

# Analysis of the Distribution of Health Workers and Health Facilities in Karanganyar Regency in 2022

Annisaa, Ema Novita Deniati\*

Universitas Negeri Malang, Jl. Semarang No. 5, Malang, East Java, 65114, Indonesia

\*Authors correspondence, Email address: ema.deniati.fik@um.ac.id

ARTICLE INFO	ABSTRACT
<b>ORCHID ID</b> Author 1: <a href="https://orcid.org/0009-0001-9562-7134">https://orcid.org/0009-0001-9562-7134</a> Author 2: <a href="https://orcid.org/0000-0003-4217-5661">https://orcid.org/0000-0003-4217-5661</a>	Health, as one of the pillars of a nation's development, has an important role. This is in line with the understanding of the World Health Organization that there are 12 public health indicators as proxies for health indicators in the Sustainable Development Goals. However, in Karanganyar Regency, the typography is located on the slopes of Mount Lawu, and most of them are rural areas, resulting in an uneven distribution of health workers and health service facilities. Therefore, this study aims to determine the distribution of health workers in Karanganyar Regency so that it can be a concern in formulating policies regarding the distribution of health workers in urban and rural areas. This study uses secondary data collected from the 2022 Karanganyar Regency Health Human Resource Information System data and the 2022 Karanganyar Regency Health Office Health Profile data. From the analysis results, it is known that the ideal distribution of health workers in Karanganyar Regency is based on the national ratio and is still concentrated around the district government and areas close to urban areas.
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## 1. Introduction

Development as a tool to achieve the goals of a nation (Fitriyah et al., 2021). The development of a country can be seen in the quality of its human resources (Larasati, 2018). The United Nations Development Programme (UNDP) outlines the dimensions of development consisting of two aspects: first, increasing human capabilities, which consists of increasing the time to live longer and healthier, increasing knowledge, and increasing decent living standards. Second, the creation of conditions that enable human development (Sugiyono, 2020). In addition, according to Damayanti (2018), development consists of several dimensions, namely income, health, and education. In the implementation of human development, there are three basic choices as an expansion of people's choices: living a long and healthy life, getting an education, and having access to sources of fulfillment of life's needs (Sugiyono, 2020).

According to the World Health Organization (WHO) in Hermawan (2019), to achieve 12 public health indicators as a proxy for health indicators in the Sustainable Development Goals (SDGs) and Universal Health Coverage, it requires the distribution of doctors, midwives, and nurses with a ratio of 4.45 health workers per 1000 population. Nationally, the quality of public health is improving but still shows a gap between urban and rural areas (Herawati & Bakhri, 2019). The health service system depends on the quality and quantity of adequate health workers (human resources)(Herawati & Bakhri, 2019). Inequality in the distribution of health workers is caused by the migration of health workers between regions, which includes several

factors such as government policies for health workers, economic conditions of individual characteristics, security factors, income, access to children's education, knowledge development, and areas with a better socio-economic environment that will attract more health workers (Hermawan, 2019).

The distribution of the doctor profession is more prevalent in urban areas, while the distribution of the midwife profession is more prevalent in district areas (Herawati & Bakhri, 2019). Assessing inequality in the distribution of health workers can be done using the ratio of health workers per population. This calculation is the most common one used by WHO to assess and plan health services, allows comparison between regions and sub-regions with different population sizes, and is easy to calculate (Hermawan, 2019).

According to WHO, the ideal condition for health workers to provide services is 1:2,500 population. That is, 1 doctor to serve 2,500 residents. This ideal condition, according to WHO, is also one of the targets set in the Regulation of the Minister of Law and Human Rights of the Republic of Indonesia Number 34 of 2016 concerning Regional Criteria for Districts and Cities Caring for Human Rights (HAM), especially the fulfillment of the right to health (Menkumham RI, 2016). The regulation also states that the ideal condition for non-physician health workers, especially midwives, is 1:1,000, and nurses are 1:855. This means that 1 midwife serves 1,000 people, while 1 nurse serves 855 people (Pradana, 2021).

Based on Law Number 36 of 2014 concerning health workers, it is explained that health workers are grouped into medical personnel, clinical psychology, nursing, midwifery, pharmacy, public health, environmental health, nutrition, physical therapy, medical engineering, biomedical engineering, traditional health, and other health workers (Presiden RI, 2014). The distribution of health workers and health service facilities still experiences problems such as inequality in the number of health workers in rural and urban areas (Hermawan, 2019), (Rahman & Puspitasari, 2020), (Presiden RI, 2016). This problem is also experienced by Karanganyar Regency, one of the 35 regencies or cities in Central Java Province. It has 17 sub-districts spread throughout the district's working area, but not all sub-districts are located in urban areas and are easily accessible. With the topographic conditions of the area located on the slopes of Mount Lawu, several areas in Karanganyar Regency are difficult to reach from urban areas, for example the Jatiyoso, Jatipuro, Jenawi, Kerjo, and Nargoyoso Districts (Wulandari, 2021).

Based on the identification of the above problems, an area map is needed that maps the distribution of health workers and health service facilities in Karanganyar Regency in 2022 to see their distribution and be able to become the basis for planning health service policies in Karanganyar Regency in the following year. Health service policy planning is based on Minister of Health Regulation Number 14 of 2021 concerning business activity and product standards in the implementation of health sector risk-based business licensing (Kemenkes RI, 2021). Therefore, in addition to making a map of the distribution of health workers and health service facilities, the internship output also produces a licensing booklet to make it easier for applicants and officers to fulfill their duties and functions when carrying out the licensing process.

