

# Study of The Willingness to Pay Contributions of Independent National Health Insurance (JKN) Participants in Jambi

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## Abstract

Health is a long-term investment that is indispensable in supporting the success of Indonesian development. WHO has committed to developing a health system that can ensure everyone gets the health services they need without worrying about being constrained by costs, this health is known as Universal Health Coverage. One of the obligations of JKN participants was to pay monthly fees, Ability to pay and Willingness to pay greatly affected people's interest in paying monthly fees. As many as 83% of Indonesia's population had become participants of JKN, but the high number of JKN participants was not accompanied by the active participation of the participants in paying monthly fees. The number of visits to the Koni Primary Health Care had decreased over the past 3 years and based on the initial survey it was found that many JKN-KIS participants were in arrears to pay monthly fees. The purpose of this study was to determine the determinants of the willingness to pay dues (WTP) for independent JKN participants at the Koni Primary Health Care in Jambi City. This research was quantitative with a cross-sectional design. The samples were taken by purposive sampling technique with a total sample of 105 participants. The results showed that the variables associated with the willingness to pay contributions (WTP) were education level ( $p = 0.009$ ), income level ( $p = 0.023$ ) and ability to pay (ATP) ( $p = 0.038$ ). Meanwhile, the unrelated variables were age ( $p = 0.110$  and  $p = 1,000$ ) and gender ( $p = 0.550$ ). There was a relationship between education level and WTP. There was a relationship between the level of income and the willingness to pay, and there was a relationship between the ability to pay (ATP) and the willingness to pay for independent JKN participants. There was no relationship between age and willingness to pay, and there was no relationship between gender and willingness to pay independent JKN contributions.

**Keywords:** Willingness to pay (WTP); National Health Insurance Program (JKN); Community Health Centre.

## Introduction

Health is a long-term investment and is indispensable in supporting the successful development of the Indonesian nation. Indonesia's annual Human Development Index (HDI) currently ranks 111th out of all countries in the world. Each country has a different way of implementing UHC in their country. In Indonesia itself, the government has made Law No 40 of 2004 concerning the National Social Security System (SJSN) the first step in the process of implementing UHC. SJSN itself is a system of implementing government programs in an effort to provide social security for all its citizens. This social security is important to anticipate if an undesirable situation occurs that can result in the loss or reduction of a person's income, either due to health problems, experiencing accidents, entering old age, loss of work, and so on (Tumurung, M, 2019). The definition of social security itself is a form of social protection

provided by the government to ensure that all its people can fulfill their basic needs for a decent life.

The National Health Insurance or JKN is part of SJSN, organized by BPJS Kesehatan and Ketenagakerjaan. The purpose of the JKN program is to help people obtain health services of good quality but still at an affordable price. So that in the future it is hoped that there will be no more people who cannot seek treatment because they do not have the money (President of the Republic of Indonesia, 2013). JKN is mandatory for all Indonesian people without exception. While the participants are everyone including foreigners who have worked for at least 6 (six) months in Indonesia and have paid contributions. JKN membership is divided into Beneficiary Participants (PBI) including the poor and the poor who are determined by the legislation, and Non-Beneficiary Participants (Non-PBI) including participants who are not classified as poor and poor people. Non-PBI

participants are further divided into Wage Receiving Workers (PPU), Non-Wage Receiving Workers (PBPU), and Non-Workers (BP). (President of the Republic of Indonesia, 2016). Meanwhile, the Ability to Pay (ATP) and Willingness to Pay (WTP) are very influential on public interest in paying health insurance contributions. ATP is defined as a person's ability to pay for a service or services he receives based on income that is considered ideal (Adisasmito, Wiko, 2008). Meanwhile, WTP is the highest amount that a person is willing to sacrifice to get a desired good or service (Wright E, Asfaw A, and Van Der GJ. (2009). The concept of ATP and WTP itself in the health sector is used to determine the ability and willingness of a person to pay for a health service.

