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Determinants of Community Participation in the National Health Insurance Scheme: Evidence from RTSU Public Health Service in Pandan, Sintang Regency of West Kalimantan

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Abstract. The social health insurance system is a principle of solidarity between workers and employers, and there is a guarantee of access to health services for the entire population. The coverage of participants is high, but the level of participant activity in paying contributions still needs to be increased, with a minimum target of 75% active participants. The aim of this study is to explain the factors related to BPJS Health participation in the RTIU Pandan Health Center Work Area, Sintang Regency, West Kalimantan. Quantitative research method with a cross-sectional approach using chi-square test analysis with a 95% confidence level and a 5% error rate, so the number of samples required is around 100 respondents. The results of the study showed that paying BPJS health (p value = 0.001 and OR = 9.257), family members of BPJS health participants (p value = 0.001 and OR = 10.147), BPJS health information (p value = 0.001 and OR = 9.091), Service Users (p value = 0.001 and OR = 9.091), Health Services (p value = 0.008 and OR = 5.179) with BPJS Health participation. The most dominant variable related to BPJS Health participation is family members of BPJS Health participants (OR = 6.046) followed by the variable of paying BPJS Health (OR = 4.665) and users of health services (OR = 4.050). In conclusion, there is a relationship between paying BPJS health, family members of BPJS health participants, BPJS health information, service users, health services and BPJS health participation.
Keywords: BPJS health, membership, information, and health services

1 Introduction

Health insurance participation in the world is based on centralized public data covering all countries consistently very limited.(1) WHO and other international institutions are discussing Universal Health Coverage (UHC) as a target, hoping that everyone will have access to health services without facing financial difficulties.(2)(3) National health insurance participation in various countries in the world, such as in Western Europe, such as England, Germany and France, health insurance has long been part of the structure of the welfare state.(4) In the UK, health insurance is implemented by relying on the National Health Service (NHS) system which is fully funded through general taxes and provides health services.(5) universally to all citizens regardless of economic status(6). Social health insurance system with the principle of solidarity(7), where costs are shared between workers and employers, and there is guaranteed access to health services for the entire population (7). France combines a social insurance system with state subsidies, so that almost all its citizens are protected and can access affordable health services.(6)

In The global health service coverage index rose from around 45 in 2000 to ~68 in 2021(7). There has been significant improvement, with the rate of increase slowing since 2015. WHO reports that the proportion of the population facing large out-of-pocket expenditures for health remains high in many regions (8). Many countries have not yet achieved truly effective UHC, even though they may formally cover a large portion of their population (9). There is no single current global figure that clearly states "the number of people in the world who have health insurance" because the definition of "health insurance / health coverage" varies between countries (whether it is public, private, a combination, how extensive the benefits are, how active the participants are, etc.)(10).

Indonesia itself, through the Social Security Administration for Health (BPJS Kesehatan), is committed to achieving Universal Health Coverage (UHC). (11) Since the National Health Insurance (JKN) program was launched in 2014(11). This system is based on social insurance which requires all residents to become participants, with financing sourced from participant contributions, government contributions for underprivileged groups, and strong regulatory support.(12). The successful implementation of significantly expanding participation has made Indonesia one of the countries with the largest number of health insurance participants in the world. (13). Sustainability of funding, quality of health services across all regions, and participant compliance in paying contributions (14).

National health insurance participation in various countries shows a diversity of models, all of which aim to achieve universal health protection (15). Indonesia is on the same path as other countries that have previously succeeded (16), although it still requires strengthening in terms of equal distribution of services, financial governance, and public

awareness so that the JKN system can function optimally and sustainably [17]. The number of BPJS Health participants in West Kalimantan reached 84.88% of the total population, which is around 2,702,142 people.[18]. This shows quite broad coverage, with two districts/cities and almost all of their residents registered in the JKN program. [19]

The National Health Insurance (JKN) program is administered by BPJS Kesehatan. The following details its development and latest status. As of December 31, 2023, the number of JKN participants was recorded at 267.31 million, or approximately 94.77% of Indonesia's total population, which at that time was approximately 279.12 million[20]. TThe national target (RPJMN 2020–2024) is to achieve participation of 98% of the total population [21]. As of August 1, 2024, BPJS reported that JKN membership had reached 276,520,647 people, or 98.19% of the population [22]. It's been noted that although many people have registered, the percentage of active participants is much lower. As of July 1, 2025, for example, only around 77.3% of total participants were active. The remainder were listed as inactive (some inactive due to non-payment of dues, others due to outstanding dues, and so on). As of April 2025, data shows that active participation is around 224.1 million people [23].

