

Impact of ability and willingness to pay for health insurance in Indonesia



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ABSTRACT

One way the community is financially protected from unforeseen health risks is through health insurance. The ability and willingness to pay for health insurance has been linked to improvements in public health, including better access to healthcare services, better public health, and financial protection from health risks, according to earlier research. Since 2014, Indonesia has had a government health insurance scheme under the National Health Insurance (JKN) program with the goal of enhancing community welfare and health access. However, despite the benefits provided by the JKN program, many people are still not registered and have not received benefits from the program. Recent studies have shown that high health insurance costs remain the main obstacle for people with low income to buy health insurance. The aim of this study was to identify the ability and willingness to pay for social insurance premiums in the framework of the National Health Insurance System. Utilizing the terms "impact of ability," "willingness," and "health insurance," the database search includes Google Scholar, ScienceDirect, and PubMed. The last step is to choose the articles that meet the criteria, which include being published between 2011 and 2022 and having the complete text accessible. The criteria for including 13 articles were met. According to the review's findings, the majority of publications link knowledge, income, how people view health care, and family support to health insurance payment compliance. Additionally, there are barriers and constraints affecting participation in National Health Insurance (NHI), such as registration procedures, benefits received, premiums, and private insurance ownership. There are several factors that affect compliance with health insurance payment, including knowledge, income, perception of health services, and family support.

Keywords: impact of ability, willingness to pay, health insurance.

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INTRODUCTION

Low- and middle-income countries continue to be plagued by worries about the poor and vulnerable insufficient access to high-quality healthcare.^{1,2} Access to high-quality healthcare is significantly hampered by financial constraints, and the World Health Report emphasizes that finance equality is a critical component of health system performance.³⁻⁵ Around 100 million people worldwide fall into poverty each year as a result of self-expenditure on health, and an additional 1.2 billion people who are already poor as a result.⁶ Access to high-quality healthcare has recently taken top priority in many low- and middle-income nations, with financial security being a crucial element in obtaining universal health coverage.^{7,8} Many low- and middle-income nations are implementing changes to enable universal health coverage, such as Indonesia's

JKN program, which intends to provide health care to its 255 million inhabitants. As a result, health spending per capita is anticipated to rise quickly in a number of these countries.⁹⁻¹¹

The Indonesian government is currently putting into effect a number of UHC policy reforms, including the integration of remaining government insurance schemes into JKN, the provision of health facilities, the restructuring of the provider payment system, the expansion of the provider network, and the implementation of demand-side initiatives to increase insurance adoption, particularly in the informal sector.^{12,13} The Indonesian government created the National Health Insurance System (JKN), a social insurance program, to guarantee that the general people can obtain health care without experiencing financial hardships.¹⁴ To join the Health Insurance system, the general public

must pay a premium of IDR 22,000.00 per person each month to a third-party insurance business.⁴⁻⁶ However, for a variety of reasons, some people are unable or unwilling to pay the premium. The health financing system's key components of capacity to pay (ATP) and willingness to pay (WTP) are crucial to the fulfillment of equal service distribution.¹⁵ Based on the government's contribution amounts, health insurance contributions are required for independent participants in the health insurance sector. These contributions are intended to guarantee that the community has access to equitable and fair health services based on their requirements and financial capacity.^{16,17}

ATP and WTP are necessary for community participation in the JKN program, which is evident by their desire to donate.¹⁸ Due to a lack of knowledge about the advantages, difficult transportation, a distance from medical

