

**Effects of the Revised Law on the Placement
of Medical Specialists on the Distribution of
Specialist Services in Indonesia**

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**Effects of the Revised Law on the Placement
of Medical Specialists on the Distribution of
Specialist Services in Indonesia**

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LIST OF ABBREVIATIONS

The following table explains the various abbreviations and acronyms used throughout this thesis.

MoH Indonesia	Ministry of Health of the Republic of Indonesia
RPJPN	Indonesia's National Long-Term Development Plan (Rencana Pembangunan Jangka Panjang Nasional Tahun 2005–2025)
RPJMN	Indonesia's National Mid-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional) 2015–2019
WKDS	Medical Specialists' Compulsory Service (Wajib Kerja Dokter Spesialis)
PGDS	Medical Specialists' Deployment (Pendayagunaan Dokter Spesialis)
DTPK	Underdeveloped Regions, Borders, and Outlying Islands (Daerah Tertinggal, Perbatasan, dan Kepulauan)
STR	Certificate of Registration for Physicians and Medical Specialists (<i>Surat Tanda Registrasi</i>)
PPDS	Continuing Education Scholarship for Medical and Dental Specialists

BAPPENAS	National Agency of Planning and Development
IDI	Indonesian Medical Association (<i>Ikatan Dokter Indonesia</i>)
KKI	Indonesian Medical Council (Konsil Kedokteran Indonesia)
NAWACITA	President Jokowi's Nine-Priority Strategic Agenda
Non-ASN	Non Aparatur Sipil Negara
PBL	Recipients of Direct Education Cost Assistance
PBTL	Penerima Bantuan Tidak Langsung (Recipients of Non-direct Aid or Education Cost Assistance)
ASN	Aparatur Sipil Negara (Government Official)
Non-ASN	Non Aparatur Sipil Negara (Non-government Official)
TUBEL	Tugas Belajar (Scholarship from the Government)
SI-SDMK	Sistem Informasi Sumber Daya Manusia Kesehatan (Health and Human Resources Information System)
SKN	National Health System (Sistem Kesehatan Nasional)

ABSTRACT

Effects of the Revised Law on the Placement of Medical Specialists on the Distribution of Specialist Services in Indonesia

Background: The maldistribution and disparities in the provision of medical specialists to provinces and districts in big cities and rural areas in Indonesia are one reason why the government of Indonesia has managed the placement of medical specialists through the WKDS, which in the year 2019 became the PGDS. The impact of these changes and their implementation requires analysis and evaluation.

Objectives: To investigate the difference between mandatory and voluntary placement, evaluate the planning, recruitment, and deployment of medical specialists by interviewing key stakeholders, and identify factors that support and inhibit the deployment of medical specialists in Indonesia.

Methods: This qualitative analysis focuses on a content analysis and in-depth interviews; it also conducts a literature review and reviews existing regulations and secondary data from 2017–2022. The purpose of this study is to determine whether the revised law, which has changed a mandatory service to a voluntary service, has had a significant impact on the distribution of specialist services in Indonesia. The analysis is based on in-depth interviews and other secondary data, including the number of patient, outpatient, and inpatient visits and the number of referral cases, morbidities, and mortalities in eight

chosen provinces (Sulawesi Barat, Sulawesi Tengah, Sulawesi Tenggara, Maluku Utara, Maluku, Nusa Tenggara Barat Nusa Tenggara Timur, and Jambi).

Results: Overall, the change from mandatory to voluntary placements for medical specialists has had both positive and negative effects. In implementing the program, the WKDS in DTPK regions across Indonesia continuously met the needs of medical specialists and minimized their maldistribution across health facilities. When the program became voluntary, its ability to meet the needs of medical specialists and to place them across Indonesia was reduced.

Conclusion: The deployment of medical specialists is surely one central-government program that benefits citizens all across Indonesia. A few supporting and inhibiting factors have been shown to act as advantages and disadvantages in the mandatory or voluntary placement of medical specialists. Given the urgent need to distribute medical specialists throughout Indonesia (especially in DTPK regions) and considering various supporting and inhibiting factors, it would be better for the government to continue implementing the mandatory placement of medical specialists without actually using the word “mandatory,” while making a few adjustments to the regulations, in particular those related to rights, financial and non-financial incentives, placement mechanisms, and the commitment of local government.

I. INTRODUCTION

1. Background

Investments in healthcare support national development. According to Article 28H of the 1945 Constitution of the Republic of Indonesia, everyone has the right to live in physical and spiritual prosperity, to have a place to live and a good and healthy living environment, and to obtain health services. Indonesia's National Long-Term Development Plan (RPJPN) 2005–2025 states that national development is a series of sustainable development activities that include all aspects of the life of a prosperous, intelligent, and equal society. One indicator of wellbeing in national development is an increase in community life expectancy, which can be used to measure the success of public-health developments.

The vision of the President of the Republic of Indonesia is to create a sovereign, independent Indonesia, based on cooperation; this vision has been translated into the NAWACITA 9 (nine) agenda, which comprises nine main programs and the foundations of Indonesia's development paradigm. One NAWACITA priority is to improve the quality of human life by increasing the availability, distribution, and quality of health-related human resources; this goal is stated in the national mid-term development plan (RPJMN) 2015–2019. In 2012, Article 2 of the National Health System (SKN) mandated that health management should be organized through seven subsystems, including health-related human resources, which comprise an important

aspect of the subsystem, enabling it to carry out healthcare initiatives at health- service facilities ("Sistem Kesehatan Nasional," 2012).

In preparing to carry out the health transformation, the Ministry of Health of the Republic of Indonesia (MoH Indonesia) developed 6 (six) main pillars of transformation to support the implementation of the process; these pillars involved the transformation of the: (1) Primary Service; (2) Referral Service; (3) Health Resilience System; (4) Health Financing System; (5) Health Human Resources; and (6) Health Technology.

Although the quality of community health in Indonesia has improved nationally, the disparity in health status between socioeconomic levels, regions, and urban and rural areas is still quite large. Many challenges remain, especially in the health sector, including high infant and maternal mortality rates, growth stunting, and other nutritional problems. Indonesia also faces a double burden; not only is society at high risk of infectious diseases, such as AIDS, tuberculosis, and malaria, which are still highly prevalent, but it also suffers from a many non-communicable diseases, including hypertension, diabetes, cancer, and mental-health disorders.

Health workers play an important role in improving the quality of health services. According to health-related Constitution Number 36 (2014), “a health worker is any person who devotes themselves in the health sector and has the knowledge and/or skills through education in the health sector to certain types require the authority to make efforts health.” Discussions about health workers have been held in the Joint

Learning Initiative Consortium, which includes 186 countries. Health workers are considered very important because their history proves that they play an essential role, spearheading health-system performance and managing health resources. As a consequence, they can either hinder or support progress (Campbell et al., 2013).

Due to its geographical position, the Republic of Indonesia has around 17,000 islands, which form an archipelago with five large islands that lie across the equator and have a unique geography, with volcanic mountains, oceans, swamps, forests, and other landmasses (Mohamad et al., 2022). The unique features of Indonesia are one of the main reasons why access to health services can be very difficult to achieve in certain areas. In addition, many health-service facilities, such as hospitals and public-health centers, lack sufficient health workers, especially medical specialists.

Medical specialists (and to a lesser extent other health workers in Indonesia) are not distributed equally across all areas, according to research carried out by the Agency of Research and Development in 2017, which showed public hospitals under the Ministry of Health of Indonesia reaching 80% capacity (Agency, 2021).

According to the Minimal Standard of Workers regulation, included in the 2010 Minister of Health Decree Number 340 on Hospital Classification, parts of Indonesia lack of medical specialists, especially in four essential medical specialties and three supporting medical specialties.

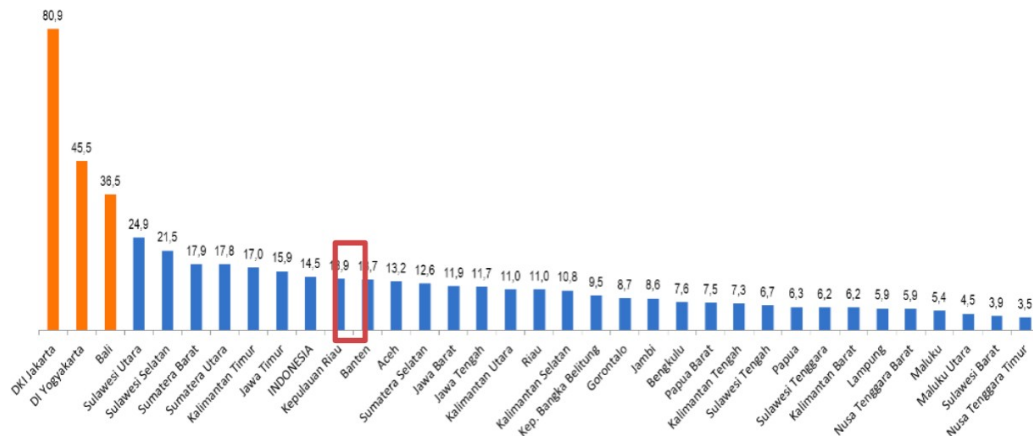
Table 1. Existing and Required Health Workforce in 1,011 Hospitals

TENAGA KESEHATAN	KEADAAN	KEKURANGAN
Spesialis Anak	2.170	460
Spesialis Obgyn	2.353	405
Spesialis Penyakit Dalam	2.652	334
Spesialis Bedah	1.801	542
Spesialis Radiologi	1.276	255
Spesialis Anestesi	1.527	333
Spesialis Patologi Klinik	1.125	258

Sumber: Badan PPSDM Kesehatan, Dokumen Rencana Kebutuhan 2019

Other data show a huge disparity in the distribution of medical specialists across Indonesia, with a very high number of medical specialists in big cities and urban areas, including the Special Capital Region of Jakarta, the Special Region of Yogyakarta, and Bali (Kesehatan, 2018).

