

# Health Insurance Ownership among Moluccans in Indonesia

*by* Sahrir Sillehu

---

**Submission date:** 23-Nov-2022 11:36AM (UTC+0700)

**Submission ID:** 1961796309

**File name:** 1.Health\_Insurance\_Ownership.pdf (448.95K)

**Word count:** 3170

**Character count:** 16913

# Health Insurance Ownership among Moluccans in Indonesia

Ratna Dwi Wulandari<sup>1,2</sup>, Agung Dwi Laksono<sup>2,3</sup>, Sahrir Sillehu<sup>4</sup>, Abu Khoiri<sup>5</sup>

<sup>1</sup>Department of Health Policy and Administration, Faculty of Public Health, Universitas Airlangga, <sup>2</sup>The Airlangga Centre for Health Policy Research Group, Surabaya, <sup>3</sup>Research Centre for Public Health and Nutrition, The National Agency for Research and Innovation of the Republic of Indonesia, Jakarta, <sup>4</sup>Study Program of Public Health, Institute of Health Science Maluku Husada, Ambon, Maluku, <sup>5</sup>Department of Health Policy and Administration, Faculty of Public Health, Universitas Jember, Jember, Indonesia

## Abstract

**Background:** Expanding the reach of health insurance in Maluku aims to increase public access with the archipelago topography to healthcare facilities. **Objective:** The study aimed to analyze factors related to health insurance ownership among Moluccans. **Materials and Methods:** The study employed 788 respondents. The variables analyzed included health insurance, age, gender, education, and employment. The study used multinomial logistic regression in the final stage. **Results:** The age group  $\leq 19$  years was 0.182 times more likely than the  $\geq 50$  years of age group to have government-run type health insurance. The 20–29 years of age group was 0.219 times more likely than the  $\geq 50$  years of age group to have government-run health insurance. On the other hand, Moluccans with primary education were 0.196 times more likely than Moluccans with higher education to have a government-run type of health insurance. Moluccans with secondary education were 0.415 times more likely than Moluccans with higher education to have government-run health insurance. Unemployed have a probability of 0.358 times than employed to have the government-run health insurance type. Finally, unemployed is 0.056 times more likely than employed to have private-run health insurance. **Conclusions:** Three variables prove associated with health insurance ownership among Moluccans in Indonesia, namely age, education, and employment.

**Keywords:** Health insurance, healthcare, public health, social determinant of health

## INTRODUCTION

Health insurance is one of the health financing schemes currently developing in Indonesia and is the basis for implementing the National Health Insurance with a social health insurance system approach. Health insurance is helpful to meet the basic needs of proper public health and is provided to every person who has paid a premium or whose contribution has been paid by the government. Health insurance reduces the risk of people bearing health costs from their own pockets and the amount of healthcare costs that are difficult to predict and sometimes require enormous costs.<sup>[1]</sup>

The Indonesia government has compiled a road map to universal health coverage, including through the National Health Insurance Program, which is expected to be achieved in 2019. Increased health insurance membership is carried out through the National Health Insurance Program with the segment of paid wage workers, nonwage workers, nonworkers, and contribution aid recipients.<sup>[2]</sup> Contribution aid recipients, a group of poor people, can participate in the National Health Insurance

with a premium paid by the government.<sup>[3]</sup> However, various challenges still have to be faced to achieve total coverage, especially those who do not receive contribution assistance.<sup>[4]</sup>

The community's characteristics contribute to the expansion of the National Health Insurance membership, especially in terms of the willingness and ability to pay the community, awareness of health insurance benefits, and education level.<sup>[5]</sup> Local government support is also vital because of a membership scheme that pays premium financing. The challenge is in terms of membership coverage and participants who are not actively paid. The condition is a challenge that must be addressed. The Social Security Management Agency considers National

**Address for correspondence:** Dr. Ratna Dwi Wulandari, Faculty of Public Health, Universitas Airlangga, Universitas Airlangga Campus, C Mulyosari, Surabaya 60115, Indonesia. E-mail: ratna-d-w@fkm.unair.ac.id


This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

**For reprints contact:** WKHLRPMedknow\_reprints@wolterskluwer.com

**How to cite this article:** Wulandari RD, Laksono AD, Sillehu S, Khoiri A. Health insurance ownership among Moluccans in Indonesia. *Indian J Community Med* 2022;47:332-5.

