



## **FACTOR ANALYSIS OF WILLINGNESS TO PAY (WTP) FOR HEALTH INSURANCE**

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### **ABSTRACT**

Aceh People's Health Insurance (JKA) occupies the largest portion of the Special Autonomy Fund in the Health Sector. The decline and expiration of the Special Autonomy Fund will have an impact on financing for JKA (Aceh Health Insurance), even though currently there has been a transition into the JKN-KIS (National Health Insurance-Healthy Indonesian Card) program. However, there are still many people who do not understand this transitional period. This study aims to evaluate the willingness to pay (WTP) to pay for health insurance in the people of Aceh. This research is analytic with a cross-sectional design. The population in this study is all the people of Aceh province. The sampling technique was purposive sampling, amounting to 768 people. Data collection was carried out by sending a google form to the Aceh Regional Secretariat Office group through the Aceh People's Welfare (KESRA) section, which would then be sent to the KESRA group in the Regency/City to be disseminated. Data analysis used multiple logistic regression tests. Multivariate analysis found that low income was the dominant factor determining willingness and ability to pay for health insurance compared to other variables (OR: 7; 95%; p value of 0.001). According to the findings of this study, 509 of 766 (66.3%) respondents were willing to pay for health insurance, with an average willingness to pay Rp. 38,539.

Keywords: health status; income; knowledge; marital status; occupation; sources of information; willingness to pay

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## **INTRODUCTION**

Globally, most people suffer from a lack of access to basic healthcare services (Adebayo et al., 2015). Many low-middle-income countries are faced with problems related to out-of-pocket (OOP) expenditure on health. Every year, 100 million people fall below poverty due to OOP, and a further 1.2 million people living in poverty are forced deeper into it (Wiseman et al., 2018)(Gustafsson-Wright et al., 2009). This suggests that high reliance on OOP is the main reason for underfunding of health services in most low- and middle-income countries (Gidey et al., 2019). In Indonesia, out-of-pocket spending is around 47% of total health expenditure. In addition, 4.4% of Indonesians spend more than 10% of their household expenditure on seeking healthcare services (WHO, 2017). This suggests that healthcare costs are a major barrier related to healthcare coverage (Gidey et al., 2019). To address direct payments, an adequate healthcare financing system is required (Adebayo et al., 2015). The ultimate goal of universal health coverage (UHC) is to ensure that all people and communities receive the health care services they need without experiencing financial hardship (WHO, 2017).

In 2010, the World Health Report defined UHC as ‘financing systems need to be specifically designed to give all people access to needed health services (including prevention, promotion, treatment, and rehabilitation) of sufficient quality to be effective (Kutzin, 2013). Subsequently, WHO urged member states to contribute specialized finance to the health sector. As a result, many developing countries are considering how to reform their healthcare systems to provide financial protection for all residents as a key term of UHC (Gidey et al., 2019). The Indonesian government introduced the National Health Insurance (JKN) scheme in early 2014, based on the National Social Security Law (SJSN) No. 40 passed in 2004. The social security system is designed for health care, workplace accidents, elderly care, and life insurance (Mboi, 2015). The JKN program aims to achieve UHC and create an integrated, sustainable, affordable, and equitable health care system that provides comprehensive social protection for the entire population (Hidayat, 2015).

The Aceh People's Health Insurance (JKA) accounts for the largest portion of the Special Autonomy Fund for Health. During 2010-2021, the average annual allocation for JKA was 67.13% of the total Special Autonomy Fund for Health. The decline and end of the Special Autonomy Fund will have an impact on financing for JKA, although there has been a transition to the JKN-KIS program. The Health Insurance Program aims to provide certainty of comprehensive health insurance for every citizen in order to live a healthy, productive, and prosperous life. The benefits of this program are provided generally in the form of comprehensive individual health services, including health improvement services (promotive), disease prevention (preventive), treatment (curative), and recovery (rehabilitative), including drugs and medical materials using quality- and cost-controlled service techniques (managed care) (Bappeda, 2022).

