

Analysis of the Problems of General Practitioners Distribution in Community Health Centers (Puskesmas) in Indonesia

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ABSTRACT

The implementation of distribution Health Human Resources (HHR) has become a plan that must be implemented to support the distribution and improvement of health services, as stated in the 2005-2025 National Long-Term Development Plan (RPJPN) and outlined in the 2005-2025 National Long-Term Development Plan in the Health sector (RPJPK). The HHR distribution problem must be resolved due to the immediate end of the 2005-2025 RPJPK. The results of 2017 Health Sector Research (Risnakes) showed an increase in the percentage of community health centres (Puskesmas) without general practitioners, from 4.2% based on the results of the 2011 Risnakes to currently 7.7% in Indonesia. This condition requires a deeper analysis of the condition of the distribution of general practitioners in Puskesmas in Indonesia and how to handle them. Objective: Describe the problem of general practitioners distribution in Puskesmas in terms of its causes and solutions. Method: Deeper analysis uses exploratory descriptive analysis, secondary data studies and literature review. The data is focused on the condition of the distribution of general practitioners in Puskesmas throughout Indonesia. Results: Data from 2017 Risnakes shows that there are 748 Puskesmas without general practitioners. Puskesmas without general practitioners are mostly located in Eastern provinces such as Papua, West Papua, and Maluku. This condition strongly indicates the disparity in the presence of general practitioners at the Puskesmas due to maldistribution. Based on data from the 2018 Indonesian Health Profile Data and Information Book, there were 42.58% Puskesmas with an excess of general practitioners, 24.36% lacking general practitioners and only 33.06% had the appropriate number of general practitioners. This condition illustrates the problem in the process of health workers distribution in community health centres (Puskesmas) in Indonesia. Economic, geographical and policy climate in Indonesia can influence how these distribution problems occur. Conclusion: The problem of the distribution of doctors in Puskesmas in Indonesia needs to be resolved immediately, starting from planning the needs, recruitment, empowerment and training of health workers in the Puskesmas. In this case, cross-sectoral role is critical in solving the problem of Indonesia's economic and geographical conditions in order to support the resolution of problems of distribution of general practitioners in Puskesmas. The equitable distribution of general practitioners in the Puskesmas will support equity and improve health services.

Keywords: *distribution, general practitioner, Puskesmas*

1. INTRODUCTION

One of the subsystems in the National Health System states that Health Human Resources (HHR) is one of the subsystems. HHR is explained in Presidential Regulation Number 72 of 2012 concerning the National Health System which explains that HHR is health workers (including strategic health workers) and health personnel/support who are involved and working professionally and are dedicated to public health care and effort. HHR or health workers have an important role in achieving health development goals where health workers are implementing health services and efforts [1].

The distribution of Health Human Resources (HHR) evenly has become a plan that must be implemented to support the distribution and improvement of health services, as stated in the 2005-2025 National Long-Term Development Plan (RPJPN) and outlined in the 2005-2025 National Long-Term Development Plan in the Health sector (RPJPK). The inadequate number, distribution, composition and quality of health workers is a homework that must be addressed as stated in the 2005-2025 RPJPN [2].

Fair and equitable resources availability in the health sector is the responsibility of the government, as stated in Law No. 36/2009 concerning health, the Article 16 of which is aimed at making sure that the entire community can obtain the highest level of healthcare [3].

In the 2020-2024 RPJMN it is explained that there are indicators of the percentage of health centers with the type of health workers according to standards. Standards here refer to those of the Minister of Health Regulation No. 75 of 2015, which stated that the standard inpatient health services at a Puskesmas requires two doctors, whereas outpatient Puskesmas requires only one doctor [4]. The current condition is based on data from the Ministry of Health of Indonesia. In 2018, the percentage of Puskesmas with up-to-par health workers according to the new standards has reached 23% and since the target is 83% by 2024, Indonesia is tasked to meet the 60% deficiency. In addition to the indicators above, the 2020 - 2014 RPJMN also targets 100% general practitioner availability in Puskesmas in Indonesia, but according to data from the Indonesian Ministry of Health, in 2018 15% of Puskesmas in Indonesia were still lacking general practitioner [5].