**Received:** 20-03-21, **Revision:** 20-09-21,

**Accepted:** 19-10-21, **Published:** 10-10-22

Access this article online	
	<b>Quick Response Code:</b>
	<b>Website:</b> <a href="http://www.ijcm.org.in">www.ijcm.org.in</a>
	<b>DOI:</b> <a href="https://doi.org/10.4103/ijcm.ijcm_593_21">10.4103/ijcm.ijcm_593_21</a>

Health Insurance participants who stop paying contributions to be still high.<sup>[6]</sup>

Based on the situation, the Government of Indonesia seeks to encourage an increase in health insurance coverage and continues to improve the quality of service and patient safety to increase public access to health services. The government expected the community to commit to registering themselves, paying regular dues, and maintaining health together.<sup>[7,8]</sup>

On the other hand, the Maluku Provincial Government is also committed to advancing its people's health. Based on the evaluation of universal health coverage's achievements in 2019, Maluku Province is one of the provinces that have not met the title of universal health coverage. By increasing the number of participants in the health insurance program, the Maluku Provincial Government is trying to achieve universal health coverage. This study aims to analyze the factors related health insurance ownership among Moluccans in Indonesia based on the background description.

## MATERIALS AND METHODS

This study used data collected utilizing a rapid online survey of people living in the Maluku Province in Indonesia. The study population is the entire population of Maluku Province aged  $\geq 15$  years old. The calculation of the sample size in this study uses the Slovin formula. Based on the procedure, the sample size minimum limit of 400 respondents. The study obtained a total of 788 Moluccans as a sample.

The research employed the internet to reach people living in all regions of Maluku Province in Indonesia. Data collection was carried out for 1 week (June 6–12, 2020) using Google Form. The study conducted rapid online surveys because they can provide information more quickly and cheaply for local policymakers. With this method, the survey can immediately generate data so that corrective interventions can also be taken directly.<sup>[6,9]</sup>

The study uses the inclusion criteria of the Maluku Province population aged 15 years. Meanwhile, the exclusion criteria are those who do not have internet access or are unwilling to participate in this survey. The results of the normality test showed that all variables in this study were normally distributed.

The dependent variable in this study was health insurance ownership. Health insurance ownership is the respondent's recognition of ownership of insurance that covers health risks. Health insurance ownership consists of three categories, namely uninsured, government-run insurance, and private-run insurance.

The independent variables involved in the analysis were age group, gender, education level, and employment status. Age was the respondent's knowledge of the last birthday that has passed. Gender consists of two categories, namely male and female. The education level was the previous diploma the

respondent has. Meanwhile, education level consists of three groups: primary education and upper, secondary education, and higher education. Moreover, employment status consists of two types, namely unemployed and employed.

The study performed a bivariate analysis using Chi-square to test the relationship between dependent and independent variables. The final stage used multinomial logistic regression because of the nature of the dependent variable. The analysis used SPSS 22 (IBM, Armonk, New York, United States). software to assist the entire analysis process.

The rapid survey has received ethical approval from the ethics commission at the Institute of Health Science Maluku Husada Ambon (No: RK.04/KEPK/STIK/V/2020).

## RESULTS

Table 1 displays descriptive statistics of health insurance ownership and related variables among Moluccans in Indonesia. Based on the age group, it appears that the 20–29 years of age group dominates the uninsured and private-run insurance groups. Meanwhile, the 30–39 years of age group occupied the government-run insurance group.

Based on gender, female Moluccans dominated all groups of health insurance ownership. Meanwhile, based on the education level, Moluccans with secondary education more in the uninsured group. Moreover, the insured group, both government-run and private-run, was dominated by Moluccans with higher education. Based on employment status, the entire health insurance ownership group is dominated by employed Moluccans, except for the uninsured, who are overwhelmed by unemployed Moluccans.

Table 2 shows the result of the multinomial logistic regression of three independent variables where the reference is "uninsured." Moluccans in the  $\leq 19$  years of age group are 0.182 times more likely than Moluccans in the 30 years of age group to have government-run health insurance (odds ratio [OR]: 0.182; 95% confidence interval [CI]: 0.06–0.697). Moluccans in the 20–29 years of age group are 0.219 times more likely than Moluccans in the 30 years of age group to have government-run health insurance (OR: 0.219; 95% CI: 0.063–0.766).