Figure 1. Ratio of Medical Specialists per 100,000 Residents in 2019



In 2020, the Coordinating Ministry for People’s Welfare of the Republic of Indonesia set a target of 12 medical specialists per 100,000 residents through the

2013 Decree of the Minister of People's Welfare of the Republic of Indonesia Number 54 on the Development Plan of Health Workers 2011–2025. However, medical specialists continue to be concentrated in Java Island, leaving 16 provinces unable to achieve the standard ratio of medical specialists per 100,000 residents set by the government in 2019. Although the minimum standard is 11 doctors per 100,000 residents, the number of provinces that cannot meet this standard is likely to increase as the health-transformation target increases to 28 medical specialists per 100,000 residents (Aurizki, 2021).

The government is obliged to provide health resources, based on Article 16 of Constitution Number 36 on Health (2009), which notes that the government is responsible for providing health-sector resources fairly and equitably to the entire community to achieve good health for all. According to Constitution Number 23 (2019) on Regional Government, the placement of medical specialists, especially in remote, underdeveloped areas, frontiers, and islands, is the responsibility of the central government.

Optimizing the health system in districts and sub-districts is the government's way of making it easier for communities to access good-quality health services and providing medical specialists, in accordance with agreed standards (Kitsios and Kamariotou, 2021). It also accelerates the process of achieving the highest health status, a health-development goal, and supports the Healthy Indonesia Community Program. The central government has carried out several programs designed to

distribute medical specialists and improve access to good-quality health services. However, despite all of the programs implemented by the government, more efforts are needed to distribute medical specialists in equal numbers across Indonesia.

Article 28, Paragraph 1 of Constitution Number 36 (2014) on Health Workers states that, in certain circumstances, the government can impose mandatory work provisions on health workers who have the academic qualifications and competency needed to carry out specific tasks, designating them health workers in special areas within the Unitary State of the Republic of Indonesia. The program of Compulsory Service of Medical Specialists (WKDS) was established to provide communities with medical specialists and health services, improve public access to quality healthcare services in Indonesia, and ensure that hospitals have enough medical specialists to meet minimum standards ("Tenaga Kesehatan," 2014).

As stipulated by Presidential Decree Number 31 (2019) on Medical Specialist Deployment, Presidential Decree Number 4 (2017) on the Compulsory Service of Medical Specialists is no longer in effect. This regulation also states that PGDS participants are entitled to tuition assistance. In organizing PGDS programs, the Ministry of Health collaborates with medical colleges, professional organizations, and educational institutions. The responsible institutions are as follows:

1. The Ministry of Health is responsible for organizing the program, from the recruitment process to the placement of participants. This includes providing

allowances, arranging placements, coaching and monitoring participants, and drafting regulations to ensure the optimal implementation of the program.

2. Local government is responsible for readying facilities and infrastructure, equipment, medicines, lodgings/official residences, regional incentives (based on regional capacity), and medical and other services that physicians are entitled to.
3. The Indonesia Medical Council (*KKI*) is responsible for issuing physicians with Certificates of Registration (*STR*).
4. Faculties of medicine are responsible for establishing a mechanism through which each PGDS candidate can sign a statement of willingness to participate in the PGDS program.
5. The Indonesian Medical Association (*Ikatan Dokter Indonesia* or *IDI*) is responsible for supporting the policies of their respective associations to implement the PGDS program, as well as encouraging the Professional Development Council (*Majelis Pengembangan Pelayanan Keprofesian* or *MPPK*) and the Academy of Medicine of Indonesia (*Majelis Kolegium Kedokteran Indonesia* or *MKKI*) to discuss their respective roles in more detail (Kesehatan, 2020).

2. Objective

The main objective of the present study is to 1) determine the difference between the mandatory and voluntary placement of medical specialists; 2) assess the planning, recruitment, and deployment of medical specialists; and 3) identify factors that support or inhibit the placement of medical specialists.

2.1. Research Questions

- a. What is the effect of the revised law on the placement of medical specialists and the provision of specialist services in Indonesia?
- b. What factors support and inhibit compulsory service and voluntary deployment programs?
- c. What are the most effective strategies the government can take to meet the need for specialist services in Indonesia?

2.2. Hypothesis

This study hypothesizes that the placement of medical specialists in remote and very remote regions is compulsory and that the number of medical specialists who are willing to work in DTPK areas will increase. In addition, this study explores whether the government policy that changed the regulations from mandatory to voluntary has had a significant effect on the placement of medical specialists and the distribution of specialist services in Indonesia.

II. LITERATURE REVIEW

1. Overview

Fewer doctors have been distributed to DTPK regions in Indonesia than to urban areas, especially big cities. This has caused the quality of healthcare services to decline in DTPK areas, reducing the overall health of the population. According to Article 34, Clause 3 of the 1945 Constitution of the Republic of Indonesia, “The State is responsible for providing proper health and public service facilities.” Article 26, Clause 1 of Constitution Number 36 (2009) on Health also states that “regional governments may provide and exert health workers according to the needs of the region.” The government has established accommodative programs designed to achieve the fair and proportional distribution of medical specialists ("Kesehatan," 2009).

Since 2001, Indonesia has implemented a cross-sectoral decentralization policy. The central government is the highest level of government, with the provincial level beneath it. The Republic of Indonesia has 34 provinces, each of which has a district/city level with 515 districts. Sub-districts and villages constitute the lowest level of government. The district/city level of government is responsible for citizens and the whole population; it is mandated to construct local policies, establish fiscal regulations, and manage resources, including personnel, assets, and the remuneration system. In accordance with its mandate, the Ministry of Health also delegates

responsibilities to provincial and district health offices, with provincial health offices mandated to coordinate with district programs (Absori et al., 2021).

Indonesia suffers from maldistribution and a shortage of certain kinds of essential health workers, doctors, and medical specialists; this situation has reduced community access to quality health workers and health services. Poor health indicators are closely linked to health-worker shortages and maldistribution in Indonesia. To resolve the shortage and maldistribution, the government of Indonesia has drawn up a Long-Term Development Plan for 2011–2025 (RPJPN), which includes planning; production; placement (deployment, distribution, and carrier development), quality; supervision; and monitoring ("Undang-Undang Tentang Rencana Pembangunan Jangka Panjang Nasional Tahun 2005–2025," 2007).

Indonesia always struggles to distribute health workers fairly primarily because of geographical constraints. Although the country has a huge number of doctors and medical specialists, most of them want to work in big cities and urban areas. Other health-worker-related issues that the government of Indonesia is trying to solve include low workforce density, maldistribution, low retention of village midwives, a lack of competencies among healthcare workers, and low-quality health services (Rakmawati, Hinchcliff and Pardosi, 2019).

2. Program to Distribute Medical Specialists in Indonesia

The top-priority issue of medical specialists remains a huge problem in Indonesia. The fair placement and equal distribution of medical specialists is crucial to improving the quality of health services in district and city hospitals. In 2017, as stipulated by Presidential Regulation Number 4 (2017), the Ministry of Health distributed medical specialists in DTPK regions through a program called WKDS ("Wajib Kerja Dokter Spesialis," 2017). WKDS participants were medical specialists who had just graduated from PPDS/PPGDS programs; they specialized in obstetrics and gynecology, pediatrics, internal medicine, surgery, and anesthesiology. These participants were assigned to local district hospitals, which are prioritized as referral hospitals at the provincial level in DTPK regions.

During the implementation of the WKDS program in 2019, a lawsuit was filed, requesting a judicial review of this presidential decree; subsequently, the placement of medical specialists was changed from mandatory to voluntary. Some articles involving the WKDS in Presidential Decree Number 4 (2017) have been removed, based on the High Court's decision Number 62P/HUM/2018. The original decree has been replaced with Presidential Decree Number 31 (2019) on the PGDS. Since the new regulations came into effect, the placement of medical specialists is no longer mandatory for graduates, but voluntary ("Putusan Mahkamah Agung Republik Indonesia Nomor 62P/HUM/2018, " 2018).

The WKDS program was implemented in 2017 and was mandatory for all PPDS/PPGDS graduates without exception, regardless of whether they were graduates receiving regular tuition assistance from the government as Direct Aid Recipients, graduates receiving indirect (private) tuition assistance, or government officials. The policies included in the new Presidential Decree state that the placement of medical specialists is voluntary for all the medical graduates apart from government officials, who receive tuition assistance as Direct Aid Recipients. The Indonesian government no longer has the authority to distribute medical-specialist graduates across Indonesia to ensure equal coverage (Buku, 2021).

Since the implementation of the new Presidential Decree, the government has still managed to place medical specialists across all provinces in Indonesia. However, a review of the total number of medical specialists who have applied to the program before and after the lawsuit shows reduced numbers in some provinces, especially in the eastern part of Indonesia. The average percentage of independent participants who choose to apply to the PGDS program is only 20–30%. There is also an imbalance and disparity between Java and outside areas in the ratio of doctors per 100,000 residents. Overall, 183 districts have been categorized as lacking doctors and medical specialists despite large populations (Muhaemin, 2017).