services, or persons who have not yet registered for a health insurance card, not all people with health insurance cards use hospital health services.¹⁹ To address this, the government has recently established Presidential Regulation Number 64 of 2020, which amends Presidential Regulation Number 82 of 2018 concerning Health Insurance. This regulation follows the Supreme Court's decision to cancel the JKN-KIS contribution adjustment for Non-Wage Recipient Workers (PBPU) and Non-Workers (BP) participants, also known as independent participants. From April to June 2020, JKN-KIS program participants' fees were IDR 80,000 for class I, IDR 51,000 for class II, and IDR 25,500 for class III participants under Presidential Regulation 82 of 2018. Starting July 1, 2020, the JKN-KIS fee for independent participants was raised to IDR 150,000 for class I, IDR 100,000 for class II, and IDR 42,000 for class III participants. The government provides subsidies for class III participants amounting to IDR 16,500, so independent class III participants will still pay a fee of IDR 25,500 per person per month. This 100% increase in BPJS Health premiums in 2020 is one of the factors driving the need to determine the Ability To Pay (ATP) and Willingness. This is to find out how capable and how willing the public is in paying BPJS Health premiums or contributions, especially for users of hospital services. To find out more about the ability of local governments to provide funding for health insurance.

The aim of this study was to identify the ability and willingness to pay for social insurance premiums in the framework of the National Health Insurance System.

METHODS

With the keywords utilized, Ability, Willingness To Pay, and Health Insurance, database searches were conducted using Google Scholar, Science Direct, and PubMed. The selection of articles based on the criteria is the next step in the creation of Preferred Reporting Items for Systematic Reviews and Meta Analysis (PRISMA). Once the articles have been found, they are then synthesized and analyzed in accordance with inclusion and exclusion criteria. These three factors—ability, willingness to pay, and

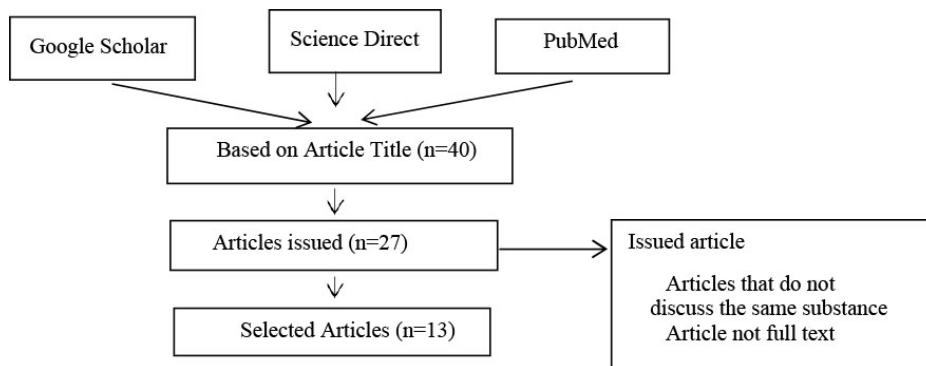


Figure 1. Flow diagram and article selection.

health insurance—were used as inclusion criteria in the systematic review. However, the systematic review's exclusion criteria are: publications that do not describe the examination of Ability Willingness To Pay Health Insurance. In August 2022, the researcher started looking for publications using keywords that she had chosen.

RESULTS

Based on article searches according to predetermined keywords, researchers found 25 international articles and 15 national articles. From the 40 articles that have been found by researchers, as many as 16 articles are sourced from Google Scholar, 10 articles are sourced from Science Direct, 14 articles are sourced from PubMed. Next, the researcher reads the complete articles that have been searched and found in National and International journals to then be screened according to the inclusion criteria set and leaves 13 articles which are then used as reference articles in this study. The other 27 articles could not be used because they did not meet the desired article criteria, such as not being indexed.

DISCUSSION

Several recent studies have shown that high health insurance costs remain a major obstacle for low-income individuals to purchase health insurance. In addition, there are still challenges in the use of the National Health Insurance (NHI) program, such as limited health resources and a lack of understanding of the benefits of health insurance. However, research also shows that the ability and willingness to pay for health insurance has a favorable impact on the general people's health,

including increased access to healthcare services, enhanced public health, and financial security from health risks. It is crucial to keep enhancing the population's capacity and willingness to pay for health insurance and get the advantages of the NHI program in the setting of Indonesia. Government initiatives to lower health insurance premiums for low-income people, expand access to healthcare services, and raise awareness of the advantages of health insurance among the general public can help to achieve this.