## 2. Method

This study was conducted in Karanganyar Regency from May to June 2022 using a case report research design. This study is a quantitative study with secondary data obtained from

data from the Karanganyar District Health Human Resources Information System in 2022 and population data in the Karanganyar District Health Profile in 2022. The secondary data was then calculated and compared to the ratio of health workers per population and the ratio of health facilities per population. In addition, secondary data related to the distribution of health workers and health facilities was presented in the form of a map diagram with a base map of the Karanganyar Regency area. After all the data were processed, the results were then analyzed descriptively. Finally, the data were interpreted and disseminated in the form of scientific articles and national seminars.

### 3. Result and Discussion

Karanganyar Regency is one of 35 regencies or cities in Central Java Province (Figure 1), which is located at 100°70' east longitude and 7°28'– 7°46' south latitude. Topographically, Karanganyar Regency is land and mountains with an average altitude of 511 meters above sea level and a tropical climate with temperatures of 22-31° Celsius. The lowest area in Karanganyar Regency is in Kebakkramat sub-district, which is only 80 meters high, and the highest area is in Tawangmangu sub-district, which reaches 2000 meters above sea level. The total area is around 767,78 km<sup>2</sup> (BPS Karanganyar, 2022).

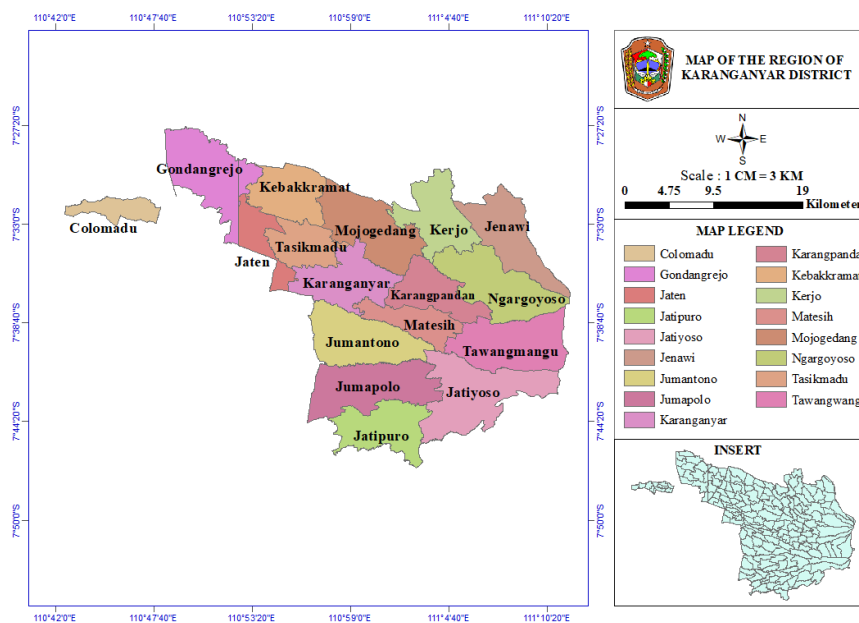


Figure 1: Regional map of Karanganyar Regency

Based on the population density table (Table 1), it is known that the distribution of population in Karanganyar Regency is still uneven. Population density in urban areas is generally higher than in rural areas. Population density is the number of people per square kilometer (BPS Karanganyar, 2022). In Table 1, it can be seen that high population density is concentrated in urban and industrial areas such as Colomadu District and Jaten District. Meanwhile, sparsely populated sub-districts include Nargoyoso and Jumantono sub-districts. Both of these sub-districts are located on mountain slopes and far from urban areas. The largest population is in Karanganyar District at 86,363 people, while Jenawi District is the district with the lowest population of 28,201 people. This is because Jenawi District is a rural area and is on the slopes of Mount Lawu, which is far from the city center.

**Table 1. Population Data per Sub-District in Karanganyar Regency**

<b>District</b>	<b>Area (KM<sup>2</sup>)</b>	<b>Total Population</b>	<b>Population Density</b>
Colomadu	15,64	75.357	4818,22
Gondangrejo	56,8	88.178	1552,43
Jaten	25,55	84.414	3303,87
Jatipuro	34,37	34.186	994,65
Jatiyoso	67,16	39.622	589,96
Jenawi	56,08	27.475	489,93
Jumantono	53,55	49.520	92,47
Jumapolo	55,67	42.456	762,64
Karanganyar	43,03	85.592	1989,12
Karangpandan	34,11	43.802	1284,14
Kebakkramat	36,46	64.683	1774,08
Kerjo	46,82	37.909	809,68
Matesih	26,27	44.712	1702,02
Mojogedang	53,31	70.233	1317,45
Ngargoyoso	65,34	36.990	56,61
Tasikmadu	27,60	66.430	240,69
Tawangmangu	70,03	47.249	674,70
Colomadu	15,64	75.357	4818,22

Source: Karanganyar District Health Profile in 2022

The uneven distribution of the population and the topographic conditions on the slopes of Mount Lawu are two of the causes of the uneven distribution of health workers. The slope areas include Jatiyoso, Jatipuro, Jenawi, Jumantono, Jumapolo, Karangpandan, Ngargoyoso, and Tawangmangu. In addition, Karanganyar Regency is still dominated by rural areas, with 162 villages and 15 villages (BPS Karanganyar, 2022). Based on the recap of data collection, health workers can be grouped into several large groups. Health workers can be grouped into the professions of general practitioners, specialists, dentists, midwives, nurses, pharmaceutical workers (pharmacists and pharmaceutical technical personnel), and public health workers (health administration and policy, health epidemiologists, health promotion, nutrition and nutritionists, occupational health, sanitarian workers, and other types of public health). Few health workers, such as doctors, midwives, and nurses, who practice independently are included in the results of the internship report. This is because the human resources and health information system (SISDMK) is still integrated only in group health facilities (government and private). Table 2 explain the recap data from SISDMK update.