Certain factors influence whether doctors (and medical specialists in particular) are disinclined to be placed in rural areas. These factors are associated with individual interests, which can also be related to various interrelated factors. The

government as a regulator can often intervene to change these factors and increase the number of medical specialists placed in DTPK areas. Some factors reflect whether participants have ever worked in or visited rural areas before, their income potential, career opportunities, the status of the family economy, the location's proximity to family, rural facilities, proximity to the spouse's location, and access to a university for additional education (Amalia, 2021).

Since Presidential Decree Number 4 (2017) on the WKDS (Compulsory for Medical Specialists) was amended to include Presidential Decree Number 31 (2019) on the PGDS (Medical Specialist Deployment), it is no longer mandatory for graduating medical specialists to be distributed across the country. For this reason, the number of medical specialists participating in the PGDS has decreased from WKDS levels in 2017–2019.

3. Impact of the Unequal Distribution of Medical Specialists

The Indonesian government is focusing on providing remote and very remote areas across Indonesia with high-quality healthcare workers and health services. However, it will take much effort to achieve this. The government may be able to work out ways to improve the education system and policies related to medical specialists. Government financial aid for medical specialists pursuing continuing education may ultimately benefit the government and make the placement of medical specialists easier. Such courses can be fully or partially funded, binding

post-education medical specialists to work in regional hospitals in DTPK areas. Such funding and related factors could increase the willingness of specialists to be placed in more remote parts of Indonesia (Susyanty, Hendarwan and Su'udi, 2020).

Looking back at the situation in remote and very remote parts of Indonesia in 2017 before the WKDS program was implemented, we can see several effects that are likely to occur again, now that the placement of medical specialists is no longer mandatory and medical specialists are needed in particular areas. These effects are as follows:

1. In the case of maternal and neonatal mortality, referral rates will increase. The lack of medical specialists in rural areas will cause many potential risks to patients forced to travel to the nearest hospital.
2. There will be a huge disparity in medical-specialist placements between one province/district/city and another; there will be limited access to specialist services, especially in DTPK areas.
3. Service quality will decrease at regional hospitals because there will be no transfer of knowledge from medical specialists to other health workers, delaying medical and other services.
4. Cases of non-communicable diseases and the disease-related mortality rate will increase. Untreated degenerative diseases in particular will lead to an increased risk of death.

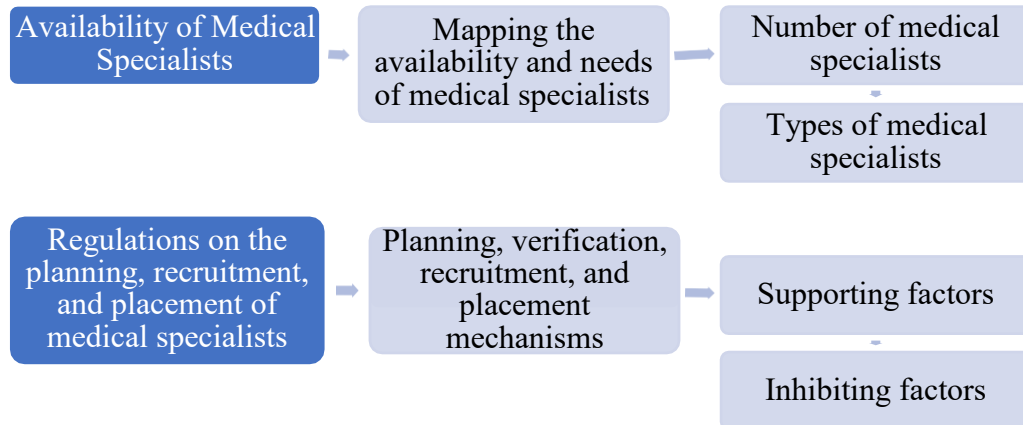
5. The lack of doctors and medical specialists will lead to a low rate of patient visits to hospitals (Simamora et al., 2020).

Placing the right doctors and medical specialists in remote and very remote areas is essential for the equal distribution of health services, and specialist services in particular, in Indonesia. The impact of a lack of medical-specialist placements makes this situation a priority for the government of Indonesia, which must find other ways to distribute medical specialists successfully. Financial and non-financial incentives should be considered. Incentives have been shown to provide substantial motivation, encouraging doctors to accept postings in DTPK areas, even if they must live far away from family (Susyanty, Hendarwan and Su'udi, 2020).

Central government should coordinate with local government to regulate financial incentives for medical specialists, based not only on education levels, but also on the location, security, and ratio of medical specialists per 1000 residents. In addition to financial incentives, central and local governments can offer non- financial incentives, such as accommodation or permanent residences, transportation facilities, seminars, training or continuing education, and support for regional living costs, as well as educational facilities and security. Local governments should offer the best possible accommodation to medical specialists placed in their areas, whether through financial or non-financial incentives (Sutrisno, 2017).

4. Conceptual Framework

Figure 2. Conceptual Framework



The number of existing medical specialists in Indonesia and the needs of medical specialists in DTPK areas should be mapped and planned out to establish the availability of medical specialists in Indonesia and to determine whether the government of Indonesia can distribute enough specialists to meet the needs of every province and district for essential and additional medical specialists.

III. METHODS

1. Design

This study incorporates a literature review, content analysis, and in-depth interviews. Literature reviews are defined as primarily qualitative and descriptive evaluations of a body of literature. In the present study, a content analysis is introduced and used to review literature related to the placement of medical specialists in Indonesia. Each paper has been assessed to determine its research aim, method of data gathering, method of data analysis, and quality measures. While some papers provided information on all of these categories, many failed to provide useful information. The descriptive and qualitative section focuses on in-depth interviews and the analysis of content drawn from journals, minuted meetings, and press releases. This method is designed to provide a clear explanation of the mandatory and voluntary medical-specialist programs.

2. Process

The present study incorporates a literature review, content analysis, and in-depth interview approach and begins by looking at journals and theories, based on existing regulations related to the placement of medical specialists. The main purpose of the in-depth interviews is to understand participant behaviors and make well-informed decisions. The correlation and differences between mandatory and voluntary

placement in the distribution of medical specialists can determine the advantages and disadvantages of each program.

3. Location and Time

This study focuses on the placement of medical specialists in Indonesia, interviewing a targeted group of people who work for the Directorate General of Health Workforce, which is primarily responsible for implementing this program and regulating Presidential Decree Number 4 (2017) and Presidential Decree Number 31 (2019). Secondary data were collected in 2021, using a database of information from 2017–2022. They therefore cover the beginning of the WKDS program and the PGDS program. Interviews were conducted between September 2022 and November 2022 via WhatsApp.

4. Data Collection

This study uses multiple data sources as primary and secondary data. The primary data are drawn from in-depth interviews on the study topic. The secondary data are obtained from supporting reports, regulations, literature, and a database of medical specialists between 2017 and 2022. The section below explains the primary and secondary data in more detail:

1. Primary data are obtained through in-depth interviews designed to broaden the views and opinions of participants. The participants' targets and informants were

policymakers, policy implementers, and some medical specialists. The medical specialists were interviewed by the Directorate General of Health Workforce via a questionnaire; researchers were given only the results of the interviews.

Table 2. List of Participants and Informants

Informants	Information	Total
Directorate General of Health Workforce	<ul style="list-style-type: none"> • Regulations related to planning and the placement of medical specialists • Mechanism used to map medical specialists • Placement mechanism • Supporting and inhibiting factors 	5
Provincial Health Office	<ul style="list-style-type: none"> • Regulations related to planning and the placement of medical specialists • Mechanism for mapping medical specialists • Placement mechanism • Supporting and inhibiting factors 	5
District/Sub- District Health Offices	<ul style="list-style-type: none"> • Regulations related to planning and the placement of medical specialists • Mechanism for mapping medical specialists • Placement mechanism • Supporting and inhibiting factors 	8

Informants	Information	Total
Placement hospitals	<ul style="list-style-type: none"> • Mechanism for verifying the need for medical specialists • Supporting and inhibiting factors • Supporting and inhibiting factors 	4
Participating Medical Specialists	<ul style="list-style-type: none"> • The motivation and work satisfaction of medical specialists 	Secondary data

Table 3. Lists of Secondary Data

	Secondary Data	Source of Data
1	Regulations related to the Compulsory Service of Medical Specialists, Deployment of Medical Specialists, Supreme Court statutes and other regulations related to medical specialists	Health Workforce Directorate General, Ministry of Health of the Republic of Indonesia
2	Meeting reports and press releases, policy briefs, minuted meetings	Minister of Health, National Institute of Research and Development of Health, National Agency of Planning and Development

	Secondary Data	Source of Data
3	The number of medical specialists in hospitals across Indonesia, placed through the WKDS and PGDS	Directorate of Planning of Health Workforce, Directorate of the Provision of Health Workforce

