

## RESEARCH ARTICLE

# Awareness, knowledge, and perception among pharmacists on the National Health Insurance Program in Indonesia

Angga Prawira Kautsar, Wulanda Novianti

Department of Pharmaceutics, Faculty of Pharmacy, Padjadjaran University, Bandung, West Java, Indonesia

Correspondence to: Angga Prawira Kautsar, E-mail: [angga.prawira@unpad.ac.id](mailto:angga.prawira@unpad.ac.id)

Received: July 11, 2017; Accepted: August 02, 2017

### ABSTRACT

**Background:** The Indonesian government is promoting health in the community by a program called Indonesia National Health Insurance (NHI) or Jaminan Kesehatan Nasional which is held by the government board. Pharmacists have a duty and position as health workers; they are the main perpetrators of the practice of pharmacy, but the chairman of the national social security council stated that the pharmacist is a health worker category but not the type of medical staff, so pharmacists do not participate directly in the program. **Aims and Objectives:** The aim of this study is to measure perceptions, knowledge, and awareness of the pharmacist about the NHI Program and determine the influence of variables through model proposed. **Materials and Methods:** A cross-sectional questionnaire-based study was conducted on pharmacists who worked in various pharmacy scopes in Indonesia. The convenience sampling technique method was conducted by 202 respondents. Path analysis structural equation modeling is used in this study. **Results:** The results of this study determined that a pharmacists' awareness and knowledge of the NHI Program were categorized as good while on the other hand, their perceptions were not good. From the path modeling, we observe that there is no significance between knowledge and perception ( $t < 1.69$ ); however, both  $P$ -value showed a good result ( $P < 0.05$ ). **Conclusion:** Good knowledge and perception increase awareness of pharmacist on the NHI. The NHI among Indonesian pharmacists is something that must be supported, even though they do not play an important role in the system.

**KEY WORDS:** National Health Insurance; Pharmacist; Awareness; Knowledge; Perception

### INTRODUCTION

Broadly, the insurance covers social risks. Social risks are the risks in society.<sup>[1]</sup> The government of a certain country, especially Indonesia, strives to cope with risks, especially health risks and accidents to help its members prosper. In Indonesia, there are several forms of social responsibility by the government and one program that is conducted intensively is the National Health Insurance (NHI).

Social insurance is often also called government insurance because it is held by the government through the business entity it founded. The purpose of this social insurance is to protect the interests of the insured, who are a group of certain communities who run activities or professions, against the risks that may be experienced in carrying out such activities or professions, including health insurance. Health insurance has a system of risk transfer mechanism (illness) from individual risk to group risk. By diverting individual risks to group risk, the economic burden that each participant has to bear will be lighter but has the certainty of getting a guarantee.

Under Indonesian Law No. 36 of 2009 based on health, people's health is a constitutional right. Fulfillment of rights is the responsibility of the state.<sup>[2]</sup> Previously, the Indonesian government promoted public health, especially health welfare, organized several forms of social security

Access this article online	
Website: <a href="http://www.njppp.com">www.njppp.com</a>	Quick Response code 
DOI: 10.5455/njppp.2017.7.0724902082017	

National Journal of Physiology, Pharmacy and Pharmacology Online 2017. © 2017 Angga Prawira Kautsar and Wulanda Novianti. This is an Open Access article distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), allowing third parties to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material for any purpose, even commercially, provided the original work is properly cited and states its license.

in the health sector that served among others civil servants, retirees, veterans, and private employees. As for the poor, the government provides guarantee through several schemes, such as public health insurance. However, these schemes are fragmented so that health care costs and service quality are difficult to control.<sup>[3]</sup>

To overcome this problem, the Indonesian Law No. 40 of 2014 on the national social security system states that social security is mandatory for all residents, including the NHI through a social security administration. The system is a social security system, based on social insurance covering the whole population with the principle of equity (equal rights). Under the law, the health services include promotive, preventive, curative, and rehabilitative services, including medicines and medical material.<sup>[4]</sup> The government expects all the citizens will be covered in universal health coverage (UHC) in 2019.

NHI is expected to be a solution to the fulfillment of people's right to health because of wider coverage with better and equitable health services. NHI involves the government, the board, health workers, and people. The consequence of applying a health insurance is that there will be strict control of therapy, including pharmacotherapy. However, Dr. Chazali, chairman of the national social security system, stated that the pharmacist is a health worker but not a category of medical personnel where the qualified personnel mentioned are physicians and dentists. Pharmacists do not deal directly with patients related to the medication process, so pharmacists are not involved directly in this program. In fact, the pharmacist is a health worker and the main actor of the pharmaceutical practice.