The main benefit of deciding whether or not to pay for health services or products on the basis of ability to pay is found in economic and policy considerations. The relationship between income and the capacity to pay for National Health Insurance was discussed in six articles.³² The majority of people, while having higher ATP than WTP, are unwilling to pay the required premiums for social health insurance, even though they have the financial means to do so. One aspect that influences a person's willingness to make health insurance contributions is the size of their family. Families with numerous dependents are frequently reluctant to spend money they feel is unneeded.³³ A person's desire to make health insurance contributions may also be impacted by a medical history. People who have a history of illness are more likely to sign up for health insurance and pay premiums in order to lower their out-of-pocket costs during treatment, especially those who suffer from severe conditions including hypertension, diabetes mellitus, and stroke.

The general consensus is that the community is aware of the importance of health insurance for medical needs and

improved health services in the future.^{34,35} Households with a smaller number of family members tend to register for National Health Insurance, while those with more family members are less likely to participate.³⁶ The affordability of premium costs is linked to the continuity of membership. Various factors, such as the location of residence, family income, education level, environmental sanitation, age, smoking habits, and marital status, significantly influence health insurance ownership in Africa. Six articles were found on the relationship between family/ social support and participation in National Health Insurance, all of which demonstrated a connection between the two. Individuals who comprehend

Table 1. Analysis of Impact of Ability and Willingness to pay for Health Insurance

| No | Title, author, year | Results |
|----|--|--|
| 1 | Factors influencing willingness and ability to pay for social health insurance in Nigeria Yewande Kofoworola Ogundeji, Babatunde Akomolafe, Kelechi Ohiri, Nuhu Natie Butawa, 2019 ¹⁹ | WTP for contributory health insurance programs varies across people depending on socioeconomic circumstances. The average insurance price for a household was 513 Naira (\$1.68) per person per month, and almost 82% of the household heads were ready to pay that amount. When compared to urban areas (463 Naira), rural areas' average willingness to pay was lower (611 Naira). Household size, educational attainment, employment, and income all had an impact on these findings. Only 65% of the households were able to afford the average premium, too. |
| 2 | Ability and willingness to pay for health care and contribute to national healthcare financing scheme among farmers in Selangor. Aizuddin AN, Hoda R, Rizal AM Yon R, Junid, SM, 2011 ²⁰ | Selangor's 400 farmers are participants in this cross-sectional study. The ability to pay for healthcare was available to 92.3% of farmers in total. A monthly contribution of RM 2.00 was indicated as being willing to be made to the national healthcare funding program. In contrast to how education level and per capita income affect willingness to pay, education level affects ability to pay. |
