

# The Needs Fulfillment of Medical and Specialist Doctors in West Nusa Tenggara, Indonesia

*by Dumilah Ayuningtyas*

---

**Submission date:** 11-Jun-2023 11:26AM (UTC+0700)

**Submission ID:** 2113404665

**File name:** ical\_and\_Specialist\_Doctors\_in\_West\_Nusa\_Tenggara,\_Indonesia.pdf (640.09K)

**Word count:** 5344

**Character count:** 31151



## The Needs Fulfillment of Medical and Specialist Doctors in West Nusa Tenggara, Indonesia

Dumilah Ayuningtyas<sup>1\*</sup>; Anwar Fachry<sup>2</sup>; Sandra Barinda<sup>1</sup>; Sri Windiarti<sup>3</sup>; Nurul Saptorini Rahmadhani<sup>1</sup>; Muhammad Sapuan Hadi<sup>4</sup>; Misnaniarti<sup>5</sup>; Ni Nyoman Dwi Sutrisnawati<sup>6</sup>

<sup>1</sup> Health Policy and Administration Department, Public Health, Universitas Indonesia

<sup>2</sup> Center for Population and Development Studies, Universitas Mataram

<sup>3</sup> Regional Public Hospital in Bima City

<sup>4</sup> Universitas Nadhlatul Wathan, Mataram

<sup>5</sup> Health Policy and Administration Department, Public Health, Universitas Sriwijaya

<sup>6</sup> Universitas Bali Internasional

### ARTICLE INFO

#### Article history:

Received 23 May 2021

Accepted 08 July 2021

Published 20 September 2021

#### Keyword:

Fulfillment effort

Medical doctors

Remote areas

### ABSTRACT

One of the challenges in improving health services in Indonesia is the uneven number and distribution of health workers in some areas, especially doctors and specialist doctors. Therefore, the aim of this study was to review the conduciveness and support of policy environment towards meeting the needs of specialist doctors in West Nusa Tenggara (NTB) Province, Indonesia. This study was the narrative review method. Keywords used are environmental policy, specialist doctor, and remote area. Critical appraisal was performed by utilizing the PRISMA method. This study showed that there is political support from the Central and Regional Governments. However, several aspects are still recognized negatively, aspects of national policies related to incentives and facilities. Regional Government Policies are considered not sufficiently significant to improve the availability of doctors and specialist doctors, especially in terms of the advocacy mechanisms. This matter impacts the lack of doctors and specialist doctors' interest to be placed in remote areas. The policy environment towards meeting the needs of a specialist doctors in West Nusantara Tenggara (NTB) was enough conducive and supportive. It still needs improving coordination mechanisms among institutions and providing advocacy channels, which are crucial to support the effectiveness of meeting the needs of specialist doctors' policies.

This open access article is under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



## Pemenuhan Kebutuhan Dokter dan Dokter Spesialis di Nusa Tenggara Barat

### ABSTRAK

Salah satu tantangan dalam meningkatkan pelayanan kesehatan di Indonesia adalah belum meratanya jumlah dan distribusi tenaga kesehatan di beberapa daerah, terutama dokter dan dokter spesialis. Oleh karena itu, penelitian ini bertujuan untuk mengkaji kondusifitas dan dukungan lingkungan kebijakan terhadap pemenuhan kebutuhan dokter spesialis di Provinsi Nusa Tenggara Barat (NTB), Indonesia. Penelitian ini menggunakan metode review naratif. Kata kunci yang digunakan adalah kebijakan lingkungan, dokter spesialis, dan daerah terpencil. Critical appraisal dilakukan dengan menggunakan metode PRISMA. Studi ini menunjukkan adanya dukungan politik dari Pemerintah Pusat dan Daerah. Namun demikian, beberapa aspek masih diakui secara negatif, aspek kebijakan

#### Kata kunci:

Upaya pemenuhan

Tenaga kesehatan

Daerah terpencil

#### \*Corresponding author

Health Policy and Administration  
Department, Public Health  
Universitas Indonesia, Indonesia

Email: dumilah.ayuningtyas@gmail.com

DOI: 10.30604/jika.v6i3.508

nasional terkait insentif dan fasilitas. Kebijakan Pemerintah Daerah dinilai belum cukup signifikan untuk meningkatkan ketersediaan dokter dan dokter spesialis, terutama dari sisi mekanisme advokasi. Hal ini berdampak pada minimnya minat dokter dan dokter spesialis untuk ditempatkan di daerah terpencil. Lingkungan kebijakan untuk memenuhi kebutuhan dokter spesialis di Nusantara Tenggara Barat (NTB) cukup kondusif dan mendukung. Masih perlu perbaikan mekanisme koordinasi antarlembaga dan penyediaan jalur advokasi yang sangat penting untuk mendukung efektivitas pemenuhan kebutuhan kebijakan dokter spesialis.

