

FACTORS AFFECTING DELAYING PAYMENT OF NATIONAL HEALTH INSURANCE (BPJS KESEHATAN) PREMIUM AMONG PARTICIPANTS OF THE INFORMAL SECTOR IN BANYUMAS REGENCY

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ABSTRACT

Objectives : The participants expansion of BPJS Kesehatan, especially for participants of the informal sector (PBPU) are faced with several problems, one of the problem was late payments of contribution payments per month by participants who have already registered. Data from BPJS Kesehatan Purwokerto showed if approximately 57.84% of the participants had experienced late payments in contribution in 2015. The purpose of this study was to find out the factors which have effect of late payments in paying the contribution of BPJS Kesehatan to the participants PBPU in Banyumas.

Methods : This research is an analytical observational research with cross sectional design using a quantitative approach. Research sampling is grouped into two groups namely sample cases and control samples. The number of samples for each of the case groups and the control is 141. The data in the study analyzed with SPSS software with quantitative analysis of research, including: univariate analysis (frequency and percentage), Bivariate analysis (Chi Square test), and multivariate analysis (linear logistic regression)

Result : Based on the result of multivariate analysis of twelve independent variables were only four variables that had effect of late payments in paying the contributions of BPJS Kesehatan with values of CI 95%, which are variable age <35 years (p-value=0.000), the economic status (quintile 1) (p-value=0.000), number of family members ≥5 person (p-value=0.011), and the value of CI 90% are married status (p-value=0.059).

Conclusion : Improving socialization of regulations and consequences of late payments of BPJS Kesehatan, increasing participants' awareness of the importance have healthcare insurance continuously and give priority to the basic health needs at the household expenses are efforts that could be done to reduce the number of late payments in the premium payments of BPJS Kesehatan to the participants of PBPU.

Keywords: PBPU, late payments, premium, Kesehatan

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INTRODUCTION

Government is responsible for the implementation of public health insurance through the National Health Insurance (JKN) devoted to the individual health particularly and public health in general (Ministry of Health of Indonesia, 2014). JKN developed by Indonesia is part of the National Social Security System (SJSN). SJSN is a procedure for the organization of social security programs by the Social Security Provider (BPJS) Kesehatan and administered through a Social Health Insurance mechanism which is mandatory under the Law No. 40 year 2004 on National Social Security System. The aim is that all Indonesian people are protected by insurance system, so that they can meet the basic needs of a decent public health. The number of participants BPJS per month in February 2016 more than 160 million people, more than half the population of Indonesia. The government is committed to organizing health insurance in entire Indonesia, considering that health insurance

does not include all Indonesian people. One of the activities that have been scheduled on the aspect of participation held by BPJS Health in the period 2012-2019 focuses on the expansion of the coverage of health insurance to achieve universal coverage, that is the expansion of membership especially among independent not salaried workers. Previous research showed that expansion of not salaried workers (PBPU) membership faced with several issues. First, the phenomenon of adverse selection that makes risk pooling not healthy for the sustainability of the JKN scheme. Second, the low perceived financial risk society. The need for health insurance is not considered becoming a critical requirement. Third, the monthly contribution payment arrears by participants who have already registered[1]. According to a study at Jember District [2], the data mentioned that until October 2014, about 13,000 people or 40% of total independent participants was irregular in paying the monthly contribution. There was a significant increase of contribution arrears in various regions in Indonesia ranges from 20-50% at the end of October 2015. Data from BPJS Branch Office Purwokerto showed the similar thing, starting in November 2015, from 25.111 PBPU participants, a total of 14.524 participants or about 57.84 % in arrears over the last 6 months. As well as with [3] mentioned that there has been an increasing number of insured who are in arrears of contributions payment, causing the suspension of coverage. Insured is delinquent dominated by young age and without a clear economic problems as much as 60%, and 40% from the group of parents and families. Based on BPJS 2015 data of the entire cost of benefits that BPJS Kesehatan paid in 2014 is amounted to Rp 42.6 trillion; 22.2% (Rp 9.5 trillion) of them for paying benefits PBPU participants. However, the high benefits that are paid for PBPU is not match with the contributions received from participants PBPU. If this continues then sustainability will be threatened and BPJS Kesehatan participants experienced difficulty in ensuring the health services. So, we are interested in identifying determinants of delay in BPJS contribution payment of the informal sector (PBPU) in Banyumas.

