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ELDERLY AND HEALTH INSURANCE COVERAGE IN INDONESIA

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ABSTRACT

Ensuring quality health coverage for all, especially for older people, is one of the SDGs goals to be achieved. Goal 3 with target 3.8 on universal health coverage (UHC) emphasizes the importance of all people having access to quality health services without the risk of financial hardship. This study aimed to determine the coverage of the National Health Insurance (NHI) and factors related to the ownership of NHI among elderly people in Indonesia. Data from the 2020 National Socio-Economic Survey was used to analyze 121,961 elderly people aged 60 years and above across all provinces in Indonesia. The variables studied included socio-demographic variables, economic status, and health status of the elderly. A chi-square test and binary logistic regression analysis was used to determine the relationship between NHI ownership status and the independent variables. The results showed that most of the elderly were aged 60-69 years, had low education, and lived in rural areas. NHI coverage for the elderly in Indonesia is already good, although there are still high disparities in some regions. The result of logistic regression analysis showed that the NHI ownership status of the elderly has a significant relationship with age, place of residence, education level, and wealth status. Efforts to expand the reach of NHI for the elderly should be increased as one of the strategies in realizing the SDGs targets.

Kata Kunci:
lansia, jaminan kesehatan nasional,
SDGs

ABSTRAK

Memastikan cakupan jaminan kesehatan yang berkualitas bagi semua orang, terutama untuk orang lanjut usia merupakan salah satu tujuan SDGs. Tujuan 3 dengan target 3.8 tentang cakupan kesehatan universal (UHC), menekankan pentingnya semua orang untuk memiliki akses ke layanan kesehatan yang berkualitas tanpa risiko kesulitan keuangan. Tujuan penelitian ini adalah untuk mengetahui cakupan Jaminan Kesehatan Nasional (JKN) serta faktor yang berhubungan dengan kepemilikan JKN penduduk lansia di Indonesia. Data hasil Survei Sosial Ekonomi Nasional 2020 digunakan untuk menganalisis 121.961 lansia berusia 60 tahun ke atas pada seluruh provinsi di Indonesia. Variabel yang diteliti meliputi variabel sosiodemografi, status ekonomi, dan status kesehatan lansia. Uji Chi-square dan regresi logistik biner digunakan untuk mengetahui hubungan status kepemilikan JKN dengan variabel bebas yang dipelajari. Hasil penelitian menunjukkan sebagian besar lansia berusia 60-69 tahun, berpendidikan rendah, dan tinggal di perdesaan. Cakupan JKN untuk lansia di Indonesia cukup baik, meskipun terdapat disparitas yang cukup tinggi pada beberapa daerah. Hasil analisis regresi logistik menunjukkan bahwa status kepemilikan JKN pada lansia memiliki hubungan signifikan dengan umur, tempat tinggal, tingkat pendidikan, dan status kekayaan. Upaya perluasan jangkauan JKN bagi lansia harus ditingkatkan sebagai salah satu strategi dalam mewujudkan target SDGs.

INTRODUCTION

Currently, Indonesia is entering the era of an aging population, with the number of elderly people aged 60 years and over continuing to increase, reaching around 26.8 million people or about 10% of the total population of Indonesia. One of the most basic needs for the elderly population is related to health. Development in the health sector in Indonesia is one of the goals of the Sustainable Development Goals (SDGs), which is to guarantee a healthy life and improve the welfare of the population in all age groups.

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The SDGs set several targets that must be achieved by each country, one of which is ensuring quality health coverage for everyone or referred to as Universal Health Coverage (UHC). The World Health Organization (WHO) defines UHC as a health financing system that ensures that every citizen has access to fair and equitable quality health facilities and services (1).

It is important to implement UHC for all levels of society in Indonesia. Several studies have shown that the implementation of UHC has a positive impact on the economy of a region. The implementation of UHC can increase labor productivity which in turn will improve the economy (2). Furthermore, UHC is proven to be able to reduce the level of poverty caused by the occurrence of shock due to health problems and disorders (3). Studies conducted in Indonesia on UHC show that, in the short term, the implementation of UHC has a role in increasing output and employment in other sectors. Long-term benefits of UHC implementation in Indonesia will increase human capital, specifically a rise in life expectancy (4).