7

This open access article is under the CC-BY-SA license.



## INTRODUCTION

Health workers are the primary keys to achieve the success of health development goals. The health workers availability contributes up to 80% in the success of health development. Based on WHO reports in 2006, Indonesia was one of 57 countries that face health workers crisis, both in numbers and distributions. World Bank records that the Indonesian Human Capital Index (HCI) amounted to 0.53 or ranked 74th out of 167 countries (World Bank, 2018).

In 2010, the data of health workers availability at central and regional public hospitals showed that 7,336 specialist doctors and 6,180 general practitioners are available. However, public hospitals are still short of health workers with 2,098 specialist doctors and 902 general practitioners. Hence, health workers shortage at hospitals will be higher by calculating the needs of health workers in other hospitals belonging to the ministries, Military Hospitals, Police Hospitals, and Private Hospitals. Also in the same year, Community Health Centers had provided 14,840 doctors and 6,125 general practitioners. Community Health Centers in remote areas, cross-border islands had provided 130 general practitioners, and they still needed 149 general practitioners more (Ministry of Health, 2011).

One of the most significant challenges in improving health services in Indonesia is the uneven number and distribution of health workers in some areas of Indonesia, especially doctors and specialist doctors. The determinants factor that affect health level, the health workers as the main elements that support other health sub-systems.

West Nusa Tenggara (NTB) is one of the provinces in Indonesia. Many people complained about the presence of doctors and specialist doctors who are still lacking in this area. Overview at the Sumbawa District, not all of the Community Health Center have on-duty doctors. In the case where the on-duty doctors are unavailable in several the Community Health Center, patients will be taken care of by staff nurses and midwives. Furthermore, the hospitals in West Nusa Tenggara also experience the shortage of specialist doctors as well. In 2019, the ratio of the number of specialist doctors to 10,000 inhabitants was 11.93 (NTB Health Office, 2020). Due to the inadequate number of doctors, there are some district hospitals which has no basic specialist doctors.

Based on the data profile of health Indonesia in 2017, from 15 Class C Specialized Hospital in West Nusa Tenggara Province, only four (26.67%) district/city hospitals meet the compliance standards for specialist doctors (Ministry of Health, n.d.). That condition becomes the constraints in the success of the health sector programs in this area, as stated by various health agencies in West Nusa Tenggara. The need

for specialist doctors is vital, considering that numerous patients require special treatment.

The shortage of doctors and specialist doctors can be an obstacle in the success of health programs in the West Nusa Tenggara Province. Therefore, the fulfilment of health workers, both in number and type, is critical as well as the challenge for the government. The lack of specialist doctors has quite an impact on many health cases, in which the patients must be referred outside the region.

Therefore, some of these problems later became the basis for the authors to analyze the conduciveness and support of the policy environment towards meeting the needs of specialist doctors in West Nusa Tenggara (NTB) Province.

## METHOD

This study was a narrative review. The study aims to discover the articles related to environmental policy and the needs of specialist doctors which have been published in Scopus accredited and indexed journals as the inclusion criteria.

## Data collection

In the narrative review, keywords used are environmental policy, specialist doctor, and remote area. Critical appraisal was performed by utilizing PRISMA method on the articles selected. It was performed as an attempt to study and find out the factors that caused the policy could not run optimally, as well as to analyze the possibility of the proposed recommendations on the circumstance in West Nusa Tenggara, Indonesia. Article searches were conducted through ProQuest, Emerald Insight, PubMed, and Wiley. From a search based on keywords, it was obtained 115.128 articles, then filtered by year (2000-2020), language, subject, removed duplication, checking the title, and checking based on the relevance of the articles with the aim of narrative review, it was obtained 3 articles.