West Kalimantan provincial data shows that the JKN program has been implemented, but there is still a gap between participation and participant activity, as well as differences between districts/cities [24]. The population of West Kalimantan is approximately 5,646,268. As of July 1, 2025, the number of JKN-KIS participants in West Kalimantan was recorded at 5,241,084, meaning approximately 92.82% of the total population was registered. [25]. Based on the percentage of active participants, it is much lower, namely around 67.90% of the total population of West Kalimantan[26]. The rest are registered but inactive (not paying dues, not using services, or other administrative reasons)[27]. Several districts/cities in West Kalimantan have achieved universal health coverage (UHC) in the sense that participation is approaching or reaching the target (≥ 98%).[28]. These regencies include Kayong Utara, Pontianak, Mempawah, Bengkayang, Singkawang, Landak, Melawi, Sintang, and Ketapang. Mempawah Regency has recorded 99.32% of its 314,148 population registered as JKN-KIS participants as of May 1, 2025, and of those, approximately 80.58% are active participants[29]. As of May 1, 2025, Bengkayang Regency's JKN participation reached 98.08% or approximately 290,294 people; of that number, approximately 79.61% were active[30].

In Sintang Regency, West Kalimantan, the National Health Insurance (JKN) coverage managed by BPJS Kesehatan has reached 100% of the total population. Despite this high coverage, the level of active participation in paying contributions still needs to be improved, with a target of at least 75% active participants. Residents from Bonet Engkabang, Nobal, Bancoh, and the surrounding areas cannot go to Merarai Satu Village if they need health services. The same applies to residents along the Simpang Pinoh to Simpang Manis Raya road.

2 Research methods

This study uses a cross-sectional design with a quantitative approach[31]. The population in this study was the entire population in the working area of the Pandan Health Center UPTD with a total of 26,482 people based on 2024 data. Sampling was determined using the Lameshow formula to obtain the ideal sample size from a large population. Using a 95% confidence level and a 5% margin of error, the required sample size is approximately 100 respondents. This number is considered to represent a large population, so it can describe the actual situation in the field[32].

The research instrument used was a structured questionnaire regarding BPJS Health membership(33). This questionnaire contains questions designed to elicit information regarding participant status, experiences with the BPJS program, and factors influencing the sustainability of community participation. The collected data will be analyzed in two stages. First, a descriptive analysis was conducted to describe the characteristics of respondents and the distribution of BPJS Kesehatan membership in proportions and percentages. Second, an inferential analysis was used to examine the relationship between independent variables and BPJS membership status. The statistical tests used were chi-square to identify the relationship, and logistic regression to identify the most influential determinants of community participation in the BPJS Kesehatan program.

2.1 Research result

Table 1. Respondent Characteristics

Characteristics		Frequency	Percentage
Age	> 45 age	68	68
	< 45 age	32	32
Education	< Junior School	53	53
	> Junior School	47	47
Participation	Not a participant	14	14
	Participant	86	86
Income	< 3 Million Rupiah	78	78
	> 3 Million Rupiah	22	22

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Based on table 1, it explains the characteristics of respondents who are aged > 45 years, as many as 68 respondents (68%), Education < Junior High School as many as 53 respondents (53%), BPJS Health participants as many as 86 respondents (86%), and respondents with income < million rupiah as many as 78 respondents (78%).

Table 2. Relationship between Paying Contributions, Participant Families, BPJS Health Information, Use of Health Services and Health Services with BPJS Health Membership in the Pandan Work Area, Sintang Regency

Variables		BPJS Health Membership				Total		OR (CI 95%)	p value
		Not a Membership		Membership					
		n	%	N	%	n	%		
Paying BPJS	Difficult	9	39,1	14	60,9	23	100	9.257 (2.695-31.799)	0,001
	No	5	6,5	72	93,5	77	100		
Participant's Family Members	No	10	37	17	63	27	100	10.147 (2.835-36.321)	0,001
	Yes	4	5,5	69	94,5	73	100		
BPJS Information	No	8	42,1	11	57,9	19	100	9.091 (2.649-31.203)	0,001
	Yes	6	7,4	75	92,6	81	100		
Service Users	Often	8	42,1	11	57,9	19	100	9.091 (2.649-31.203)	0,001
	Sometimes	6	7,4	75	92,6	81	100		
Health services	Not satisfied	10	26,3	28	73,7	38	100	5.179 (1.492-17.970)	0,008
	Satisfied	4	6,5	58	93,5	62	100		

Based on Table 2, it is explained that 9 respondents (39.1%) who had difficulty paying BPJS Health contributions were not BPJS Health participants, while 5 respondents (6.5%) who had no difficulty paying BPJS Health contributions were not participants. The results of statistical tests show that the p value <α of 0.001 means there is a relationship between paying BPJS contributions and BPJS Health membership. Further analysis shows that respondents who had difficulty paying BPJS Health contributions were 9.257 times more likely to become BPJS Health participants compared to those who had no difficulty paying BPJS Health contributions.