**Table 2. Health Worker Data Per Sub-District in Karanganyar Regency in 2022**

<b>District</b>	<b>Health Workers</b>						
	<b>General Doctors</b>	<b>Specialist Doctors</b>	<b>Dentist</b>	<b>Midwives</b>	<b>Nurse</b>	<b>Pharmacy Worker</b>	<b>Community Health Worker</b>
Colomadu	49	20	8	96	141	80	22
Gondangrejo	20	3	5	53	50	32	14
Jaten	26	24	5	60	96	75	14
Jatipuro	9	0	1	20	17	6	9
Jatiyoso	3	0	1	23	16	3	5
Jenawi	3	0	1	17	14	2	3
Jumantono	6	0	2	22	21	6	6
Jumapolo	9	0	1	20	19	8	5

District	Health Workers						
	General Doctors	Specialist Doctors	Dentist	Midwives	Nurse	Pharmacy Worker	Community Health Worker
Karanganyar	85	56	9	165	522	158	80
Karangpandan	10	0	2	27	20	6	6
Kebakkramat	27	9	5	61	64	30	13
Kerjo	12	0	2	34	21	5	8
Matesih	16	0	1	36	40	10	5
Mojogedang	20	6	3	54	47	16	9
Ngargoyoso	6	0	2	20	14	2	4
Tasikmadu	33	8	8	55	42	37	8
Tawangmangu	9	0	1	23	28	12	6
Colomadu	49	20	8	96	141	80	22

Source: Karanganyar District Health Profile in 2022

Table 3 explain the 2022 health facility in Karanganyar Regency.

**Table 3. Data on Health Service Facilities per Sub-District in Karanganyar Regency in 2022**

District	Health Care Facilities			
	Pharmacy	Clinic	Health Center	Hospital
Colomadu	28	8	2	1
Gondangrejo	20	7	1	0
Jaten	17	3	2	2
Jatipuro	3	1	1	0
Jatiyoso	1	1	1	0
Jenawi	2	0	1	0
Jumantono	5	1	1	0
Jumapolo	5	1	1	0
Karanganyar	27	9	1	2
Karangpandan	5	2	1	0
Kebakkramat	11	3	2	1
Kerjo	3	3	1	0
Matesih	7	3	1	0
Mojogedang	8	2	2	1
Ngargoyoso	3	1	1	0
Tasikmadu	12	4	1	1
Tawangmangu	4	3	1	0
Colomadu	28	8	2	1

Source: Karanganyar District Health Profile in 2022

### 3.1 Ratio of Health Workers per Total Population

Based on population data and data on the number of health workers, the ratio of health workers per population in each sub-district can be calculated in Table 4. The ratio of health workers per population shows how much the availability of health workers and service coverage contribute to providing health services to the population (Pradana, 2021).

**Table 4. The Ratio of Health Workers per Total Population of Each Sub-District in Karanganyar Regency in 2022**

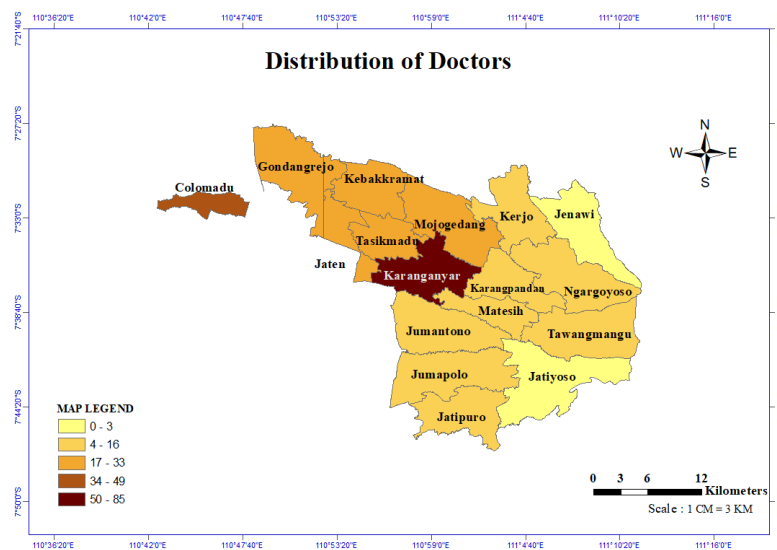
District	Ratio of Health Workers per Total Population						
	General Doctors	Specialist Doctors	Dentist	Midwives	Nurse	Pharmacy Worker	Community Health Worker
Colomadu	1:1377	1:3373	1:8432	1:703	1:478	1:843	1:3066
Gondangrejo	1:4094	1:27291	1:16375	1:1545	1:1637	1:2559	1:5848
Jaten	1:3115	1:3375	1:16200	1:1350	1:844	1:1080	1:5786
Jatipuro	1:3923	0	1:35307	1:1765	1:2077	1:5885	1:3923
Jatiyoso	1:14170	0	1:42510	1:1848	1:2657	1:14170	1:8502
Jenawi	1:9400	0	1:28201	1:1659	1:2014	1:14101	1:9400
Jumantono	1:8504	0	1:25512	1:2319	1:2430	1:8504	1:8504
Jumapolo	1:4974	0	1:44762	1:2238	1:2356	1:5595	1:8952
Karanganyar	1:1016	1:1542	1:9596	1:523	1:165	1:547	1:1080
Karangpandan	1:4466	0	1:22328	1:1654	1:2233	1:7443	1:7443
Kebakkramat	1:2438	1:7315	1:13167	1:1079	1:1029	1:2195	1:5064
Kerjo	1:3236	0	1:19417	1:1142	1:1849	1:7767	1:4854
Matesih	1:2862	0	1:45792	1:1272	1:1145	1:4579	1:9158
Mojogedang	1:3578	1:11928	1:23856	1:1325	1:1523	1:4473	1:7952
Ngargoyoso	1:6277	0	1:18830	1:1883	1:2690	1:18830	1:9415
Tasikmadu	1:1951	1:8046	1:8046	1:1170	1:1533	1:1740	1:8046
Tawangmangu	1:5395	0	1:48557	1:2111	1:1734	1:4046	1:8093
Colomadu	1:1377	1:3373	1:8432	1:703	1:478	1:843	1:3066