Based on the search results, three articles were selected, i.e., the research conducted in the United Kingdom, Canada, and Texas, USA (see Figure 1). Although those three countries are developed countries with high human capital index score, the needs of doctors and health workers seemingly face some constraints in the implementation of policies. The results and recommendations from this study are expected to be the lessons to learn in analyzing the problems that occur in West Nusa Tenggara.

## Data analysis

The discussion in this study used thematic analysis. Based on Joffe (Joffe, 2011), thematic analysis is a method for identifying and analyzing patterns of meaning in a data set

which illustrates the importance of themes in the description of the phenomenon under study. The data analysis was expected to provide an overview of perception and delivery of the aspirations of the health service providers in West Nusa Tenggara region.

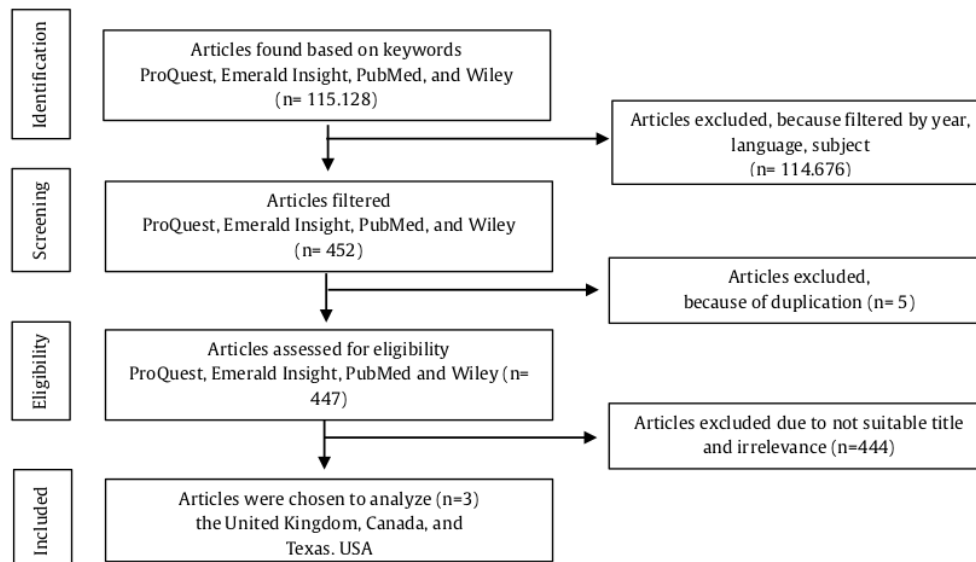


Figure 1. Flowchart of the Article Selection Process

## RESULT AND DISCUSSION

The basis for selecting these three articles was to explore the factors that influence the recruitment of doctors in remote and more remote areas (see Table 1). The first journal discusses the disparities in health service providers in remote areas (Alaska) with those in urban areas (New Mexico). There are several facts which have been estimated beforehand. For instance, the people of rural or remote areas get inadequate treatment or services due to the limited access to providers of health services. The communities in remote areas, as has been alluded, have minimal access to health service providers which contradicts the fact that people in those areas have a higher needs of health providers and education for health providers as well as the medical specialists (Austin, 2012). Numerous articles had explained about the documented disparities on health care consumers in remote areas, among them were published (Geyman, Norris, & Hart, 2001; Stamm, 2003).

The second journal exposes how the Canadian Medical Association (CMA) attempts that all the Canadians can acquire the equal and high-quality health services. The CMA pays special attention to health service infrastructure and the level of supporting facilities for professional health workers in remote areas. The inadequacy or propriety of both foregoing aspects will greatly affect the quality of general health service from the recruitment process to the maintaining process of health workers/doctors' presence in remote areas, according to the needs of the community. There are three aspects that are taken into consideration in deciding every policy in order to improve the quality of health services in remote areas, particularly regarding the

health workers or human resources, such as training or continuing education, compensation, and work culture lifestyle (Canadian Medical Association, 2000).