According to the LoGA (Aceh Government Law), Aceh will still receive special autonomy funds until 2027. However, the amount will decrease from 2% to 1% of the national General Allocation Fund (DAU) starting in 2023 and will end in 2028. The decrease in the amount and the end of the special autonomy fund will certainly have a very significant impact on efforts to improve public welfare, economic growth, investment, unemployment rates, poverty rates, basic services in education, health, infrastructure, and the implementation of privileges in Aceh (Bappeda, 2022). The equalization of JKA beneficiaries makes contributions the responsibility of the government, which increases the burden on the government budget. This is contrary to the current reality where all people who can afford it are also the responsibility of the government. In addition, in 2023 the special autonomy fund will be reduced, so the government must think of a self-financing mechanism for the people of Aceh. When viewed from the current conditions, the researchers are interested to find out the willingness to pay or WTP to pay health insurance costs in the Aceh community and what factors influence it.

## **METHOD**

This research is a descriptive analytical quantitative research with a correlation study using a cross-sectional approach to analyze the data. Each data point is only observed once and taken at the same time. The research was conducted in Aceh Province through internet media with Google Forms from October to December 2022. The population in this study were all Acehnese people, totaling 5,347,889 people (DISDUKCAPIL, 2022). The sample in this study used proportional sampling, totaling 768 people. To determine the number of samples in each district, researchers used snowball sampling techniques, where this sampling technique can take place continuously, like a snowball that is getting

bigger in size until the researcher has enough data to analyze. This is done because it is difficult to select research subjects. The inclusion criteria are all of people who are over 18 years old and have income. As well as for exclusion criteria, namely informants who cannot read and write and cannot use mobile phones (Google Forms). Data collection was carried out by sending a google form to the Aceh Regional Secretariat Office group through the Aceh People's Welfare (KESRA) section, which would then be sent to the KESRA group in the Regency/City to be disseminated. Data analysis in this study used multivariate analysis with multiple logistic regression tests.

## RESULT

### Univariate Analysis

Independent and dependent variables were analysed descriptively with frequency distribution statistics. In this univariate analysis, willingness to pay, gender, marital status, education, occupation, income, source of information, health status, and WTP were examined. The descriptive analysis for the above factors is presented in the following table

Table 1  
Frequency Distribution of Risk Factors Associated with Willingness To Pay

	Variabel	f	%
1	Gender		
	Female	294	38,3
	Male	474	61,7
2	Education		
	Higher	727	94,7
	Secondary	36	4,7
	Elementary	5	0,6
3	Employment		
	Government	406	52,8
	Non-Government	322	41,9
	Not Employed	40	5,2
4	Income		
	High	561	73
	Low	207	27
5	Marital Status		
	Married	656	85,4
	Unmarried	80	10,4
	Divorced alive/dead	32	4,2
6	Sources of Information		
	Government	267	34,8
	Print/Online Media	411	53,5
	Community	90	11,7
7	Health Status		
	Good	439	57,2
	Lacking	329	42,8
8	Willingness To Pay		
	High	225	29,3
	Low	543	70,7
No	Variabel	Mean	Sd (Min-Max)
1	Age	38,7	8,5 (30-63)

Based on table 1 above, it is known that the average age of respondents in this study was 38 years, 61.7% of respondents were male, 97.7% had a high education, 52.8% worked in the government, 73% had a high category income, 85.4% were married, 57.2% had a good category health status, 53.5% got information about health insurance from print/online media, and 70.7% had a low willingness to pay for health insurance.

Table 2  
Frequency Distribution of Willingness to Pay and Ability to Pay for Health Insurance Among Residents

	Variabel	f	%
1	<i>Willingness To Pay</i>		
	Yes	509	66,3
	No	259	33,7
2	<i>Willing</i>		
	Rp. 20.000	17	3,35
	Rp. 35.000	220	43,3
	Rp. 42.000	64	12,6
	Rp. 100.000	146	28,7
	Rp. 150.000	23	4,53
	Lainnya	38	7,48

Based on table 2 above, it is known that 66.3% of respondents in this study are willing to pay for health insurance, where 43.3% are willing to pay Rp. 35,000.