UHC as part of health system reform has been implemented by almost half of the countries in the world with various income levels (5). Countries with large populations in the world, such as China, India, Brazil, Russia, and South Africa, are committed to ensuring the achievement of UHC (6). Indonesia as one of the developing countries and the fourth largest population in the world has also adopted this health system. Since 2014, Indonesia has had a National Health Insurance (NHI) program for every resident. The NHI program is the hope and target that the Indonesian state wants to achieve in health service facilities which are the basic needs of the community. The implementation of the NHI program is carried out in stages and is targeted to cover the entire population of Indonesia in 2019. Although it is not by the initial target set, the coverage of the NHI program continues to increase and reached 83.5% of the total population of Indonesia in 2021 (7,8).

The world's population is currently entering the aging population, and the number of elderly people aged 60 years and over is increasing, reaching more than 7% of the total population (9). The WHO stated that the elderly population in the world reached 9.3% of the total world population in 2020 (10). This is a consequence of changes in the demographic structure of the population due to the decline in fertility and mortality in the world.

The aging population phenomenon also occurs in Indonesia because of the baby boom that occurred several decades ago. The percentage of the elderly population in Indonesia has doubled over 50 years from 1971 to 2020. The number of elderly people in Indonesia reached around 26.8 million or 9.9% of the total population in Indonesia in 2020 (11). This condition cannot be separated from the improvement in health status, thereby increasing the life expectancy of the population in Indonesia.

The increase in the number of elderly people indicates the success of health programs that have been carried out by the government. On the other hand, it poses challenges in the implementation of national development, especially how to prepare the elderly population who are independent, healthy, and productive. When it comes to the elderly population, health factors are crucial. The life quality of the elderly who are independent, active, and productive will not be achieved if they do not have excellent health.

The health insurance program, including for the elderly, is the government's effort to achieve quality health. This program is a manifestation of the implementation of the NHI system as well as an effort to realize the SDGs targets. There are five types of health insurance owned by residents: contribution beneficiaries, non-contribution beneficiaries, regional health insurance, private insurance, and company insurance.

One of the challenges in achieving the UHC target in Indonesia is the relatively low membership of health insurance for the elderly population. The results of the National Socioeconomic Survey 2020 show that health insurance coverage for the elderly population is 73.6%. This means that one in four elderlies does not have health insurance. Obviously, this is a serious issue because the elderly population without health insurance will negatively affect their health and be more likely to become a burden on the community (12).

Studies on health insurance for the elderly are urgently needed as an effort to create an independent, health, and productive elderly population in Indonesia. This study aims to examine the achievements of UHC in Indonesia in terms of health insurance

ownership for the elderly and to determine the factors associated with health insurance ownership among the elderly in Indonesia.

METHOD

The data used in this research are secondary data from the National Socioeconomic Survey 2020 conducted annually by the Central Bureau of Statistics. This survey was designed to collect population and social data in Indonesia. The population of the National Socioeconomic Survey in March 2020 is all households in Indonesia with a selected sample of 320,000 households spread across 34 provinces. Unit of analysis in this study was elderly population aged 60 years and over. The dependent variable in this study is the ownership of health insurance. Several interested factors were elderly age, gender, marital status, area of residence, education level, work status, health complaints, smoking status, internet access, and household wealth status (13).

The Chi-square test was used to analyze the relationship between the dependent variable and independent variable partially. Furthermore, multivariate logit regression analysis was used to determine the magnitude of the relationship between the dependent variable and the independent variable.

RESULTS

The number of samples of the elderly in this study was 121,961 respondents. The results begin with a table that describes the characteristics of the elderly. Table 1 shows that one in four elderlies do not have health insurance.

Most of the elderly population in Indonesia are aged 60-69 years (64.29%), women (52.29%), married status (60.96%), and living in urban areas (52.95%). As many as three out of four elderly people have low education and more than half admit that they are still actively working. Most of the elderly are in the lower-middle-class status (80.60%) and only one among 10 elderlies have access to information from the internet.