Previously, it was reported that health workers in Canada were very frustrated with the current conditions due to cuts in the budget for health services by the government while at the same time, they must continue to work hard to serve the community in a remote area. Moreover, the health workers faced improper life circumstances, incomplete and inadequate infrastructure and medical devices in the health centre where they work, and the abundant untreated number of patients. Those conditions are also common in Indonesia. Indonesia, as an archipelagic country, has many the number of remote areas, and most of the medical staff live in the big cities. Furthermore, the number of health worker graduates is not proportional to population growth, and the income or wages received by medical attention is insufficient. Those aforementioned issues cause health services in remote areas are still very alarming. Although that situation has been reported in the mass media, yet it remains unhandled by the government. Eventually, the people in those areas themselves become the most disadvantaged party in this case.

Being a medical staff who live in remote areas can be gratifying provided that the essential factors of basic human needs can be appropriately met. For instance, the need for education, culture, recreation, and benefits for their families should be met. Hence, they will not find it challenging to live and serve in remote areas.

In this journal, the CMA provides several recommendations in the form of policies for the government in providing support or supporting the health workers who

want to devote their lives in remote areas. The policies are divided into three main points, i.e., training, compensation, and work/lifestyle support.

**Table 1**  
**Study Characteristics**

Researcher & Year	Subject	Methods	Summary
Jacob Brendan Austin (2012)	A Phenomenological Investigation of Physician Job Satisfaction in Rural Integrated Primary Care (Phenomenon Investigation of General Practitioners' Working Satisfaction in Primary Health Facilities in Remote Areas)	Employing the Mixed Methods Research (MMR), both quantitative and qualitative to counterbalance the respective shortcomings of the two methods	The researchers suggest that the creative strategies are necessary to reduce this disparity rate, such as by giving the financial and educational incentives for health workers recruited in remote areas, or by conducting the screening process for human resources from the remote areas to be educated and returned to serve in there.
Canadian Medical Association (2000)	Rural and Remote Practice Issues (Practitioners with Practices in Remote and Very Remote Areas)	Policy analysis	In this journal, the CMA recommends several things in the form of policies for the government in providing support or supporting the medical workers who want to devote their lives in remote areas. The policies are divided into three main points, i.e., education & training, compensation, and job & lifestyle support.
Dane M. Lee & Tommy Nichols (2014)	Physician Recruitment and Retention in Rural and Underserved Areas (The recruitment of General Practitioners and Their Obstacles in Remote and Underserved Areas)	An extensive literature reviews.	To improve the health services in remote areas, the focus is to educate the native sons who will later return to their hometown. However, there are also articles which explain that by providing clear information exposure regarding the working experiences in remote areas for medical and health students, as well as including them in their curriculum, will make the doctors and medical workers' interest and intention to work in remote areas increase.

The third journal, regarding the Recruitment of General Practitioner and their Obstacles in the Remote and Underserved Area in Texas, the USA, explains the concerns of doctors who nearly enter the age of retirement. Furthermore, the journals also discuss the different vision between the doctors on-duty with their successors, the young doctors who still complete their study, regarding the jobs they have in remote areas as their career choice. It is predicted that only 20% of doctors whose vision is similar to their predecessor for the next two decades. They did not choose to work in remote areas as their career goals (Lee & Nichols, 2014; Purnamasari, Ayuningtyas, & Sutrisnawati, 2019).

This article explains how to advance health services in remote areas, and the point to focus on residents that being educated and returning to their home. However, there is also an explanation that provides exposure as well as clear information about working experience in remote areas for medical and health students that need to be included in their curriculum. This aspect can increase the interest and desire of the doctors and the staff medical to work in remote areas.

#### Efforts to Fulfil the Needs of Doctors/Specialists

To realize the highest quality and degree of public health in the context of the formation of human resources as capital for implementing regional development, various health efforts need to be carried out in an integrated and sustainable manner so that the community can get access to health services. The NTB Provincial Government is fully committed in this matter outlined in NTB Province Regional Regulation No. 4 of 2017 concerning the Quality of Health Services (NTB Government, 2017; Rakovec-Felser, 2015; Ayuningtyas, 2018).

#### Political Support Indicator

The political commitment and the regional head support are reflected in the local policies and the implemented program that will affect the sustainability of the specialist doctor's duties in the region. The existence of local policies and regulations regarding the placement and recruitment of specialist doctors is capable of providing a sense of security and comfort for specialist doctors who work in the region.