The multivariate analysis results indicate that a higher level of education is more likely to have government-run health insurance. Unemployed Moluccans have a probability of 0.358 times than employed to have government-run type health insurance (OR: 0.358; 95% CI: 0.220–0.584). Unemployed Moluccans are 0.056 times more likely than employed Moluccans to have private-run health insurance (OR: 0.056; 95% CI: 0.012–0.267).

## DISCUSSION

Health insurance is an effort that has been proven effective in reducing or lowers the barrier to public access to healthcare facilities, especially in terms of service costs. The government's effort by releasing the National Health Insurance

**Table 1: Descriptive statistics of health insurance ownership and related variables among Moluccans in Indonesia (n=788)**

Variables	Health insurance ownership			P
	Uninsured, n (%)	Government-run, n (%)	Private-run, n (%)	
Age group				
≤19	65 (27.1)	33 (6.3)	1 (4.8)	<0.001
20-29	139 (57.9)	164 (31.1)	10 (47.6)	
30-39	28 (11.7)	181 (34.3)	6 (28.6)	
40-49	5 (2.1)	106 (20.1)	3 (14.3)	
≥50	3 (1.3)	43 (8.2)	1 (4.8)	
Gender				
Male	75 (31.3)	196 (37.2)	7 (33.3)	0.275
Female	165 (68.8)	331 (62.8)	14 (66.7)	
Education level				
Primary	14 (5.8)	5 (0.9)	1 (4.8)	<0.001
Secondary	136 (56.7)	114 (21.6)	4 (19.0)	
Higher	90 (37.5)	408 (77.4)	16 (76.2)	
Employment status				
Unemployed	190 (79.2)	150 (28.5)	3 (14.3)	<0.001
Employed	50 (20.8)	377 (71.5)	18 (85.7)	

**Table 2: The result of multinomial logistic regression of health insurance ownership among Moluccans in Indonesia (n=788)**

Predictor	Health insurance ownership					
	Government-run			Private-run		
	OR	95% CI		OR	95% CI	
		LB	UB		LB	UB
Age group						
≤19	0.182*	0.048	0.697	0.772	0.027	21.747
20-29	0.219*	0.063	0.766	1.056	0.096	11.597
30-39	0.559	0.160	1.947	0.844	0.074	9.634
40-49	1.876	0.420	8.381	2.335	0.159	34.381
≥50	-	-	-	-	-	-
Education level						
Primary	0.196**	0.060	0.632	2.002	0.183	21.967
Secondary	0.415***	0.277	0.622	0.574	0.168	1.958
Higher	-	-	-	-	-	-
Employment status						
Unemployed	0.358***	0.220	0.584	0.056***	0.012	0.267
Employed	-	-	-	-	-	-

\* 19-05, \*\*P<0.01, \*\*\*P<0.001, 95% CI. OR: Odds ratio, CI: Confidence interval, LB: Lower bound, UB: Upper bound

Policy is one of the best efforts to increase public access to healthcare facilities. For this reason, studies that can provide information are needed to support efforts to expand National Health Insurance participants in Indonesia.

Analysis results indicate that the age group partially affects health insurance ownership among Moluccans in Indonesia. Age is closely related to a person's risk factors for illness. The older you are, the greater the risk for getting sick, especially degenerative diseases.<sup>[10,11]</sup> Older age is also associated with an infection caused by accidents. Falling is one of the most common issues in the aged, and it is linked to changes in the function of disease organs and the surroundings. This condition is related to physical conditions that are getting

old and difficult to control. The older you will look, the more fragile.<sup>[12,13]</sup> A previous study in China also informed similar findings, which concluded that the older a person is, the higher the risk of experiencing illness. The health challenges that people encounter are becoming more complicated as their life expectancy rises. The tendency for degenerative diseases is growing as the number of senior individuals grows.<sup>[14]</sup>

The analysis shows that the higher the level of education, the higher the probability of Moluccans having government-run health insurance. A better education level makes a person better understand their needs, including the risk factors that can occur to them. This situation will make them decide on actions that can protect themselves from these risks, including the risk of illness



and accidents.<sup>[15]</sup> A person's degree of education influences their opinion of the quality of services provided or received.