The number of family members of respondents who are not BPJS participants who are not BPJS Health participants is 10 respondents (37%), while the number of family members of respondents who are BPJS participants who are not BPJS Health participants is 4 respondents (5.5%). The results of the statistical test show that the p value < α is 0.001, meaning there is a relationship between family members of participants and BPJS Health participation. Further analysis shows that family members who are not BPJS participants are at risk of 10,147 times not participating in BPJS Health participation compared to family members of BPJS Health participants.

Respondents who did not receive information about BPJS Health were 8 respondents (42.1%) who were not BPJS Health participants, while 6 respondents (7.4%) received information about BPJS Health as BPJS Health participants. The results of the statistical test showed that the p value <α was 0.001, meaning there was a relationship between BPJS Health information and BPJS Health participation.

Further analysis showed that respondents who did not receive BPJS Health information were 9,091 times more likely to not become BPJS Health participants compared to respondents who received BPJS Health information.

Respondents frequently used health services for non-BPJS Kesehatan participants, as many as 8 respondents (42.1%), while respondents occasionally used health services for non-BPJS Kesehatan participants, as many as 6 respondents (7.4%). The results of statistical tests showed that the p value < α of 0.001 means there is a relationship between health service users and BPJS Kesehatan membership. Further analysis showed that respondents who rarely used health services were 9,091 times more likely to not become BPJS Kesehatan participants compared to those who frequently used health services.

Respondents who felt dissatisfied with health services were not BPJS Kesehatan participants as many as 10 respondents (26.3%), while respondents who were not BPJS Kesehatan participants were satisfied with health services were as many as 4 respondents (6.5%). The results of statistical tests showed that the p value < α of 0.008 means there is a relationship between satisfaction with health services and BPJS Kesehatan participation. Further analysis showed that respondents who were dissatisfied with health services were at risk of becoming BPJS Kesehatan participants 5,179 times more than those who were satisfied with health services.

Table 3. Dominant variables related to BPJS Health membership

Variables	OR	P value
Family members of participants	12.251	0,014
Paying BPJS Health	8.518	0,031

BPJS Health service users	5.389	0,044

Based on the results of the multivariate analysis, it shows that BPJS Health participation is the most dominant factor related to family members of BPJS Health participants (OR = 12.251; p < 0.014), paying BPJS Health (OR = 8.518; p < 0.031), and users of BPJS Health services (5.389; p < 0.044). The variables of BPJS Health information and health services are not significant in the model.

4 Discussion

4.1 The relationship between paying BPJS Health and BPJS Health membership

Paying contributions is a form of contribution from individuals and business entities to the mutual cooperation mechanism which is the basic principle of BPJS Health[34]. Payments made by participants not only serve as a personal right to obtain health services, but also support the sustainability of the system for all other participants, including the less fortunate whose contributions are covered by the government[35]. The contributions paid are one of the pillars of the program's sustainability, because without a consistent flow of contribution funds, BPJS Kesehatan will not be able to cover the costs of comprehensive health services[36].

A participant can be considered "active" in their membership only if their contributions are paid regularly according to the selected or designated class of care. If contributions are in arrears, their membership status can be temporarily deactivated, thereby hindering the participant's access to healthcare services. This condition demonstrates that paying contributions is not merely a formal obligation, but an absolute requirement for maintaining valid membership status and allowing them to be used when they require medical services.[37].

BPJS Health membership provides guarantees in the form of access to health services at primary and secondary health facilities, in accordance with established procedures[38]. Benefits can be enjoyed by active participants, those who consistently pay their contributions. Paying contributions can be seen as a gateway that bridges the gap between participants' "rights" to receive healthcare services and the state's "obligation" to provide a fair and equitable health insurance system[39].

Participants who regularly pay their contributions are participating in realizing a social insurance system based on solidarity[40]. Those who are healthy at any given time continue to pay contributions even though they may not yet be using healthcare services, while the funds are simultaneously used to help other participants who are sick. This mechanism enforces the principle of mutual cooperation, ensuring that participation is not merely an individual relationship, but a collective one for all citizens [41].