The HRH distribution problem must be resolved immediately due to the immediate end of the 2005-2025 RPJPK. The result of Research on Health Workers (Risnakes) performed by the Health Research and Development Agency of the Indonesian Ministry of Health (Balitbangkes, Kemkes RI) in 2017 shows an increase in percentage of puskesmas without doctors, from 4.2% puskesmas in Indonesia according to the 2011 Risnakes to 7.7 5 according to the 2017 Risnakes [6]. This condition requires a deeper analysis of the problems of distribution of doctors in Puskesmas in Indonesia and how to resolve it in order to achieve the RPJMN 2020-2014 target, which is 100% availability of doctors in puskesmas in Indonesia [5].

2. METHOD

This paper is a situation analysis with a descriptive research approach using a descriptive exploratory analysis research design conducted in 2019. There are a number of information sources, including the Risnakes survey, the 2018 Indonesia Health Profile, Puskesmas condition baseline data per December 2017, previous studies on the topic of health workers distribution, and related regulations as well as policies, journals and articles. Information obtained as data and findings are collected, managed, then critically reviewed. This paper describes the results of the analysis of secondary data and literature reviews. This study describes the problem of general practitioners distribution in Puskesmas in terms of its causes and solutions.

3. RESULTS AND DISCUSSION

Health workers have an important role in ensuring the maximum quality of health services to the community, so that the community is able to increase awareness, willingness, and ability to live a healthy life in order to realize the highest degree of health. This means that health workers are an investment in the development of human resources that are socially and economically productive, so that it can contribute to the welfare of Indonesian people.

Health worker is every person who devotes himself in the field of health and has knowledge and/or skills through education in the field of healthcare, which are required in certain types for the purpose of health efforts. Law Number 36 Year 2014 regarding health workers states that general practitioner are classified as medical worker [3].

Table 1. Distribution of general practitioners in puskesmas according to provinces. source: 2017 risnakes, in order of provinces from the highest percentage of puskesmas without general practitioner

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio
1	Papua	372	168	45.2%	331	0.9
2	Maluku	198	89	44.9%	138	0.7
3	West Papua	150	60	40.0%	135	0.9
4	Southeast Sulawesi	268	79	29.5%	270	1.0
5	Nusa Tenggara Timur	371	76	20.5%	405	1.1
6	North Maluku	127	25	19.7%	162	1.3
7	West Sulawesi	94	18	19.1%	111	1.2
8	Central Sulawesi	189	33	17.5%	223	1.2
9	Central Kalimantan	195	27	13.8%	273	1.4
10	Bengkulu	179	17	9.5%	247	1.4
11	South Sulawesi	448	30	6.7%	738	1.6
12	South Sumatra	322	19	5.9%	526	1.6
13	West Kalimantan	238	12	5.0%	352	1.5
14	North Sulawesi	186	9	4.8%	532	2.9
15	North Sumatra	571	26	4.6%	1539	2.7
16	North Kalimantan	46	2	4.3%	110	2.4
17	Gorontalo	93	4	4.3%	133	1.4
18	Aceh	340	11	3.2%	864	2.5
19	Nusa Tenggara Barat	158	5	3.2%	339	2.1
20	Jambi	176	4	2.3%	387	2.2
21	West Sumatra	264	5	1.9%	486	1.8
22	Riau	212	3	1.4%	661	3.1
23	Lampung	291	4	1.4%	616	2.1
24	South Kalimantan	230	3	1.3%	475	2.1
25	East Kalimantan	174	2	1.1%	496	2.9
26	West Java	1050	12	1.1%	2203	2.1
27	East Java	960	3	0.3%	2042	2.1

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio
28	Central Java	875	2	0.2%	1926	2.2
29	Bangka Belitung Islands	62	0	0.0%	160	2.6
30	Riau Islands	72	0	0.0%	286	4.0
31	DKI Jakarta	314	0	0.0%	1541	4.9
32	DI Yogyakarta	121	0	0.0%	398	3.3
33	Banten	233	0	0.0%	588	2.5
34	Bali	120	0	0.0%	451	3.8
INDONESIA		9699	748	7.7%	20144	2.08

Based on the data in table 1, the province with the highest percentage of Puskesmas without general practitioner of above 40% is in eastern Indonesia, namely Papua (45.2%), followed by Maluku (44.9%) and West Papua (40%). This condition is also directly proportional to the poor condition of the ratio of general practitioners in Puskesmas where the three provinces have a ratio of doctors below 1.0. Whereas, Puskesmas in the western provinces of Indonesia are generally in good condition, with 6 Provinces having doctors in all Puskesmas. It is also directly proportional to the ratio of general practitioners to the Puskesmas. In this

case the 6 provinces have a ratio of doctors above the National ratio (2.08).