Several previous studies also found a better education as a robust positive determinant that influences a person's health-related behavior or health performance output.<sup>[9,16]</sup> On the other hand, several studies informed poor education as a barrier to achieving performance in the health sector to achieve better quality.<sup>[17,18]</sup>

This study indicates that employment is a protective factor for Moluccans in Indonesia to have health insurance (both government-run and private-run types). This study's findings confirm previous studies in Spain and Indonesia, which informs similar results. Those who have jobs are more likely to have health insurance. This situation may be due to premiums borne by the company or because they already have enough money in reserve for health protection efforts.<sup>[4,19]</sup> The condition is related to the income level a person gets due to work, which affects the wealth status. Someone who has a better monthly payment is more likely to protect himself/herself with insurance, including health insurance.<sup>[19]</sup> Someone who has a good level of education and a regular job is an effective combination for effective deciding to have health insurance.<sup>[20]</sup>

The information generated in this study helps policymakers responsible for community participation in National Health Insurance in Maluku Province. The resulting findings can provide clear policy targets for accelerated policies to increase National Health Insurance membership in the Maluku Province. The target of this health finance policy is youth, poor education, and unemployed.

The author conducts research using a quantitative approach, so it is superficial. We need further studies with a qualitative approach to dig deeper into why they choose to take health insurance or not.

## CONCLUSIONS

The study concluded that three variables are associated with health insurance ownership among Moluccans in Indonesia based on the analysis results. The three of them are age group, education level, and employment status.

## Financial support and sponsorship

Nil.

## Conflicts of interest

There are no conflicts of interest.

## REFERENCES

- Megatsari H, Laksono AD, Ridlo IA, Yoto M, Azizah AN. Community perspective about health services access. *Bull Health Syst Res* 2018;21:247-53.
- Erlangga D, Ali S, Bloor K. The impact of public health insurance on healthcare utilisation in Indonesia: Evidence from panel data. *Int J Public Health* 2019;64:603-13.
- Wulandari RD, Qomarrudin MB, Supriyanto S, Laksono AD. Socioeconomic disparities in hospital utilization among elderly people in Indonesia. *Indian J Public Health Res Dev* 2019;10:1800-4.
- Sari B, Idris H. Determinant of independent national health insurance ownership in Indonesia. *Malays J Public Health Med* 2019;19:109-15.
- Laksono AD. Health care accessibility (Aksesibilitas Pelayanan Kesehatan). In: Supriyanto S, Chalidyanto D, Wulandari RD, editors. *Aksesibilitas Pelayanan Kesehatan di Indonesia*. Jogjakarta: PT Kanisius; 2016. p. 5-20.
- Bostan S, Akbolat M, Kaya A, Ozata M, Gunes D. Assessments of anxiety levels and working conditions of health employees working in COVID-19 pandemic hospitals. *Electron J Gen Med* 2020;17:em246.
- Banerjee A, Finkelstein A, Hanna R, Olken BA, Ornaghi A, Sumarto S. The challenges of universal health insurance in developing countries: Evidence from a large-scale randomized experiment in Indonesia (Working Paper No. 26204). NBER Work Pap 2019;37.
- Huang J, Yuan L, Liang H. Which matters for medical utilization equity under universal coverage: Insurance system, region or sex. *Int J Environ Res Public Health* 2020;17:4131.
- Megatsari H, Laksono AD, Ibad M, Herwanto YT, Sarweni KP, Geno RA, et al. The community psychosocial burden during the COVID-19 pandemic in Indonesia. *Heliyon* 2020;6:e05136.
- Wulandari RD, Laksono AD. Urban-rural disparity: The utilization of primary health care center among elderly in East Java, Indonesia. *J Adm Kesehatan Indones* 2019;7:147-54.
- Laksono AD, Nantabah ZK, Wulandari RD. Access barriers to health center for elderly in Indonesia. *Bull Health Syst Res* 2018;21:228-35.
- Kanters TA, van de Ree CL, de Jongh MA, Gosens T, Hakkaart-van Roijen L. Burden of illness of hip fractures in elderly Dutch patients. *Arch Osteoporos* 2020;15:11.
- Wang Q, Abiro GA, Yang J, Li P, De Allegri M. The determinant of health insurance ownership among pregnant women in Indonesia. *Soc Sci Med* 2021;281:114104.
- Wang N, Gao W, Ma M, Shan L, Fu X, Sun T, et al. The medical insurance system's weakness to provide economic protection for vulnerable citizens in China: A five-year longitudinal study. *Arch Gerontol Geriatr* 2021;92:104227.
- Wulandari RD, Laksono AD. Determinants of knowledge of pregnancy danger signs in Indonesia. *PLoS One* 2020;15:e0232550.
- Ipa M, Widawati M, Laksono AD, Kusriani I, Dhewantara PW. Variation of preventive practices and its association with malaria infection in eastern Indonesia: Findings from community-based survey. *PLoS One* 2020;15:e0232909.
- Rohmah N, Yusuf A, Hargono R, Laksono AD, Masruroh, Ibrahim I, et al. Determinants of teenage pregnancy in Indonesia. *Indian J Forensic Med Toxicol* 2020;14:2080-5.
- Masruroh, Yusuf A, Rohmah N, Pakki IB, Sujoso AD, Andayani Q, et al. Neonatal death incidence in healthcare facility in Indonesia: Does antenatal care matter? *Indian J Forensic Med Toxicol* 2021;15:1265-71.
- Pinilla J, López-Valcárcel BG. Income and wealth as determinants of voluntary private health insurance: Empirical evidence in Spain, 2008-2014. *BMC Public Health* 2020;20:1262.
- Laksono AD, Wulandari RD. Determinant of the Puskesmas utilization in Madura Island. *Indian J Public Health Res Dev* 2019;10:576-81.