Source: Karanganyar District Health Profile in 2022

Based on table 3, it can be seen that there are only 4 sub-districts that have met the ideal conditions for the ratio of doctors (1:2,500), namely Karanganyar, Colomadu, Tasikmadu, and Kebakkramat. The remaining 13 sub-districts still do not meet the ideal conditions, according to the WHO. In the midwifery profession, there are only 2 sub-districts that meet the ideal conditions for non-doctor health workers set out in the Regulation of the Minister of Law and Human Rights of the Republic of Indonesia Number 34 of 2016 concerning Regional Criteria for Districts and Cities Caring for Human Rights. The two sub-districts are Colomadu and Karanganyar. Apart from these two sub-districts, it still does not meet the ideal criteria for midwife health workers (max 1:1000). Meanwhile, for the nursing profession in the workplace based on sub-districts, there are 3 sub-districts that meet the ideal conditions (max 1:855), including Karanganyar, Colomadu and Jatèn sub-districts.

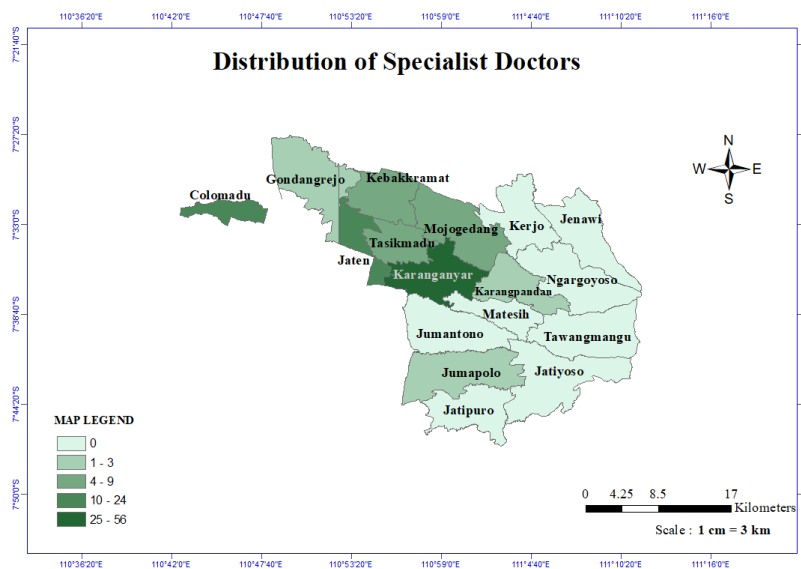
### 3.2 Distribution of Health Workers

The distribution of health workers in Karanganyar Regency can be seen from the following figure 2.



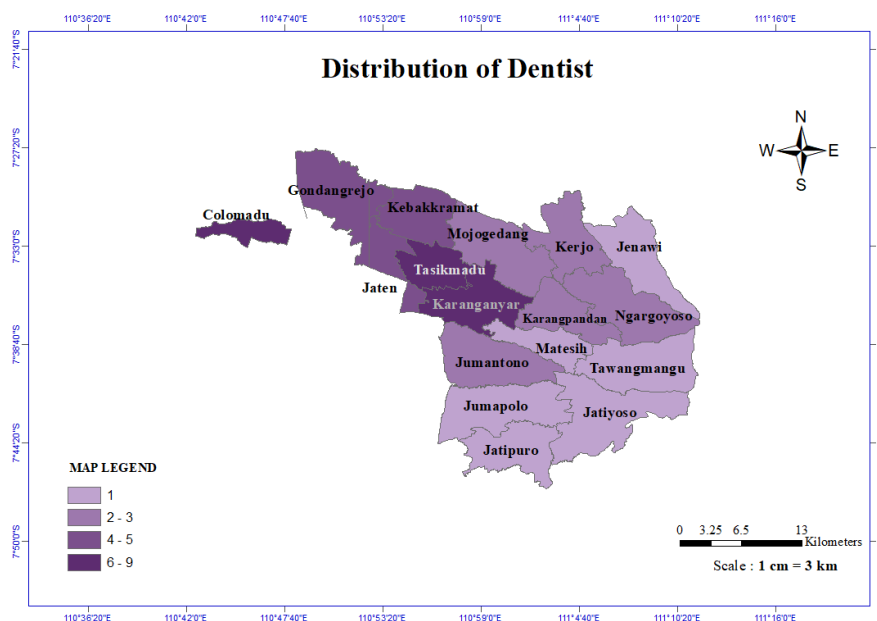
**Figure 2. Map of the Distribution of the Doctor Profession per Sub-District in Karanganyar Regency**