5. Data Analysis

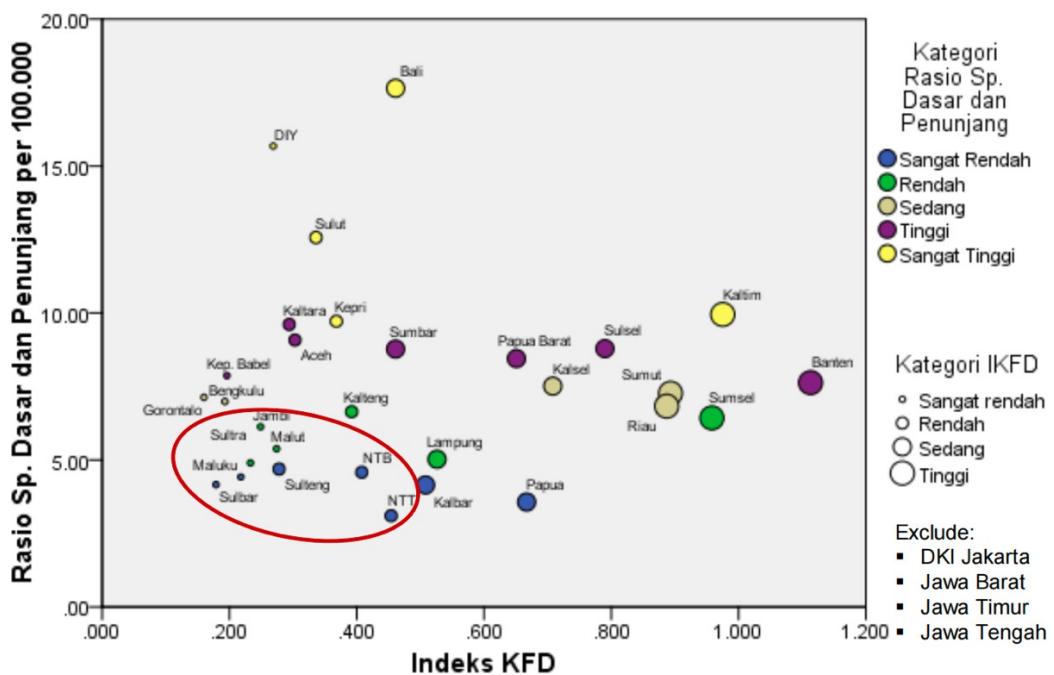
This study reviews all of the data collected through interviews, documents, and other reliable sources. Through a comparative analysis, the researcher explains the government-implemented regulations that govern medical-specialist placements.

- (a) Presidential Decree Number 4 (2017) on the Compulsory Service of Medical Specialists (WKDS)
- (b) Presidential Decree Number 31 (2019) on the Deployment of Medical Specialists (PGDS)
- (c) Comparing the two regulations and their advantages and disadvantages

Next, this study will describe the factors that support and inhibit the mandatory and voluntary work of medical specialists. The participants provide their perspective on the placement of medical specialists and why it should be mandatory or voluntary. The following eight provinces provide the focal point for this research, due to their low ratio of medical specialists per 100,000 residents: Sulawesi Barat,

Sulawesi Tengah, Sulawesi Tenggara, Maluku Utara, Maluku, Nusa Tenggara Barat, Nusa Tenggara Timur, and Jambi.

Figure 3. Ratio of Essential and Supporting Medical Specialists per 100,000 Residents



Source: National Agency for Research and Development, Ministry of Health

The Y Axis presents the index of local fiscal capacity, showing which province has the lowest fiscal capacity.

The X-Axis presents the province with the lowest fiscal capacity and the ratio of essential medical specialists per 100,000 residents.

IV. RESULTS

1. Placement of Medical Specialists

The WKDS (Specialist Occupational Obligation) program was implemented to distribute medical specialists equally to meet the needs of specialized health workers in health-service facilities; this program then changed to the PGDS (Utilization of Specialist Doctors) program. Up to Batch X (2020), a total of 3,148 WKDS/PGDS participants had been placed throughout Indonesia. When the PGDS program became voluntary, the provision of specialist doctors became increasingly difficult, especially in DTPK areas and those that were not in demand. Medical specialists now consider several things when choosing or not choosing an area/hospital.

At the same time, communities have the right to obtain appropriate health services, as needed. It is therefore necessary to see if the voluntary specialist programs can achieve the goal for equality of the distribution of medical specialist.

In 2020, the Coordinating Ministry for People's Welfare of the Republic of Indonesia set the ratio of specialist doctors at 12 doctors per 100,000 residents through the Decree of the Indonesian Coordinating Minister for People's Welfare Number 54 (2013) in the 2011–2025 Health Workforce Development Plan. The results of the secondary data analysis, which refers to the Information System Health Human Resources data and the 2015–2020 National Health Human Resources needs plan data concluded that the total number of medical specialists in Indonesia was

36,015 specialists or 56,726 license owners. Based on this availability, many specialist doctors are still concentrated on Java Island, leaving 16 provinces in which the ratio of medical specialists per 100,000 residents does not meet the established government standards for 2019 (11 per 100,000); in addition, 20 provinces fail to meet the 2025 standard (12 per 100,000). Clearly, the number of provinces failing to meet this standard will increase in response to the health-transformation target of 28 specialists per 100,000 residents.

The program to deploy medical specialists is related to several provisions in the policy including:

- a. Article 14, Law Number 44 (2009) on Hospitals, states that Hospitals can employ foreign health workers based on their service needs ("Undang-Undang tentang Rumah Sakit," 2009).
- b. Law Number 23 (2014) on Regional Government determines the placement of medical and dental specialists in areas that are disadvantaged and not in demand—
- c. as a central-government duty. With the PGDS program, which is voluntary, central government is responsible for finding a way to place specialist doctors in areas that are disadvantaged and not in demand ("Undang-Undang tentang Pemerintahan Daerah," 2014).

- d. Law Number 36 (2014) on Health Workers states that Foreign National Health Workers must be employed in a context of knowledge transfer and technology, considering the availability of local personnel ("Tenaga Kesehatan," 2014).
- e. Government Regulation Number 67 (2019) on the Management of Health Workers: health facilities belonging to the central government, local government, and individuals can make use of TKWNA ("Peraturan Pemerintah tentang Pendayagunaan Tenaga Kesehatan," 2019)
- f. Presidential Regulation 31 (2019) on the Utilization of Specialist Doctors and Law Number 36 (2019) on the Implementation of Presidential Regulation 31 (2019) on the PGDS placement of participants who have benefitted from education-cost assistance provided by the Ministry of Health budget and participants who receive educational assistance from the LPDP budget implemented by the Ministry of Health.
- g. Presidential Regulation Number 18 (2020) on the RPJMN targets the extent to which remote areas can obtain health-service facilities by developing telemedicine (specialist services).
- h. Law of the Minister of Domestic Affairs Number 99 (2018) on Guidance and the Control and Arrangement of Regional Equipment, which controls the arrangement of district/city regional apparatuses; monitoring, assistance, and evaluation are carried out by the governor as a representative of central government.

- i. Law of the Minister of Domestic Affairs Number 58 (2019) on Transfers of Civil Servants Between Inter-provincial Regions/Cities: it is necessary to control and distribute civil servants throughout the regions.
- j. Law of the Minister of Finance Number 116/PMK.07/2021 on the Map of Regional Fiscal Capacity: a regional fiscal capacity map can be used to determine the amount of co-funding provided by the government when required.
- k. Law of the Minister of Health Number 3 (2020) on Hospital Classification and Licensing: personnel are needed for public hospitals because they provide general medical services, specialists, and sub-specialists.

2. Comparing the Mandatory and Voluntary Placement of Medical Specialists

After the Supreme Court's decision to abolish the word "mandatory" in regulations governing the placement and utilization of specialist doctors, the government drafted a new regulation, the PGDS. This regulation was introduced under Presidential Decree Number 31 (2019). The analysis begins by comparing Mandatory Medical Specialists, regulated under Presidential Decree Number 4 (2017), and the Deployment of Medical Specialists, regulated under Presidential Decree Number 31 (2019), as follows:

Table 4. Lists of Mandatory and Voluntary Differences in the Placement of Medical Specialists

	DIFFERENCES	WKDS (Presidential Decree 4/2017)	PGDS (Presidential Decree 31/2019)
1	NOMENCLATURE	WKDS (Compulsory Service for Medical Specialists)	Voluntary (Deployment of Medical Specialists)
2	TYPES OF MEDICAL SPECIALISTS	Five types of specialists (pediatricians, obstetricians, surgeons, internists, and anesthesiologists)	Seven types of specialists (pediatricians, obstetricians, surgeons, internists, anesthesiologists, radiologists, and clinical pathologists)
3	TYPE OF PROGRAM	Mandatory	Voluntary
4	PARTICIPATION AND PLACEMENT DURATIONS	<ul style="list-style-type: none"> • All medical-specialist graduates (domestic and international) <ul style="list-style-type: none"> a. Aid from the Ministry of Health, regional government, and other ministries/institutions with ASN and non- ASN status, based on assignment length, in accordance with applicable regulations b. Independent financing with official government or non- 	<ul style="list-style-type: none"> • All domestic and international medical-specialist graduates: <ul style="list-style-type: none"> a. PBL/Aid from the Ministry of Health, regional government, and other ministries/agencies with ASN and Non-ASN status, based on assignment length, in accordance with applicable regulations b. PBTL/independent with ASN status, assignment

	DIFFERENCES	WKDS (Presidential Decree 4/2017)	PGDS (Presidential Decree 31/2019)
		<p>government status must be allocated for five types of specialists for one year.</p> <p>c. Post-adaptation, specialists who have to study outside Indonesia must be placed for one year.</p> <ul style="list-style-type: none"> • New graduates are independent WKDS participants who are required to take part. • Independent WKDS participants cannot extend their WKDS participation. 	<p>length is based on applicable regulations</p> <p>c. Post-adaptation non-direct recipients with non-government official status can participate in the PGDS for 12 months (voluntarily).</p> <ul style="list-style-type: none"> • Non-government officials who receive non-direct aid and wish to take part can include new and older graduates. • Non-ASN PBTL: PGDS participants can extend their participation in the PGDS
5	LOCATIONS (MINISTRY OF HEALTH VISITATIONS)	<ul style="list-style-type: none"> • Participant locations belonging to the Tubel Ministry of Health, regional government, and other ministries/agencies are not subject to visitation. • Locations for independent participants with ASN and non- 	<ul style="list-style-type: none"> • Locations belonging to the Tubel PBL/Ministry of Health, regional government, and other ministries/institutions do not need prior visitation. • PBTL/ Independent with ASN status will not be