METHODS

This research is an analytical observational research with cross sectional design using a quantitative approach. Research sampling is grouped into two groups namely sample cases and control samples. The number of samples for each of the case groups and the control is 141. Case sampling and control are performed at different times. Case sampling was done in advance in 2015 by simple random sampling with the location of one area of Banyumas Regency. While the control sampling was carried out in the year 2016 through two phases. The first phase is purposive sampling, which is the rural area of Cilongok District and urban district of Purwokerto North in Banyumas district which will be used as a research site with the consideration of availability of participants in BPJS data Necessary researchers. The second stage is to do simple random sampling of the 2 sub-districts consisting of rural and urban to obtain the control samples. The Data in the study analyzed with SPSS software with quantitative analysis of research, including: univariate analysis (frequency and percentage), Bivariate analysis (Chi Square test), and multivariate analysis (linear logistic regression)

RESULT

Based on analysis result over 282 respondents showed that 141 respondents (50%) were late in contribution payment of BPJS Kesehatan, 59.2% of respondents were ≥ 35 years old, 69.5% of respondents were women, 58.9% of respondents were low-educated (elementary/junior high school), 45.7% of respondents were had other

job such as housewife or others which not mentioned yet, 74.5% of respondents were had fewfamily member (≤ 4 people), 51.8% of respondents had disease history, 20.9% of respondents had economic status in the category quintiles 2, 92.2% of respondents had no health insurance (other than BPJS), 80.9% respondents had a bank account for the purpose of payment of BPJS Kesehatan contribution, and 62.4% of respondents had a good perception of the healthcare service use BPJS Kesehatan. Bivariate analysis used to show the relation and measure the odd ratio of risks (independent variable) between delayin contribution paymentof BPJS Kesehatan from PBPU participants, we found age, number of family member and economy status quintiles 1 had significant relation with delay in payment. Furthermore, we did multivariate analysis. Based on Table 1 showed that OR value for age was 5.3, so it can be concluded participants aged <35 years were likely to experience late in payment of BPJS Kesehatan contribution 5.3 times greater than the participants aged ≥ 35 years. OR value for quintile 1 was 5.2 so it can be concluded that participants who had economic status at the quintile 1 are likely to experience late in payment of BPJS Kesehatan contribution 5.2 times greater than participants who did not locatedin quintile 1. While the OR value for thenumber of family member was 2.4 which mean that the participants with a large family member (≥ 5 people) tend to be delay in payment of BPJS Kesehatan contribution2.4 times greater compared to participants who had a small family member (≤ 4 people).Based on the 90% confidence interval with p -value <0.1 , we obtained one factor that influenced the incidence of late payment of BPJS Kesehatan contribution, that was marital status with p -value = 0.059. OR value for marital status was 2.6,It can be concluded that participants who were married will tend to experience late payment of BPJS Kesehatan contribution2.6 times greater than the participant status was not married and widows/widowers.