Political support, at the national, regional, and local levels has a central role. It is essential in the environmental policy because it is a determining factor in policy success. Political support can be expressed explicitly or implicitly. Explicit supports were marked, among others, by statements of support from government officials and leaders, while implicit support was measured among others from what government officials had done in the field of national and operational policies. Political support or commitment from the government is essential for successful policy implementation. The political commitment is usually identical with resource support and assistance in coordinating, implementing and maintaining public health interventions when policy changes are needed (Bethencourt & Galasso, 2008; Zahirian Moghadam, Raeissi, & Jafari-Sirizi, 2019; Ministry of Health, 2017b).

#### National Policy Indicators and Their Application in the Regions

Some data collected from stakeholders regarding the existence of national policies and their application in the field, most states that existing national policies have been striven to be implemented properly. Implementation of a national policy regarding the placement of Non-Permanent

Employee and internship workers in remote areas in West Nusa Tenggara that is capable of getting closer and increase the ratio of people to get health services. The opening of opportunities for study assignments for general practitioners who want to continue to the specialist level, it certainly improved their motivation. Unfortunately, it is not balanced with the implementation of policies on incentives and the provision of facilities for specialist doctors that still need to be improved.

If seen from the national regulations that have been implemented by the Ministry of Health at this time, based on Law Number 36 of 2011 Article 23 (Government Republic of Indonesia, 2014), it is stated that the placement of health workers by the government or regional government is carried out by means of special assignments. In terms of helping to meet the needs of health workers since 2015. The Ministry of Health of the Republic of Indonesia has conducted a comprehensive health workforce placement program, i.e., Nusantara Sehat. The program was formed to realize the 3rd Vision, i.e., Building Indonesia from the Edge by Strengthening Regions and Villages within the Framework of a Unitary State. The implementation was carried out by Special Assignments of Team-Based Health Workers who sent to frontier, outermost, and least developed region. This aspect was supported by the issuance of Regulation of the Minister of Health of the Republic of Indonesia Number 16 of 2017 Concerning the Special Assignment of Health Workers for Supporting the Nusantara Sehat Program (Ministry of Health, 2017). Hence, in Law No. 23 of 2014 it also has been explained that the determination of the specialist doctors' placement and specialist dentists for regions who are unable and uninterested is a matter of the central government (Government Republic of Indonesia, 2014). However, the policies regarding incentives and facilities for physicians in remote areas vary on the capabilities of the region (Aziz, 2016; Brown, 2020; Brinkerhoff, Cross, Sharma, & Williamson, 2019).

Based on the Regulation of the Minister of Health No. 33 of 2015 has regulated the Guidelines for the Preparation of Health Human Resource Planning, whereby planning and submission are arranged in stages (starting from Health Service Facilities, district/city governments, provincial governments, to the Government nationally) based on the availability of Health Workers and Needs (the Law on Health Workers article 14 paragraph 2) (Ministry of Health, 2015). The cooperation and communication between agencies can be an essential key in the policy of the implementation process. The existence of an organizational structure that has many agencies in different locations and making coordination in government organizations requires a sound communication system. Likewise, a bureaucratic system that is difficult because it refers to the hierarchy that needs optimal communication. Effective communication can be a reasonable effort for optimizing coordination relations between agencies in government organizations. According to Van Meter and Van Horn (Van Meter & Van Horn, 1975), there are six variables that affect implementation performance; one of them is communication between organizations and implementing activities. The existence of routine coordination forums, both formal and informal, are expected to help the process of establishing communication to support policy implementation.

#### Indicators of Community Aspiration and Support

The aspirations and community support for the government to meet the needs of specialist doctors in the

West Nusa Tenggara area seems to have been quite good. This aspect supports the creation of a positive regulatory environment. The government budget allocations must be improved to meet the needs of specialist doctors in remote areas. However, this aspect is helped by funding from outside the government (private/donor, community). There are no efforts of organizations or private agencies to meet the needs of specialist doctors in remote areas. Regional autonomy has opened opportunities for local governments to develop local policies wisely. However, not all of these policies can be implemented optimally because the existence of new autonomous regions is not always accompanied by adequate human and financial capacity. The involvement of the private sector, the community, and Non-Government Organizations can have an important role in working with the government, especially in terms of the availability of skilled human resources and financial support. The cooperation, which involves the private sector, is known as the Public-Private Partnership (PPP) (Aziz, 2016).