In the Indonesian Presidential Regulation No. 12 of 2013 on health insurance, the components calculated in the proportion of reimbursements were made by the board on claims from health services which are only the share of drug prices, the use of medical devices, and the services of physicians only.<sup>[5]</sup> UHC demands synergy between health workers, that is, physicians, pharmacists, nurses, and other health workers. Benefits of the collaboration are strengthen health services and make available access to medicine effectively.<sup>[6]</sup>

The objective of Indonesian Law No. 36 of 2009 on health and government regulation No. 51 of 2009 on pharmaceutical work is the implementation of the pharmaceutical profession as a form of health care and medicine that have primary dimension as a health product that has health benefits as well as high health risks, and economic risks pharmacists have duties and occupations as health professionals and are key roles of pharmaceutical practice. In addition, public health interventions, pharmaceutical care, rational drug use, and effective drug supply management are important components of the health-care system to ensure the efficacy, safety, and quality of drugs, and pharmacists with their competencies

have the ability to improve treatment outcomes and quality of life of the patient. The shift of orientation toward pharmaceutical care is an important factor of this process that can be related to the NHI system.<sup>[2,7]</sup>

Based on these matters, it is necessary to know how the influence of awareness, knowledge, and perception from the pharmacist about the NHI Program itself. The pharmacist's awareness of the NHI Program is convincing, able to understand what is going on. It can also be interpreted as all the ideas, feelings, opinions, and others that the pharmacist has about the NHI Program. Pharmacist's knowledge of the NHI Program is the result of knowing the pharmacist about the NHI Program obtained through vision, hearing, and taste. The perception of pharmacist about NHI Program can be interpreted as pharmacist view about NHI Program. It can also be interpreted how the pharmacist gives an assessment of what is seen or happens in the environment associated with the NHI Program. The results of this study can be the basis of information to determine the extent of attention and understanding of pharmacists on NHI Programs and to determine whether pharmacists tend to have a positive or negative impact on the NHI Program when viewed from awareness, knowledge, and perceptions about this program.

## MATERIALS AND METHODS

A cross-sectional questionnaire-based study was conducted on pharmacists who worked in various pharmacy scopes in Indonesia. The convenience sampling technique method was conducted by 202 respondents using power analysis method. The inclusion criteria included pharmacists in Indonesia who already have both practice and managerial work and are willing to be respondents while for the exclusion criteria included pharmacist who worked for 3 months. The respondents are pharmacists from all over Indonesia who are and have attended seminars and workshops in Bandung.

The measuring instrument used is a questionnaire containing items taken from several references and tested for validity and reliability.<sup>[8]</sup> The measurement of the awareness variable consists of five questions with three questions (2, 3, and 4) adopted from Mulupi et al. (2013), and two questions (1 and 5) were self-developed with a 1-5 measurement scale from a statement strongly disagree to strongly agree.<sup>[9]</sup> The measurement of the knowledge variables consists of 20 questions adopted from the NHI socialization handbook by the ministry of health of the Republic of Indonesia with a scale of good knowledge measurement if the answer is true 56-100%, and knowledge is low if the answer is correct  $\leq 55$ .<sup>[10]</sup> The measurement of perception variables consists of 10 questions with question number three adopted from McCormick et al. (2009), and nine questions (1, 2, 4, 5, 6, 7, 8, 9, and 10) were self-developed with a 1-5 measurement

scale from a statement strongly disagree to strongly agree.<sup>[11]</sup> The proportion of the result was divided into good and not good perception.<sup>[3,9,10]</sup>

The data are nominal (demographic) and ordinal scale, the distribution is not normal, and the variables are more than two (multivariate); therefore, the non-parametric analysis is structural equation modeling with partial least squares. While for the validity and reliability test, descriptive statistic and Pearson's correlation test were conducted using statistical software RStudio.

## RESULTS

The response rate of this study is 100% more and 210 respondents are involved to complete the questionnaire. The following is the demographic table of this study (Table 1).

All demographic factors have non-normal distribution data. Main variables such as awareness, knowledge, and perception of NHI are normal distribution data.

Pharmacist awareness variable regarding the NHI Program obtained alpha Cronbach's reliability coefficient of 0.735, variable knowledge obtained 0.671, and variable perception of pharmacists by 0.622. These three values are  $> 0.600$ ; therefore, the questionnaire is assumed to have good reliability.

From the validity test of the awareness variable, the results indicated that all items are valid. Then, the result of the validity of the knowledge showed that seven of the 20 items were invalid. Finally, for perception variables, the pharmacist showed that two out of 10 items are invalid ( $r < 0.3$ ) (Table 2).

Based on Table 2, it is seen that from 210 pharmacists mostly have a good awareness about the NHI Program (99.52%). For knowledge variable, pharmacists who became respondents have a good knowledge about NHI by (67.14%). From the same table, it can be seen that most pharmacists had a good perception on the NHI Program (99.52%).