### Bivariate Analysis

Bivariate analysis in this study aimed to determine the factors associated with willingness to pay for health insurance among residents in Aceh Province. Bivariate analysis in this study was conducted using a logistic regression test and was declared significant if  $P < 0.05$ .

Table 3  
Factors Associated with Willingness to Pay for Health Insurance Among Residents

Variable	<i>Willing</i>		OR: CI	<i>P</i>
	Hight (f/%)	Low (f/%)		
Education				
Higher	173(35,2)	318 (64,8)	1 (Omitted)	-
Secondary	0 (0)	17 (100)		
Elementary	0 (0)	1 (100)		
Employment				
Government	88 (32)	187 (68)		
Non-Government	84 (41,8)	117 (58,2)	0,6 (0,44-0,95)	0,028
Not Employed	1 (3)	32 (96,9)	15 (2,02-111,9)	0,008
Income				
High	152 (40,9)	219 (59)		
Low	21 (15,2)	117 (84,8)	3,8 (2,32-6,42)	0,000
Health Status				
Good	120 (37)	204 (62,9)		
Lacking	53 (28,6)	132 (71,4)	1,4 (0,99-2,16)	0,055
Sources of Information				
Government	52 (28,7)	129 (71,3)		
Print/Online Media	112 (41,8)	156 (58,2)	0,5 (0,37-0,84)	0,005
Community	9 (15)	51 (85)	2,28 (1,04-4,97)	0,038

Based on the 3 income variables in the willingness to pay group, it is known that 83% of respondents with low income are only willing to pay health insurance contributions in the low category, while 33.9% of respondents with high income are willing to pay health insurance contributions in the high category. The statistical test results showed a relationship between income and WTP for health insurance contributions with a p-value of 0.001, where respondents with low income levels had a 2.5 times chance of paying health insurance contributions with a low category ( $< \text{Rp.}38,539$ ), while in the ability-to-pay group, respondents with low income levels had a 3.8 times chance of paying health insurance contributions with a low category ( $< \text{Rp.}38,539$ ). Based on health status variables in the

willingness to pay group, 71.4% of respondents with poor health status were only willing to pay health insurance premiums in the low category, and only 29.8% of respondents with high health status were willing to pay health insurance premiums in the high category. The results of statistical tests showed a positive relationship between health status and WTP for health insurance contributions, where poor health status had a 1.06 times chance of paying health insurance contributions in the low category ( $< \text{Rp.38,539}$ ), but it was statistically not meaningful with a p-value of 0.702, while the ability to pay group with poor health status had a chance of paying health insurance contributions in the high category.

Based on the information source variable in the willingness to pay group, it is known that 81.1% of respondents who get information related to health insurance through the community are only willing to pay health insurance contributions in the low category, while 35.8% of respondents who get information related to health insurance through print/online media are willing to pay health insurance contributions in the high category. The results of statistical tests showed a positive relationship between the source of information received through the community and the willingness to pay health insurance contributions, but it was not statistically significant with a P value = 0.433 (OR: 1.3; CI: 0.69-2.31). However, when viewed from the source of information received through print/online media, there is a negative relationship with the desire to pay health insurance contributions but statistically significant with a value of P = 0.001 (OR: 0.35; CI: 0.37-0.75). While in the ability to pay group, with information sources originating from the community is a 2.28 times chance of paying health insurance contributions in the low category ( $< \text{Rp.38,539}$ ).

Based on the marital status variable in the willingness to pay group, it is known that 87.5% of respondents with divorced/dead status are only willing to pay health insurance contributions in the low category, while 31.2% of respondents with married status are willing to pay health insurance contributions in the high category. The statistical test results showed a relationship between marital status and WTP for health insurance contributions with p value of 0.032 where respondents with a divorced/dead marital status had a 3.2 times chance of paying health insurance contributions in the low category ( $< \text{Rp.38,539}$ ). Whereas in the ability to pay group, respondents with unmarried marital status had 2.1 times the chance of paying health insurance contributions in the low category ( $< \text{Rp.38,539}$ ).

## **Multivariate Analysis**

### **Eligibility Test Results**

Multivariate analysis uses logistic regression with the Stepwise method, variables included in multivariate analysis are variables that have a value (P-Value =  $< 0.20$ ). With this method, it will select research variables that are worthy of being included in the model.