The percentage of the elderly who have health insurance varied significantly ($p<0.001$) according to several observed variables. The elderly having health insurance have a significant association with those who are married (75.30%), living in urban areas (78.92%), highly educated (94.00%), not working (76.20), having health complaints (75.62%), high welfare status (83.94%) and have access to the internet (88.03%).

Table 1. Distribution of Respondents by Health Insurance Ownership Status (n=121,961)

Variables		Total	Health Insurance		p value
			No 32,210 (26.41%)	Yes 89,751 (73.59%)	
Age	60-69	78,409 (64.29%)	20,182 (25.74%)	58,227 (74.26%)	<0.001
	70-79	33,198 (27.23%)	8,552 (25.76%)	24,646 (74.24%)	
	80+	10,354 (8.49%)	3,480 (33.61%)	6,874 (66.39%)	
Gender	Male	58,188 (47.71%)	15,030 (25.83%)	43,158 (74.17%)	<0.001
	Female	63,773 (52.29%)	17,181 (26.94%)	46,593 (73.06%)	
Marital status	Never married	1,317 (1.09%)	405 (30.72%)	912 (69.28%)	<0.001
	Married	74,347 (60.96%)	18,364 (24.70%)	55,983 (75.30%)	
	Widowed	46,296 (37.96%)	13,440 (29.03%)	32,856 (70.97%)	

Variables		Total	Health Insurance		p value
			No 32,210 (26.41%)	**Yes 89,751 (73.59%)**	
Residency	Urban	64,578 (52.95%)	13,613 (21.08%)	50,965 (78.92%)	<0.001
	Rural	57,383 (47.05%)	18,598 (32.41%)	38,785 (67.59%)	
Educational level	No education	56,639 (46.44%)	17,892 (31.59%)	38,747 (68.41%)	<0.001
	Primary	38,759 (31.78%)	10,868 (28.04%)	27,891 (71.96%)	
	Secondary	20,343 (16.68%)	3,074 (15.11%)	17,269 (84.89%)	
	Higher	6,220 (5.10%)	373 (6.00%)	5,847 (94.00%)	
Working status	Working	62,249 (51.04%)	18,065 (29.02%)	44,184 (70.98%)	<0.001
	Not working	59,712 (48.96%)	14,211 (23.80%)	45,501 (76.20%)	
Has health complaints	Yes	58,712 (48.14%)	14,314 (24.38%)	44,398 (75.62%)	<0.001
	No	63,249 (51.86%)	17,899 (28.30%)	45,350 (71.70%)	
Wealth status	Lowest	52,882 (43.36%)	16,309 (30.84%)	36,573 (69.16%)	<0.001
	Middle	45,418 (37.25%)	12,099 (26.64%)	33,319 (73.36%)	
	Highest	23,660 (19.40%)	3,800 (16.06%)	19,860 (83.94%)	
Internet access	Yes	13,952 (11.44%)	1,670 (11.97%)	12,282 (88.03%)	<0.001
	No	108,009 (88.56%)	30,545 (28.28%)	77,464 (71.72%)	

Table 2. Type of Health Insurance Ownership by Respondent Characteristics

Variables		Has Health Insurance	Type of Health Insurance				
			Contributory (PBI)	**Non-Contributory (Non-PBI)**	**Regional (Jamkesda)**	**Private**	**Company**
Total		89,751 (73.59%)	40,020 (44.59%)	20,786 (23.16%)	8,293 (9.24%)	395 (0.44%)	790 (0.88%)
Age	60-69	58,227 (74.26%)	25,503 (43.80%)	14,254 (24.48%)	5,427 (9.32%)	291 (0.50%)	588 (1.01%)
	70-79	24,646 (74.24%)	11,431 (46.38%)	5,526 (22.42%)	2,250 (9.13%)	91 (0.37%)	173 (0.70%)
	80+	6,874 (66.39%)	3,080 (44.81%)	1,068 (15.54%)	620 (9.02%)	15 (0.22%)	30 (0.43%)