Based on Figure 2, it can be seen that the distribution of general practitioners' workplaces is most prevalent in Karanganyar District (85 doctors). Colomadu sub-district is in second place with 49 general practitioners. Gondangrejo, Kebakkramat, Mojogedang, Tasikmadu, and Jaten sub-districts show that the distribution of general practitioners is in the range of 17–33 doctors. Meanwhile, in areas below or around the slopes of Mount Lawu, such as Kerjo, Ngarogoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, and Jatipuro, the distribution of general practitioners is in the range of 4–16 doctors. In areas that are difficult to reach and are far from urban areas, such as Jatiyoso and Jenawi sub-districts, the distribution of general practitioners is only around 0–3 doctors who work at puskesmas. Figure 3 show a map of the distribution of specialist doctors in Karanganyar Regency.



**Figure 3. Map of the Distribution of Specialist Doctors per Sub-District in Karanganyar Regency**

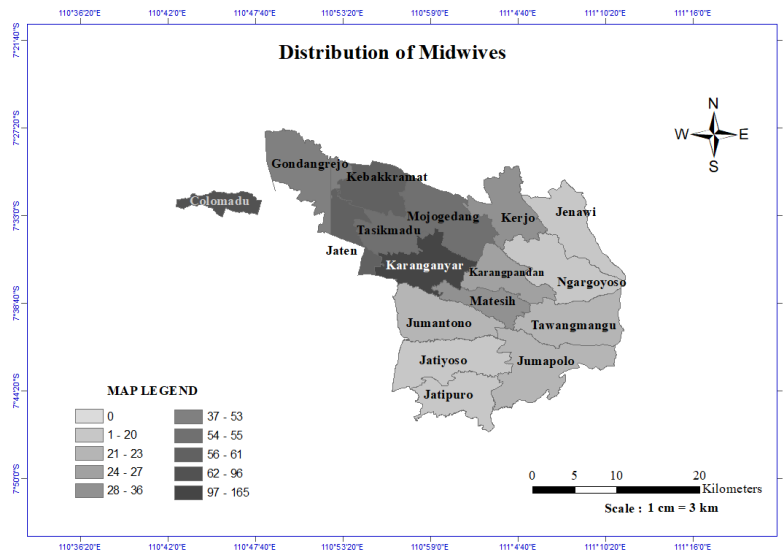
Based on Figure 3, it can be seen that the distribution of specialist doctors' workplaces is most prevalent in Karanganyar District (56 doctors). Colomadu and Jaten sub-districts are in second place with 10–24 specialists. Kebakkramat, Mojogedang, and Tasikmadu sub-districts show that the distribution of specialists is in the range of 4–9 doctors. Meanwhile, in areas below or around the slopes of Mount Lawu, such as Kerjo, Jenawi, Ngargoyoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, Jatipuro, and Jatiyoso sub-districts, there are no specialists working in these sub-districts (0 specialists). Figure 4 show about a map of the distribution of the dentist profession per sub-district in Karanganyar Regency.



**Figure 4. Map of the Distribution of the Dentist Profession per Sub-District in Karanganyar Regency**

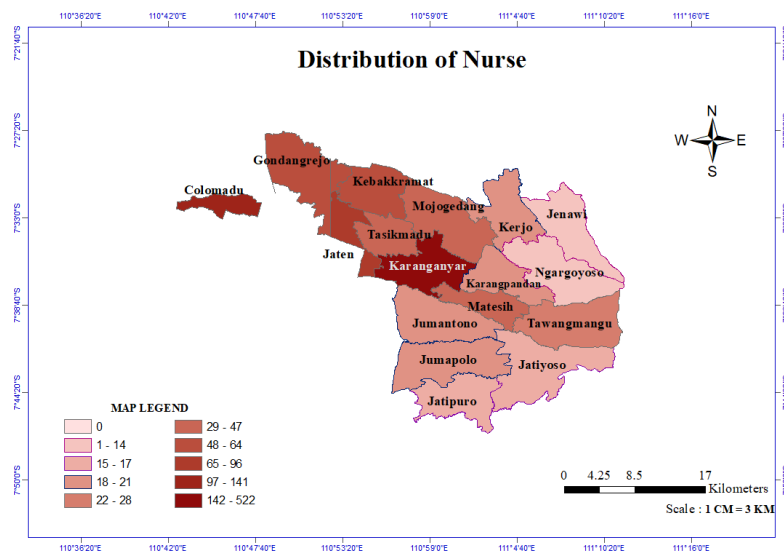
Based on Figure 4, it can be seen that the distribution of dentist workplaces is most abundant in Karanganyar, Colomadu, and Tasikmadu sub-districts, with around 6–9 dentists. Gondangrejo, Kebakkramat, and Jaten sub-districts are in second place with around 4-5 dentists. Mojogedang, Kerjo, Ngargoyoso, Karangpandan, and Jumantono sub-districts have around 2–3 dentists working in the sub-district area. Jenawi, Matesih, Tawangmangu, Jumapolo, Jatipuro, and Jatiyoso sub-districts only have one dentist working in the sub-district area. Figure 5 show about map of the distribution of the midwife profession per sub-district in Karanganyar Regency.





