

Research Article

# Determinants of Compliance in Paying Contributions among Independent JKN Participants

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**Abstract.** BPJS Health has incurred losses exceeding 200 billion rupiah over a two-year period due to the payment of contributions that were discontinued by participants who had utilized maternity services. Data show that 64.7% of mothers registered as BPJS Health participants only one month prior to childbirth, after which 43% either withdrew their membership or failed to continue paying contributions following delivery. The highest proportion of this behavior was observed among independent participants or non-wage recipients (PBPU). In Jambi Province, the highest level of contribution non-compliance occurs in Jambi City. In 2023, there were 77,489 participants with contribution arrears, resulting in financial losses amounting to 60.1 billion rupiah. Contribution non-compliance is influenced by various factors. This study aims to analyze the factors contributing to non-compliance among independent participants in paying BPJS Health contributions after utilizing childbirth services in Jambi City. The findings revealed that 33.3% of independent participants were non-compliant in paying BPJS Health contributions after using maternity services. Significant associations were found between contribution non-compliance and the number of family members ( $p = 0.001$ ), level of knowledge ( $p = 0.000$ ), illness perception ( $p = 0.001$ ), clinical assessment ( $p = 0.000$ ), and willingness to pay (WTP). Based on these findings, it is recommended that BPJS Health consider implementing a waiting period policy for participants intending to utilize maternity services. In addition, the Jambi City Government should strengthen promotive efforts to educate the public and raise awareness of the importance of health insurance in safeguarding household financial security.

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## 1. Introduction

BPJS Health's losses are impacted by the noncompliance of BPJS Health members in paying dues, particularly for users of maternity care benefits. Non-compliance among postpartum mothers in paying contributions resulted in BPJS Health incurring losses of approximately IDR 206 billion over a two-year period. Data from the BPJS Health Research and Development Division indicate that 64.7% of expectant mothers enrolled as participants only one month prior to delivery, after which 43% either discontinued their membership or failed to continue paying contributions following childbirth. The largest share of BPJS Health contributions comes from Non-Wage Recipient Participants (PBPU), namely individuals who are self-employed and pay contributions independently. A comparable situation was observed



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in Jambi Province in 2021, where BPJS Health experienced losses of IDR 60.1 billion due to participants' failure to fulfill their contribution obligations. In that year, 77,489 participants in Jambi City were recorded as being in arrears. (BPS Jambi, 2023).

Compliance is a disciplinary behavior that demonstrates a propensity for BPJS Health participants to be disobedient in payment of contributions, which leads to adverse selection behavior, i.e. an asymmetrical condition in which people only register and pay contributions when sick, thereby affecting the losses incurred by BPJS Health (3). Among independent participants who utilize childbirth services, this behavior may arise because some participants perceive delivery care as a service needed only at a specific time, namely during childbirth. As a result, they tend to pay BPJS Health contributions only when the service is required. Previous studies have shown that the presence of BPJS Health plays a significant role in reducing household financial burdens related to maternity care costs (Nugraheni et al., 2019).

Meanwhile, many participants remain unaware of the consequences of contribution arrears or non-compliance with BPJS Health payments. Participants who fall into arrears are subject to sanctions, including fines and temporary deactivation of membership, as stipulated in Presidential Regulation No. 64 of 2020. The imposition of fines increases the financial burden on households, in addition to meeting basic living needs. Furthermore, an inactive membership status results in the loss of financial protection provided by BPJS Health, thereby forcing participants to cover healthcare costs out of pocket when medical services are needed. (Hasri et al., 2019) (Jayadi et al., 2021).

Health expenditure that exceeds household spending will have an impact on catastrophic events. The findings from a previous study that 31.3% of independent JKN participants in Jambi City are at risk of experiencing catastrophic spending, namely spending on health that exceeds the threshold for household health spending, making it vulnerable to crippling the family economy (Solida et al., 2021). This potential situation commonly occurs among independent participants who fail to comply with contribution payments. Non-compliance, resulting in arrears or the discontinuation of postnatal contributions, may lead to financial penalties upon reactivation of JKN membership or require individuals to bear healthcare costs out of pocket when services are needed. Previous studies have shown that an individual's level of compliance in paying contributions is influenced by multiple factors (Noerjoedianto et al., 2022a; Wulandari, 2016). Therefore, the purpose of this study is to analyze the factors causing the non-compliance of independent participants in paying BPJS Health contributions after the utilization of maternity services in Jambi City.