Variables		Has Health Insurance	Type of Health Insurance				
			Contributory (PBI)	Non-Contributory (Non-PBI)	Regional (Jamkesda)	Private	Company
Gender	Male	43,158 (74.17%)	18,916 (43.83%)	10,500 (24.33%)	4,022 (9.32%)	207 (0.48%)	445 (1.03%)
	Female	46,593 (73.06%)	21,092 (45.27%)	10,297 (22.10%)	4,277 (9.18%)	186 (0.40%)	345 (0.74%)
Marital status	Never married	912 (69.28%)	369 (40.42%)	204 (22.35%)	69 (7.61%)	3 (0.38%)	3 (0.35%)
	Married	55,983 (75.30%)	24,694 (44.11%)	14,169 (25.31%)	5,134 (9.17%)	274 (0.49%)	599 (1.07%)
	Widowed	32,856 (70.97%)	14,936 (45.46%)	6,483(19.73 %)	3,092 (9.41%)	115 (0.35%)	194 (0.59%)
Residency	Urban	50,965 (78.92%)	20,524 (40.27%)	16,762 (32.89%)	4,480 (8.79%)	352 (0.69%)	714 (1.40%)
	Rural	38,785 (67.59%)	19,175 (49.44%)	4,736 (12.21%)	3,782 (9.75%)	58 (0.15%)	112 (0.29%)
Educational level	No education	38,747 (68.41%)	20,063 (51.78%)	4,138 (10.68%)	3,774 (9.74%)	58 (0.15%)	97 (0.25%)
	Primary	27,891 (71.96%)	13,059 (46.82%)	5,425 (19.45%)	2,627 (9.42%)	64 (0.23%)	139 (0.50%)
	Secondary	17,269 (84.89%)	5,015 (29.04%)	8,650 (50.09%)	1,421 (8.23%)	188 (1.09%)	409 (2.37%)
	Higher	5,847 (94.00%)	935 (16.00%)	4,202 (71.86%)	406 (6.94%)	130 (2.22%)	239 (4.09%)
Working status	Working	44,184 (70.98%)	20,842 (47.17%)	7,865 (17.78%)	4,268 (9.66%)	172 (0.39%)	270 (0.61%)
	Not working	45,501 (76.20%)	19,110 (42.00%)	12,986 (28.54%)	4,018 (8.83%)	218 (0.48%)	519 (1.14%)
Has health complaints	Yes	44,398 (75.62%)	21,000 (47.30%)	10,078 (22.70%)	4,222 (9.51%)	160 (0.36%)	324 (0.73%)
	No	45,350 (71.70%)	19,074 (42.06%)	10,698 (23.59%)	4,081 (9.00%)	231 (0.51%)	458 (1.01%)
Wealth status	Lowest	36,573 (69.16%)	20,093 (54.94%)	3,156 (8.63%)	3,427 (9.37%)	40 (0.11%)	80 (0.22%)
	Middle	33,319 (73.36%)	14,550 (43.67%)	7,900 (23.71%)	3,139 (9.42%)	70 (0.21%)	277 (0.83%)
	Highest	19,860 (83.94%)	4,610 (23.21%)	10,842 (54.59%)	1,714 (8.63%)	318 (1.60%)	483 (2.43%)
Internet access	Yes	12,282 (88.03%)	2,546 (20.73%)	7,472 (60.84%)	972 (7.91%)	264 (2.15%)	456 (3.71%)
	No	77,464 (71.72%)	36,927 (47.67%)	14,168 (18.29%)	7,297 (9.42%)	170 (0.22%)	395 (0.51%)

Table 2 presents the distribution of the percentage of the elderly who have health insurance by type. Most types of health insurance owned by the elderly are contribution beneficiaries or Penerima Bantuan Iuran (PBI) (44.59%). Meanwhile, the least amount of health insurance owned by the elderly population is private health insurance. The ownership of contribution beneficiaries (PBI) health insurance among the elderly in rural areas is higher (49.44%) than in urban areas (40.27%).