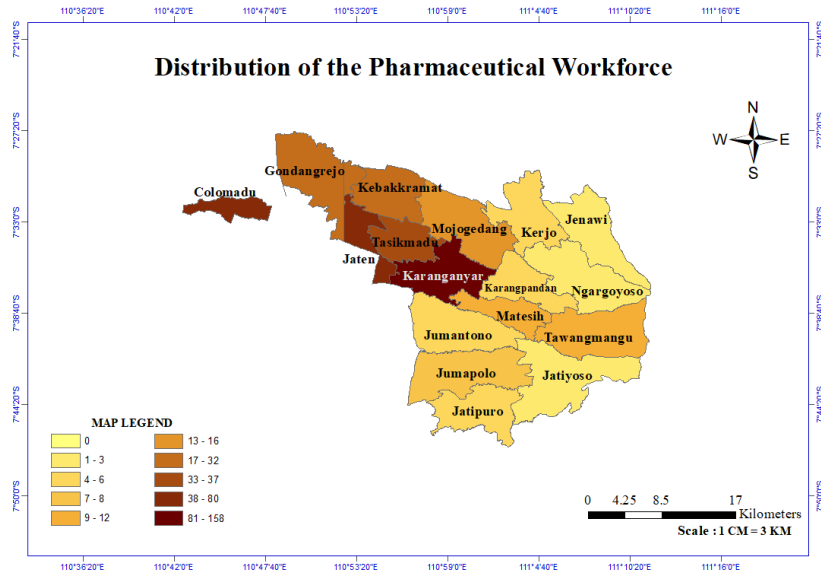
**Figure 5. Map of the Distribution of the Midwife Profession per Sub-District in Karanganyar Regency**

Based on Figure 5, it can be seen that the distribution of midwives' workplaces is mostly found in Karanganyar District (165 midwives). Colomadu sub-district is in second place with 96 midwives. Gondangrejo, Kebakkramat, Mojogedang, Tasikmadu, and Jaten sub-districts show that the distribution of midwives is in the range of 53-60 midwives. Meanwhile, areas far from the regency city such as Kerjo, Ngargoyoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, Jatipuro, Jatiyoso and Jenawi have a distribution of midwives in the range of 17-36 midwives per sub-district. Figure 6 show about map of the distribution of the nursing profession per sub-district in Karanganyar Regency.



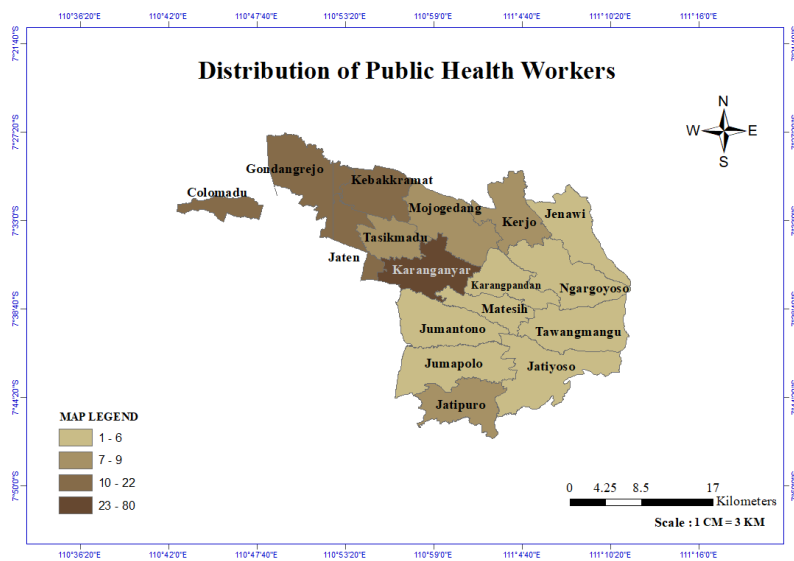
**Figure 6. Map of the Distribution of the Nursing Profession per Sub-District in Karanganyar Regency**

Based on Figure 6, it can be seen that the distribution of nurses' workplaces is most prevalent in Karanganyar District (522 nurses). Colomadu sub-district is in second place with 141 nurses. Gondangrejo, Kebakkramat, Mojogedang, Tasikmadu, Jaten and Matesih sub-districts can be seen that the distribution of nurses is in the range of 40-96. Whereas in Kerjo, Ngargoyoso, Jenawi, Karangpandan, Tawangmangu, Jumantono, Jumapolo, Jatiyoso and Jatipuro, the distribution of nurses is in the range of 14-28 nurses. Figure 7 show about map of the distribution of the profession of pharmaceutical workers per sub-district in Karanganyar Regency.



**Figure 7. Map of the Distribution of the Profession of Pharmaceutical Workers per sub-district in Karanganyar Regency**

Based on Figure 7, it can be seen that the distribution of workplaces of pharmaceutical workers is most prevalent in Karanganyar Sub-district with 158 people. Jaten and Colomadu sub-districts are in the second largest group with 75-80 people. The sub-districts of Gondangrejo, Kebakkramat, Mojogedang, and Tasikmadu can be seen that the distribution of pharmaceutical workers is in the range of 16-37 people. Whereas in the sub-districts of Kerjo, Ngargoyoso, Jenawi Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, Jatiyoso and Jatipuro the distribution of pharmaceutical workers is below 15 people. Figure 8 show about map of the distribution of the profession of public health workers per sub-district in Karanganyar Regency.