4.2 Relationship between Family Members of Participants and BPJS Health Membership

BPJS Health is designed based on the principles of social insurance and mutual cooperation, every individual, whether formal workers, informal workers or non-workers, is required to be a participant[42]. Membership coverage is specific to the individual, extending to immediate and extended family members, depending on the rules and membership classification. Membership includes the worker themselves, including those classified as Wage Earners (PPU), their spouse, and up to three children[43]. The burden of family responsibilities is a unit that needs to be guaranteed in health protection[44].

For the Non-Wage Worker (PBPU) and Non-Employee (BP) categories, participants are required to register all family members on a single Family Card (KK). Private insurance is optional, while BPJS Kesehatan family membership is comprehensive, with no discrimination or selection of individuals[45]. Payment of contributions is collective in one KK for PBPU and BP, if one family member is in arrears with contributions, then the entire family in the KK will be affected in the form of temporary deactivation of health services[46]. The relationship between family members in participation is mutualistic, so that the compliance or non-compliance of one member has a direct impact on the health access of the whole family. Therefore, participation is collective, not individualistic[47].

The role of the head of the family is central in ensuring that participation runs smoothly, therefore the position of the head of the family is not only the administrative person, but also the decision maker in the priority of payment of contributions, which is often influenced by the socio-economic conditions of the family[48]. Implications for the security of children and partners, especially in families with lower to middle economic levels[49].

The relationship between family members and participants concerns aspects of justice and equity. The collective model of health insurance is fairer because each family is required to include all its members without exception[50]. The challenge, especially for large families with more than four members, is that not all members can be directly covered as PPU. The fourth child and subsequent children must be registered independently as PBPU, increasing the financial burden[51].

4.3 The Relationship between BPJS Health Information and BPJS Health Membership

The relationship between BPJS Kesehatan information and BPJS Kesehatan membership is very close, and could even be said to be mutually reinforcing. Information provided to the public about BPJS Kesehatan—whether through outreach, mass media, digital services, or direct communication with healthcare professionals—serves as the primary gateway to building awareness, understanding, and ultimately, public participation in the national health insurance program[52].

Clarity, accuracy, and accessibility of information will influence a person's decision to register and remain an active participant. When the information provided is complete and easy to understand, the public is more confident that BPJS Kesehatan can guarantee financial protection and access to healthcare services[53]. Limited knowledge of participants regarding registration procedures, rights and obligations is often an obstacle that causes low compliance in paying contributions[54]. People who have wider access to information tend to have a positive perception of the benefits of BPJS membership[33].

Information also plays a crucial role in fostering trust. If official information channels are suboptimal, people often rely on unofficial information or testimonials from others, which can sometimes be biased. One factor contributing to low independent participation is uncertainty regarding contribution amounts, referral mechanisms, and service coverage. Transparent and consistent information can reduce psychological and administrative barriers for potential participants[55].

Information impacts continuity of participation. Participants who receive regular updates through the JKN Mobile app are more disciplined in paying their premiums and have a better understanding of healthcare procedures[56]. Digital information makes it easier for participants to conduct transactions, access services, and update data, so that participation can be maintained without administrative obstacles.

4.4 The Relationship between Health Service Users and BPJS Health Membership

The relationship between health service users and BPJS Health membership is complex because it involves aspects of accessibility, affordability, service quality, and compliance with national regulations[57]. BPJS Kesehatan was established as an instrument to realize universal national health insurance (JKN), with the primary goal of ensuring that all Indonesian citizens have health protection regardless of economic constraints. The involvement of healthcare users in BPJS membership is closely linked to community behavior patterns in seeking medical services, perceptions of service quality, and socio-economic dynamics[58].

Numerous studies have shown that BPJS membership status significantly determines people's initial access to healthcare services. Individuals who are registered as active participants tend to have easier access to services at primary healthcare facilities (FKTP), as the BPJS system utilizes a tiered capitation and referral mechanism[59]. The challenge lies in the perception among some users that BPJS healthcare services are more complicated than public or private services, particularly regarding queues, limited medication, and complicated administrative procedures. This perception has implications for behavioral variations, with some users preferring to pay independently for convenience, even though they are already registered as BPJS participants[60].

BPJS membership has been shown to play a significant role in reducing barriers to healthcare costs. The JKN-BPJS program increases access for the poor to basic healthcare services that were previously difficult to access. BPJS membership contributes to a drastic reduction in household healthcare expenditures. There is a causal relationship between membership and service-seeking behavior: the stronger the financial protection, the more likely individuals are to access healthcare facilities when sick[61].