Table 4 shows that in the willingness to pay group, of the six predictor variables, only 3 are eligible to enter the model, namely employment (P: 0.016), income (P: 0.001), and source of information (P: 0.070). While education, health status (P: 0.906), and marital status (P: 0.282) are not feasible to be included in the model because the significant value (P)  $> 0.20$ . Meanwhile, the ability to pay group showed that of the six predictor variables, only 3 were eligible to enter the model, namely employment (P: 0.003), income (P: 0.001), and health status (P: 0.119). Meanwhile, education, marital status (P: 0.553), and marital status (P: 0.796) are not suitable for inclusion in the model because the significant value (P)  $> 0.20$ .

Table 4  
Model Feasibility Test Results of Factors Associated with Willingness to Pay for Health Insurance Among Residents

Insurance Among Residents				
Willingness to Pay				
Prediktor	OR	95% Cinfident Interval		P
		Lower	Upper	
Not working	0,68	0,499	0,931	0,016
Low income	3,1	1,943	5,060	0,001
Source of information coming from the community	0,78	0,606	1,019	0,070
Ability to Pay				
Prediktor	OR	95% Cinfident Interval		P
		Lowe r	Uppe r	
Not working	0,53	0,38	0,82	0,003
Low income	5,4	2,93	9,96	0,001
Health Status Lacking	1,3	0,91	2,08	0,119

Table 5  
Factors Associated with Willingness to Pay for Health Insurance Among Residents

Willingness to Pay				
Prediktor	OR	95% Cinfident Interval		<i>P</i>
		Lower	Upper	
Employment				
Non-Government	0,46	0,32	0,67	0,001
Not Employed	7,08	0,93	53,7	0,048
Income	2,98	1,87	4,77	0,001
Sources of Information				
Print/Online Media	0,54	0,38	0,78	0,001
Community	1,06	0,57	1,98	0,833
Ability to Pay				
Prediktor	OR	95% Cinfident Interval		<i>P</i>
		Lower	Upper	
Employment				
Non-Government	0,27	0,17	0,42	0,001
Income	7,4	4,13	13,3	0,001
Health Status	1,5	0,98	2,29	0,059

Table 5 shows the willingness to pay group of all variables tested simultaneously, and the results show that income is the main factor associated with WTP for health insurance contributions, with a P value of 0.048, where the lower a person's income level, the chance is 7.08 times higher to pay health insurance contributions in the low category (< Rp.38,539). Similarly, in the ability to pay group, income is the main factor associated with WTP for health insurance contributions, with a P value of 0.001, where the lower a person's income level, the 7.4 times higher the chance to pay health insurance contributions in the low category (< Rp.38,539).

## DISCUSSION

### Willingness To Pay

The success of the JKN Program and the realisation of Universal Health Coverage require full support from the Government, all stakeholders and the participation of all components of society. Coordination meeting of the Partnership Team for the Protection of Health Insurance for Workers (PERJAKA) Aceh Province in 2022. Medan: BPJS Health). APBA budget support to cover health insurance premiums for the population of Aceh has been ongoing for 12 years since 2010. Law No. 24 of 2011 and Presidential Regulation No. 82 of 2018 mandate

that every Indonesian citizen must participate in the BPJS program. Every person, including foreigners who work for at least 6 (six) months in Indonesia, must become a participant in the Social Security program (Article 14 of Law Number 24 of 2011). Perceptions of insurance management institutions are also one of the factors associated with the willingness of informal sector workers to participate in national health insurance. Research conducted in Sudan found that the unwillingness to participate in national health insurance was caused by not getting adequate information about insurance, incidents of corruption, distrust, and bad experiences from national health insurance providers (Basaza et al., 2017). Based on the exposure of the above research, which shows the phenomenon of low national health insurance participation in informal workers, the researcher conducted a phenomenological qualitative study to analyze the factors related to the willingness to pay for national health insurance in informal sector workers.