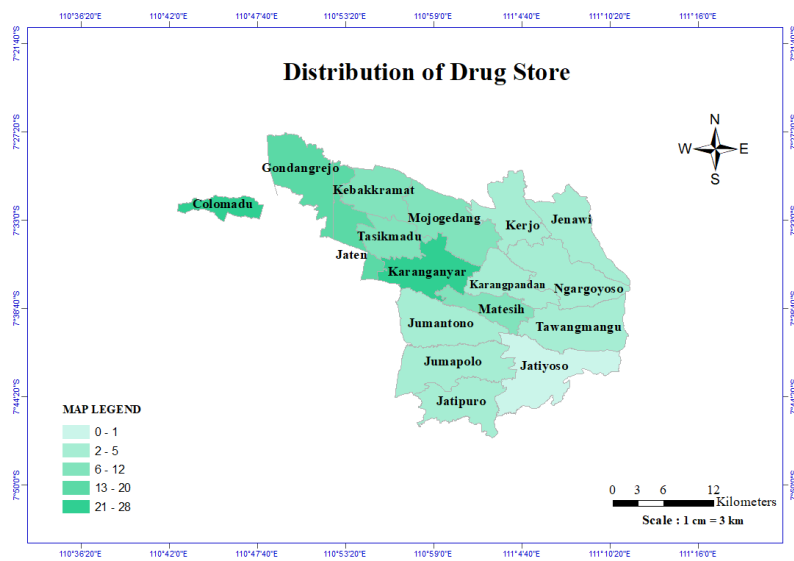
**Figure 8. Map of the Distribution of the Profession of Public Health Workers per Sub-District in Karanganyar Regency**

Based on Figure 8, it can be seen that the distribution of workplaces for public health workers as a whole is most prevalent in Karanganyar District (80 people). The overall number of community health workers in Colomadu, Gondangrejo, Jaten, and Kebakkramat sub-districts is above 10 people. While the total number of community health workers in Mojogedang, Tasikmadu, Kerjo, Jenawi, Ngargoyoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, Jatiyoso, and Jatipuro sub-districts is below 10 people.

Based on the mapping of health workers in Karanganyar Regency, it can be seen that the ideal conditions that meet WHO standards and the Indonesian Minister of Law and Human Rights Regulation are in urban areas or areas close to the city. This is in line with research Alfauzi & Musiyam (2020), which states that the impact of long distances and difficult road terrain affects the growth or development of socio-economic facilities far from the city center. Apart from distance, there are also factors that influence the disparities that occur in the region, namely differences in regional production in each sub-district or the livelihood of the population. In addition, the uneven distribution of population and geographical conditions in each region also affect the inequality of health workers, so that urban areas tend to have many residents and health workers while rural areas are the opposite (Romadhona & Siregar, 2018).

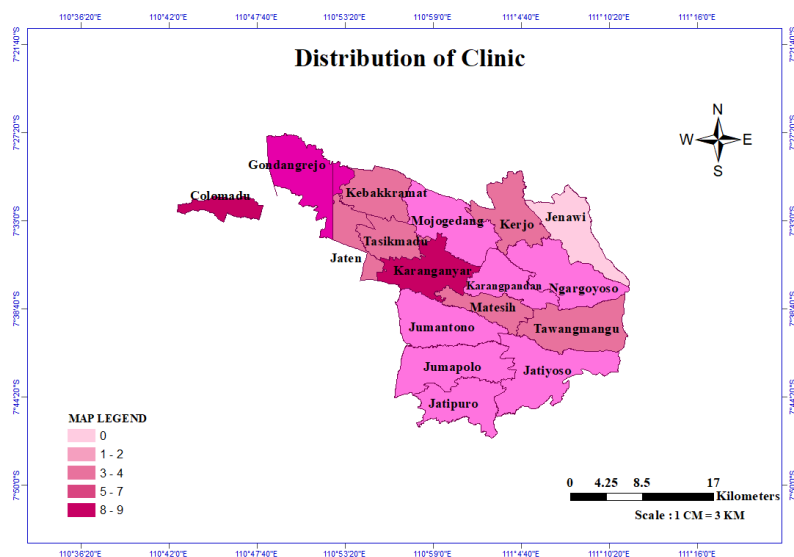
### 3.3 Distribution of Health Service Facilities

The distribution of health service facilities in the Karanganyar Regency area can be seen from the following figure 9.