## 2. Method

This section must contain a state-of-the-art explanation. It can be explained in several ways. First, you can discuss several related papers, both about objects, methods, and their

results. From there, you can explain and emphasize gaps or differences between your research and previous research. The second way is to combine theory with related literature and explain each theory in one sub-chapter.

This type of study is an analytic study conducted with a quantitative approach using a cross-sectional design. The variables studied consisted of the dependent variable (non-compliance in paying dues) and independent variables (education, income, number of family members, knowledge, perception of illness, clinical assessment, ability to pay-ATP, and willingness to pay-WTP). The study was conducted in Jambi City from March to August 2022. The study population consisted of all independent participants in Jambi City totaling 42,592 participants. Determination of the sample with the Lameshow formula as many as 96 respondents selected by accidental sampling technique. The instrument used is a questionnaire. Quantitative data processing through the stages of editing, coding, entry and cleaning with SPSS software. Data analysis was carried out in two stages, namely univariate analysis and bivariate analysis using the chi-square test.

### 3. Result and Discussion

Based on the results of the univariate analysis, The frequency distribution of respondents' characteristics indicates that the majority were aged 25–34 years (63.5%). This age categorization is based on the definition of couples of reproductive age established by the National Population and Family Planning Board (BKKBN), which includes women aged 15–49 years who are physically reproductive and actively bearing children. Consequently, this age group is considered the most likely to utilize maternity services.

Regarding educational attainment, most respondents had completed senior high school (38.5%), followed by those with diploma and undergraduate qualifications (31.3%). In terms of occupation, the respondents were predominantly employed in the informal sector, as this study focused on independent participants, namely Non-Wage Recipient Participants (PBPU). As shown in Table 1, more than half of the respondents were self-employed or entrepreneurs (56.2%).

Monthly household income was classified according to the 2021 income categories issued by the Central Bureau of Statistics. Income below IDR 1.5 million per month was categorized as very low, IDR 1.5–2.49 million as low, IDR 2.5–3.5 million as high, and above IDR 3.5 million as very high. The frequency distribution revealed that most respondents had a monthly household income between IDR 2.5 and 3.5 million (55.2%), indicating that the majority fell into the high-income category based on this classification.

The frequency distribution of each study variable presented in Table 2 shows that compliant respondents accounted for a larger proportion (66.7%) compared to non-compliant respondents (33.3%) in paying BPJS Health contributions after utilizing maternity

services. These findings indicate that one-third of PBPU participants remain non-compliant with contribution payments following childbirth. This suggests that the level of postnatal contribution non-compliance among PBPU participants in Jambi City remains relatively high. When compared with national data showing that 43% of women discontinue or fall into arrears in BPJS Health contribution payments after delivery, a similar pattern is evident in Jambi City, with a non-compliance rate of 33.3%.

The percentage of respondents with higher education (69.8%), namely the final education category of SMA/College, is more than low education, namely the category of final education of SMP/SD (30.2%). The percentage of respondents with high income (79.2%) i.e. Rp 2. 972,192,- based on the Jambi City MSE in 2022, is higher than the low income (20.8%). Respondents with the number of family members in the small family category, namely more than 4 family members, were more (86.5%) compared to respondents with the large family category (13.5%). The percentage of good knowledge is greater (60.4%) compared to low knowledge (39.6%). Knowledge is measured based on respondents' insights about the procedures and utilization of membership in BPJS Health. Perception of illness is an individual assessment of the respondent about the concept of health and illness and behavior in seeking services or fulfilling health needs. Percentage of positive perception of illness is greater (53.1%) compared to negative perception (46.9%). The percentage of clinical assessments for the group that did not require further examination (55.2%) than those requiring further examination (44.8%).

The ability to pay is the respondent's ability to pay BPJS Health contributions on a regular basis which is calculated based on the overall family expenditure excluding basic needs. The percentage of respondents who can afford is more (75%) than respondents who cannot afford (25%). Willingness to pay is the respondent's willingness to pay BPJS health contributions regularly according to applicable regulations. The percentage of respondents who are willing (64.6%) is greater than that of respondents who are not willing (35.4%).