Based on the education level, the highest percentage of contribution

beneficiaries (PBI) health insurance is the elderly with low education (51.78%) and the lowest in the elderly with higher education (16.00%). The elderly who are still working have health insurance from the company, which is a smaller, 0.61%, compared to the elderly who do not work (1.14%).

Table 3. Factors Associated with Health Insurance Ownership of Elderly

Variables		Y=1; has Health Insurance OR (95% CI)		p value
Age	60-69	1.000	Reference	
	70-79	1.072	1.070 - 1.074	<0.001
	80+	0.782	0.782 - 0.787	<0.001
Gender	Male	1.000	Reference	
	Female	1.001	0.999 - 1.003	0.459
Marital status	Never married	1.000	Reference	
	Married	3.083	3.071 - 3.096	<0.001
	Widowed	2.499	2.488 - 2.510	<0.001
Residency	Urban	1.000	Reference	
	Rural	0.716	0.714 - 0.717	<0.001
Educational level	No education	1.000	Reference	
	Primary	1.134	1.132 - 1.136	<0.001
	Secondary	2.072	2.065 - 2.078	<0.001
	Higher	4.924	4.887 - 4.961	<0.001
Working status	Working	1.000	Reference	
	Not working	1.211	1.209 - 1.214	<0.001
Has health complaints	Yes	1.000	Reference	
	No	0.802	0.800 - 0.803	<0.001
Wealth status	Lowest	1.000	Reference	
	Middle	0.998	0.996 - 1.000	0.028
	Highest	1.128	1.125 - 1.130	<0.001
Internet access	Yes	1.000	Reference	
	No	0.816	0.814 - 0.819	<0.001

A binary logistic regression model for the elderly who have health insurance is presented in Table 3. The gender is not associated with health insurance ownership ($p>0.05$). The elderly aged 80 years or over had the lowest chance of having health insurance compared to the younger elderly (OR=0.782; 95% CI=0.782-0.787). The elderly with married status had a significant association with health insurance ownership compared to the elderly who were not married (OR=3.083; 95% CI=3.071-3.096).

The odds of elderly people having health insurance are higher in urban areas than in rural areas. The education level of the elderly is a significant predictor related to the ownership of health insurance. Elderly people with the highest level of education are associated with a higher chance of having health insurance (OR=4.924; 95% CI=4.887-4.961).

Wealth status of elderly people showed a positive association with health insurance ownership, with higher odds among those living in households with high wealth status. Elderly people who are not working have a higher chance of having health insurance than those who are working. The elderly having health complaints tend to have health insurance. Having access to internet also showed significant association with health insurance ownership.

DISCUSSION

This study aims to examine the achievement of UHC in Indonesia in terms of ownership of health insurance for the elderly population. Achieving UHC is one of the requirements to achieve optimal health and equity in any country. UHC is considered a key factor; therefore, the WHO includes it in

the SDGs as the third goal. The WHO defines UHC as the ability to access all public health services by people who need them along with the provision of financial support by the government (14).

The results of this study found that one in four elderly people in Indonesia does not have health insurance. The most common type of health insurance for the elderly is contribution beneficiaries (PBI). This condition indicates that the elderly population in Indonesia is still dependent on financial assistance from the government. This is also in line with research in Ghana that health insurance paid by the government is the most widely used by the community (15).

The health insurance financing assistance program is one of the government's efforts to provide protection and improve access to health services for the poor and vulnerable. However, the aid program is not yet fully on target. The elderly population with the highest welfare status can still obtain contribution beneficiaries (PBI) health insurance facilities, whereas the elderly population with the lowest welfare status should be more entitled to obtain health insurance facilities from the government.

The findings of this study showed that one in two elderly people had complaints about their health in the past month. Various studies have shown that the elderly population is susceptible to disease. The elderly are subjected to a degenerative process in which they lose their capacity to heal themselves and retain normal activities. This is what makes the elderly population to be very vulnerable to infectious diseases and difficult to repair the damage suffered. In addition, a decrease in physiological function is also a cause of health complaints in the elderly (16).