Table 1. Analysis Model Logistic Regresion Multivariate

No	Category	B	Sig.	Exp (B)	95% C.I. for Exp(B)
1	Age <35 years	1.671	0.000**	5.3	2.8-9.9
2	Male	0.201	0.594	1.2	0.5-2.5
3	Education				
4	a. Low	-0.193	0.550	0.8	0.4-1.5
5	b. Moderate	0.019	0.980	1.0	0.2-4.4
6	c. High	0.125	0.803	1.1	0.4-3.0
7	Unemployeee	-0.469	0.141	0.6	0.3-1.1
8	Marital status	0.971	0.059*	2.6	0.9-7.2
9	Family member >5	0.876	0.011**	2.4	1.2-4.7
10	Historyof disease	0.037	0.911	1.0	0.5-2.0
11	Economy status				
12	a. Quintile 1	1.663	0.000**	5.2	2.4-11.6
13	b. Quintile 2	0.173	0.681	1.1	0.5-2.7
14	c. Quintile 3	-0.026	0.960	0.9	0.3-2.6
15	d. Quintile 4	-0.311	0.449	0.7	0.3-1.6
16	e. Quintile 5	-0.359	0.234	0.6	0.3-1.2
17	Contribution fee				
18	a. Class 1	-0.065	0.892	0.9	0.3-2.3
19	b. Class 2	0.262	0.460	1.2	0.6-2.6
20	c. Class 3	0.000	1.000	1.0	0.6-1.6
21	Had other insurance	0.826	0.177	2.2	0.6-7.5
22	Had bank account	0.586	0.142	1.7	0.8-3.9
23	Bad perspective toward healthcare service	-0.421	0.183	0.6	0.3-1.2
24	Constant	-2.118	0.000	0.1	

*) = 10% CI 90%

**) = CI 95%

This study showed that participants <35 years old related with late of payment because of reluctance to accept the risk of illness and perception about financial loss caused from diseases in this age group (<35 years) was still low. One of study [4] stated that as participants age increasing by 1 year, there was reduction of risk of non-compliance by 1%. It showed that the risk of non-compliance decreased with increasing age so that older participants are more obedient to pay contribution compared to younger participants. In line with the results of research, age will also affect the health risk, and then impact on the demand for health insurance. Someone older will sick more often than the young, the risk of illness will be different so it will affect the determination of contributions which will affect the demand of health insurance. The results showed that more respondents were female (69.5%) and it were known that sex does not affect the late in paying contribution. We thought this situation occur because the most two types of respondents work are self-employed (24.5%) and trader (17.4%), involving both men and women. Similar to the results of research which stated for the same type of work involves a lot of men and women, which means their financial are not much different. The level of education does not affect the delay to pay health insurance contributions. The results are consistent with previous study [5] that found no relationship between level of education and willingness to pay. Another previous research [6] showed similar results to this study, they stated that among informal workers in China, education was not determined by the individual, but strongly influenced by the place of birth, politic and academic achievement at the elementary level. Jobs variable did not have a significant effect on the late payment of BPJS contribution. In line with the research [7] in Padang which mentioned no significant relationship between jobs and BPJS needs. Marital status variable had a significant effect on the incidence of late payment of BPJS contribution PBPU participants with 90% confidence interval by the p -value <0.1. Based on the study results, it could be known if it were related to household size and household burden that must be borne by the participant with the consideration of the economic status of participants. In accordance with the results of research found that respondents with limited income families prioritized basic needs over the need for health insurance. Number of family members proved influenced in the occurrence of late payment of BPJS contribution PBPU participants in Banyumas. The results of this study indicated if the household which have more children, the insurance purchasing power will decrease, it is because the household would be aware of the costs. The presumption is also supported by several previous studies. The number of family members affects the perceptions of family head toward the risk and perception of the extent of loss [8]. Health status variable did not have a significant effect on late of payment BPJS contribution. In line with the in Hulu Sungai Selatan mentioned the participants' willingness to pay was not influenced by the disease experience [5]. Another factor that proved influential in the event of late payment of BPJS contribution PBPU participants in Banyumas was economic status in quintile 1. These results indicated the presence of high economic status, the greater one's ability to pay premium. In line with the results of the study [9] and [10] which stated that the amount of individual income can affect demand for the insurance, which by increasing a person's income, the ability to pay premiums will be even greater. Another variable which have no influence with the incidence to late of payment contribution BPJS Kesehatan was the amount of contributions. In line with the research which showed that there was no significant correlation between the rate of contributions to pay dues compliance behavior BPJS in South Jakarta Branch Office. Ownership of other insurance variable did not have a significant effect on the late payment of BPJS contribution. In contrast to the expression that people who had felt the benefits of insurance, were likely to have a positive willingness to health insurance [8]. Variable ownership of a bank account did not have a

