

## Evaluation of Referral Ratios in Facing Universal Health Coverage in Primary Healthcare Centers

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### ABSTRACT

Following the road map from the Social Security Agency for Health in the 2020-2025 period, a preventive approach is used for achieving universal health coverage. However, there are still disparities in the referral rate as an indicator of preventive efforts between cities and rural areas. The study aims to describe service referrals' achievements, the met capacity of human health resources, and the active participation of integrated health service posts for non-communicable diseases. The method used a quantitative approach. Research place in Cirebon City and Cirebon District, Indonesia. Referral rate data was collected in August-December 2019. The data on service capacities, health resources, and integrated health service participation was collected in August-December 2020. The result shows that the average referral rate in primary healthcare centers of Cirebon City was better than that of Cirebon District. The standard services in primary healthcare centers of Cirebon City were better than those in Cirebon District. The standard human resources in primary healthcare centers of Cirebon District were more qualified than those in Cirebon City. The active participation of integrated health service posts for non-communicable diseases in Cirebon City was better than in Cirebon District. The contribution of this article is to provide health care information about the evaluation of referral ratios in facing universal health coverage.

**Keywords:** Primary Healthcare Centers, Referral, Universal Health Coverage



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## 1. INTRODUCTION

In South Africa the health sector is important in any economic growth (Iwu et al., 2021). Mousa & Othman (2020) said that the healthcare sector is an important service sector in Palestine. Every country stated that the health perspective is important (Vamos et al., 2020). The demographic bonus in Indonesia has a positive impact on the economy and readiness to face challenges in the health sector (Caesaria et al., 2018). The National Health Insurance System has a roadmap that is divided into three phases. The first period between 2014-2019 has a target of universal health coverage using a curative approach. In the second period between 2020-2025, universal health coverage will be targeted using a preventive approach. Lastly, the third period between 2026-2030 is the period of using a promotive approach to achieve universal health coverage (Agustina et al., 2019). The challenges in the health sector in the past 20 years have increased, especially in terms of non-communicable diseases and communicable diseases (Caesaria et al., 2018). If there is no change in approaches either curative, preventive, or promotive, then the costs that must be borne by the Social Security Agency for Health will remain high and cause an increasing deficit every year.

First-level primary health facilities ideally prevent the surrounding community from experiencing non-communicable diseases and infectious diseases with preventive and promotive efforts. Looking at the referral ratios, which always increase from year to year, there were 21.3 million reported

outpatient referrals in 2014 and 39.8 million in 2015 which rose to 49.3 million in 2016 and 64.4 million in 2017 (Agustina et al., 2019). The high number of referrals is influenced by the insufficient capacity of the first-level primary health facilities, i.e., the primary healthcare centers, and clinics, to provide optimal service and filter referrals while maintaining quality and cost control. When evaluated, 68.3% of patients who were referred to hospitals from primary healthcare centers and clinics could be treated and did not need to be referred (Nurlinawati et al., 2019).

In contrast to primary health clinics, which only carry out individual health management, a primary healthcare center as a first-level primary health facility has two management functions for individuals and the community (Werni et al., 2018). First-level primary health facilities prioritize preventive, promotive, and educational approaches to overcome health risk factors by increasing the role and independence of the community. The measure of success in first-level primary health facilities in the National Health Insurance era is the reduction in the number of referrals to hospitals as referral healthcare facilities (Rahma et al., 2015). Primary healthcare centers that have more complete services are considered better at providing services (Chabibah & Chalidyanto, 2014). Indonesia has a total of 9,767 primary healthcare centers out of 7,160 existing sub-districts, and disparities in service capacities still occur (Yulianti et al., 2022). The disparity of services between cities and districts is determined by differences in development. Likewise, primary healthcare centers of Cirebon City and District affect the referral ratio to achieve universal health coverage as targeted by the Social Security Agency for Health in the 2020-2025 roadmap. Cirebon City has 22 primary healthcare centers that have collaborated with the Social Security Agency for Health, and the Cirebon District has 60 primary healthcare centers that have also collaborated with the same institution. The areas have different numbers of health facilities because Cirebon City is smaller than the Cirebon District. According to Agustin, the community health management program in primary healthcare centers needs to be further improved as the Social Security Agency for Health sets a focus on preventive efforts instead of curative ones to achieve universal health coverage in 2020-2025 (Agustina et al., 2019). The disparity between urban and rural areas of districts occurs in various aspects, including health services due to a different pace of development. Rural areas tend to develop more slowly, especially in the health sector. The basic right to health is not affected by differences in urban and rural areas. Wherever people live, they should have the same right to get health services (Holliday et al., 2017). The study aims to describe service referrals' achievements, the met capacity of human health resources, and the active participation of integrated health service posts for non-communicable diseases. In general, comparing two different regions is commonplace. The novelty of this study compares the same cities and districts and the characteristics of the population are not much different.