### **Relationship between education and WTP**

Based on univariate analysis, it is known that most respondents have a high level of education, namely 94.7%. The results of the chi-square statistical test obtained show there is a relationship between education and WTP where the p-value is omitted. There are many factors associated with a person's willingness to pay health insurance contributions regularly, one of which is the characteristics of a person. Characteristics are used to determine the diversity of a person based on age, gender, occupation, education, income, number of family members, and so on (Hardy & Yudha, 2018) (Prakoso & Sudasman, 2020). In accordance with the research of Kofoworola et al. (2019), the level of education has a relationship with the willingness and ability to pay for social health insurance in Nigeria. Household heads with a high level of education and located in an urban environment are willing to pay nominally higher for health insurance premiums. Formal education is one of the factors significantly associated with willingness to pay. It is known from the results of statistical analysis ( $\beta = 3.20$ ; 95% CI = 1.87, 4.53) (Ogundeji et al., 2019).

### **Relationship Between Family Status And WTP**

Based on univariate analysis, it is known that 85.4% of respondents are married. The results of the chi-square statistical test obtained show there is a relationship between marital status and WTP where the p-value is 0.032, where respondents with married status are likely to be willing to pay WTP in the high category, with an opportunity of 3.18 times. Putra found that the factors that were significantly related to the compliance of independent participants were knowledge, income, payment method, officer behavior, and risk perception (Wulandari et al., 2020). Another study identified factors related to the compliance of BPJS Kesehatan independent participants in paying contributions as the place of payment of contributions, income, marital status, household expenses, and motivation of JKN independent participants (Pratiwi, 2016). Marital Status (Stat): It can be seen that the Exp (B) value in the unmarried component shows a value of 10.031 and a significance level (sig) of 0.13. These two numbers mean that respondents who are not married have a tendency 10.031 times greater than married respondents to be willing to pay according to the tariff of the South Tangerang City Hospital. The Exp (B) value on the Marital Status (Stat) variable means that the unmarried category shows a value of 26.147 and a significance level (sig) of 0.039. This means that it is significant for the Marital Status (Stat) variable. The explanation of this result is that unmarried respondents have a tendency 26.147 times greater than married respondents to be willing to pay more than the currently set tariff (Diswandi et al., 2018).

### **Relationship between Marital Status and WTP**

Based on the marital status variable, it is known that 85.4% are married. The statistical test results show that there is a relationship between marital status and WTP for health insurance

contributions with a p-value of 0.032, where respondents with a marital status of divorced alive/dead have a 3.2 times chance of paying health insurance contributions in the low category ( $< \text{Rp.38,539}$ ). The willingness to pay health care costs is beyond one's financial ability and has a multifactorial effect. Willingness to pay (WTP) can be influenced by several factors, such as age, perception, income, education, marital status, household dependency ratio, rural/urban location, quality of health services, and ability to pay. Several other factors affect WTP, namely the marginal cost (increase in price and utility level) of services or marginal (increase in price and utility level) of certain services or goods and access to available health services (Aizuddin et al., 2013)(Darmawan et al., 2019). The results of Hardika & Purwanti's research (2021) show that income level, quality of health services, and knowledge about health services have a positive and significant effect on WTP for BPJS Health contributions. Meanwhile, the level of education and the number of family dependents have a negative and significant effect on WTP for BPJS Health contributions. This study found that the number of family dependents has a negative and significant effect on WTP for BPJS Health contributions, so that the greater the number of family dependents, the lower the WTP for BPJS Health contributions. Meanwhile, age, gender, marital status, and average monthly health costs have no significant effect on WTP for BPJS Health contributions (Hardika & Purwanti, 2021).

### **Relationship between Information Sources and WTP**

Based on univariate analysis, it is known that 53.5% of respondents received information related to BPJS or government health insurance through print and online media. The results of the chi-square statistical test showed that there was a relationship between marital status and WTP, where the p-value was 0.001, where respondents who received information through print and online media were willing to pay WTP in the high category, with a chance of 0.53 times. The level of community WTP in paying contributions is certainly related to certain factors. In addition, other factors related to willingness to pay for health insurance contributions include work, education, insurance participation, information sources, and number of family members (Babatunde et al., 2016).