significant effect on the late payment of BPJS contribution. According the payment method most frequently accessed by the participants was payment through ATM due to limited knowledge of the participants about the mode of payment National Health Insurance (JKN) available. The reliability of payments via ATM is rated lack by the participants so that participants often have difficulty even losses. Perceptions of health care did not have a significant effect on the late payment of BPJS contribution. The results of this study was different from the research conducted before [11] which showed that the negative perception of the quality of service received affect the willingness of participants to continue the payment of JKN contribution. Variables that influence late in payment of BPJS contribution in PBPU participants were age <35 years (p -value = 0.000, OR = 5.3), the economic status in quintile 1 (p -value = 0.000, OR = 5.2), the number of family members ≥ 5 (p -value = 0.011, OR = 2.4). While from the 90% confidence interval, married status was significant (p -value = 0.059, OR = 2.6). Variables gender, education level, occupation, health status, the amounts of contributions fees, ownership other health insurance (other than BPJS), ownership of bank accounts, and perceptions of healthcare services with the use of BPJS Kesehatan did not have influence on the late payment of BPJS contribution in PBPU participants. Improving socialization of BPJS Kesehatan regulation and consequences of late in contributions payment, increasing participants' awareness of the importance of having an active health insurance and give priority to basic health needs at the household expenses are efforts that could be done to reduce the number of late in paying BPJS contribution in participants PBPU.

DISCUSSION

The results of the analysis indicate the age factor affects late payment of BPJS health dues of PBPU participants in Banyumas District with P -value = 0.000. The value OR (5.3) indicates that participants who have an age of < 35 years have a tendency of 5.3 times greater to late pay BPJS health dues every month compared to participants aged > 35 years. Research Intiasari et al (2015) shows the informal sector workers in Indonesia aged > 35 year [1]. While the results of this research shows the occurrence of late payment dues BPJS Health more experienced workers who are aged < 35 years (59.6%). This occurs because the degree of reluctance to accept the risk of illness and perception of financial losses caused by illness in this age group is still low. The results of this analysis differ from the research conducted by Adebayo et al (2015) showing individuals aged 30 – 49 years of age tend to be more actively paying health insurance costs compared to older individuals [12]. Nevertheless, the previous showed an increase in age of participants 1 year annually lowering the willingness to pay 1% to 1.6% ([6], [4]. Another study supports the results of this study in his research that suggests that older informal workers may believe that their children will finance their health care when they are sick, while younger workers Not so older informal workers tend to have a high willingness to pay a health insurance premium [13]. The results of the in Switzerland show the younger a person, the higher the tendency to commit failure in the payment of insurance dues due to the absence of a meaningful medical record of participants. The another research shows young age insurance participants (< 40 years) tends to seldom report the symptoms of the disease suffered so that this is the reason for them to drop out of health insurance. Conversely, insurance participants with an older age (> 50 years) tend to be infrequent Contribute in the case of drop out health insurance because of its positive relationship with health services [14]. The results of the study showed that households with more children could reduce the purchasing power of insurance because the households were wary of a surge in costs beyond the daily consumption cost. In addition, the status of respondents as an informal