The quality of the user experience in accessing healthcare services through BPJS (Indonesian Health Insurance) also shapes the sustainability of membership. Patient satisfaction with the BPJS system is strongly influenced by factors such as communication with healthcare workers, speed of service, and availability of facilities. If service quality does not meet expectations, resistance can arise, either in the form of public complaints or decisions to default on contributions. This phenomenon demonstrates a reciprocal relationship: membership encourages service utilization, but service quality also determines membership loyalty[62].

Government policies have also influenced the mandatory participation of BPJS Kesehatan (Social Security Agency) as the primary instrument in the national health system, so that almost all user interactions with formal health facilities are ultimately related to their membership status. The BPJS membership system has shifted the paradigm of the patient-health facility relationship, from one based on ability to pay to one based on rights as social security participants[63].

Healthcare users with BPJS Kesehatan membership are dynamic and multidimensional. Membership guarantees access and cost protection, but users' experiences in accessing services through the BPJS scheme determine the extent to which people are willing and able to utilize these rights. This relationship ultimately shapes not only healthcare seeking patterns but also reflects the quality of governance of the national healthcare system itself[64].

4.5 The Relationship between Health Services and BPJS Health Membership

Health services and BPJS Kesehatan membership are reciprocal, complex, and crucial to the sustainability of the national social security system in the health sector. BPJS Kesehatan was established as an implementing agency that manages public health insurance funds through the principle of mutual cooperation. Health services are a concrete manifestation of the utilization of this membership, namely access to health facilities in accordance with participant rights. BPJS Kesehatan membership serves as the gateway to obtaining standardized, integrated, and tiered health services[38].

BPJS Kesehatan membership affects the accessibility of healthcare services, increasing the number of people entitled to healthcare services without being constrained by direct costs. This reduces financial barriers and increases visits to healthcare facilities. Consequently, healthcare services become more inclusive, no longer limited to those with financial means[65].

The existence of membership determines the sustainability of healthcare financing through funds collected from participant contributions—both government-paid PBI (Contribution Assistance Recipients) and independent and employee participants—used to finance healthcare services in hospitals and community health centers. This means that the healthcare services received by patients cannot be separated from membership, as the continuity of medical services is highly dependent on this membership-based financing scheme. The higher the level of contribution compliance, the more stable the service system that can be provided[66].

In healthcare itself, BPJS Kesehatan membership encourages standardization of services through a tiered referral system. Participants are directed to begin care at a Primary Health Care Facility (FKTP) such as a community health center (Puskesmas) or clinic, and then, if necessary, are referred to a hospital. This system ensures that healthcare services are effective, efficient, and aligned with medical needs. Without membership, this service flow cannot be implemented effectively because the financing mechanism and service responsibilities are not recorded in the BPJS system[38].

Membership also impacts the quality of healthcare services. With a massive number of participants, healthcare facilities are required to increase their capacity and service quality. The credentialing and accreditation programs of healthcare facilities in collaboration with the BPJS are instruments for maintaining this quality. In other words, BPJS membership creates institutional pressure to ensure more measurable and standardized healthcare services[38].

Health services are the "tangible manifestation" of BPJS Kesehatan membership, while membership is the "funding basis" that enables those services. Without membership, health services are difficult to provide fairly and sustainably; without quality services, membership loses its meaning. This relationship is not merely administrative, but is integrated into a mutually supportive social health insurance system to achieve the highest possible level of public health[67].

4 Conclusion and Recommendations

This study concludes that the variables related to BPJS Kesehatan membership are BPJS payers, participant family members, BPJS information, service users, and health services. The dominant variables are participant family members, BPJS Kesehatan payers, and BPJS Kesehatan service users. It is recommended that this study be directed at the use of health services through BPJS Kesehatan so that all people can access health services.

References

1. Laugesen, K., Ludvigsson, J. F., Schmidt, M., Gissler, M., Valdimarsdottir, U. A., Lunde, A., & Sørensen HT. Nordic health registry-based research: a review of health care systems and key registries. Clin Epidemiol. 2021;533–54.

2. Koohpayehzadeh, J., Azami-Aghdash, S., Derakhshani, N., Rezapour, A., Kalajahi, R. A., Khasraghi, J. S., ... & Soleimanpour S. Best practices in achieving universal health coverage: A scoping review. Med J Islam Repub Iran. 2021;35:191.