### **Relationship between Health Status and WTP**

Based on univariate analysis, it is known that 57.2% of respondents have good health status. The results of the chi-square statistical test showed that there was no relationship between health status and WTP, where the p-value was 0.702, where respondents with poor health status paid health insurance in the low category ( $< \text{Rp.38,539}$ ), with a chance of 1.06 times. One of the factors related to the low willingness to participate in national health insurance is because informants are rarely sick, the illnesses they suffer are not serious illnesses, do not have a history of chronic illness, and only one informant has a history of chronic illness and requires routine treatment every month. People with a history of chronic illness in Vietnam have a higher willingness to participate and pay more compared to people who do not have a history of chronic illness (Huyen & Van Minh, 2014). Research in Makassar shows that risk takers, or people who rarely feel sick, will tend not to have the will to join the national health insurance and are dominated by young people (Marzuki & Abadi). Different from the research conducted in Saudi Arabia, which found that households with members suffering from chronic diseases have no relationship with the will to join and to pay national health insurance contributions (Al-Hanawi et al., 2018).

### **Dominant Factors Related to WTP**

Based on univariate analysis, it is known that most respondents have a high income level, namely 561 people (73%). The results of the chi square statistical test showed that there was a relationship between income and WTP, the P value was 0.001, where the higher a person's



income, the lower the WTP payment with a low category, with a chance of 2.1 times. The results of the multivariate analysis showed that of all the variables tested simultaneously and the results obtained, income was the main factor related to WTP health insurance with a P value of 0.048, where the lower a person's income level, the 7.08 times higher chance of paying for health insurance with a low category (<Rp.38,539). A systematic review found that low income levels or lack of financial resources, poor quality of health services, attitudes of health workers, patient waiting times, and treatment efficiency caused low participation in national health insurance (Adebayo et al., 2015). Independent participants with low incomes prioritize their income to meet routine daily living needs, such as food costs, education costs, electricity and water payments, and other costs, while for health costs, independent participants tend not to prioritize because they are still in good health. On the other hand, independent participants with high incomes, in addition to being able to allocate their income for daily needs, are also able to pay for health costs so that they can make routine monthly contribution payments.

## **CONCLUSION**

Based on the results of research conducted from September to November 2022, it can be concluded that the bivariate results show that of the six research variables, health status is the only variable that has no relationship with the willingness to pay for health insurance. Furthermore, the multivariate analysis found that low income was the dominant factor determining the willingness and ability to pay for health insurance compared to other variables (OR: 7; CI=95%; p value 0.001). This study found that 509/766 (66.3%) respondents were willing to pay for health insurance and on average they were willing to pay Rp. 38,539

## **REFERENCES**

- Adebayo, E. F., Uthman, O. A., Wiysonge, C. S., Stern, E. A., Lamont, K. T., & Ataguba, J. E. (2015). A systematic review of factors that affect uptake of community-based health insurance in low-income and middle-income countries. *BMC Health Services Research*, 15(1), 1–13.
- Aizuddin, N., Sulong, & Aljunid. (2013). Factors Influencing Willingness to Pay for Healthcare. 12(1).
- Al-Hanawi, M. K., Vaidya, K., Alsharqi, O., & Onwujekwe, O. (2018). Investigating the willingness to pay for a contributory National Health Insurance Scheme in Saudi Arabia: a cross-sectional stated preference approach. *Applied Health Economics and Health Policy*, 16, 259–271.
- Babatunde, R., Oyediji, O., Omoniwa, A. E., & Adenuga, A. (2016). Willingness-to-pay for community based health insurance by farming households: a case study of hygeia community health plan in Kwara State, Nigeria. *Trakia Journal of Science*, 14(3), 281–286.
- Bappeda. (2022). JKA dan Permasalahannya. Tabangun Aceh, 2022 Januari 2023. Bappeda.
- Basaza, R., Alier, P. K., Kirabira, P., Ogubi, D., & Lako, R. L. L. (2017). Willingness to pay for National Health Insurance Fund among public servants in Juba City, South Sudan: a contingent evaluation. *International Journal for Equity in Health*, 16(1), 1–10.
- Darmawan, K. H., Satibi, S., & Kristina, S. A. (2019). Pns152 Willingness To Pay For Social Health Insurance And Related Factors Among Population In Yogyakarta Province, Indonesia. *Value in Health*, 22, S787.
- DISDUKCAPIL. (2022). Data Jumlah Penduduk Provinsi Aceh Tahun 2021. DISDUKCAPIL.