From the program indicator components, all stakeholders consider as increased their opportunities for general practitioners. The opportunity to participate in training and seminars become an arena for doctors to improve their quality and updating their knowledge. This aspect considered mandatory in the running program component in order to guarantee the quality of health services for the community. The policy, as well as the application of incentives and facilities for specialist doctors, needs to maintain the resistance of specialist doctors who have served in the area and attract the interest of those who will work there. General practitioners and specialists who have the opportunity to learn and attend training in the West Nusa Tenggara region are adequately proper.

The Ministry of Health of the Republic of Indonesia has taken the initiative to send doctors to specialist doctor education program related to the shortage of specialist doctors in West Nusa Tenggara. Some health workers in West Nusa Tenggara was sent to study the specialist doctor education program. As many as 20 doctors in West Nusa Tenggara would continue their education to become specialist doctors to meet the needs of specialist doctors in the West Nusa Tenggara area. However, some specialist doctor experience obstacle after graduate as a specialist doctor, many other regions scrambled and offered quite large incentives between IDR 15 million to IDR 25 million per month. The executive and legislative branches increase the incentives of specialist doctors in order to ensure the comfort of specialist doctors who live in the area. Therefore, the amount of West Nusa Tenggara Regional Development Budget allocated the health sector. Through the signing of a memorandum of understanding (MoU) witnessed by the West Nusa Tenggara House of People's Representative Council, the West Nusa Tenggara Regional Development Budget prepared the intensive to bind the doctors who have become specialists. The doctors who have graduated and become specialist doctors must return or serve in their origin area for at least ten years. Afterwards, they are permitted to work anywhere.

Until now, periodic monitoring and assessment of meeting the needs of specialist doctors and advocacy mechanisms to utilize monitoring and assessment data for policymaking in meeting the needs of specialist doctors have not been routinely carried out. This point is actually crucial to be capable of facilitating the region for analyzing the conditions that occur until it can do the right planning to overcome existing problems related to the needs of specialist doctors. There is a need for reinforcement and coordination

between the agencies (Regional Employment Board, Regional Development Planning Agency, Health Office) to ensure the sustainability of this assessment and advocacy mechanism.

The primary indicator of improvement in the environmental policy is the creation of conducive conditions to policy implementation. Thus, evaluation or review of areas affected the environmental policy, program of activities, including making policies according to needs, mass media participation, and allocation of funds. The policies without proper implementation will only contribute minimally to the improvement of the overall environmental policy (Popp, 2019; Switzer, 2019; Malonda, Hakim, Hanafi, & Yanuwadi, 2020).

## CONCLUSION AND RECOMMENDATION

The environmental policy for meeting the needs of specialist doctors in West Nusa Tenggara Province has been considered positive, especially in the aspect of political support. However, aspects of national policies related to incentives and facilities are still considered negative. The lengthy and bureaucratic path between the central government and regional governments can be the cause of the community or the implementers of policies in the regions not to evaluate the various policies that have been set positively. The excellent and intensive collaboration from the central government, regional governments, and educational institutions must be improved to provide motivation and encouragement for medical workers who work in remote areas. Increasing the conduciveness of the environmental policy, especially political support, national, and local policies should continue to be endeavored to support the successful fulfilment of the needs of health workers, especially doctors in the remote areas.

The synchronization between national and local policies becomes a necessity in order to the implementation does not deviate from the stated goals. The planning structure also needs to be supported by effective coordination between agencies and organizations. Improving coordination mechanisms among institutions and providing advocacy channels are crucial to support the effectiveness of the policy in meeting the needs of specialist doctors. In the program component, there are three main factors to consider, i.e., training, compensation, and workload. The medical workers who work in remote areas must be given access to support their careers according to their choice in the future. They can improve their motivation for working in remote areas in West Nusa Tenggara.

## 2

### Acknowledgement

The authors thank all those involved in the analysis of this article.

### Funding Statement

No funding was received for conducting this study

### Conflict of Interest statement

The authors have no conflicts of interest with the material presented in this manuscript. The authors declare that no ethical issues may arise after the publication of this manuscript.