3. Darrudi, A., Khoonsari, M. H. K., & Tajvar M. Challenges to achieving universal health coverage throughout the world: a systematic review. J Prev Med public Heal. 5AD;22:125.

4. Dencik, L., & Kaun A. Datafication and the welfare state. Glob Perspect. 2020;1(1):12912.

5. Bayliss K. Can england’s national health system reforms overcome the neoliberal legacy?

Int J Heal Serv. 2022;52(4):480–91.

6. Abts, K., Dalle Mulle, E., Van Kessel, S., & Michel E. The welfare agenda of the populist radical right in Western Europe: Combining welfare chauvinism, producerism and populism. Swiss Polit Sci Rev. 2021;27(1):21–40.

7. Organization WH. Monitoring progress on universal health coverage and the health-related Sustainable Development Goals in the WHO South-East Asia Region 2021 update. 2021.

8. Jalali, F. S., Bikineh, P., & Delavari S. Strategies for reducing out of pocket payments in the health system: a scoping review. Cost Eff Resour Alloc. 2021;19(1):47.

9. Atim, C., Koduah, A., & Kwon S. How and why do countries make universal health care policies? Interplay of country and global factors. J Glob Health. 2021;11:16003.

10. van der Miesen, A. I., Raaijmakers, D., & van de Grift TC. "You have to wait a little longer": Transgender (mental) health at risk as a consequence of deferring gender-affirming treatments during COVID-19. Arch Sex Behav. 2020;49(5):1395–9.

11. Perdana, N. R., Adhasari, G., & Mahadewi EP. Challenges and Implementation of Universal Health Coverage Program in Indonesia. Int J Heal Pharm. 2022;2(3):589–96.

12. Soraya, S., Syamanta, T., Harahap, H. S. R. B., Coovadia, C., & Greg M. Impact of the national health insurance program (JKN) on access to public health services. J Ilmu Pendidik Dan Hum. 2023;12(3):133–51.

13. Laugesen, K., Ludvigsson, J. F., Schmidt, M., Gissler, M., Valdimarsdottir, U. A., Lunde, A. & SH. Nordic health registry-based research: a review of health care systems and key registries. Clin Epidemiol. 2021;54:533.

14. Masefield, S. C., Msosa, A., & Grugel J. Challenges to effective governance in a low income healthcare system: a qualitative study of stakeholder perceptions in Malawi. BMC Health Serv Res. 2020;20(1):1142.

15. Ly, M. S., Bassoum, O., & Faye A. Universal health insurance in Africa: a narrative review of the literature on institutional models. BMJ Glob Heal. 2022;7(4).

16. Shaturaev J. Indonesia: superior policies and management for better education (Community development through Education). Архив научных исследований. 2021;1(1).

17. Al Waroi, M. N. L., & Supriyadi I. Primary Health Care Improvement Strategy: Steps Towards Sustainable National Health Security. Prim Heal Care. 2024;3(5).

18. Soraya, S., Syamanta, T., Harahap, H. S. R. B., Coovadia, C., & Greg M. Impact of the national health insurance program (JKN) on access to public health services: A comprehensive analysis. J Ilmu Pendidik Dan Hum. 2023;12(3):133–51.

19. Salsabila, G., & Trimurni F. The Universal Health Coverage Program of Medan Blessing Health Insurance (UHC JKMB) to Improve Public Health Services in Medan City from a Regional Autonomy Perspective. Administratio. 2024;15(2):51–69.

20. Hidayat MS. Reconstruction of Legal Protection Regulations for Telemedicine Patients Based on Justice Values. 2024.

21. Huraerah A. Strategy for Achieving Universal Health Coverage Through Indonesia's National Health Insurance Program. J Ilmu Pekerj Sos. 2024;3(2):1–11.

22. Arrohimi, I. N., Irianto, S., Mulyani, S., & Noor A. Enhancing public health through good governance: The strategic role of the social security program supervisory board. Perinat J. 2025;33(1):703–12.

23. Kyeremeh, F., Acheampong, D., Fang, Z., Liu, F., & Peprah F. Towards Sustainable Electricity for All: Techno-Economic Analysis of Conventional Low-Voltage-to-Microgrid Conversion. Sustainability. 2025;17(11):5178.

24. Sarihati, T., & Santosa P. The Effect Of Policy Implementation Of Basic Health Services During The Covid 19 Pandemic (Study of Implementation of Basic Health Services in West Java Province). Sosiohumaniora. 2021;23(3):429–36.