sector worker or an employee instead of a wage recipient makes an income every month received uncertain. It is different from the formal sector workers who are generally managed by the organization, where they work the payment of dues directly deducted from the salary. Meanwhile, informal sector workers must manage their own dues so that they are considered to be incriminated for participants with a lot of family members and not supported by economic ability. In line with the research [15] which mentions that the household size has a positive relationship with the family decision to continue the use of health insurance. Household size can provide indications of household burdens. That is, the larger the household size, the more number of household members and eventually the heavier the burden of households to meet daily needs [16]. The regulation of BPJS Kesehatan No. 4 year 2004 which requires participants to register for one family card (KK) and no longer the individual causes the workers of informal sector to pay dues every month. The results of this study were also supported by the research [8] that indicating that the number of family members influenced the perception of the family head to risk and perception of the magnitude of the loss. The more the number of family members, the greater the risk of illness and the greater the loss that will be experienced. Another rresearch also shows family size and household wealth status determines the ability of participants to pay health insurance dues [17]. The results of this study can indicate that the economic status determines the ability of a person to pay dues as a participant of wages workers. The higher the economic status of a person, the greater the ability of a person to pay dues. Conversely, the lower the economic status of a person, the smaller the ability of participants to continue to routinely pay the dues BPJS health. The research of Javan-Noughabi et al shows that the amount of household income affects the ability of participants to pay for health insurance dues [18]. The same results were also pointed out by Gidey et al. explaining that the ability to pay health insurance is positively related to age and household income. The higher the household income, the higher the amount they can afford to pay for the health insurance fee [19]. Late payment dues BPJS Kesehatan still occur in the informal sector workers as participants instead of wages in Banyumas district. Based on the results of research analysis can be concluded that the factors affecting the late payment of dues BPJS Kesehatan on informal sector workers in the Banyumas district are the age, number of family members, and the economic status of Kuintil 1. The collective update of payment systems for participants of workers instead of wage recipients is required to address the late payment of BPJS Kesehatan dues. BPJS Healthcare and Terkair Partners can cooperate to organize socialization and education regarding dues payment system.

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REFERENCES

1. Intiasari, Arih Diyaning, Laksono Trisnantoro dan Julita Hendrartini, 2015, Potret Masyarakat Sektor Informal di Indonesia: Mengenal Determinan Probabilitas Keikutsertaan Jaminan Kesehatan Sebagai Upaya Perluasan Kepesertaan pada Skema Non PBI Mandiri, Jurnal Kebijakan Kesehatan Indonesia Vol. 04 No.04 (126-132).
2. Pratiwi, Arfilayah Nur, 2015, Faktor yang Mempengaruhi Keteraturan Membayar Iuran pada Peserta Jaminan Kesehatan Nasional (JKN) Kategori Peserta Mandiri (Studi Kasus Pasien Rawat Inap Rumah