## REFERENCE

- Austin, J. B. (2012). A Phenomenological Investigation of Physician Job Satisfaction in Rural Integrated Primary Care. *ProQuest Dissertations and Theses*, 81. Retrieved from [http://libaccess.mcmaster.ca/login?url=http://search.proquest.com/docview/1174961963?accountid=12347%5Chttp://sf.x.scholarsportal.info/mcmaster?url\\_ver=Z39.88-2004&rft\\_val\\_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%26+theses&sid=ProQ:ProQu](http://libaccess.mcmaster.ca/login?url=http://search.proquest.com/docview/1174961963?accountid=12347%5Chttp://sf.x.scholarsportal.info/mcmaster?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:dissertation&genre=dissertations+%26+theses&sid=ProQ:ProQu)
- Ayuningtyas, D. (2018). *Analisis Kebijakan Kesehatan: Prinsip dan Aplikasi* (Kesatu). Rajawali Press.
- Aziz, N. L. L. (2016). Hubungan Kerjasama Pemerintah dengan Pihak Swasta dalam Pembangunan Infrastruktur di Indonesia. Retrieved August 19, 2019, from <http://www.politik.lipi.go.id/kolom/kolom-1/politik-lokal/1107-hubungan-kerjasama-pemerintah-dengan-pihak-swasta-dalam-pembangunan-infrastruktur-di-indonesia>
- Bethencourt, C., & Galasso, V. (2008). Political complements in the welfare state: Health care and social security. *Journal of Public Economics*, 92(3-4), 609-632. <https://doi.org/10.1016/j.jpubeco.2007.06.005>
- Brinkerhoff, D. W., Cross, H. E., Sharma, S., & Williamson, T. (2019). Stewardship and health systems strengthening: An overview. *Public Administration and Development*, 39(1), 4-10. <https://doi.org/10.1002/pad.1846>
- Brown, A. (2020). Communication and leadership in healthcare quality governance: Findings from comparative case studies of eight public hospitals in Australia. *Journal of Health Organization and Management*, 34(2), 144-161. <https://doi.org/10.1108/JHOM-07-2019-0194>
- Canadian Medical Association. (2000). Rural and Remote Practice Issues. *CMAJ: Canadian Medical Association Journal*, 163(8), 1047-1054.
- Geyman, J. P., Norris, T. E., & Hart, L. G. (2001). *Rural medicine*. McGraw-Hill.
- Government Republic of Indonesia. Law number 23 Year 2014 concerning Local Government (2014).
- Government Republic of Indonesia. Law Number 36 of 2014 concerning Health Workers (2014).
- Joffe, H. (2011). Thematic Analysis. In *Qualitative Research Methods in Mental Health and Psychotherapy: A Guide for Students and Practitioners* (pp. 209-223). <https://doi.org/10.1002/9781119973249.ch15>
- Lee, D. M., & Nichols, T. (2014). Physician recruitment and retention in rural and underserved areas. *International Journal of Health Care Quality Assurance*, 27(7), 642-652. <https://doi.org/10.1108/IJHCQA-04-2014-0042>
- Malonda, H., Hakim, A., Hanafi, I., & Yanuwadi, B. (2020). Environmental Sustainability Policy with Green Constitution Implementation Models in Indonesia, 15(1), 89-93.
- Ministry of Health. (n.d.). Indonesia Health Profile 2017. Retrieved August 19, 2019, from <https://pusdatin.kemkes.go.id/resources/download/pusdatin/profil-kesehatan-indonesia/Profil-Kesehatan-Indonesia-tahun-2017.pdf>
- Ministry of Health. (2011). *Development Plan for Health Workers 2011-2025*.
- Ministry of Health. Regulation of the Minister of Health No. 33 of 2015 concerning Guidelines for the Preparation of Health Human Resource Planning (2015).