25. Fitri DN. Population Pyramid of West Kalimantan: Structure and Implications for Development. Ekodestinasi. 2025;3(1):17–26.

26. Hasibuan IW. The influence of population, health and education levels on poverty in West Kalimantan Province. Padangsidimpuan; 2022.

27. Christianto C. The Influence of Tax Knowledge and Tax Sanctions on Tax Compliance (Case Study on Individual Taxpayers Employees at PT. Mikeda Kebut Terusss). 2022.

28. Serlianti, L., Novira, D., & Rohani T. The Implementation Model Of Universal Health Coverage Management. Student Sci J. 2025;3(2):99–110.

29. Prasetyo, K. C., & Azizah F. Realizing decent work: Highlighting social protection for domestic workers in Indonesia with good practices from Brazil and Italy. J Jamsostek. 2024;2(2):141–62.

30. Purba, M. R., Hasibuan, R., & Astuty DA. Analysis of the Implementation of Patient Referrals for National Health Insurance (JKN) Participants at Bahorok Community Health Center. Heal Inf J Penelitian,. 2025;17(2):162–74.

31. Maier, C., Thatcher, J. B., Grover, V., & Dwivedi YK. Cross-sectional research: A critical perspective, use cases, and recommendations for IS research. Int J Inf Manage. 2023;70:102625.

32. Davis PM. Statistics for describing populations In Handbook of sampling methods for arthropods in agriculture. CRC Press; 2020. 33–54 p.

33. Ratnawati, A., Mislan Cokrohadisumarto, W. B., & Kholis N. Improving the satisfaction and loyalty of BPJS healthcare in Indonesia: a Sharia perspective. J Islam Mark. 2021;12(7):1316–38.

34. Abidin, Z., & Suroso I. The Urgency of the Principle of Fairness of BPJS Kesehatan Contributions for Wage Earners (PPU). IUS POSITUM. J Law Theory Law Enforc. 2025;17(32).

35. Różyńska J. The ethical anatomy of payment for research participants. Med Heal Care Philos. 2022;25(3):449–64.

36. Wahdi, A. E., Sutanto, E., Setyawan, A., Astrini, Y. P., Adani, N., Mardani, H., ... & Wilopo SA. National health insurance contribution to family planning program funding in Indonesia: A fund flow analysis. Gates Open Res. 7AD;(105).

37. Eriksson-Liebon, M., Roos, S., & Hellström I. Patients' expectations and experiences of being involved in their own care in the emergency department: A qualitative interview study. J Clin Nurs. 2021;30(13–14):1942–52.

38. Praja, N. I., Ferianasari, I. W., & Jaqualina C. The Effectiveness of Health BPJS Claim Discrepancies Against Health Service Standards in Indonesia. FIRM J Manag Stud. 2024;9(1):164–77.

39. Munung, N. S., de Vries, J., & Pratt B. Genomics governance: advancing justice, fairness and equity through the lens of the African communitarian ethic of Ubuntu. Med Heal Care Philos. 2021;24(3):377–88.

40. Calderón-Milán, M. J., Calderón-Milán, B., & Barba-Sánchez V. Labour inclusion of people with disabilities: what role do the social and solidarity economy entities play? Sustainability. 2020;12(3):1079.

41. Guttmann A. Commons and cooperatives: A new governance of collective action. Ann Public Coop Econ. 2021;92(1):33–53.

42. Muslimah FK. Employment Law Perspective on Eligibility of Obtaining Social Security for Employment Toward Undergraduate Students in Conducting Community Service Program. 2023.

43. Hakkı BN. Gender-role changes for Syrian women and men and its psycho-social effects. 2021.

44. Mussida, C., & Patimo R. Women's family care responsibilities, employment and health: A tale of two countries. J Fam Econ Issues. 2021;42(3):489–507.

45. Putra AE. Analysis of Factors Influencing BPJS Membership Status in the Independent (PBPU) and Non-Worker Segments. Media Publ Promosi Kesehat Indones. 2024;7(6):1686–94.

46. Uzdavines ML. Health care in the time of COVID-19: Stark law temporary waivers make the case for permanent stark law reform. Ind Heal L Rev,. 2021;18:57.

47. Tessier L. What role can health mutuals and community-based health insurance play in social health protection systems? Review of experiences. ILO Working Paper. 2025;

48. Chance, E. A., & Abdoul IS. The roles and contributions of women to the health of their families and household economics in rural areas in the district of Mbe, Cameroon. Soc Sci Humanit Open. 2025;11:101456.