This study also aims to examine factors related to the ownership of health insurance for the elderly population in Indonesia. The results of the analysis in this study indicate that there are socio-demographic disparities in the elderly population in health insurance ownership. These factors are age, marital status, area of residence, education level, work status, health complaints, welfare status, and internet access. The age category of the elderly population 70-79 years has the highest tendency to have health insurance compared to the elderly in other age categories. It is also interesting that there is a significant association between the marital status of the elderly and the ownership of health insurance. The elderly population who are married tend to have health insurance compared to the elderly who are not married/widowed. This shows that having a partner allows a person to have health insurance because of the dual financial support in the household. Another reason related to this is that, in the elderly who are married, the spouse can be insured through the insurance coverage of another party from the place of work or as a retiree (17).

Significant differences in insurance ownership in the elderly were also observed by type of residence. The elderly population in urban areas is relatively higher in terms of livelihoods and health insurance ownership. Urban and rural disparities in health insurance ownership are also closely related to better overall health service utilization in urban areas (18,19).

The education level of the elderly population also shows a significant relationship with health insurance ownership. The higher the education level of the elderly, the higher their tendency to have health insurance. In general, higher education level is considered the main determinant of health literacy and self-efficacy, which in the later stages will have better adherence to health promotion including health insurance ownership. In addition, the level of education, in general, is also positively correlated with a person's better financial condition. This allows them to be more aware of the importance of health and invest more resources in preventive measures (18,20).

The working status of the elderly population is a significant predictor of health insurance ownership. The elderly who are still working tend to not have health insurance compared to the elderly who do not work. This is possibly related to the status of the elderly who still work more in the informal sector which is more driven by their financial needs. In this case, workers in most of the informal sector do not get health insurance facilities. Those who only work in the formal sector are authoritatively required to register for health insurance, while in the informal sector there is no formal penalty if the worker is not part of the insurance scheme program. This finding also strengthens the evidence from previous studies showing that employment status is a

determinant of health insurance ownership (17,21). Based on health complaints, there is a significant relationship between health complaints and ownership of health insurance for the elderly population. Elderly people who said they had health complaints in the last six months tend to have health insurance. The elderly are more likely to have one or more chronic health issues that need the expertise of many healthcare practitioners as well as access to allied health experts such as physiotherapists, dietitians, and mental health professionals. In this case, having health insurance will facilitate it being easier for the elderly to get quality health treatments (22,23).

Wealth status in the elderly also shows a positive association with health insurance ownership status. Elderly people who live in households with high welfare status have a higher tendency to have health insurance. High welfare elderly may be more likely to follow doctors' recommendations, obtain and use hospitalization services, and profit more from government subsidies than lower-income seniors with the same basic health insurance (24). The interesting thing from the results of this study is that the elderly who live in households with middle-income status have the least chance of having health insurance compared to other prosperous statuses. These findings at the same time confirm the need for special attention for the elderly with financial limitations so that it becomes one of the inhibiting factors in accessing quality health services (18).

As predicted, the elderly population with internet access had a substantial relationship with health insurance ownership. The increasing number of elderly people and their need for insurance and adequate health facilities encourage the government to facilitate access to health using information technology (25). Thus, the elderly population who have access to and facilities to internet technology are more likely to find it easier to apply for health insurance than those who do not have this facility. Internet-based application innovations are increasingly expanding in both developed and developing countries to bridge the gap in health promotion and access (25–27).

CONCLUSIONS AND SUGGESTIONS

Conclusion

The results of this study indicate that one out of four elderly people in Indonesia does not have health insurance. The education level of the elderly is the factor that has the most significant influence on health insurance ownership. Some of the issues that require urgent attention in Indonesia's health insurance program for the elderly include the issue of health insurance program coverage, health insurance program funding sources, and health insurance financing assistance programs that were not on target.

Suggestion

Efforts are needed to increase quality health insurance coverage for all elderly people in Indonesia. Increasing health insurance coverage for the elderly is done by focusing on reducing socioeconomic disparities including increasing the knowledge of the elderly about the importance of health insurance for them.

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