Research conducted (Noerjoedianto, D, 2015) regarding the study of Ability To Pay (ATP) Prospective BPJS Health Participants in the Selection of Contribution Amounts in Jambi Province found that there was a relationship between income levels and the selection of respondents in the selection of the amount of BPJS Health contributions. In this study, the average income of the head of the family was IDR 3,652,973, For the non-food expenditure of IDR 854,302, the food expenditure of IDR1,129,484, and the expenditure on cigarettes of IDR 295,681. While the amount of ATP is IDR 25,235. In another study conducted (Yanrizal, Rifa "I, and Utami, S, P, 2015) regarding the analysis of the ability and willingness to pay contributions to achieving UHC JKN in Bengkulu City stated that most people who have not become JKN participants are people from weak economic groups. There are still many people who smoke and 82,19% of these smokers are poor people.

(Aryani, M. A, & Muqorrobin, M, 2013) In their research on the determinants of willingness to pay (WTP) dues for BPJS Health participants, using the Contingent Valuation Method (CVM) approach, it is known that the last education and income level affect WTP. (Entele, B.R. and Emodi, N.V, 2016) in their research in Nothern Ethiopia on the willingness of civil servants to participate in health insurance stated that income, the number of contributions, the benefits obtained when participating in insurance, and the quality of service are the main factors that influence their willingness to pay for health insurance. Meanwhile, the higher age and educational status actually reduce the WTP of health insurance there. Research conducted (Intiasari, et al, 2015) in the portrait of informal sector communities following independent JKN membership states that age, education, occupation, marital status, family, residence and residence status, economic status, ownership of traditional medicine and catastrophic history are factors that influence the participation of informal sector communities in national health insurance.

## Methods

This research is a quantitative study, using a Cross-Sectional approach, which was conducted at the Koni Health Centre Work Area in Jambi City, with a population of 8,217 JKN KIS participants, and a sample size of 105 people. Sampling using purposive sampling technique, based on 3 classes of JKN users, namely class I, class II, and class III. The research instrument was a questionnaire, while data analysis used univariate analysis and chi-square bivariate analysis.

## Results

Willingness to pay is defined as the highest price a person is willing to pay to obtain a good and service, including the desired health service. In this study, to determine the respondents' highest WTP to pay JKN Mandiri contributions, researchers used the Contingent Valuation Method (CVM) technique when conducting interviews where respondents were given open-ended questions about the amount of price they were willing to pay for JKN contributions in each class of service. Respondents were given the freedom to determine the price they considered appropriate to pay for each class. The following is the distribution of research results regarding the frequency of willingness to pay for independent JKN participants in the Koni Health Centre Working Area, Jambi City.

### Distribution of Respondents Based on Willingness to Pay

**Table 1.** Distribution of Respondents Based on Willingness to Pay

Respondent Identity	Total	(%)
Willingness to Pay		
Willing	63	60,0
Not Willing	42	40,0
Total	105	100,0

Based on Table 1, it can be seen that respondents who are willing to pay are 63 people with a percentage (60,0%). While respondents who were not willing to pay were 42 people with a percentage (40,0%).

### Distribution of Respondents Based on Age of JKN Mandiri Participants in the Koni Health Centre Work Area, Jambi City

**Table 2.** Frequency Distribution of Respondents Based on Age

Respondent Identity	Total	(%)
Age		
17 – 25	10	9,5
26 – 35	10	9,5
36 – 45	19	18,1



46 – 55	25	23,8
56 – 65	30	28,6
66 – 85	11	10,5
<b>Total</b>	<b>105</b>	<b>100,0</b>

Based on Table 2, it is known that the largest age percentage of respondents is in the age group 56-65 years as many as 30 people (28,6%). While the smallest age group of respondents is 17-25 and 26-35 years old with a total of 10 respondents each with a percentage (9,5%).

#### Distribution of Respondents Based on Gender of Independent JKN Participants in the Koni Health Centre Work Area, Jambi City

**Table 3.** Frequency Distribution of Respondents Based on Gender

Respondent Identity	Total	(%)
<b>Gender</b>		
Male	50	47,6
Female	55	52,4
<b>Total</b>	<b>105</b>	<b>100,0</b>

Based on Table 3, shows that the largest percentage of gender is female as many as 55 people with a percentage (52,38%). While the smallest percentage is male gender as many as 50 people with a percentage (47,62).