	DIFFERENCES	WKDS (Presidential Decree 4/2017)	PGDS (Presidential Decree 31/2019)
		<p>ASN status are visited before placement.</p> <ul style="list-style-type: none"> • Post-adaptation locations are visited prior to placement. 	<p>visited beforehand</p> <ul style="list-style-type: none"> • Non-ASN and post-adaptation PBTL can take part in the PGDS and do a visitation first
6	STR	<ul style="list-style-type: none"> • The original STR and three copies are sent directly to Tubel participants by the KKI.*** • Independent participants are given only one copy of the STR to create license to practice at the assigned hospital; meanwhile, they will receive the original STR after completing their assignments. 	<ul style="list-style-type: none"> • For PBL and PBTL participants, the original STR and all three copies of the STR are sent directly to the participants by the KKI.
7	INCENTIVES	<ul style="list-style-type: none"> • Tubel participants receive incentives from local government. <p>Mandiri participants with ASN and non-ASN status receive incentives from central government</p>	<ul style="list-style-type: none"> • PBL/Tubel ASN and non-ASN participants receive incentives from regional and local government. • Post-adaptations, PBTL non-ASN and foreign participants engaged in the PGDS receive central- and

	DIFFERENCES	WKDS (Presidential Decree 4/2017)	PGDS (Presidential Decree 31/2019)
			local-government incentives.
8	RIGHTS	<ul style="list-style-type: none"> • Central-government allowances provide financial compensation, based on the Regional Incentive Hospital area, in accordance with the regional service fee and fiscal capacity. • Non-financial compensation includes accommodation and security. 	<ul style="list-style-type: none"> • Financial compensation is provided from central allowances, based on the Regional Incentive Hospital area, in accordance with the regional fiscal capacity and service fee. • Non-financial compensation includes accommodation, security, comfort; sub-specialists have

			<p>priority to receive additional points when they register.</p>
9	OBLIGATIONS	<ul style="list-style-type: none"> Independent participants complete 12 months of compulsory service. 	<ul style="list-style-type: none"> PBTL non-ASN participants complete 12 months of service.

3. Identifying the Planning, Recruitment, and Deployment of Medical Specialists

3.1 Planning

According to most respondents, there is an adequate number of available medical specialists in the area, but the distribution is not yet equal. A small number of respondents felt that there was an adequate number of available specialists in the area and also that separate geographic areas were also filled with specialist doctors, so that the distribution of medical specialist doctors in the area was sufficient. A few other respondents said that the availability of specialist doctors was still insufficient because there was only one of each type of specialist doctor in each hospital/district/city and they were not evenly distributed because other hospitals/districts/cities still lacked certain types of specialists.

“From 2017–2021 it is fulfilled but on average only one. If someone is on leave, it will be automatically vacant, sir. So, it should be we are two. Regarding our average population, I think the minimum RS average is two. If you're on leave, it's empty.” (District Health Office-1)

“In terms of distribution, it's not evenly distributed, there are still hospitals that haven't there is a pediatrician, at the City Hospital, the pediatrician borrowed from XXX District. I'm confused at least the number, for example, ob-gyn,so waiting for PGDS.” (Hospitals-1)

In response to these availability and distribution problems, hospitals must submit proposals stating the need for specialist doctors to fill vacancies that occur. All of the hospital respondents said that they asked for medical specialists because of the shortage of medical specialists and the presence of specialist cases that required specialist services. According to many respondents, other reasons were the need to meet hospital-accreditation requirements and the high number of referrals to other hospitals. A small number of respondents said that a specialist could increase the number of patient visits to the hospital.

According to the Minister of Health Decree Number 69 (2016), which was later updated to the Minister of Health Decree Number 36 (2019), the activity carried out during the planning stage for the use of medical specialists involves filing with the center the hospital's proposal of needs and visitation feasibility, as the hospital acts as the placement locus for WKDS/PGDS participants. In submitting their need-based proposals, most hospitals follow the mechanism/flow provided for submitting proposals, in accordance with the needs listed in the regulations. They begin by filling out need-based planning documents, which they then submit through the PGDS website. Each proposal is verified first by the Regional/City Health Office and then by the Provincial Health Office before being verified by the Center. In their submissions, hospitals include information related to regional and hospital commitments, such as the provision of housing, vehicles, incentives, and medical services. This information too was confirmed

by almost all respondents from the District/City Health Office and Provincial Health Office.

In relation to the feasibility of hospital visitations, several professional organizations and the Provincial Health Office (to a small degree) are involved in this activity. The visitation targets include infrastructure, medical devices and medicines, human resources, and housing, in accordance with Minister of Health Decree Number 69 (2016) and Minister of Health Decree Number 36 (2019). According to the respondents, the following obstacles emerged during this planning stage: 1) there are still regions/hospitals that have not yet input their SI-SDMK because they have not realized the importance of planning needs; 2) Health Workforce members on unpaid state leave (CLTN) for three years will still be counted in S-ISDMK so that the proposal requirements will not be accepted; 3) signal constraints hinder the submission of proposals through the website; 4) there is a need to change regional PGDS-proposal managers who do not yet understand the flow/mechanism for submitting need-based proposals; and 5) some regions do not yet know when the center will announce periods for considering the proposed needs.

"When it comes to planning, sometimes they are not disciplined because maybe they haven't committed yet because they haven't realized the importance of requirements planning. The problem is using the website, sometimes there are signal problems for the east area, that's for a

technical problem, yes. That's what they usually must change managers, so they don't understand that there must be a mechanism, so sometimes they don't know yet there should be verification so... they already proposed but they're after us." (Central Government).

"Because the data for this hospital is in the online fixed hospital, the pediatrician is on leave outside dependent on the state, there are still two recorded in the online hospital, but in real terms no, it wasn't given (by the Center) because there were two (people) recorded online." (Hospital- 6).

3.2 Recruitment

WKDS/PGDS participants are all medical-specialist graduates from professional-education specialist doctoral programs offered by domestic and overseas state universities or students who must pass the adaptation program at universities that receive education funding from the central government. Activities include the procurement/recruitment stage, in accordance with Minister of Health Decree Number 69 (2016), as follows: 1) requirements for students at specialist medical programs who will follow the WKDS program; 2) educational institutions submitting the names of students who will graduate from professional-education

programs as medical specialists. Meanwhile, according to the Minister of Health Decree Number 36 (2019), in addition to the mandatory requirements met by participants, they will also be given a debriefing before placement.

The results of this study indicate that all respondents from faculties of medicine who were interviewed in depth in this study said that their role in the WKDS and PGDS programs was generally to provide or produce specialist doctors. When submitting the names of graduates to the Ministry of Health, faculties of medicine include only graduated students educated by the Tubel Ministry of Health. Related to the requirements for WKDS participants, only a small proportion of medical faculty members required their students to make statements at the start of their education promising to follow the WKDS program after graduation. This does not reflect the results of the triangulation of medical- specialist respondents.

For the registration mechanism, WKDS participants are registered by their faculties of medicine and then proceed to the collegium and the center. Related files must be submitted offline. As for the PGDS participants, they register through the collegium, which then submits their data to the Health Workforce Directorate of Deployment. After the Directorate announces that a particular hospital will be the locus of placement, a medical specialist can choose that venue online within two or three days. Then, on the third day (within 24 hours), the participant must submit required files or recommendations from colleagues

working in the area. For PGDS participants, the registration documents are submitted online.

Challenges experienced by WKDS participants during the recruitment process have included the lack of information about the described area and placement hospital. By contrast, the main obstacle experienced by PGDS participants is the fact that some participants who do not follow the recruitment system fairly prevent other participants from choosing a particular hospital by using the hospital map on the website. Although some PGDS don't match the actual location, at least information about PGDS recruitment from collegiums and FK includes much information obtained from alumni and colleagues. PGDS participants feel that those who object to the rules must re-register from scratch, extending the duration of assignments.

“ it's a problem like this we just had that prospective participant who should have joined the system, the system is clear that they choose the hospital that is registered on the website... what's it called... with how quickly they choose the hospital, now that's sometimes some are a bit naughty in quotation marks if they already are blocking the place with what hindering potential participants others will choose the place. The ego of the participants, in this case, is just their participants who choose ways that are not fair to the procedure for placing the desired location

but then the first one he does not have a chance, maybe contract status and others so on, yeah or maybe he's too late to choose because our system who is faster to vote in the system, maybe he has signal problems and so on so he can't choose the place he wants, so he does ways outside the system that are provocative, persuasive to potential participants who have chosen (who) happen to vote the place where he wanted the hospital, so like from the start he was guarding against making something like a wall that it's not allowed there are other than him, so things like this are an obstacle.” (Central Government)

"From the Faculty of Medicine, there was no information or outreach at all regarding the program. I learned about this program (WKDS/PGDS) from my seniors that... it used to be mandatory, but now it's called PGDS... so yeah, I registered from the collegium, but there was also no information... if I school until I registered myself, there weren't any. so, I found out must report to the collegium from a friend how do you do PGDS? I found out the requirements for prospective participants from the ministry's website. I also know the rights and obligations of prospective participants from the last website confirmation to the director (RS).. same or not the information... its time open for

registration, and the name of the receiving hospital will come out of surgery... I opened RSUD X then I confirmed...” (Participants-8)

3.3 Deployment

According to Minister of Health Decree Number 69 (2016) and Minister of Health Decree Number 31 (2019), the placement stage includes a briefing before the placement and departure of the WKDS/PGDS participants. Upon arrival, participants report to the district/city health office; then the district/city health office reports the arrival of the WKDS/PGDS participants to the provincial health office. Based on the results of the in-depth interviews, only some WKDS/PGDS participants get a briefing before deployment, whether online or offline.