The results of the bivariate analysis showed that respondents who were not compliant in paying BPJS Health contributions after the utilization of maternity services were more in the group of respondents with low education (48.3%), high income (34.2%), the number of family members in the large category (76, 9%), poor/low level of knowledge (68.4%), negative perception of illness (51.1%), does not require further clinical examination (60.4%), able to pay contributions (33.3%) and not willing to pay dues (94.1). Based on the chi-square test with a significance value of 0.089 (8). A similar study in Depok City in 2019 with a P value = 0.733 (9) and Tamaung Makassar City Public Health Center in 2020 with a P value = 0.579 (10) that education has no relationship with compliance with paying JKN contributions to independent participants. This study also shows that the income factor does not have a significant relationship with PBPU's non-compliance in paying BPJS Health contributions after utilizing maternity services. This result is in line with several previous studies which

showed that the income variable had no relationship with participants' non-compliance in paying contributions. There is no relationship between respondents' income and non-compliance in paying BPJS Health contributions in Cempaka Putih Village in 2018 with a P value of 0.923 (Candra et al., n.d.).

**Table 1.** Relationship Between Determinant by Compliance in Paying Contributions among Independent JKN Participants.

Variable	Compliance (%)		OR (95% CI)	p-value
	Not	Yes		
<b>Education</b>				
– Low	14 (48,3)	15 (51,7)	2,541	0,071
– High	18 (26,9)	49 (73,1)	(1,026-6,292)	
<b>Income</b>				
– Low	6 (30,0)	14 (70,0)	0,824	0,929
– High	26 (34,2)	50 (65,8)	(0,283-2,396)	
<b>Family members</b>				
– Big	10 (76,9)	3 (23,1)	9,242	0,001
– Small	22 (26,5)	61 (73,5)	(2,327-36,709)	
<b>Knowledge</b>				
– Less	26 (68,4)	12 (31,6)	18,778	0,000
– Good	6 (10,3)	52 (89,7)	(6,331-55,694)	
<b>Perception</b>				
– Negative	23 (51,1)	22 (48,9)	4,879	0,001
– Positive	9 (17,6)	42 (82,4)	(1,930-12,332)	
<b>Clinical Assessment</b>				
– Not	32 (60,4)	21 (39,6)	0,369	0,000
– Need	0 (0,0)	43 (100)	(0,284-0,552)	
<b>Ability to Pay</b>				
– Not	8 (33,3)	16 (66,7)	1,000	1,000
– Yes	24 (33,3)	48 (66,7)	(0,375-2,664)	
<b>Willingness to Pay</b>				
– Not	32 (94,1)	2 (5,9)	0,059	0,000
– Yes	0 (0,0)	62 (100)	(0,015-0,226)	

However, it is different from the findings of several previous studies that income has a significant relationship with non-compliance in paying contributions (Firdaus, 2018). Respondents with low income levels are 2.848 times more likely to be non-compliant in paying JKN contributions compared to respondents who comply with paying dues (Ulum et al., 2021). Income in this study is defined as the average income earned by the family each month. Income should make a big contribution in encouraging someone to pay dues. As household income increases, there is a probability that households are willing to participate in paying for health insurance (Andhana, 2023). Low income will reduce a person's awareness

to pay dues because they prioritize their daily needs compared to health contributions that are considered not yet needed (Solida et al., 2022).

On the factor of the number of families, it was found that there was a significant relationship with the value of  $P = 0.001$  between the number of family members and non-compliance with PBPU in paying BPJS Health contributions after receiving delivery services. The resulting OR value indicates that participants with large family members will have a 9.242 times chance of being disobedient in paying BPJS health contributions after using childbirth services. The results of this study are in line with previous studies that there is a relationship between the number of families and participants' non-compliance in paying independent JKN contributions in Solok City. There is a significant relationship between knowledge and non-compliance with PBPU paying BPJS Health contributions after the utilization of health services with a value of  $P = 0.000$ . This finding is in line with previous studies that knowledge has a close relationship with the level of compliance (Solida et al., 2022).

The results of the OR show that PBPUs with low knowledge will have the potential for 18.77 times to be disobedient in paying BPJS Health contributions after the utilization of delivery services. Knowledge is a description of the results of one's understanding, a good understanding of health insurance increases one's compliance in following and paying the dues. The perception of illness has a significant relationship with PBPU's non-compliance in paying BPJS Health contributions after utilizing childbirth services with a significant value of  $P = 0.001$ . Participants with negative perceptions will have the opportunity to disobey in paying dues by 4.879 times compared to participants who have positive perceptions of illness. These results are similar to previous studies that there is a relationship between perception and compliance with paying BPJS Health in the working area of the Wawondula Health Center (Noerjoedianto et al., 2023).