#### Distribution of Respondents Based on Education Level of JKN Mandiri Participants in the Koni Health Centre Work Area, Jambi City

**Table 4.** Frequency Distribution of Respondents Based on Education Level

Respondent Identity	Total	(%)
<b>Education</b>		
Primary school	18	17,1
Junior high school	19	18,1
High school/equivalent	48	45,8
Diploma	2	1,9
Undergraduate	18	17,1
<b>Total</b>	<b>105</b>	<b>100,0</b>

Based on Table 4 above, it is known that the percentage of the largest education level of respondents is at the high school / equivalent level as many as 48 people with a percentage (45,8%). While the smallest education level of respondents is Diploma as many as 2 people with a percentage (1,9%).

#### Distribution of Respondents Based on Ability to pay for JKN Mandiri Participants in the Koni Health Centre Work Area, Jambi City.

**Table 5.** Frequency Distribution of Respondents Based on Ability to pay

Respondent Identity	Total	(%)
<b>Ability to Pay</b>		
Capable	82	78,1
Not Capable	23	21,9
<b>Total</b>	<b>105</b>	<b>100,0</b>

Based on Table 5 above, It can be seen that 82 respondents were able to pay with a percentage of (78,1%). Meanwhile, 23 respondents were unable to pay with a percentage of (21,9%).

### The Relationship between Ability to Pay and Willingness to Pay Contributions for Independent JKN Participants

**Table 6.** Relationship between Ability to Pay (ATP) and Willingness to Pay Contributions for Independent JKN Participants

Ability pay	Willingness to Pay				Total	<i>p-value</i>	PR (95% CI)
	Willing		Not Willing				
	N	%	N	%			
Capable	54	51,4	28	26,7	82	79,0	0,038  1,683 (0,988-2,868)
Not Capable	9	8,6	14	13,3	23	21,9	
<b>Total</b>	<b>63</b>	<b>60,0</b>	<b>42</b>	<b>40,0</b>	<b>105</b>	<b>100,0</b>	

Based on Table 6, results of the chi-square test, the value of PR = 1,683 (95% CI = 0,988-2,868) means that respondents with the ability to pay are able to have a willingness 1,6 times to pay independent JKN contributions compared to respondents with the ability to pay unable to with a p-value of 0,038, this means that H0 is rejected and Ha is accepted, so there is a relationship between the ability to pay with the willingness to pay contributions (WTP) at the Koni

Health Centre, Jambi City.

#### Discussion

The results of the bivariate analysis show that the determinants of willingness to pay for JKN Mandiri participants are influenced by education level, income level, and ability to pay. While age and gender are factors that do not affect the determinants of willingness to pay contributions of JKN Mandiri participants. Many



people realize that the risk of illness will always exist and we have no power to cover the risk. Experience shows that younger people tend not to be aware of the health risks that may occur in the future. They consider the threat of illness 10-20 years in the future is considered far enough to think about from now on. Therefore, in general, young people are rarely willing to voluntarily buy health insurance even though they can afford it. In contrast, older people and some people who have a history of chronic illness will be willing to buy health insurance because of their experience of paying expensive medical expenses (Thabrany, H, 2011). Of the 105 respondents who were divided into adolescence (17-25 years), adulthood (26-45 years), and old age (46 and above), 9 teenage respondents with a percentage of (8,6%) were willing to pay contributions and 1 other respondent with a percentage of (1,0%) was not willing to pay. A total of 16 adult respondents with a percentage (15,2%) were willing to pay and 13 other respondents with a percentage (12,4%) were not willing to pay. A total of 38 elderly respondents with a percentage (36,2%) were willing to pay contributions, and 28 other respondents with a percentage (26,7) were not willing to pay independent JKN contributions. The results of the bivariate analysis show that age is not a determinant of the willingness to pay contributions of independent JKN participants. Based on the results of the chi-square test, the p-value = 0,110 and  $p = 1,000$  where the value is greater than 0,05 ( $0,110 > 0,05$ ) and ( $1,000 > 0,05$ ), which means that there is no relationship between age and willingness to pay contributions for independent JKN participants.