49. Cooper, M., & Pugh AJ. Families across the income spectrum: A decade in review. J Marriage Fam. 2020;82(1):272–99.

50. Samuel, J., Flores, W., & Frisancho A. Social exclusion and universal health coverage: health care rights and citizen-led accountability in Guatemala and Peru. Int J Equity Health.

2020;19(1):216.

51. Obi L. The Obligation of Unmarried Biological Parents to Provide Financial Support for their Children: A Contemporary Assessment from a Children's Rights Perspective. 2021.

52. Erku, D., Khatri, R., Endalamaw, A., Wolka, E., Nigatu, F., Zewdie, A., & Assefa Y. Community engagement initiatives in primary health care to achieve universal health coverage: A realist synthesis of scoping review. PLoS One. 2023;18(5):e0285222.

53. Meiliani, R., Syarvina, W., & Rahma TIF. Analysis Of The Effectiveness Of Bpjs Health Implementation In Marbau Puskesmas: Balance Between Access And Service QualityNo Title. Monet J Keuang dan Perbank. 2024;12(2):399–407.

54. Khozen, I., & Setyowati MS. Managing taxpayer compliance: Reflections on the drivers of willingness to pay taxes in times of crisis. Cogent Bus Manag. 2023;10(2):2218176.

55. Sheridan, R., Martin-Kerry, J., Hudson, J., Parker, A., Bower, P., & Knapp P. Why do patients take part in research? An overview of systematic reviews of psychosocial barriers and facilitators. Trials. 2020;21(1):259.

56. Efendy, I., Nyorong, M., Amirah, A., & Sari F. National health insurance (JKN) mobile application use towards satisfaction of participants of the health social security implementing agency (BPJS) in Madani hospital in Medan city. J Med Heal Stud. 2022;3(1):26–34.

57. Ratnawati, A., & Kholis N. Measuring the service quality of BPJS health in Indonesia: a sharia perspective. J Islam Mark. 2020;11(4):1019–42.

58. Handayani, P. W., Dartanto, T., Moeis, F. R., Pinem, A. A., Azzahro, F., Hidayanto, A. N., & Ayuningtyas D. The regional and referral compliance of online healthcare systems by Indonesia National Health Insurance agency and health-seeking behavior in Indonesia. Heliyon. 2021;7(9).

59. Susanti Y. Performance Based Capitation Settings in the National Health Insurance Program for Primary Healthcare Facilities. J Law, Polit Humanit. 2025;5(3):2271–81.

60. Sitorus, B. Y., Soesanto, H., & Kusumawardhani A. The Study of Payment Compliance of Independent Workers of National Health Insurance in Bpjs Kesehatan Branch Office Ungaran. Diponegoro J Econ. 2021;9(1):79–88.

61. Zhai, Y., Carney, J. V., & Hazler RJ. Policy effects of the expansion of telehealth under 1135 waivers on intentions to seek counseling services: Difference-in-difference (DiD) analysis. J Couns Dev. 2023;101(3):277–92.

62. Hu, J., Ye, X., & Gu S. The impact of subjective consumer knowledge on consumer behavioral loyalty through psychological involvement and perceived service quality: sports clubs. Asia Pacific J Mark Logist. 2024;36(8):1988–2007.

63. Pobi, R., Kasim, N. M., & Fence MW. Overview of the Monopoly Rights of the Social Security Administering Body (BPJS) from the Perspective of Citizens' Health Protection. Indones J Contemp Multidiscip Re-search. 2023;2:369–80.

64. Bigdeli, M., Rouffy, B., Lane, B. D., Schmets, G., Soucat, A., Abimbola, F. O., ... & Ved R. Health systems governance: the missing links. BMJ Glob Heal. 2020;5(8).

65. Shipton, D., Sarica, S., Craig, N., McCartney, G., Katikireddi, S. V., Roy, G., ... & Scobie G. Knowing the goal: an inclusive economy that can address the public health challenges of our time. J Epidemiol Community Heal. 2021;75(11):1129–32.

66. Macchiavello, E., & Siri M. Sustainable finance and fintech: Can technology contribute to achieving environmental goals? A preliminary assessment of 'green fintech'and 'sustainable digital finance. Eur Co Financ Law Rev. 2022;19(1):128–74.

67. Steenkamer, B., Drewes, H., Putters, K., van Oers, H., & Baan C. Reorganizing and integrating public health, health care, social care and wider public services: a theory-based framework for collaborative adaptive health networks to achieve the triple aim. J Health Serv Res Policy. 2020;25(3):187–201.