- Sakitdr.SoebandiKabupaten Jember),*Skripsi*,Bagian Administrasidan Kebijakan Kesehatan FakultasKesehatan MasyarakatUniversitas Jember.
3. von Wyl, V., & Beck, K. (2015). Failure to pay for social health insurance premiums: Acts of protest or desperation? *Preventive Medicine Reports*, 2, 127–133. <https://doi.org/10.1016/j.pmedr.2015.02.001>
4. Nopiyan, Ni Made Sri, Putu Ayu Indrayanthi, dan Rina Listyowati, 2015, Analisis Determinan Kepatuhan dan Pengembangan Strategi Peningkatan Kepatuhan Pembayaran Iuran pada Peserta JKN Non PBI Mandiri di Kota Denpasar, Joint Research, Grup Penelitian dan Pengembangan BPJS Kesehatan dengan Program Studi Kesehatan Masyarakat Fakultas Kedokteran Universitas Udayana, Denpasar.
5. Handayani,Elmamy dan Gondodiputro,sharon, 2013. Faktor-faktor yang mempengaruhi Kemauan Masyarakat Membayar Iuran Jaminan Kesehatn di Kabupaten Hulu Sungai Selatan. Artikel Ilmiah, Unibersitas Padjadjaran, Bandung.
6. BarnighausenTilly L.,ZhangXinping,SauerbornRainer,2007,Willingnesstopay for socialhealthinsuranceamong informalsectorworkerinWuhan,acontingentvaluation studyBMCHHealth Services Research, *onlineserial*. 2007:1-16, China.
7. Purwansi, Nia,2015,Faktor-factoryang Berhubungandengan Keputusan Masyarakat untuk Menjadi Peserta Pekerja Bukan Penerima Upah Jaminan Kesehatan Nasional Kecamatan Koto TengahTahun 2015, *Skripsi*, Universitas Andalas, Padang
8. Lofgren,Curt.,NguyenXthanh,NguyenTKChuc,EmmelinAndersdanLindhomLars,2008, People's Willingness to Pay for Health Insurance in rural Vietnam, *CostEffectiveness and ResourceAllocation*, 6: 1-16.
9. Feldman,E.L.,JaffeA.,GalambosN.,RobbinA.,Kelly R.B.,FroomJ.,1988,Clinical Practice GuidelinesonDpression,Awarness,Attitude and ContentKnowledgeAmong FamilyPhysician in NewYork, *Arch FarmMed*:7: 58-62.
10. Mangilep,A., 2008, Analisis Faktor-factoryang Berhubungan dengan Pilihan Tempat PenembusanResepPasienRawat JalanRumah SakitM.H.ThamrinInternasional Salemba Jakarta Tahun2008, ProgramKajianAdministrasi Rumah SakitFakultas Kesehatan Masyarakat UniversitasIndonesia, Depok
11. JannatulN,Mansur F, PurwaningrumD, SapardiH.,2014,MasyarakatMeragukanMutu LayananKesehatanGratis: PersepsiMasyarakatTerhadapPemanfaatan Jaminan Kesehatan Masyarakat di Jawa Timur, Forum Nasional V Jaringan Kebijakan KesehatanIndonesia;24-26 September 2014,FakultasKedokteranUniversitas Padjajaran,Bandung.
12. 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), 543. <https://doi.org/10.1186/s12913-015-1179-3>
13. Ahmed, S., Hoque, M. E., Sarker, A. R., Sultana, M., Islam, Z., Gazi, R., & Khan, J. A. M. (2016). Willingness-to-pay for community-based health insurance among informal workers in urban bangladesh. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0148211>
14. Atinga, R. A., Abiir, G. A., & Kuganab-lem, R. B. (2015). Factors influencing the decision to drop out of health insurance enrolment among urban slum dwellers in Ghana, 20(3), 312–321. <https://doi.org/10.1111/tmi.12433> <https://doi.org/10.1186/1472-6963-7-114>
15. Dror, D. M., Shahed Hossain, S. A., Majumdar, A., Koehlmoos, T. L. P., John, D., & Panda, P. K. (2016). What factors affect voluntary uptake of community-based health insurance schemes in low- and middle-income countries? A systematic review and meta-analysis. *PLoS ONE*. <https://doi.org/10.1371/journal.pone.0160479>
16. Sakinah, U., Wijasa, I., & Wiharto, M. (2014). Faktor-Faktor Yang Berhubungan Dengan Kesadaran Masyarakat Kelurahan Poris Gaga Tangerang Dalam Berasuransi Kesehatan. *Forum Ilmiah*, 11(2), 13–14.
17. Minyihun, A., Gebregziabher, M. G., & Gelaw, Y. A. (2019). Willingness to pay for community-based health insurance and associated factors among rural households of Bugna District, Northeast Ethiopia. *BMC Research Notes*, 12(1), 55. <https://doi.org/10.1186/s13104-019-4091-9>
18. Javan-Noughabi, J., Kavosi, Z., Faramarzi, A., & Khammarnia, M. (2017). Identification determinant factors on willingness to pay for health services in Iran. *Health Economics Review*, 7(1), 40. <https://doi.org/10.1186/s13561-017-0179-x>
19. Gidey, M. T., Gebretekale, 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), 2. <https://doi.org/10.1186/s12962-019-0171-x>