## 2. METHOD

This study used a quantitative approach. The quantitative analysis began with a descriptive analysis by describing the number of referrals from primary healthcare centers of Cirebon City and District in August-December 2019. The next step was to describe the condition of services, fulfillment of health human resources, and the participation of integrated health service posts in managing non-communicable diseases found in primary healthcare centers of Cirebon City and the District. The research was conducted within two months from August to September 2020 in Cirebon. The population of this study was 22 primary healthcare centers of Cirebon City and 60 primary healthcare centers of Cirebon District. This study used secondary data of referrals from primary healthcare centers as reported by the Cirebon Branch of the Social Security Agency for Health. In addition, data on service capacities, health resources, and participation of integrated health service posts in non-communicable disease management were collected from the West Java primary healthcare centers.

## 3. RESULTS AND DISCUSSION

### 3.1 Results

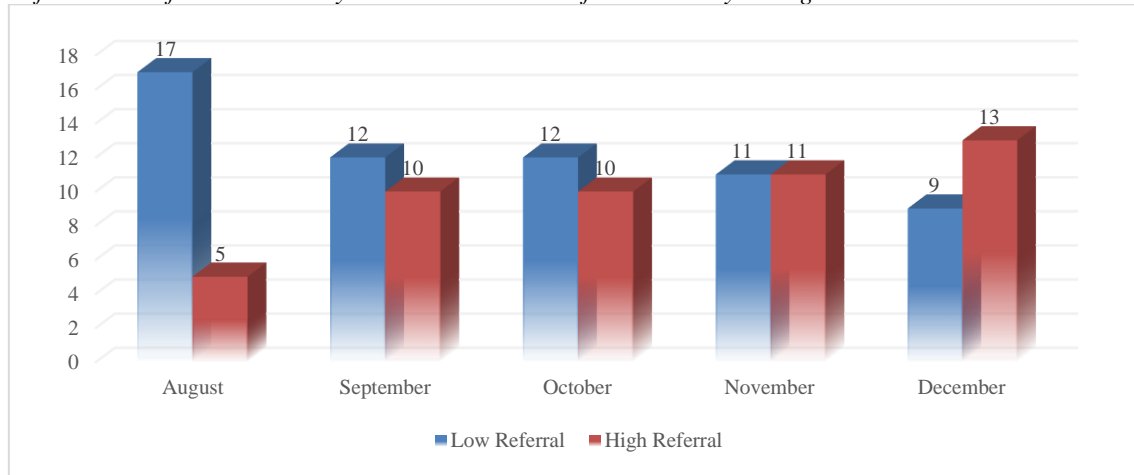
Referral rate data was collected in August-December 2019. The data on service capacities, health resources, and integrated health service participation was collected in August-December 2020. Figure 1 shows the referrals from 22 primary healthcare centers of Cirebon City in August-December 2019. Base on Figure 1, the average referral rate in 22 primary healthcare centers of Cirebon City in August-December 2019 was low (55.45%), and the rest was high (44.55%). Primary healthcare centers of Cirebon District showed higher referral rates.

Figure 2 shows the referrals from 60 primary healthcare centers of Cirebon District in August-December 2019. Base on Figure 2, the average referral rate from 60 primary healthcare centers was mostly high (71%), and the rest was low (29%).