- Ministry of Health. Regulation of the Minister of Health of the Republic of Indonesia Number 16 of 2017 Concerning the Special Assignment of Health Workers for Supporting the Nusantara Sehat Program (2017).
- Ministry of Health. (2017b). Tenaga Kesehatan untuk Daerah Terpencil Perlu Digalakkan. Retrieved August 19, 2019, from <https://www.kemkes.go.id/article/view/17053100001/tenaga-kesehatan-untuk-daerah-terpencil-perlu-digalakkan.html>
- NTB Government. Regulation of NTB Province Number 4 /2017 about Health Care Quality (2017).
- NTB Health Office. (2020). Number of Medical Personnel in Health Facilities in 2019 in NTB Province. Retrieved August 19, 2019, from <https://data.ntbprov.go.id/dataset/jumlah-tenaga-medis-di-fasilitas-kesehatan-tahun-2019-di-provinsi-ntb>
- Popp, D. (2019). Environmental policy and innovation: a decade of research. *National Bureau of Economic Research Working Paper Series*, (w25631).
- Purnamasari, I., Ayuningtyas, D., & Sutrisnawati, N. N. D. (2019). The needs fulfillment of medical specialist in general hospital type C in remote areas. *Iranian Journal of Public Health*, 48(7), 1270–1277. <https://doi.org/10.18502/ijph.v48i7.2950>
- Rakovec-Felser, Z. (2015). The Sensitiveness and Fulfillment of Psychological Needs: Medical, Health Care and Students. *Collegium Antropologicum*, 39(3), 541–550.
- Stamm, B. (2003). *Rural behavioral health care: An interdisciplinary guide*. American Psychological Association.
- Switzer, D. (2019). Citizen Partisanship, Local Government, and Environmental Policy Implementation. *Urban Affairs Review*, 55(3), 675–702. <https://doi.org/10.1177/1078087417722863>
- Van Meter, D. S., & Van Horn, C. E. (1975). The Policy Implementation Process: A Conceptual Framework. *Administration & Society*, 6(4), 445–488. <https://doi.org/10.1177/009539977500600404>
- World Bank. (2018). Human Capital Index 2018. Retrieved August 19, 2019, from [https://data.worldbank.org/indicator/HD.HCI.OVRL?cid=GGH\\_e\\_hcpeexternal\\_en\\_ext&end=2020&start=2010](https://data.worldbank.org/indicator/HD.HCI.OVRL?cid=GGH_e_hcpeexternal_en_ext&end=2020&start=2010)
- Zahirian Moghadam, T., Raeissi, P., & Jafari-Sirizi, M. (2019). Analysis of the Health Sector Evolution Plan from the perspective of equity in healthcare financing: a multiple streams model. *International Journal of Human Rights in Healthcare*, 12(2), 124–137. <https://doi.org/10.1108/IJHRH-07-2018-0044>



# The Needs Fulfillment of Medical and Specialist Doctors in West Nusa Tenggara, Indonesia

## ORIGINALITY REPORT

9%

SIMILARITY INDEX

6%

INTERNET SOURCES

7%

PUBLICATIONS

2%

STUDENT PAPERS

## PRIMARY SOURCES

- 1** Nunuk Arie Suryana, Zulfa Auliyati Agustina, Bintoro Wardiyanto. "Assessment of Health Human Resources Policy for Health Workers at Community Health Centers in Eastern Indonesia", *International Journal of Advances in Scientific Research and Engineering*, 2019  
Publication 1%
- 2** Nurul Aisyiah Puspitarini, Kumboyono Kumboyono, Yati Sri Hayati. "Factors Influencing Family Support for Education Patterns in School-Age Children", *Jurnal Aisyah : Jurnal Ilmu Kesehatan*, 2023  
Publication 1%
- 3** Submitted to Universitas Diponegoro  
Student Paper 1%
- 4** [pdfs.semanticscholar.org](https://pdfs.semanticscholar.org)  
Internet Source 1%
- 5** [www.atlantispress.com](https://www.atlantispress.com)  
Internet Source 1%

6	Farah C. Noya, Sandra E. Carr, Sandra C. Thompson. "Attracting, Recruiting, and Retaining Medical Workforce: A Case Study in a Remote Province of Indonesia", International Journal of Environmental Research and Public Health, 2023 Publication	1 %
7	Submitted to Sriwijaya University Student Paper	1 %
8	Cahyadi Kurniawan, Eko Priyo Purnomo, Aqil Teguh Fathani, Mochammad Iqbal Fadhlurrohman. "Sustainable tourism development strategy in West Nusa Tenggara province, Indonesia", IOP Conference Series: Earth and Environmental Science, 2023 Publication	1 %
9	<a href="http://jurnal.untag-sby.ac.id">jurnal.untag-sby.ac.id</a> Internet Source	1 %
10	<a href="http://www.duo.uio.no">www.duo.uio.no</a> Internet Source	1 %
11	<a href="http://www.gssrr.org">www.gssrr.org</a> Internet Source	1 %