It was explained in the 2018 Indonesia Health Profile that 62.7% of medical personnel were located in Java, with the highest number in the provinces of DKI Jakarta (23,044 people), East Java (18,206 people), and Central Java (13,491 people). The provinces with the least medical personnel were North Maluku (308 people), North Kalimantan (343 people), and West Sulawesi (358 people). [7].

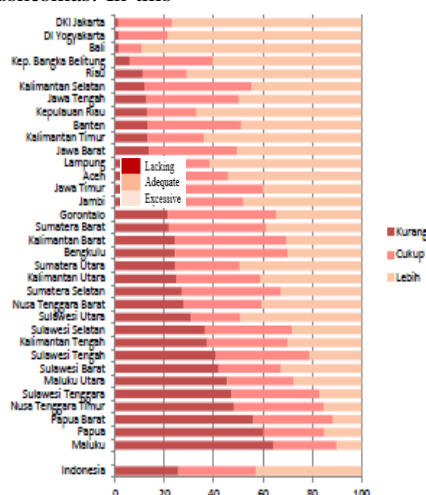


Figure 1. Percentage Of Puskesmas With Adequate Number Of General Practitioners By Province In Indonesia In 2018, Based On 2018 Health Profile.

The 2018 Health profile data explains that the highest percentage of Puskesmas with an adequate number of general practitioners was found in the western provinces of Indonesia, while Puskesmas lacking general practitioners were mostly in eastern Indonesia. This disparity shows the unequal distribution of general practitioners in Puskesmas in Indonesia. There were three provinces with percentage

of general practitioners shortages above 50%, namely Maluku (64.25%), Papua (60.45%), and West Papua (56.33%). Both of these data explain the same thing, that the eastern region of Indonesia lacked general practitioners at the Puskesmas, while the western region of Indonesia had a sufficient number of general practitioners in Puskesmas.

Table 2. Road Conditions To Health Centers In 3 Provinces With A Greater Percentage Of Puskesmas Without General Practitioners Equal To 40% Based On 2017 Risnakes Results

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio	Condition of Road to Puskesmas			
							Asphalt/Concrete	Soil	Water	Others
1	Papua	372	168	45.2%	331	0.9	22.6%	41.6%	2.5%	0.8%
2	Maluku	198	89	44.9%	138	0.7	57.3%	20.1%	0.0%	21.1%
3	West Papua	150	60	40.0%	135	0.9	42.6%	44.5%	4.5%	2.6%

Table 3. Conditions of road to puskesmas in 6 provinces without doctors (0% puskesmas general practitioners percentage) based on the results of the 2017 risnakes

No	Provinsi	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio	Condition of Road to Puskesmas			
							Asphalt/Concrete	Soil	Water	Others
1	Bangka Belitung Islands	62	0	0.0%	160	2.6	95.2%	0.0%	3.2%	0.0%
2	Riau Islands	72	0	0.0%	286	4.0	85.1%	12.2%	9.5%	12.2%
3	DKI Jakarta	314	0	0.0%	1541	4.9	95.6%	0.0%	0.0%	0.0%
4	DI Yogyakarta	121	0	0.0%	398	3.3	100.0%	0.0%	0.0%	0.0%
5	Banten	233	0	0.0%	588	2.5	59.7%	2.1%	0.0%	2.6%
6	Bali	120	0	0.0%	451	3.8	100.0%	0.0%	0.0%	0.0%

Tables 2 and 3 describe the percentage of road conditions leading to the Puskesmas based on the Puskesmas Basic Data Book, Conditions in 2017, published by the Ministry of Health. The condition of the road to the Puskesmas is divided based on very good conditions namely concrete/asphalt, followed by soil, water and others. Other conditions that are not asphalt/concrete, soil and water may be due to being directly adjacent to the edge of the sea, forest, hills or others. The two tables above can explain that provinces with a percentage of Puskesmas without general practitioners above or equal to 40% have Puskesmas with more land, water and other road

conditions. This condition is in sharp contrast to the provinces where all Puskesmas have general practitioners, with the majority of the roads to the Puskesmas being asphalt/concrete.