Figure 3 shows the fulfillment of human resources in primary healthcare centers of both Cirebon City and Cirebon District in August-December 2020.

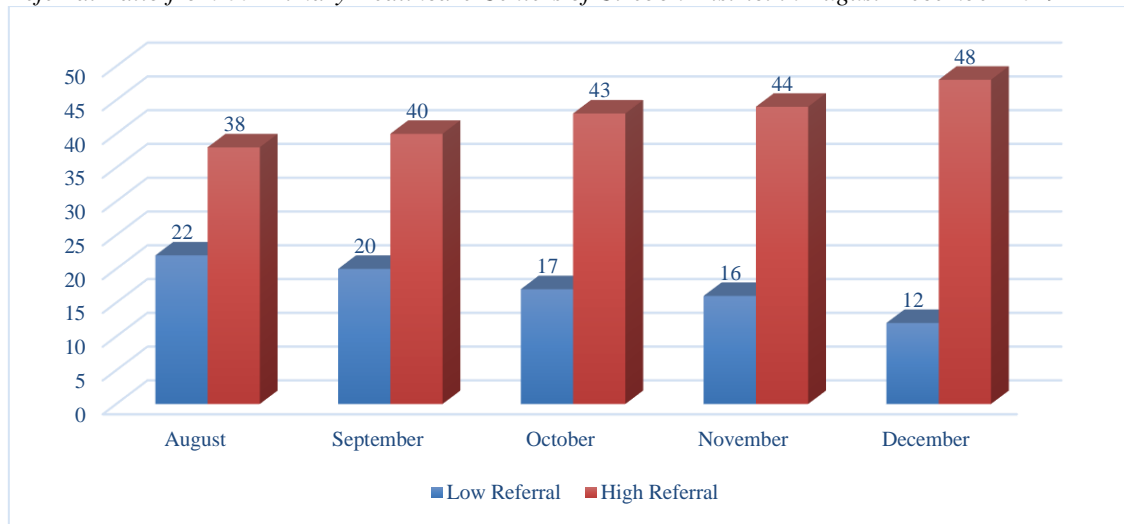
**Figure 1**

*Referral Ratio from 22 Primary Healthcare Centers of Cirebon City in August-December 2019*



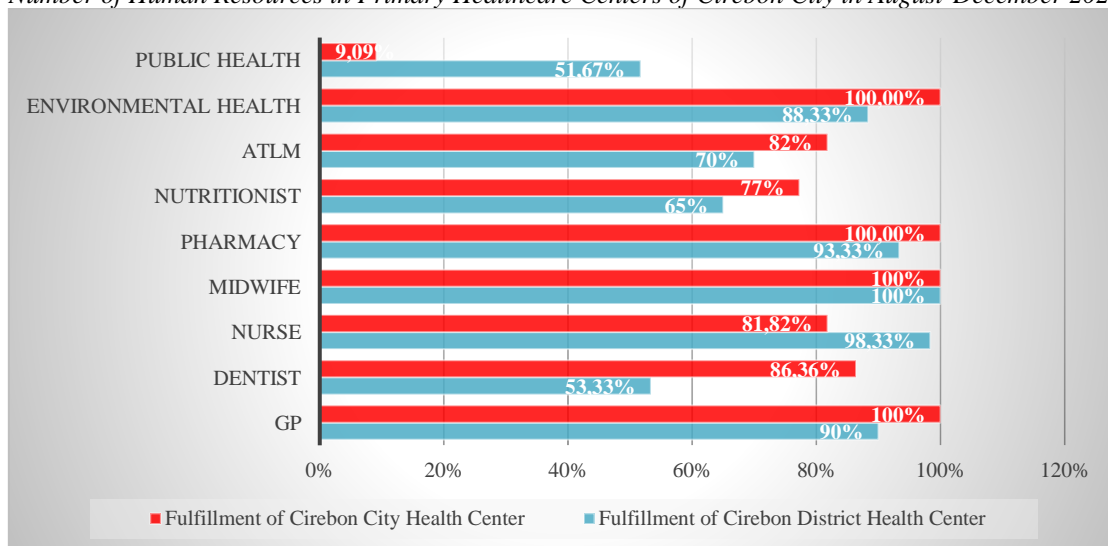
**Figure 2**

*Referral Ratio from 60 Primary Healthcare Centers of Cirebon District in August-December 2019*