The proposed model then was tested and it showed some question items are re-tested again. It can be seen from Figure 1 that valid question for variable awareness is four items, for variable knowledge are three items, and for variable perception are four items. All scores are fitting with average score indicator ( $>0.2$ ).

## DISCUSSION

The pharmacist did not play important role directly in health-care services related to NHI system. Then, this study was conducted to measure and explore factors related

**Table 1: Demography**

Factors	f (%)
Gender	
Male	84 (40)
Female	126 (60)
Age (year)	
21-30	162 (77.1)
31-40	43 (20.5)
41-50	5 (2.4)
Educational background	
Professional degree	203 (96.7)
Master graduated	7 (3.3)
Doctoral graduated	0 (0)
Occupation place	
Pharmacy	93 (44.3)
Government organization	34 (16.2)
Hospital	38 (18.1)
Others (Industry, distributor, etc.)	45 (21.4)
Total	210 (100.0)

to pharmacist-NHI such understanding through variable awareness, knowledge, and perception (Figure 1).

A good level of awareness of the NHI Program allows pharmacists to perform their role as a key person in pharmaceutical services. This could be an indicator when pharmacists are included in the NHI Program so that limitations in NHI Programs related to pharmaceutical care, irrational drug use, and ineffective drug management could be minimized. Adibe et al. in Nigeria discovered that awareness on NHI activities among university staff was minor.<sup>[12]</sup>

The results of a good knowledge assessment of the NHI Program in this study which was due to the program organized by the board have worked together with government-owned (include local) and private health facilities.<sup>[3]</sup> The health facility mentioned was a clinic, primary health center, or hospital. Despite in this study, most respondents were pharmacists who are working in pharmacies which have memorandum of understanding with the board.

The score for variable knowledge was overall good. This possibly will be occurred due to the pharmacist's educational background of the study. Almost most pharmacist was in the 21-30 age range. According to McCall et al., demography factor of age did not affect knowledge.<sup>[13]</sup> For some small pharmacists, who lack knowledge, this may be due to the recent NHI Program that has not yet worked out with many pharmacists, the board, and not yet understood the system.

The significance relationship between perception and awareness was higher than another variable relationship. Similar supported articles were not found in online system

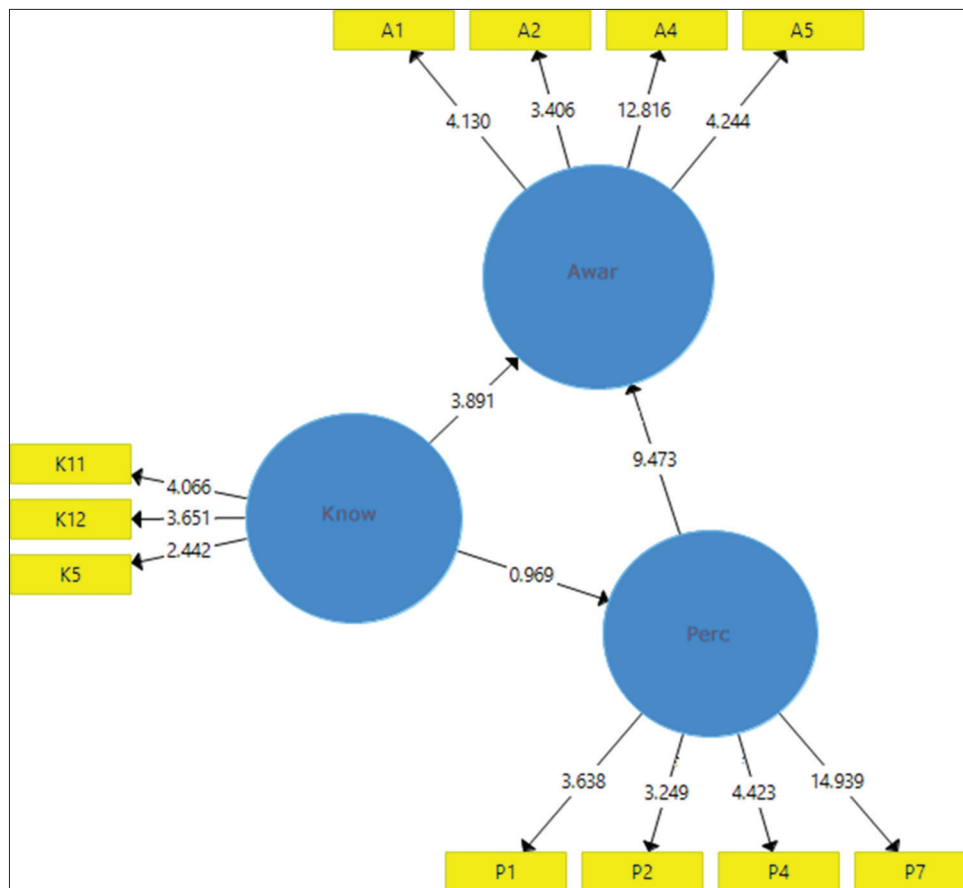


Figure 1: Path modeling and t value

Table 2: Frequency categorized of awareness, knowledge, and perception

Awareness	f (%)	Knowledge	f (%)	Perception	f (%)
Good	209 (99.52)	Good	141 (67.14)	Good	209 (99.52)
Not good	1 (0.48)	Not good	69 (32.86)	Not good	1 (0.48)