After arrival, only a small number of participants report to provincial health offices and professional organizations. However, according to some provincial health-office respondents, so far WKDS/PGDS participants have not reported to the provincial health office, which therefore has difficulty collecting their data.

“Well, that's him, he never reports, just come there. We know from the agreements the national group, or we will be told by Mrs. X (who is responsible), if you don't ask directly to the hospital we don't know. Except for this, sir. if they ask or propose then they don't get accepted, they excitedly contacted the director, but if they're not, they've been quiet,

sir, until now. That's it, sir average. There are no reports either. There are no people either report.” (Provincial Health Office-8)

The same point was made by the respondents from professional organizations who said that most participants did not report to professional organizations unless there were problems.

"There have been several cases, I don't know if there are medical specialists doctors in there, there was a problem, I was just contacted, I said since when are you there? The problem is he didn't ask us because he wasn't therein that the license to practice is issued by the professional organization, however by IDI. Because of that obstacle that I revealed, so now every time someone came in, ooh yes this doctor entered this area I told you, this will be your problem later, so he can understand beforehand.” (Professional Organization-4)

Table 5. WKDS and PGDS Participant Rights During Placements

Rights of Participants	the WKDS		the PGDS	
	(N,%)	(N,%)	(N,%)	(N,%)
Salary	188	63,7	96	32,5
Allowance	125	66,5	55	29,3
Local-government incentives	207	63,7	106	32,6
Living facilities	201	65	97	31,4
Cost of health	101	51	87	43,9
Insurance/accidents/death				
Registered as a health-insurance member	176	64	91	33,1
Registered as an employment-insurance member	51	38,9	72	55
Fee for specialist services	213	66,4	95	29,6
The chance to participate in seminars/training	167	70,2	64	26,9
Other	13	54,2	10	41,7

Source: National Agency of Research and Development, Ministry of Health

Table 5 shows the proportion of WKDS /PGDS participants, based on the rights they acquire during assignments. Among 353 WKDS/PGDS respondents, 92.1% cite local-government or hospital incentives as the best privilege they receive and 37.1% cite employment-insurance membership. According to the results of in-depth interviews with medical specialists, some local governments/hospitals honor their promises, while others do not honor their promises/commitments, including incentives.

"Yes, all of them have been fulfilled, I have read the MoU, and yes it has been fulfilled. Good, commit. The local government cares about health. At that time, the payment ultimatum was no later than the 4th." (Participants)

"Some of the hospital's initial commitments before placement were not realized, including official vehicles, less smooth provision of incentives for doctors, availability of drugs and medical equipment for patient care" (participants)

At the deployment stage, one can see which WKDS/PGDS participants never left the workplace without permission or were given a sanction by the hospital.

4. Identifying the Factors that Support and Inhibit the Deployment of Medical Specialists

Based on the results of this study, several factors support the deployment of medical specialists, based on the regulations and program implementation. From a regulatory perspective, Presidential Decree Number 4 (2017), which relates to the WKDS, is assessed on the basis that placement is mandatory, medical specialists are very well distributed, and fulfillment reaches remote areas. The WKDS program is also assessed by local government as having continuity, ensuring that medical specialists are always available in health facilities. In terms of the placement mechanism, the WKDS program is considered much more simple and applicable because central government is responsible for direct placements.

As for Presidential Decree Number 31 (2019) on the PGDS, this program is seen as much more humane because the placements are voluntary; medical specialists who take part in the program already have an overview of their chosen area/hospital. Because medical specialists choose which hospitals to work for, local governments feel pressure to build up their areas so that specialists will choose them. Another supporting factor is the fact that medical specialists feel love for their motherland, dedication, and a willingness to serve their country for one year. For this reason, they are willing to fill specialist-doctor vacancies in areas where they are needed.

"WKDS is good for distributing medical specialist doctors to remote and very remote areas because a specialist doctor must be willing to be placed in an area that already exists determined by the Central Government. For PGDS, medical specialists chose the hospital themselves, and many factors determine the choice of a specialist, for example, regional incentives, housing, cars, and others." (Provincial Health Office-8)

Factors that support the deployment of medical specialists include their availability in areas and hospitals that need them, so those who have the power can deploy specialists. The provision of local-government commitments includes incentives, hospital facilities, infrastructure, and facilities for specialist doctors, such as houses and vehicles. Convenient work and security guarantees are other factors that support the use of medical specialists. In terms of improvement and maintaining competence, the large number of cases also supports the deployment of medical specialists. Another factor is the career-development opportunities that hospitals provide, as well as reviews from senior members assessing the area/hospital.

"I think it's good, to meet the needs of WKDS in a remote and very remote area. Sometimes maybe if you have a specialist in mind. Specialists usually have the mindset to not want to go to remote areas, meaning even if after WKDS they will aim at a big hospital in a big city.

It may be related to career development and the comfort of the work environment because if you are getting in town to diagnose may be a lot of modalities compared to him in the area. If in the area possible to diagnose for example the examination should be already completed and must be referred first to the city to get the diagnosis. Maybe that's an obstacle too so they it's more comfortable when it's finished maybe in the city due to convenience for them to work and possibly for developing their career is better according to them. If in the area maybe only regional hospitals with limited facilities.”

The inhibiting factors identified from the results are based on the regulations, from a program-implementation perspective. From a regulatory perspective, Presidential Decree Number 4 (2017) is associated with the issue of human-rights violations due to mandatory placements. Program participants felt that they did not receive a complete description of their locations or placements. After being placed in an area, some found themselves in areas that did not fulfill the original commitment. This then becomes an obstacle for medical specialists, making it difficult for them to work comfortably and optimally.

“You can't choose the sub-districts for placement at that time, only the province. For me, it doesn't matter which place, as well as for experience,

we can come to places that we have never been to because of WKDS. The problem at that time was the problem of luggage, luggage is only 20 kg. Sometimes it's more your responsibility because if 20 kg is too little, just clothes. I bring lots of stuff because I don't know the condition of the place yet, what the region is like, what the area is like, what the people are like. I don't know what there isn't. There is minimal information there.” (WKDS Participants-5)

Because the PGDS is voluntary, its ability to meet the needs of medical specialists is very dependent on the medical specialists' willingness to choose areas/hospitals that need such specialists. Because of this, the program has many flaws and lacks vacancies in health facilities in certain areas. Medical specialists are maldistributed and the program cannot be sustained because there will always be vacancies in health facilities. With the PGDS, other inhibiting factors include the lack of complete hospital infrastructure and medical-support equipment, instead of a complete range of medical specialists whose fields of work are interrelated. The specialist's actions are limited by the hospital because there are differences in the clinical pathways of professional organizations and hospitals (Ebenso et al.,2020).

Another inhibiting factor is the perception that a hospital's need to procure medical equipment for WKDS participants is a "thirst blood" provision that the hospital will fulfill if it already has medical specialists with civil-servant status. The work of

medical specialists also becomes more difficult when regional acceptance and safety factors are poor and there are problems associated with the transparent distribution of health-insurance services and funds. In addition, people are less likely to understand the actions of medical-specialist doctors; perceptions of the community use of hospitals during a pandemic is a separate obstacle hindering the adoption of medical specialists. An uncomfortable work atmosphere, due to a less harmonious relationship with superiors and the jealousy of other colleagues, can also be a barrier to the use of medical specialists.

5. Measuring Successful Deployments in the Medical Specialist Program

The successful deployment of the medical specialist program can also be measured using changes in the number of services, patient visits, and patients whose specialized cases are handled successfully. Based on the results of the questionnaire filled out by medical specialists, the deployment program can be said to be successful if there are appropriate changes to the set indicators.

Table 6. Effects observed during WKDS/PGDS placements

Change Indicators	WKDS				PGDS				Total (N,%)
	Yes (N,%)		No (N,%)		Yes (N,%)		No (N,%)		
1. Increase in specialist services	194	84,7	35	15,3	103	7,2	0	87,8	43 (12,2)
2. Decrease in cases referred to other hospitals	189	82,5	40	17,5	98	11,7	0	85	53 (15)
3. Increase in patient visits	199	86,9	30	13,1	92	17,1	1	85,8	50 (14,2)
4. Decrease in the number of morbidities	175	76,4	54	23,6	84	24,3	4	75,9	85 (24,2)
5. Decrease in the number of mortalities	184	80,3	45	19,7	91	18	1	81,3	66 (18,7)

Source: National Agency of Research and Development, Ministry of Health

As this table shows, 87,8% of respondents cited an increase in specialist services; 85% noted that fewer cases were referred to other hospitals and there were fewer morbidities and mortalities when medical specialists were present in remote or very remote areas.

Meanwhile, provincial health-office respondents said in their interviews, when asked whether the WKDS/PGDS program was successful, that the WKDS program was successful because it could “force” medical specialists into areas that needed them.

Others said that the PGDS program was not successful because some areas lacked

medical specialists. This failure was also due to unfulfilled hospital/regional commitments.

“If you look at their presence, yes it has been successful to fulfill the needs of medical specialists in DTPK regions, besides their presence they also can handle the cases that cannot be handled by general practitioners. This province is really having an advantage with the medical specialists here.”
(Sub-Districts Health Office-4).