Tables 4 and 5 will explain the fiscal capacity categories for each province. Regulation of the Minister of Finance No. 119 of 2017 concerning the Regional Fiscal Capacity Map explains that the regional fiscal capacity is a picture of the ability of each region reflected through regional income reduced by revenue for which usage has been determined, expenditure for revenue sharing, expenditure for financial assistance and employee expenditure [8].

Table 4. Fiscal capacity category 3 province with percentage of puskesmas without general practitioners being greater or equal to 40% based on the results of 2017 risnakes

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio	Provincial Fiscal Capacity Category
1	Papua	372	168	45.2%	331	0.9	Very High
2	Maluku	198	89	44.9%	138	0.7	Very Low
3	West Papua	150	60	40.0%	135	0.9	Medium

Table 5. Fiscal capacity category 6 province with percentage of puskesmas without general practitioners of 0% based on the results of 2017 risnakes

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio	Provincial Fiscal Capacity Category
1	Bangka Belitung Islands	62	0	0.0%	160	2.6	Very Low
2	Riau Islands	72	0	0.0%	286	4.0	Low
3	DKI Jakarta	314	0	0.0%	1541	4.9	Very High
4	DI Yogyakarta	121	0	0.0%	398	3.3	Medium
5	Banten	233	0	0.0%	588	2.5	Medium
6	Bali	120	0	0.0%	451	3.8	Medium

Tables 4 and 5 show that the provincial fiscal capacity is not directly proportional to the absence of doctors in Puskesmas, because Papua Province has a very high percentage of Puskesmas without doctors (45.2%), but belongs to the very high category of fiscal capacity. While the Province of Bangka Belitung Islands has 100% doctors in each Puskesmas with a doctor ratio of 2.6 in

the very low fiscal category. Table 6 shows that Papua Province, with the highest percentage of Puskesmas without doctors, has a high average doctor incentive, which is the second highest after DKI Jakarta Province, while Maluku Province which has the third highest average incentive also has the third highest percentage of Puskesmas without doctors out of 34 Provinces

Table 6. The distribution of the total amount of incentives for general practitioners in the puskesmas is based on the mean and median values by province. 2017 risnakes data sources are sorted from provinces with the highest percentage of puskesmas without doctors.