# Health Insurance Ownership among Moluccans in Indonesia

## ORIGINALITY REPORT

23%

SIMILARITY INDEX

19%

INTERNET SOURCES

20%

PUBLICATIONS

8%

STUDENT PAPERS

## PRIMARY SOURCES

1

[acikerisim.karatekin.edu.tr:8080](http://acikerisim.karatekin.edu.tr:8080)

Internet Source

2%

2

[bmcpublichealth.biomedcentral.com](http://bmcpublichealth.biomedcentral.com)

Internet Source

2%

3

[bmchealthservres.biomedcentral.com](http://bmchealthservres.biomedcentral.com)

Internet Source

2%

4

[ijop.net](http://ijop.net)

Internet Source

2%

5

[www.sysrevpharm.org](http://www.sysrevpharm.org)

Internet Source

1%

6

[mdpi-res.com](http://mdpi-res.com)

Internet Source

1%

7

Ratna Dwi Wulandari, Agung Dwi Laksono, Nikmatur Rohmah. "Urban-rural disparities of antenatal care in South East Asia: a case study in the Philippines and Indonesia", BMC Public Health, 2021

Publication

1%

8

Agung Dwi Laksono, Wahyu Pudji Nugraheni, Nikmatur Rohmah, Ratna Dwi Wulandari.

"Health insurance ownership among female workers in Indonesia: does socioeconomic status matter?", BMC Public Health, 2022

Publication

1 %

9

[www.researchgate.net](https://www.researchgate.net)

Internet Source

1 %

10

Agung Dwi Laksono, Zainul Khaqiqi Nantabah, Ratna Dwi Wulandari, Abu Khoiri, Minsarnawati Tahangnacca. "Barriers to Expanding the National Health Insurance Membership in Indonesia: Who Should the Target?", Journal of Primary Care & Community Health, 2022

Publication

1 %

11

Nuzulul Kusuma Putri, Ernawaty Ernawaty. "Viral marketing content for Universal Health Coverage campaign in Indonesia", International Journal of Pharmaceutical and Healthcare Marketing, 2019

Publication

1 %

12

Agung Dwi Laksono, Ratna Dwi Wulandari, Ratu Matahari. "The Association between Recent Sexual Activity and the Use of Modern Contraceptive Methods among Married/Cohabiting Women in Indonesia", Journal of Public Health Research, 2022

1 %

13	Submitted to Universitas Airlangga Student Paper	1 %
14	f1000research.com Internet Source	1 %
15	journals.plos.org Internet Source	1 %
16	www.pria.org Internet Source	1 %
17	Submitted to Wright State University Student Paper	1 %
18	Hario Megatsari, Agung Dwi Laksono, Mursyidul Ibad, Yeni Tri Herwanto et al. "The community psychosocial burden during the COVID-19 pandemic in Indonesia", Heliyon, 2020 Publication	1 %
19	medicopublication.com Internet Source	1 %
20	getjson.sid.ir Internet Source	1 %
21	Submitted to Adtalem Global Education Student Paper	1 %
22	Submitted to Dewan Perwakilan Rakyat Student Paper	1 %



23

Setia Pranata, Agung Dwi Laksono, Eka Denis Machfutra, Ratna Dwi Wulandari. "Information clarity about Covid-19 in Indonesia: does media exposure matter?", BMC Public Health, 2022

Publication

1 %

---

Exclude quotes On

Exclude matches < 1%

Exclude bibliography On