**Figure 3**

*Number of Human Resources in Primary Healthcare Centers of Cirebon City in August-December 2020*



Based on Figure 3, the Regulation of the Indonesian Ministry of Health Number 75 of 2014, human resources are one of the factors that determine the referral of health centers. General physicians in primary healthcare centers of Cirebon City were completely available (100%), while those of Cirebon District were only 90%. Dentists in primary healthcare centers of Cirebon City were 86.36% available followed by those of Cirebon District (55.33%). Primary healthcare centers of Cirebon City had 81.82% of nurses, while those of Cirebon District had 98.33%. Both primary healthcare centers of Cirebon City and District had 100% of available midwives. The number of pharmacists in primary healthcare centers of Cirebon City was 100% available, while it was 93.33% in those of Cirebon District. Nutrition workers in primary healthcare centers of Cirebon City covered 77% of the required human resources followed by 65% of Cirebon District. Primary healthcare centers of Cirebon City had 82% of medical laboratory technology experts followed by 70% of Cirebon District. Primary healthcare centers of Cirebon City had 100% of environmental health officers, while those of Cirebon District had 88.33%. Community health workers in primary healthcare centers of Cirebon City covered 9.09% of the required human resources, while those of Cirebon District only had 51.67% of community health workers.

**Table 1**  
*Service Capability in Primary Healthcare Centers*

Place	Service Capability	Number	Percentage (%)
Cirebon City	Does not meet standards	15	13.6
	Meets standards	95	86.4
	Total	110	100
Cirebon District	Does not meet standards	88	29.3
	Meets standards	212	70.7
	Total	300	100

Tables 1 shows that the primary healthcare centers of Cirebon City mostly complied with the standards (86.4%), and few did not (13.6%). Tables 1 shows that the Cirebon District had 212 primary healthcare centers that followed the standards (70.7%), and 88 ones did not follow the standards (29.3%).

**Table 2**  
*Human Resources in Primary Healthcare Centers*

Place	Human Resources	Number	Percentage (%)
Cirebon City	Does not meet standards	100	90.9
	Meets standards	10	9.1
	Total	110	100
Cirebon District	Does not meet standards	225	75
	Meets standards	25	25
	Total	300	100

Tables 2 shows that the ten primary healthcare centers of Cirebon City had human resources that complied with the standards (9.1%), and 100 (90.9%) did not. Tables 2 shows that in Cirebon District, 25 primary healthcare centers had human resources that followed the standards (25%), and 225 had human resources that did not comply (75%).

**Table 3**  
*Number of Integrated Health Service Posts for Handling Non-Communicable Diseases*

Place	Integrated Health Service Posts for Non-Communicable Diseases	Number	Percentage (%)
Cirebon City	Inactive	2	1.9
	Active	108	98.2
	Total	110	100
Cirebon District	Inactive	220	73.3
	Active	80	26.7
	Total	300	100

Tables 3 shows that Cirebon City had 108 integrated health service posts actively managing non-communicable diseases for community health management in Cirebon City (98.2%) followed by two inactive integrated health service posts (1.9%). Tables 3 shows that In Cirebon District, 80 integrated health service posts actively participated in the program (26.7%), and 220 did not (73.3%).

### 3.2 Discussion

The high referrals from primary healthcare centers to hospitals may cause a waste of money, indicating an increasing deficit for the Social Security Agency for Health from year to year. The costs incurred by the Social Security Agency for Health when patients receive treatment at hospitals are higher

than in primary healthcare centers. Primary healthcare centers use a capitation system, while hospitals use the INA-CBG's rate depending on the diagnosis and actions taken (Sucipto et al., 2019).