No	Province	Number of Puskesmas	Number of Puskesmas Without General Practitioners	Percentage of Puskesmas Without General Practitioners	Number of General Practitioners in Puskesmas	Ratio	Average Incentives	Incentive Median Value
1	Papua	372	168	45.2%	331	0.9	8,846,593.75	5,912,500.00
2	Maluku	198	89	44.9%	138	0.7	4,215,628.11	3,760,000.00
3	West Papua	150	60	40.0%	135	0.9	7,057,219.51	5,925,000.00
4	Southeast Sulawesi	268	79	29.5%	270	1.0	2,861,714.03	2,000,000.00
5	Nusa Tenggara Timur	371	76	20.5%	405	1.1	3,616,969.71	2,500,000.00
6	North Maluku	127	25	19.7%	162	1.3	3,307,420.00	1,595,000.00
7	West Sulawesi	94	18	19.1%	111	1.2	3,280,484.38	2,000,000.00
8	Central Sulawesi	189	33	17.5%	223	1.2	3,755,339.38	2,400,000.00
9	Central Kalimantan	195	27	13.8%	273	1.4	3,954,545.69	3,784,375.00
10	Bengkulu	179	17	9.5%	247	1.4	1,299,212.72	900,000.00
11	South Sulawesi	448	30	6.7%	738	1.6	2,660,150.92	2,050,000.00
12	South Sumatra	322	19	5.9%	526	1.6	2,521,126.76	1,850,000.00
13	West Kalimantan	238	12	5.0%	352	1.5	3,324,614.88	3,000,000.00
14	North Sulawesi	186	9	4.8%	532	2.9	2,977,023.38	2,500,000.00
15	North Sumatra	571	26	4.6%	1539	2.7	2,552,017.84	2,000,000.00
16	North Kalimantan	46	2	4.3%	110	2.4	4,667,900.61	4,700,000.00
17	Gorontalo	93	4	4.3%	133	1.4	2,509,814.66	2,045,000.00
18	Aceh	340	11	3.2%	864	2.5	2,107,917.67	1,537,500.00
19	Nusa Tenggara Barat	158	5	3.2%	339	2.1	2,426,243.21	2,100,000.00
20	Jambi	176	4	2.3%	387	2.2	2,607,672.50	1,684,000.00
21	West Sumatra	264	5	1.9%	486	1.8	2,382,202.85	2,106,250.00
22	Riau	212	3	1.4%	661	3.1	3,263,451.16	2,800,000.00
23	Lampung	291	4	1.4%	616	2.1	2,278,631.10	1,900,000.00
24	South Kalimantan	230	3	1.3%	475	2.1	2,828,555.31	3,100,000.00
25	East Kalimantan	174	2	1.1%	496	2.9	3,082,046.22	2,702,340.00
26	West Java	1050	12	1.1%	2203	2.1	4,528,331.50	4,000,000.00
27	East Java	960	3	0.3%	2042	2.1	3,030,950.43	2,340,000.00
28	Central Java	875	2	0.2%	1926	2.2	3,318,923.42	2,800,000.00
29	Bangka Belitung Islands	62	0	0.0%	160	2.6	2,440,849.96	2,000,000.00
30	Riau Islands	72	0	0.0%	286	4.0	3,902,011.81	3,500,000.00
31	DKI Jakarta	314	0	0.0%	1541	4.9	11,203,819.60	7,000,000.00
32	DI Yogyakarta	121	0	0.0%	398	3.3	2,302,669.67	2,000,000.00
33	Banten	233	0	0.0%	588	2.5	4,130,967.75	3,000,000.00
34	Bali	120	0	0.0%	451	3.8	3,770,599.54	2,199,000.00

Based on the three tables on economic conditions, there is no evidence that good economic conditions are directly proportional to the adequacy of the number of general practitioners in the Puskesmas.

Indonesia already has many policies and regulations that can meet the need for general practitioners in Puskesmas. Meeting the need for general practitioners can be achieved in two ways, there are permanent and temporary way. The appointment of Civil State Employees (PNS) and State Employees with a Work Agreement (PPPK) is a permanent way of meeting the need for GPs in Puskesmas. In accordance with the mandate of Law No. 36 of 2016 concerning Health Workers, the central government and regional governments are required to meet the needs of health workers both in terms of number and type. Meeting the need for general practitioners at the Puskesmas on a temporary basis can be done through private contracts, BLUD contracts, Central PTT, Regional

PTT, as well as the assignment of individuals or teams specifically for supporting the Nusantara Sehat Program. With this policy, it turns out that based on the results of Riskesnas there is currently an increasing percentage of Puskesmas without general practitioners: according to the results of the 2011 Risankes only 4.2% of Puskesmas in Indonesia did not have general practitioners, while the 2017 Risnakes results show that 7.7% of Puskesmas in Indonesia did not have a general practitioner [6].

The results of the above data analysis can explain that the distribution of general practitioners in Puskesmas in Indonesia is still uneven. Provinces in eastern Indonesia have a very large percentage of Puskesmas without doctors, reaching more than 40%, which is inversely proportional to conditions in western Indonesia where there are 6 provinces where all Puskesmas have general practitioners. This condition explains the phenomenon of the accumulation of general practitioners in Puskesmas in a single region.

Access to the Puskesmas is a problem for doctors wanting to serve in a Puskesmas. There is a need for cross-sectoral support from both the private sector and the government from the Ministry of Public Works and Public Housing of the Republic of Indonesia (KemenPUPR RI) to improve road access in Indonesia. Road access or road infrastructure is very important because in addition to being one of the conditions that can drive economic development, good road infrastructure can also be an attraction to absorb workforce because road infrastructure plays a pillar in determining the flow of goods, services, people, money and information from the zone market to other market zones [9]. Good condition of road infrastructure will also convince doctors to serve in remote Puskesmas because access to their workplaces is guaranteed.