| 3 | Ability and Willingness to Pay Premium in the Framework of National Health Insurance System Aulia Abdillah Ramadhan, Andri Reza Rahmadi, Henni Djuhaeni, 2015 ²¹ | The majority of the respondents are capable of paying the necessary premium but are not eager to do so because their ATP is higher than their WTP. Even though most respondents were only housewives, there were still those who worked in the private sector. They tended to be between the ages of 20 and 39. Only 17.4% of the respondents were prepared to pay the required premium, even though about 57.6% of them were able to. |
| 4 | Determinants of Ability and Willingness to Pay National Health Insurance Contributions to Traders at Losari Beach Arip Hidayat, Amran Razak, Balqis, Sukri, Apik Indarty Moedjiono, Anwar, 2022 ²² | The findings revealed a link between family income ($p = 0.000$), the number of family members ($p = 0.000$), sickness history ($p = 0.000$), and satisfaction with healthcare services ($p = 0.000$) on willingness to pay health insurance premiums. The ability to pay for health insurance premiums is also correlated with family income ($p = 0.001$) and satisfaction with healthcare services. The multivariate test's findings revealed that health service satisfaction had the greatest impact on contributors' ability to pay contributions (\$3,410; 95%CI: \$4,631–197,651) and willingness to pay contributions (\$2,598; 95%CI: 4,505–38,535). |
| 5 | Willingness to pay and financing preferences for COVID-19 vaccination in China Wang J, Lyu Y, Zhang H, Jing R, Lai X, Feng H, 2022 ²³ | The results showed people's willingness to pay (WTP) for COVID-19 immunization in China as well as their preferences for funding from private individuals, public entities, and health insurance. In addition, the public health perspective with fair access to COVID-19 immunization should be prioritized in order to ensure a high vaccination rate. The mean WTP for the entire COVID-19 immunization among the subjects was CNY 254 (USD 36.8), with a median of CNY 100 (USD 14.5). 84.3% of respondents said that individuals were responsible for paying for COVID-19 vaccine, however the majority of respondents (90.9%) and health insurance (78.0%) disagreed. The size of the workforce, annual family income, and whether respondents considered the COVID-19 pandemic in China to be in a downward trend all had a substantial impact on respondents' WTP. |
| 6 | Willingness and ability to pay for healthcare insurance: A cross-sectional study of Seven Communities in East and West Africa (SevenCEWA) Oladimeji Akeem Bolarinwa, Soter Ameh, Caleb Ochimana, Abayomi Olabayo Oluwasanu, Okello Samson 2021 ²⁴ | In order to evaluate willingness to pay, utilize an open-ended contingency valuation method. You may also examine ability to pay indirectly by dividing healthcare costs by total household income. Just above half (54.7%) of participants were willing to pay for health insurance for every member of their household, whereas slightly more than three quarters (78.8%) were. The average monthly payment across all locations was \$2 per person. In Nigeria, little over half (57.6%) of households were able to afford the premium. The main predictors of likelihood of not paying for the health insurance plan were getting older [aOR: 0.99 (95%CI: 0.98-1.00)], being female [aOR: 0.68 (95%CI:0.51-0.92)], single [aOR: 0.32 (95%CI: 0.21-0.49)], being unemployed [aOR: 0.54 (95%CI:0.34-0.85)], having health insurance through another plan [aOR: 0.45 (95%CI: 0.28-0.74)], spending more on healthcare [aOR: 1.00 (95%CI:0.99-1.00)], and being unemployed. However, having a primary or secondary education and being a widow both raised the likelihood of being willing to pay for health insurance plans. |