**Figure 9. Map of the Distribution of Drugstores per Sub-District in Karanganyar Regency**

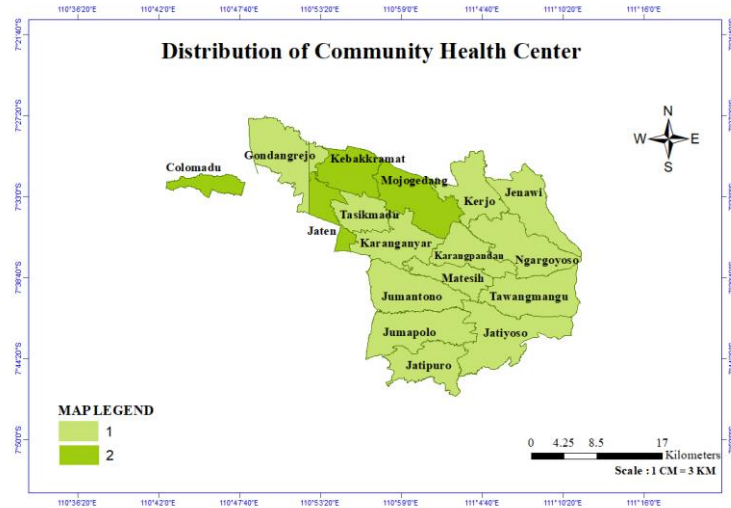
Based on Figure 9, it can be seen that the distribution of drugstores is most abundant in Colomadu and Karanganyar sub-districts (28 and 27 facilities, respectively). Kebakkramat, Tasikmadu, Jaten, and Gondangrejo sub-districts have 11, 12, 17, and 20 pharmacies, respectively. Meanwhile, in Kerjo, Ngargoyoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, and Jatipuro sub-districts, the distribution of general practitioners is in the range of 4–16 doctors. In areas that are difficult to reach and located far from urban areas, such as Jatiyoso and Jenawi sub-districts, the distribution of general practitioners is only around 0–3 doctors who work at puskesmas. Figure 10 show about map of clinic distribution per sub-district in Karanganyar Regency



**Figure 10. Map of Clinic Distribution per Sub-District in Karanganyar Regency**

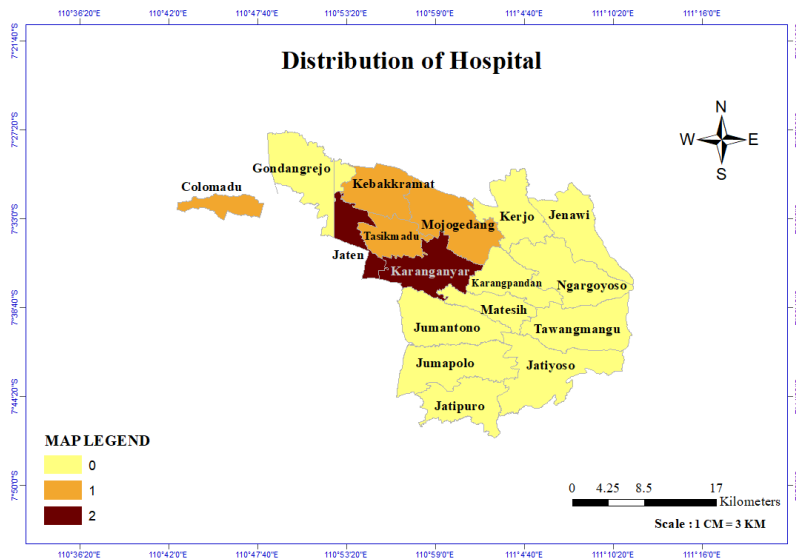
Based on Figure 10, it can be seen that the distribution of clinics is most prevalent in Gondangrejo, Colomadu, and Karanganyar sub-districts (7, 8, and 9 clinics). Meanwhile, the

sub-districts of Kebakkramat, Tasikmadu, Jaten, Kerjo, Ngargoyoso, Karangpandan, Matesih, Tawangmangu, Jumantono, Jumapolo, and Jatipuro have fewer than five clinics. However, only Kecamatan Jenawi does not have any clinics at all. Figure 11 show about map of the distribution of community health center per sub-district in Karanganyar Regency



**Figure 11. Map of the Distribution of Community Health Center per Sub-District in Karanganyar Regency**

Based on Figure 11, it can be seen that the distribution of health centers is evenly distributed in each sub-district. Colomadu District has two puskesmas because the population in Colomadu District is very large, which is around 67,456 people. Meanwhile, Jaten, Kebakkramat, and Mojogedang sub-districts have two health centers because the areas of the three sub-districts are large and have a large population. Figure 12 show about map of hospital distribution per sub-district in Karanganyar Regency.



**Figure 12. Map of Hospital Distribution per Sub-District in Karanganyar Regency**

Based on Figure 12, it can be seen that the distribution of hospitals is centered in Karanganyar District, which is the administrative center of the district. In addition, in Jaten Subdistrict, there is also one general hospital and one surgical specialty hospital. In Colomadu, Kebakkramat, Tasikmadu, and Mojogedang sub-districts, there is one hospital each, with one specialty hospital for mothers and children located in Tasikmadu sub-district. Other than these areas, there are no hospitals.

Based on the mapping of health service facilities in Karanganyar Regency, it can be seen that most health service facilities are located in Karanganyar Sub-district as the center of the regency government, Jaten Sub-district as an industrial and shopping center, and Colomadu Sub-district as an area very close to Surakarta City. These three sub-districts have the same characteristics that support the centralized distribution of health service facilities in Karanganyar Regency, namely areas that are densely populated, have adequate availability of health service facilities and other support, and have easy access to health (Romadhona & Siregar, 2018).

#### 4. Conclusion

The fulfillment of ideal conditions based on the ratio of health workers per population set by WHO and the Ministry of Law and Human Rights is only possible in urban areas. In line with this condition, based on the mapping of the distribution of health workers and health facilities, many are found in areas near cities or urban areas such as Karanganyar, Colomadu, Jaten, and Kebakkramat. The dense population in urban areas, supported by easy access to health service facilities, has resulted in many health workers choosing to work in urban areas, so that most health workers are distributed and concentrated in urban areas. Conversely, in rural areas far from cities, the geographical conditions on the slopes of Mount Lawu cause difficulty in accessing health care facilities, so that health workers are rarely in the area. This is in line with the distribution of health service facilities, which are mostly located in urban areas or centered in areas near the city (district centers).

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