There is a significant relationship between clinical assessment and non-compliance with PBPU paying BPJS Health contributions after using delivery services with a significance value of  $P = 0.000$ . Based on the odds ratio (OR) value, PBPU participants who do not require follow-up examinations after childbirth have a 0.369 times higher likelihood of non-compliance in paying BPJS Health contributions. Clinical decisions regarding postpartum follow-up examinations are determined by healthcare providers to assess the health status of postpartum mothers. Individuals experiencing impaired or poor health tend to utilize health services more frequently, which in turn increases their likelihood of complying with contribution payment obligations. Clinical assessment is classified as a need factor that influences an individual's compliance behavior in utilizing health services, as explained by Andersen's Health Service Utilization Theory (1975). The greater an individual's perceived need to fulfill health requirements, the more compliant their behavior is likely to be. This finding is supported by previous studies demonstrating a significant relationship between

health status and compliance in paying health insurance contributions. (Solida, Noerjoedianto, & Marbun, 2023).

The next result is that there is no significant relationship between ability to pay and PBPU's non-compliance in paying BPJS Health contributions after the utilization of childbirth with a value of  $P=1,000$ . The results of this study are quite different from many previous studies that there is a close relationship between ability to pay and compliance with paying contributions. The ability to pay contributes to influencing a person in choosing the pattern of health financing to be used (Noerjoedianto et al., 2022), as well as increasing the willingness of family heads to participate in JKN organized by BPJS Health to meet their family's health needs (Solida, Noerjoedianto, & Mekarisce, 2023). So if the ability to pay is classified as good, it will tend to increase willingness and compliance in paying BPJS Health contributions (Andarsari & Ningtyas, 2019).

In this study, the ability to pay does not have a significant relationship with non-compliance by independent participants in paying contributions. This can happen because the allocation of household health expenditures for independent participants in Jambi City is still not a priority, so that even a large ability to pay does not affect the willingness of participants to comply with paying the cost of paying health insurance contributions. There is a significant relationship between willingness to pay (WTP) and non-compliance of independent participants in paying contributions after the use of labor with  $p = 0.000$ .

This factor is the most variable based on previous research to determine a person's level of compliance in paying dues (Erlyana et al., 2011). Willingness to pay is a form of participants' willingness to allocate special household expenditures for health financing. The concept of willingness to pay has a close relationship with the ability to pay. The greater a person's ability to pay, the greater the willingness to pay. This study results that non-compliance is only closely related to willingness to pay. This means that there is a behavior that requires intervention in increasing public awareness to be willing to pay.

The tendency of adverse selection behavior or the public only registers and pays dues when sick is a challenge for BPJS Health in structuring the BPJS Health program. Public non-compliance is also considered as an impact of the weak sanctions rules applied by BPJS Kesehatan on participants regarding the payment of contributions (Pembiayaan Kesehatan Dalam Program Jaminan Kesehatan Nasional et al., 2020). Although improvements continue to be made from year to year such as the use of mobile JKN, easy access to registration – payment, BPJS care center, and applications on the BPJS health website, the results of the study show that the factors of knowledge of willingness to pay, perception of illness, clinical assessment and number of families are related. with the non-compliance of independent participants in paying contributions, it shows that these efforts still require a review of their respective effectiveness.

Especially in terms of delivery services, which is one of the health services where its use can be predicted when and where it will be used. In contrast to other risks of illness which are full of uncertainty. BPJS Health can consider the system implemented by other countries regarding the waiting period that delivery services can only be obtained if it has been registered 6 months before delivery and other policies that can be adopted and minimize the losses experienced by BPJS Health.

#### 4. Conclusion

The proportion of independent participants who were non-compliant in paying BPJS Health contributions after utilizing maternity services in Jambi City was 33.3%. Significant associations were found between non-compliance and the number of family members ( $p = 0.001$ ), level of knowledge ( $p = 0.000$ ), perception of illness ( $p = 0.001$ ), clinical assessment ( $p = 0.000$ ), and willingness to pay (WTP). In contrast, no significant relationships were identified between non-compliance and educational level ( $p = 0.071$ ), income ( $p = 0.929$ ), or ability to pay ( $p = 1.000$ ) among independent participants following the use of maternity services in Jambi City. It is recommended that BPJS Health consider implementing a waiting period policy for participants intending to utilize maternity services, whereby access to services is granted only after participants have been registered and have consistently paid contributions for a specified period, such as six months from initial enrollment. Additionally, the Jambi City Government is encouraged to strengthen promotive activities aimed at educating the public and increasing awareness that health expenditure should be a household priority. Emphasizing the importance of health insurance in protecting household finances may help reduce adverse selection behavior.

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