| No | Title, author, year | Results |
|----|---|--|
| 7 | Willingness to pay for physician services at a primary contact in Ukraine: results of a contingent valuation study Andriy Danyliv, Milena Pavlova, Irena Gryga & Wim Groot, 2013 ²⁵ | There may be official patient charges in Ukraine given the WTP levels, which are quite high (between 0.9% and 1.9% of household income for a single doctor visit). In the outpatient sector, user fees may contribute significantly to the cost of personnel. The quality attributes of the services heavily influence how likely people are to oppose to paying. Pay objection does not translate into comparable conduct in the actual world. Age, income, and the percentage of household members without jobs are all factors that increase the risk of being unable to pay. The percentage of people with positive WTP is positively correlated with income (+7% for every 1000 UAH rise in income) and is lower for those who saw a doctor but did not make payment (22%). |
| 8 | Willingness to Pay for Social Health Insurance in Central Vietnam Lan Hoang Nguyen, Anh Thuan Duc Hoang, 2017 ²⁶ | SHI coverage should increase in Vietnam as a result of increased public awareness of its advantages. According to the survey, 73.1%, 72.2%, and 71.6% of respondents, respectively, would agree to participate in the SHI scheme and be willing to pay an annual premium of 578,926 VND (27.1), 473,222 VND (22.1), and 401,266 VND (18.8) at the copayment levels of 0, 10, and 20%. Knowledge of SHI affects the WTP for SHI at all copayment levels (p value 0.05). The WTP amount increases with an individual's level of SHI knowledge. Only at a copayment level of 20% (p = 0.049) was chronic illness associated with WTP. |
| 9 | The Malaysian community's acceptance and willingness to pay for a National Health Financing Scheme Azimatun Noor Aizuddin, Saperi Sulung, Syed Mohamed Aljunid, 2019 ²⁷ | The National Health Financing Scheme is well-liked by the Malaysian populace, and they are eager to contribute to any government-sponsored program. The socioeconomic condition of the home, however, has a substantial impact on acceptance and readiness to pay. To provide the required funding for a sustainable health system, policymakers should begin making preparations to construct the National Health Financing Scheme. The majority of households, according to the poll, were in favor of the National Health Financing Scheme's creation, and half of them suggested that a government agency should oversee the program. Most households (87.5%) agreed to make monthly deductions of between 0.5 and 1% of their income for the scheme. To have access to both fundamental healthcare services provided by the public and private sectors, more than 76% were prepared to contribute to a higher level program (1% to 2%). Younger individuals, females, those living in rural regions, those with greater incomes, and those who were unwell had a considerably higher willingness to pay for the National Health Financing Scheme. |
| 10 | The Relationship of Ability to Pay and Ownership of Health Insurance Towards Willingness to Pay Laboratory Services at Persahabatan Hospital, East Jakarta Siska Putri Utami, Yanti Harjono Hadiwardjo, Kristina Simanjuntak, 2020 ²⁸ | Given that their need for food has been addressed, those with high income levels will also be more likely to pay because their attention will now be focused on their need for health. Patients' willingness to pay for laboratory services is unaffected by whether or not they have health insurance. The findings of a chi-square test revealed a connection between desire to pay and financial capacity for laboratory health services (OR= 13.14; 95% CI= 2.76-62.49; p 0.001). There was no correlation between having health insurance and being willing to pay for laboratory healthcare services (OR= 2.82; 95% CI= 0.85-9.33; p=0.083). |
| 11 | Willingness to Pay for an Early Warning System for Infectious Diseases Sebastian Himmler, Job van Exel, Meg Perry-Duxbury & Werner Brouwer, 2020 ²⁹ | Since their need for food has been satisfied, their focus will move to their desire for health, which will also result in a strong readiness to pay. Ownership of a health insurance plan has little bearing on a patient's willingness to pay for laboratory services. According to the results of the Chi-square test, there is a correlation between financial capability and willingness to pay for laboratory health services (OR= 13.14; 95% CI= 2.76 to 62.49; p 0.001). The willingness to pay for laboratory health services did not depend on whether or not a person had health insurance (OR= 2.82; 95% CI= 0.85 to 9.33; p=0.083). |
| 12 | Why did Informal Sector Workers Stop Paying for Health Insurance in Indonesia? Exploring Enrollees' Ability and Willingness to Pay Muttaqien Muttaqien, Hermawati Setyaningsih, 2021 ³⁰ | Although spending more on healthcare than this on average, a 2016 research of 1,709 respondents found that informal employees' ability and willingness to pay dropped below the premium requirement for the national health insurance program. Only 25% of respondents said they would be able to afford the premium, while 38% said it would be too expensive. Missed insurance payments were primarily due to the irregularity of informal workers' income and their shifting needs. The research suggests utilizing a variety of strategies, such as emphasizing subsidies, establishing progressive premiums, expediting payment collection, incentivizing insurance package upgrades, and raising knowledge of the benefits of health insurance among groups of unorganized workers. |