“There are plenty of advantages that we can take from the program, but sometimes it is not considered successful because the local government cannot meet the criteria needed.” *(Sub-Districts Health Office-5).*

V. DISCUSSION

This chapter presents an analysis and discussion of the study findings, based on the research questions. The results are presented using tables and interview quotations.

1. Summary of the Study

Central government, local government, and the community can deploy resources in the health sector to organize healthcare-related initiatives. One such resource is “power of medical health workers.” According to Article 1, paragraph 6 of Law Number 36 (2009) and Law Number 36 (2014), all health workers are people who devote themselves to the field of health and have acquired the necessary knowledge and/or skills through education in the field of health, which, in some areas, requires a health-authority initiative. Health workers play an important role in improving the quality of health services offered to Indonesian citizens ("Kesehatan," 2009).

According to the results of research conducted by the Indonesian [research] Institute, three significant issues are still problematic in the Indonesian health sector. The first is an uneven and inadequate infrastructure. Although Indonesia has around 9,599 healthcare centers and 2,184 hospitals, most of them are based in big cities. Many people still live in areas where they cannot access

health services, due to a lack of health facilities. In addition, many locations are geographically remote and difficult to reach. The second problem is the maldistribution of health workers, doctors, and medical specialists. Many areas still lack healthcare workers, especially medical specialists. According to data from the Indonesian Ministry of Health, up to 52.8% of medical specialists are in Jakarta, while Nusa Tenggara Timur and other eastern provinces have only 1–3%. The third problem noted by the Indonesian Institute is the issue of health-sector funding from the national budget, which is still insufficient (Research, 2014).

2. Effects of the Revised Law on Medical Specialist Placement on the Fulfillment of Specialist Services in Indonesia

To equalize the distribution of the healthcare workforce, and particularly medical specialists, across Indonesia and increase community access to specialist health services, the government issued Presidential Decree Number 4 (2017) on the Compulsory Service of Medical Specialists and its derivative regulations, known as the Law of the Minister of Health Number 69 (2016) on the Implementation of Compulsory Work for Specialists in the Context of Fulfilling the Need for Specialist Services in Indonesia. The WKDS places medical-specialist doctors in private central- and local-government hospitals, including regional, remote, border, island, and DTPK hospitals.

Every medical-specialist graduate of an international or Indonesian state-university specialized medical-education program must follow the WKDS guidelines. The implementation period for independent WKDS participants (at least one year, while participants receive scholarships and/or financial aid) is determined by the provisions of the legislation ("Peraturan Menteri Kesehatan tentang Penyelenggaraan Wajib Kerja Dokter Spesialis Dalam rangka Pemenuhan Kebutuhan Pelayanan Spesialistik di Indonesia," 2016).

Along the way, several articles in Presidential Decree Number 4 (2017) on Compulsory Service for Medical Specialists no longer have binding force, following the Supreme Court's decision Number 62P/HUM/2018, which replaced Presidential Decree Number 4 (2017) on Compulsory Service for Specialists with Presidential Decree Number 31 (2019) on the Deployment of Medical Specialists, and its derivative regulations, namely the Law of the Minister of Health Number 36 (2019) on the Regulations for Implementing Presidential Regulation Number 31 (2019) on the Deployment of Medical Specialists ("Peraturan Menteri Kesehatan tentang Peraturan Menteri Kesehatan tentang Pendayagunaan Dokter Spesialis," 2019).

Some of the effects of the revised law on the Placement of Medical Specialists in DTPK regions are as follows:

- a. In the case of maternal and neonatal mortality, referral rates are increasing.
- b. There is a huge disparity in the placement of medical specialists between one province/district/city and another and limited access to specialist services, especially in remote, underdeveloped, border and island areas.
- c. The quality of service at hospitals is decreasing.
- d. Cases of non-communicable diseases and the mortality rate caused by diseases are increasing.
- e. There is a low rate of patient hospital visits, due to a lack of medical specialists.

In addition to the effects of the revised law, the PGDS has some other positive and negative effects:

- a. Local governments are trying to develop their regions to meet the expectations or requirements of medical specialists;
- b. Regional autonomy makes it possible for local governments to meet the needs of medical specialists and control that process;
- c. Incentives that vary between regions trigger competition, causing areas with minimal local budgets to have medical-specialist vacancies.

3. Supporting and Inhibiting Factors

Medical specialists have been deployed in Indonesia since 2017. To improve the implementation of the program, it is necessary to evaluate it. Public-health programs must be evaluated (Sudjana, 2006) in order to:

- a. Provide input that can be used to plan health programs for citizens.
- b. Provide input that decision makers can use to follow-up, expand, or discontinue health programs for citizens.
- c. Provide input that decision makers can use to modify or improve public-health programs.
- d. Provide input on factors that support or inhibit public-health programs.
- e. Provide input into motivational and coaching activities (supervision and monitoring) for organizers, managers, and those who implement public-health programs.

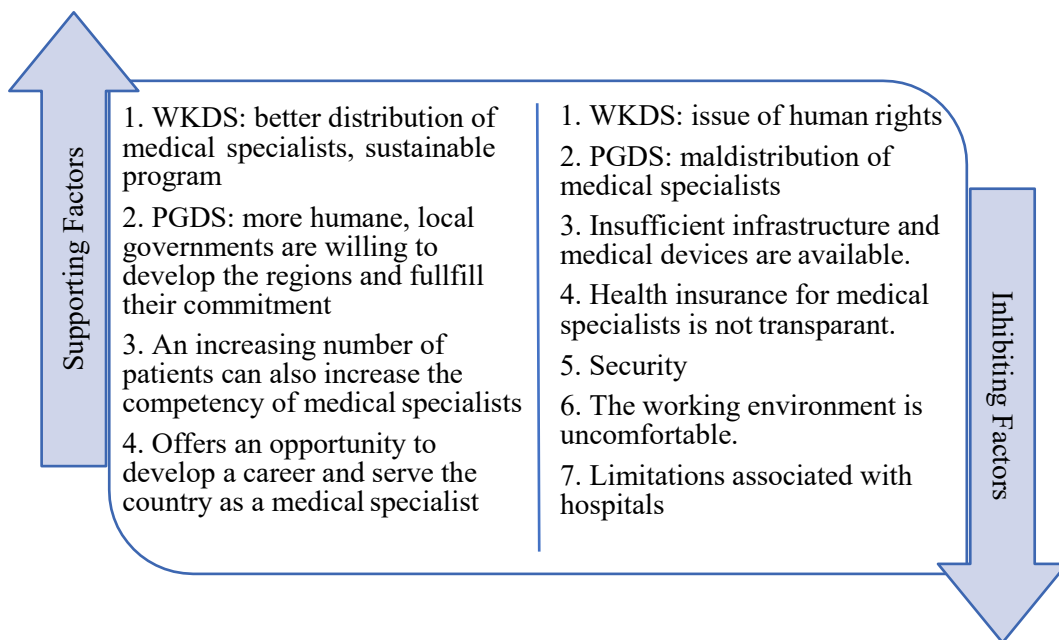
Based on the results of this study, several factors support the deployment of medical specialists, based on the regulations and side-program implementation. From a regulatory perspective, the WKDS program is included in Presidential Decree Number 4 (2017) which describes it as mandatory. Because this program was mandatory, the distribution of medical specialists worked well, as shown by the provision of specialists to remote and very remote areas, which was achieved every year. This had a positive impact on the health-service quality of hospitals in

DTPK regions. The WKDS program achieved better results because the provision of specialists to remote areas was sustainable. The sustainability of this health program was, of course, influenced by the continuity of health-related human resources, including available medical specialists in DTPK regions/hospitals. This impact was felt by regional respondents, who believed that the WKDS program was more sustainable because medical specialists who completed all of their assignments were quickly replaced by others.

From a regulatory standpoint, the PGDS program is included in Presidential Decree 31 (2019); here, the term, "obligatory work" has been removed because this program is not mandatory. Respondents rated this program as more humane because of its voluntary nature; medical-specialist doctors who take part in the program know in advance what area/hospital they will be sent to. Because medical specialists can choose their own hospital occupancies, regional governments are forced to develop their regions to make them appeal to medical specialists. Another supporting factor is the specialist's feeling of love for the motherland and willingness to serve the country for one year; they are therefore willing to fill medical-specialist vacancies in every area that needs them. Although the change in regulations has automatically changed the implementation rules, this has not reduced access to specialists. The factors that support the deployment of medical specialists are the availability and provision of specialist doctors in an area or hospital, ready to be deployed. There are also local-government commitments, such as guarantees of proper regional incentives, hospital facilities, facilities for specialist doctors

(including official residences and vehicles), work convenience, and security guarantees. This factor also supports the use of specialist doctors. To improve and maintain competency, the number of specialist cases and career-development opportunities provided by hospitals, as well as the regional/hospital commitment of senior managers are factors that support the placement and deployment of medical specialists in the region.

Figure 4. Factors that Support and Inhibit the WKDS and PGDS



4. Effective strategies Implemented by the government of Indonesia

The initial purpose of the programs rolled out by central government is to give local governments the independence to provide for their own regional needs, especially via regional autonomy regulation. Some study respondents felt that

DTPK regions, especially those with minimal local budgets, still depend on central-government programs to successfully distribute medical specialists.

This of course leads to other conclusions and raises questions about the successful deployment of the medical specialist program. However, the study data show that, from the point of view of community service, the availability and equal distribution of medical specialists can increase the parameters of success in the deployment of medical specialists. From the point of view of local- government independence, however, this program has not succeeded in producing innovations capable of maintaining or sustaining the availability of medical specialists in DTPK regions.