- Diswandi, D., Huzaini, M., & Sujadi, S. (2018). Willingness to Pay of Tourists for Ecosystem Service in Gili Matra Lombok. *Proceeding Strengthening Regional and Local Economy*.
- Gidey, M. T., Gebretekla, G. B., Hogan, M.-E., & Fenta, T. G. (2019). Willingness to pay for social health insurance and its determinants among public servants in Mekelle City, Northern Ethiopia: a mixed methods study. *Cost Effectiveness and Resource Allocation*, 17, 1–11.
- Gustafsson-Wright, E., Asfaw, A., & van der Gaag, J. (2009). Willingness to pay for health insurance: An analysis of the potential market for new low-cost health insurance products in Namibia. *Social Science & Medicine*, 69(9), 1351–1359.
- Hardika, C. P., & Purwanti, E. Y. (2021). Analisis Willingness To Pay Terhadap Iuran BPJS Kesehatan pada Pekerja Sektor Informal di Kota Semarang. *Diponegoro Journal of Economics*, 9(3), 131–143.
- Hardy, I. P. D. K., & Yudha, N. L. G. A. N. (2018). Kemauan Dan Kemampuan Membayar (Ability-Willingness To Pay) Dalam Kepesertaan Jaminan Kesehatan Nasional Pada Sektor Informal Pedagang Pasar Tradisional Di Kota Denpasar 2017. *Jurnal Kesehatan Terpadu*, 2(2).
- Hidayat, B. (2015). Out-of-Pocket Payments in the National Health Insurance of Indonesia: A First Year Review: Policy Brief.
- Huyen, D. T. T., & Van Minh, H. (2014). Willingness to pay for health insurance among informal sector workers: A case study from Hanoi Capital Vietnam. *Vietnam Journal of Public Health*, 2(2).
- Kutzin, J. (2013). Health financing for universal coverage and health system performance: concepts and implications for policy. *Bulletin of the World Health Organization*, 91, 602–611.
- Mboi, N. (2015). Indonesia: on the way to universal health care. *Health Systems & Reform*, 1(2), 91–97.
- Ogundeji, Y. K., Akomolafe, B., Ohiri, K., & Butawa, N. N. (2019). Factors influencing willingness and ability to pay for social health insurance in Nigeria. *PloS One*, 14(8), e0220558.
- Prakoso, & Sudasman. (2020). Hubungan Antara Usia, Jenis Kelamin, Dan Tingkat Pendidikan Pekerja Bukan Penerima Upah (Pbpu) Dengan Kesiediaan Membayar Iuran Bpjs Kesehatan Di Kabupaten Kudus, 2020. *Jurnal Kesehatan Terpadu*, 1(1), 1–12.
- Pratiwi, A. N. (2016). Faktor yang mempengaruhi keteraturan membayar iuran pada peserta jaminan kesehatan nasional (JKN) kategori peserta mandiri (studi kasus pasien rawat Inap Rumah Sakit Dr. Soebandi Kabupaten Jember).
- WHO. (2017). World Health Organization ‘2017 Health SDG Profile: Indonesia’. WHO dan UNICEF.
- Wiseman, V., Thabrany, H., Asante, A., Haemmerli, M., Kosen, S., Gilson, L., Mills, A., Hayen, A., Tangcharoensathien, V., & Patcharanarumol, W. (2018). An evaluation of health systems equity in Indonesia: study protocol. *International Journal for Equity in Health*, 17(1), 1–9.
- Wulandari, A., Syah, N. A., & Ernawati, T. (2020). Faktor-Faktor yang Mempengaruhi Kepatuhan Peserta Mandiri Dalam Pembayaran Iuran Program Jaminan Kesehatan Nasional di Kota Solok. *Jurnal Kesehatan Andalas*, 9(1), 7–17.