| No | Title, author, year | Results |
|----|---|---|
| 13 | Factors Affecting Payment Compliance of the Indonesia National Health Insurance Participants Deni Kurniadi Sunjaya, 1 Dewi Marhaeni Diah Herawati, 1 Estro Dariatno Sihaloho, 2 Donny Hardiawan, Riki Relaksana, and Adiatma Yudistira Manogar Siregar, 2021 ³¹ | The internal and external variables of participants must be taken into account to increase compliance with paying insurance premiums. According to the study, participant internal and external factors both influence whether or not they intend to pay contributions. For this reason, the INHI program must address both internal and external issues, such as operational system and healthcare quality, as well as participant awareness of the INHI program, financial capability, and self-attitude. It is imperative to take these aspects into account rather than simply expanding the participants' program knowledge. Six components and 14 categories make up the substantive theory that emerged from the research. |

the importance of health services and understand the national health insurance program are more likely to decide to join.^{37,38} A third of households choose not to renew their health insurance due to social support issues. Different findings were obtained from additional Indonesian investigations.³⁹

The majority of respondents reported low levels of ATP, according to a study on how health finance affects ability to pay and catastrophic payments. A whopping 86% of survey participants said they couldn't afford the price. An additional survey revealed that while 51% of respondents were prepared to pay, only 63% of respondents were able to pay the given rate. In contrast, a study conducted in Bandung, the capital of West Java, found that 93.3% of the respondents were able and ready to make the required social health insurance premium.⁴⁰ In Indonesia, the ATP and WTP vary by location, with the ATP in some places being higher than the WTP and the WTP in others. Because asking respondents about their spending is a delicate inquiry that depends on their memory of how much they spent in a month, this study has limitations. The National Health Insurance has to grow and keep its membership, according to the examination of the articles. To do this, efforts should be taken to raise the community's level of knowledge, awareness, and willingness. Socialization and promotion of the program need to be carried out at all levels of society, including households, educational institutions, workplaces, and others. Policy efforts to optimize socialization and promotion should be implemented to increase participation in the National Health Insurance.

Therefore, maximizing socializing and information sharing about the program is the key to raising and maintaining

participation in the NHI. People's ability and willingness to pay for health insurance can be significantly impacted by social and economic circumstances. For instance, low-income families may have few resources and find it difficult to save up money for health insurance costs. Similarly, those living in areas with poor health infrastructure may not see the value in investing in health insurance. On the other hand, those with higher incomes may be more willing and able to pay for health insurance, as they have greater financial stability and may prioritize their health and well-being. Other factors such as education, occupation, and access to healthcare services can also influence people's willingness and ability to pay for health insurance. Individuals with higher levels of education and stable occupations may have a better understanding of the benefits of health insurance and may be more likely to prioritize it in their financial planning. People may also be more aware of the value of health insurance and more prepared to pay for it if they live in places with better access to healthcare services. The ability and desire of people to pay for health insurance is, in large part, determined by social and economic circumstances. To guarantee that health insurance programs are available and affordable for everyone, it is crucial for politicians and insurance companies to take these aspects into account when developing and implementing them.

CONCLUSION

Based on the reviewed articles, it can be concluded that there are several factors that affect compliance with health insurance payment, including knowledge, income, perception of health services, and family support. Individuals who have higher levels of knowledge about the benefits of health insurance and higher incomes are more

likely to comply with health insurance payment requirements. In addition, the perception of the quality of health services and the support from family members also play a role in determining an individual's willingness to pay for health insurance. However, there are also several barriers and constraints that affect participation in NHI. These include complicated registration procedures, the perceived lack of benefits received, high premiums, and the ownership of private insurance. These barriers and constraints may discourage individuals from participating in NHI or lead them to opt for private insurance instead. Therefore, to improve compliance and participation in NHI, efforts should be made to increase knowledge and awareness of the benefits of health insurance, particularly among individuals with lower incomes. Additionally, registration procedures should be simplified, and the benefits of the program should be clearly communicated to individuals. Finally, efforts should be made to address the high premiums of NHI and to provide incentives to individuals to participate in the program. Further research with a larger sample and a different study design is needed to find out more about the factors that influence the ability and willingness to pay for health insurance in Indonesia.

DISCLOSURES

Conflict of Interest

The authors declare there were no conflicts of interest concerning this article.

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Author Contribution

RI, ANA, and IS developed the concept and design research. AB conducted an electronic search, NHH reviewed the literature search, Complete article of potential studies assessed by RI, IS and AB. All authors discuss the final results to an agreement, and agree to be responsible for all content.

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