of scientific article finder. However, Kavaliunas (2011) explained that perception of administration had significance relationship with awareness of food allergy.<sup>[14]</sup>

This topic of study is a major concern related to the NHI development in Indonesia since the program was established in 2014. The finding expected strengthen pharmacist role in any fields of practice and management related to NHI. However, there are limited supported scientific articles related to this issue where this could be a limitation of the study.

From the findings can be seen, the measurement of variable awareness, knowledge, and perception was good. Nevertheless, the model proposed to associate the variables related to pharmacist role in NHI is not fit and variable perception could not be a mediator variable.

**CONCLUSION**

From the path modeling, it can be seen that there is no significance between knowledge and perception ( $t < 1.69$ );

however, both *P*-values showed good result ( $P < 0.05$ ). The model proposed did not fit where the perception was set as a mediator in this study. However, good knowledge and perception would increase awareness of pharmacist on the NHI. In some references, awareness is the condition after knowledge and before people behaves or acts. The NHI among Indonesian pharmacists is something that should be supported even though they do not play an important role in the system.

**REFERENCE**

1. Thabrany H. Dasar-Dasar Asuransi Kesehatan Bagian A. Jakarta: Perhimpunan Ahli Manajemen Jaminan dan Ahli Asuransi Kesehatan Indonesia; 2005.
2. Bersama DP. Undang-Undang Republik Indonesia. Nomor 36. Tahun. Indonesia: Tentang Kesehatan; 2009.
3. Kementerian Kesehatan Republik Indonesia. Buku Pegangan Sosialisasi Jaminan Kesehatan Nasional (JKN) Dalam Sistem Jaminan Sosial Nasional. Jakarta: Kementerian Kesehatan Republik Indonesia; 2014.
4. Indonesia, Undang-Undang Republik Indonesia. Nomor

- 40 Tahun 2004 Tentang Sistem Jaminan Sosial Nasional. Indonesia: Timur Putra Mandiri; 2004.
5. K. K. R. Indonesia. Peraturan Presiden Republik Indonesia No 12 Tahun 2013. Indonesia: Tentang Jaminan Kesehatan; 2013.
  6. Dahal G, Ghimire N, Hassan MA, Pokhrel P. Editorial Nepal' s transition toward universal health coverage: A challenging pace for implementation. *Int J Med Sci Public Health*. 2017;6(3):2016-8.
  7. K. K. R. Indonesia. Peraturan Pemerintah RI Nomor 51 Tahun 2009. Indonesia: Tentang Pekerjaan Kefarmasian; 2009.
  8. Rowe P. *Essential Statistics for the Pharmaceutical Sciences*. 2<sup>nd</sup> ed. Hoboken, NJ: Wiley; 2016.
  9. Mulupi S, Kirigia D, Chuma J. Community perceptions of health insurance and their preferred design features: Implications for the design of universal health coverage reforms in Kenya. *BMC Health Serv Res*. 2013;13(1):474.
  10. Arikunto S. *Research Procedure: a Practical Approach*. Jakarta: Rineka Cipta; 1992.
  11. McCormick D, Woolhandler S, Bose-Kolanu A, Germann A, Bor DH, Himmelstein DU. US physicians' views on financing options to expand health insurance coverage: A national survey. *J Gen Intern Med*. 2009;24(4):526-31.
  12. Adibe MO, Udeogaranya PO, Ubaka CM. Awareness of National Health Insurance Scheme (NHIS) activities among employees of a Nigerian university. *Int J Drug Dev Res*. 2011;3(4):78-85.
  13. McCall N, Rice T, Sangl J. Consumer knowledge of medicare and supplemental health insurance benefits. *Health Serv Res*. 1986;20(6):633-57.
  14. Kavaliunas A. *The Prevalence of Adverse Reactions to Food and Food Allergy among Vilnius city (Lithuania) Inhabitants*. Vilnius: Vilnius University; 2011.

**How to cite this article:** Kautsar AP, Novianti W. Awareness, knowledge, and perception among pharmacists on the National Health Insurance Program in Indonesia. *Natl J Physiol Pharm Pharmacol* 2017;7(11):1274-1278.

**Source of Support:** Nil, **Conflict of Interest:** None declared.