products in the future will be key in strengthening the positive social and economic impact of health insurance in Indonesia.

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