Primary healthcare centers as first-level primary health facilities are gatekeepers of health facilities that have first contact with patients and screen referrals while still holding on to quality control and cost control. The high number of referrals from primary healthcare centers to hospitals indicates the insufficient competence of primary healthcare centers. The results showed that the referral rate from primary healthcare centers of Cirebon District was higher than that from primary healthcare centers of Cirebon City. The Social Security Agency for Health conducted monitoring and evaluation of patients referred to hospitals. The investigation showed that 68.3% of patients should have been handled in primary healthcare centers. One of the reasons for the high referral ratio (>15%) is the absence of complete mandatory services in primary healthcare centers. According to (Nurlinawati et al., 2019), the high referral rate in primary healthcare centers is caused by incomplete services, especially emergency services and laboratories. This is in line with the results of the study that the service capacity in primary healthcare centers of Cirebon City was higher than those of Cirebon District. Patients seek treatment in primary healthcare centers because it is cheaper. Besides, people in developing countries still have low awareness of quality health services (Handayani et al., 2018). A high referral rate from primary healthcare centers of Cirebon District is influenced by the use of the Social Security Agency for Health for treatment at hospitals instead of primary healthcare centers (Nurhasana et al., 2019). Patients prefer to be referred to hospitals because they want to find better services despite the referral regulation in the Regulation of the Indonesian Ministry of Health Number 75 of 2014. According to Chabibah and Chalidyanto, primary healthcare centers with inpatient capacity had a lower referral ratio. Primary healthcare centers with outpatient capacity had a higher referral ratio (Chabibah & Chalidyanto, 2014). The Social Security Agency for Health also conducted a study in the first trimester of 2015. The research shows out of 14.5 million visits to first-level primary health facilities, 15.17% were referred to hospitals, and 9.8% of referred cases were diagnosed with non-specialties (Maharanti & Oktamianti, 2018). This is due to people being skeptical of first-level health service facilities and their preference to choose hospitals (Song et al., 2022; Zhao et al., 2022)

Based on the Regulation of the Indonesian Ministry of Health Number 75 of 2014 concerning primary healthcare centers, a lack of human resources becomes the reason for high referral rates. Broadly speaking, the primary healthcare centers of Cirebon City are better at having human resources than those of Cirebon District. Human resource supply must be according to the Regulation of the Indonesian Ministry of Health Number 75 of 2014. Differences in standards between inpatient and outpatient services in primary healthcare centers cause discrepancies in the quantity and quality of human resources. Primary healthcare centers with inpatient capacity had better human resources such as general practitioners, nurses, and nutrition workers compared to those with outpatient capacity. Primary healthcare centers with inpatient and outpatient services in urban areas had more sufficient community health workers than in rural areas (Shofiah et al., 2019). The number of public health workers in urban primary healthcare centers is assigned to improve promotive and preventive health services in urban residents who have a relatively degenerative health history, which requires a high cost for referral to a hospital. Preventive and promotive health approaches must be done to introduce a healthy lifestyle in society (Agustina et al., 2019). Early detection of degenerative diseases can be done by establishing integrated health service posts to manage non-communicable diseases and allowing public health workers to have a central role in promotive and preventive health efforts (Jayusman & Widiyarta, 2018). Through these approaches, primary healthcare centers of Cirebon City may have a more active number of integrated health service posts to handle non-communicable diseases than those of Cirebon District.

#### 4. CONCLUSION

The average referral rate in 22 primary healthcare centers of Cirebon City in August-December 2019 was 55.45%, followed by 29% in Cirebon District. Most of the primary healthcare centers of Cirebon City met standards (86.4%), higher than those of Cirebon District (70.7%). The number of human resources that complied with standards in primary healthcare centers of Cirebon District amounted to 25 (25%), higher than that of Cirebon City (9.1%). The active participation of integrated health service posts of Cirebon City in handling non-communicable diseases (98.2%) was better than that of Cirebon District (26.7%). The contribution of this article is to provide health care information about the evaluation of referral ratios in facing universal health coverage.

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