The government is tasked with taking care of the presence and fulfillment of health workers in accordance with Law Number 23 of 2014 concerning Regional Government and Law Number 36 of 2014 concerning Health Workers. Both of these laws explain that the planning of health human resources or health workers is a matter of central, provincial and even district/city government.[10, 11]. With the assignment according to the mandate of the law, health workforce planning should be important so that distribution problems can be resolved, but Risnakes 2017 data aims to increase the percentage of Puskesmas that do not have general practitioners in Indonesia, which is 4.2% according to Risnakes 2011 results and 7.7% according to the 2017 Risnakes results.[6] This needs to be an evaluation of the seriousness of the government in carrying out the mandate of both laws. The Central Government, in this case the Ministry of Health of the Republic of Indonesia, has carried out a breakthrough program starting in 2015 which aims to meet the need for health workers in Puskesmas, especially in DTPK areas and areas that have health problems. The program is called 'Nusantara Sehat'. However, the type of health worker with the least interest until 2018 is general practitioner, which is only 2.2% of the entire Nusantara Sehat Program health workforce, or 43 out of 1958 workers. This is not much different from the special assignment of the Nusantara Sehat Program that is Individual-based, where general practitioners are the least desirable type of health workforce, namely 186 out of 3997 total health personnel in the Individual-Based Nusantara Sehat Program, or only 4.7% [7]. Based on the principle permit Number SR-460 / MK.02 / 2017 on August 30, 2017 issued by the Minister of Finance, the amount of general practitioner incentives is the largest compared to other workers, amounting to Rp. 8,595,000 for placement in remote areas and Rp. 11,181,000. However, the very large incentive rate did not cause a large number of general practitioner registrants. The problem is that the value of these incentives is not clearly informed in the media for recruiting health workers, specifically for the Nusantara Sehat Program. [12].

The high average incentive of Puskesmas doctors is not necessarily directly proportional to the percentage of doctors present at Puskesmas. This condition explains the

need for inclusion of incentives to be obtained when registering as a general practitioner in a Puskesmas [12, 13]. This must also apply to the recruitment of other health workers, because the amount of incentive obtained will motivate the workforce to carry out the mandate. Based on these conditions, it can be explained that the distribution of general practitioners in the Puskesmas is uneven and that the management of health human resources is still weak, therefore it is necessary to resolve them according to the process of human resource management. The process of human resource management starts from the planning of Health Human Resources or Workforce, which in the planning process needs to be linked to the community's need for general practitioners at the Puskesmas, and guarantees proportions in the division of sectors and regions in accordance with national development needs [14].

HHR planning and procurement, both in number and type, should be done based on community needs and must be adjusted to the regulations/policies that have been set [15] so that the distribution or distribution of doctors can be done evenly and the Puskesmas can provide optimal services. After the initial stage of HR management has been carried out, the next stages must be performed, namely recruitment, utilization and training of doctors at the Puskesmas.

4. CONCLUSION

The results of the 2017 Health Sector Research (Risnakes) showed increase in the percentage of community health centres (Puskesmas) without general practitioners, from 4.2% based on the results of the 2011 Risnakes to currently 7.7% in Indonesia. Data from 2017 Risnakes shows that there are 748 Puskesmas without general practitioners. Puskesmas without general practitioners are mostly located in eastern provinces such as Papua, West Papua and Maluku. This condition strongly indicates the disparity in the presence of general practitioners at the Puskesmas due to maldistribution. The problem of the distribution of doctors in Puskesmas in Indonesia needs to be resolved immediately in accordance with the human resource management process. The process of human resource management starts with HR planning. After the initial stage of HR management has been carried out, the next stages must be performed, namely recruitment, utilization and training of doctors at the Puskesmas. The cross-sectoral role is key to solve the problems of Indonesia's economic and geographical conditions to support the resolution of the problem of the distribution of general practitioners in the Puskesmas. The equitable distribution of general practitioners in the Puskesmas will support equity and improve health services.

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