The results of this study are in line with research (Suhardi, Shaluhiah Z, and Patriajati S, 2014) that there is no relationship between age and willingness to pay with a statistical value of  $p=0,085$  ( $p > 0,05$ ). At this time the disease does not look at old and young age because many of those who are young are affected by degenerative diseases so age is not a factor that affects the willingness to pay health insurance contributions. A different opinion was expressed by (Robby, Fadila, 2017) which states that there is a significant relationship between age and willingness to pay. (Binam, J.N. Nkama, A. Nkendah, R, 2002) argues that a family headed by a man is more likely to participate in family health financing. This is because the head of the family has more power to make decisions in the household. (Lopaying, D, 2004) argues that gender is a parameter that determines the willingness to pay for a person in the family. Of the 50 respondents who were male, 28 male respondents were willing to pay contributions with a percentage (26,7%) while 22 other respondents with a percentage (21,0%) were not willing to pay. Meanwhile, out of 55 respondents who were female, 35 respondents with a percentage (33,3%) were willing to pay and 20 other respondents with a percentage (19,0%)

were not willing to pay independent JKN contributions. Based on the chi-square statistical test, the p-value = 0,550, greater than 0,05 ( $0,550 > 0,05$ ), so  $H_0$  is accepted and  $H_a$  is rejected. This means that there is no relationship between gender and willingness to pay contributions for independent JKN participants. Researchers assume that men and women have the same opportunity in the possibility of having the willingness to pay for health insurance. This is because there are many other considerations such as the income generated by the family and the expenses that must be incurred by the family each month. In addition, the presence of certain diseases suffered by respondents and the number of family members also affect the willingness to pay for health insurance. In fact, a person will utilize the health services needed according to the type of illness they are experiencing. With the experience of medical expenses that cost a lot of money, it is necessary to have health insurance that can bear the burden of these medical expenses (Yuliana, et al, 2013). Meanwhile, the number of family members affects the willingness to pay because the more the number of family members, the greater the monthly contribution that must be paid by the household (Kusumaningrum A, Azinar M, 2018).

In the chi-square test, it is proven that the p-value = 0,038, which is smaller than 0,05 ( $0,038 < 0,05$ ), so  $H_0$  is rejected and  $H_a$  is accepted, so there is a significant relationship between the ability to pay and the willingness to pay contributions of independent JKN participants. Based on the results of the study, it is known that the average value of the respondent's ability to pay is IDR 59,388 while the average value of his willingness to pay is IDR 38,285, this means that the value of the ability (ATP) is greater than the value of the willingness to pay (WTP) on independent JKN participants in the Koni Health Centre Work Area of Jambi City. So it can be concluded that the willingness to pay of respondents when compared to their ability to pay is included in the moderate category because the value obtained is still above the current JKN class III premium price. Overall, the variables that influence willingness to pay in this study are education level, income level, and ability to pay (ATP). This is in line with Akmalia's research (Akmalia, N, 2015) on the analysis of the ability to pay and willingness to pay for BPJS Health premiums for coconut sugar panderers in Cilogok Banyumas in 2015.

## Conclusion

There is no relationship between age and willingness to pay contributions of JKN mandiri participants with p-value = 0,110 and  $p = 1,000$  and PR values = 0,613 and 0,958, There is no relationship between gender and willingness to pay contributions of JKN mandiri participants with p-value = 0,550 and PR



value = 0,880, There is a relationship between education level and willingness to pay contributions of JKN mandiri participants with p-value = 0,009 and PR value = 1,613, There is a relationship between income level and willingness to pay contributions of JKN mandiri participants with a p-value = 0,023 with a PR value = 1,491, there is a relationship between the ability to pay (ability to pay) with the willingness to pay dues of JKN mandiri participants with a p-value = 0,038 with a PR value = 1,683.

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## Author Contribution and Competing Interest

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