Some strategies that the government could choose to adopt are as follows:

- a. It could enhance the regulations that govern the placement of medical specialists from top to bottom, fixing the education system so that it can support the specialist service.
- b. It could fund medical specialists fully or partially via various funding sources, thus binding post-educational medical specialists to work in hospitals that are empty or unable to attract and provide specialist health services.
- c. The deployment of medical specialists, which is currently voluntary, could become mandatory, with a few adjustments to the placements, incentives, and rights and without using the word “mandatory.”

- d. From the start, legal experts must be involved in revising the regulations.
- e. It could form a team to draft regulations for the mandatory placement of specialist doctors by involving all relevant parties:
 - 1) Elements of the Ministry of Health (Directorate General of Health, Legal Affairs Bureau, Directorate General of Health Services)
 - 2) KPDS (professional organizations and collegium, Ministry of Education and Culture, Ministry of Coordination, Ministry of Home Affairs)
 - 3) Academic elements from faculties of medicine
 - 4) Lawyers

It is hoped that the need for specialist services in Indonesia can still be met and the central government can still distribute specialist services to all regions.

5. Research Limitations

This research has some limitations. The main limitation is that most of the data are secondary data, previously collected by agencies, from the database used to deploy medical specialists. Although the interviews with provincial health offices, district health offices, the Health Workforce Director of the Deployment,

and other policymakers were conducted online, the author could only obtain participant interviews as secondary data.

All of the data were recorded in 2017–2021, apart from the contributions of some medical specialists, recorded in 2022.

VI. CONCLUSION AND SUGGESTIONS

1. Conclusion

The deployment of medical specialists is surely a central-government program that benefits all citizens across Indonesia. Even though there is currently a lawsuit opposing the regulation of medical specialists, between 2017 and 2019, the distribution of medical specialists was equal and sustainable. DTPK regions did not struggle to find medical specialists to work in hospitals. As the present study shows, central government must be responsible for providing medical specialists to DTPK regions.

The objectives of this study are to identify the effect of the revised law and the factors that support and inhibit programs designed to provide specialist services in Indonesia.

This study has accomplished the following goals:

- a. Identifying the effects of change in the revised law on the placement of medical specialists from mandatory to voluntary, and the willingness of medical specialists to be placed in DTPK regions;
- b. Identifying factors that support or inhibit the provision of specialist services in Indonesia;

- c. Increasing understanding of the policy of placing of medical specialists in DTPK regions and the ability of each local government to afford and provide incentives for medical specialists;
- d. Suggesting effective strategies that the government could use to meet the needs of specialist services in Indonesia.

2. Suggestions

Indonesia's 2017–2022 program for distributing medical specialists can still achieve an equal distribution of specialist services. However, due to certain issues, policy changes are urgently needed. Although the placement of medical specialists is currently implemented under Presidential Decree Number 31 (2019), this regulation cannot force medical specialists or local governments to distribute medical specialists equally, especially to DTPK regions. The missing policy and regulations could benefit not only medical specialists, but also local governments, hospitals, sub-district health offices, district health offices, provincial health offices, and all related institutions, as well as local citizens.

Given the urgent need to provide medical specialists throughout Indonesia, and especially in DTPK regions, the author recommends bringing back the mandatory placement of medical specialists, with a few adjustments to the policy and regulations, especially those related to financial and non-financial incentives, the placement mechanism, and different policies designed to differentiate between

regions. According to the local governments, the priority is to allocate government funding for the education of medical specialists to DTPK regions, while also ensuring that:

- a. Local governments are committed to funding infrastructure and accommodation, while medical specialists are providing specialist services;
- b. Security is guaranteed;
- c. There are sufficient incentives and take-home pay.

A well-designed policy for placing medical specialists that considers all of the factors above and benefits citizens will surely be implemented for long enough to ensure that all specialist services in Indonesia are distributed equally.

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INTERVIEW GUIDELINES

Variables	Questions	Sources
Policy-making Process	<ul style="list-style-type: none"> • Background to the regulations governing the deployment of medical specialists and why the WKDS and PGDS are needed 	<ul style="list-style-type: none"> • Health Workforce Director General • Secretary of Directorate General of Health Workforce • Health Workforce Director of Planning • Health Workforce Director of Deployment • Head of the Administration Section • Head of the Provincial Health Office in five
	<ul style="list-style-type: none"> • Does your agency verify the proposed needs of medical specialists (WKDS/PGDS)? If so, what is the mechanism? Are there any problems? Please explain. 	
	<ul style="list-style-type: none"> • Based on existing policies/regulations, what is the PGDS/WKDS recruitment mechanism? How is the procurement/recruitment stage implemented in the field? Is there any difference between rules/policies and implementation? What factors cause differences at the procurement stage? 	
	<ul style="list-style-type: none"> • Based on existing policies/regulations, what is the mechanism for PGDS/ WKDS placements? How are medical specialists placed in the field? Is there a difference between rules/policies and implementation? What factors cause differences at the placement stage? 	
	<ul style="list-style-type: none"> • What do you think of Presidential Decree Number 4 (2017) on the Compulsory Service of Medical Specialists? 	

Variables	Questions	Sources
	<ul style="list-style-type: none"> • What do you think of Presidential Decree Number 31 (2019) on the Deployment of Medical Specialists? • In your opinion, which of these two policies is more suitable for improving access to and the fulfilment of specialist services across Indonesia? • What is the impact of the revision of Presidential Decree Number 4 (2017) to Presidential Decree Number 31 (2019)? • Does local government have a local regulation that supports the placement of medical specialists? How is the program implemented? • If you don't have a local regulation, what is the reason for that? How do you implement the regulations made by central government? 	<p>provinces</p> <ul style="list-style-type: none"> • District Heads/Sub-District Health Offices
Program	<ul style="list-style-type: none"> • How would you describe the availability of four essential specialist doctors and other specialists between 2017 and the present? (Probing: in terms of quantity, quality, and distribution) • To date, what programs have been carried out by government to distribute health workers (in particular, doctors and medical specialists) equally to meet community health-service needs? • During the WKDS/PGDS placement period, what commitments have been 	<ul style="list-style-type: none"> • District Heads/Sub-District Health Offices • Hospitals • Health Workforce Director General • Secretary of Directorate General of Health Workforce • Health Workforce Director of Planning

Variables	Questions	Sources
	<p>made by local government and hospitals? Are they in line with those stipulated in the Presidential Decree? How are these commitments implemented? (housing, incentives, additional incentives, vehicles, hospital facilities, hospital infrastructure, medicines, acceptance of colleagues, etc.)</p>	<ul style="list-style-type: none"> • Health Workforce Director of Deployment • Head of the Administration Section
	<ul style="list-style-type: none"> • In the Medical Specialists Deployment Program, what is the role of the provincial health office? What is the mechanism? 	<ul style="list-style-type: none"> • Head of the Provincial Health Office
	<ul style="list-style-type: none"> • What indicates the success of the WKDS/PGDS program (i.e., the number of morbidities and mortalities, the changing number of referral cases, the changing total number of patient visits, and the availability of medical specialists in the region or hospitals? 	
	<ul style="list-style-type: none"> • To incentivize medical specialists to support the WKDS/PGDS program, what has to be improved? 	
	<ul style="list-style-type: none"> • What must be fixed in the program to deploy medical specialists? 	
	<ul style="list-style-type: none"> • In the program to place medical specialists, what is the role of the District/Sub-District Health Office? 	<ul style="list-style-type: none"> • District Heads/Sub-District Health Offices • Hospitals
	<ul style="list-style-type: none"> • Regarding the WKDS and PGDS programs, what privileges or commitments are given by the local government or hospitals? 	

Variables	Questions	Sources
	<ul style="list-style-type: none"> • Has the district or Sub-District Office discussed any needs of medical specialists that could not be fulfilled by local government? Does the placed medical specialist differ from the one who was proposed? • What factor or factors make medical specialists unwilling to be placed in your region? 	
Support from other institution or local government or hospitals	<ul style="list-style-type: none"> • How do the local government and hospital feel about the WKDS/PGDS program and the medical specialists who participate in it. • How or to what extent does your agency coordinate with other agencies/agencies? • Does your institution implement monitoring and evaluation, and how does this mechanism work? Does the local government help to monitor and evaluate every region? • What is the impact of the WKDS/PGDS program in every region? 	<ul style="list-style-type: none"> • Secretary of Directorate General of Health Workforce • Health Workforce Director of Planning • Health Workforce Director of Deployment

Variables	Questions	Sources
		<ul style="list-style-type: none"> • Head of the Administration Section
	<ul style="list-style-type: none"> • How do the local government or hospitals accept the WKDS/PGDS program and the participating medical specialists? 	<ul style="list-style-type: none"> • Head of the
	<ul style="list-style-type: none"> • What is your supervision mechanism and how do you carry out an evaluation? 	<ul style="list-style-type: none"> • Provincial Health Office • District Heads/Sub-District

Variables	Questions	Sources
	When has this been done? Are any other institutions involved and how are the supervision results followed-up?	Health Offices
	<ul style="list-style-type: none"> • What provincial strategies are used to meet the needs of medical specialists now that there is no mandatory government program? 	
	<ul style="list-style-type: none"> • How do citizens tend to access health services in your region before and after the WKDS/PGDS? 	<ul style="list-style-type: none"> • District Heads/Sub-District Health Offices
	<ul style="list-style-type: none"> • How do incentives for medical specialists affect the WKDS/PGDS program in a positive way? 	
	<ul style="list-style-type: none"> • Do incentives affect the acceptance of medical specialists from hospitals/local government/professional organizations for the WKDS/PGDS program? 	