



Health Human Resources Calculation Analysis at the Health Centers in Tolikara Regency, Papua Province

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Abstract

Background: In order to provide health services to the community, it is the responsibility of the central government and regional governments to provide and fulfill human resources for health. The current issue with the fulfillment of health human resources is that these resources are not up to standard, and their competence at health centers, including those in Tolikara Regency, is not at its best. Still, there is an insufficient number of the necessary health staff and an unequal distribution of employees. **Objectives:** This study's goal was to examine how the Tolikara Regency in Papua Province calculated the amount of health personnel needed for health centers. **Methods:** A case study methodology is used in this kind of qualitative research. Up to five informants with data gathering from secondary and primary data based on interview findings. Data were qualitatively analyzed. **Result:** The research results show that in part 1. Input: a). The description of the adequacy of human resources for health from the availability and distribution of human resources for health in Tolikara regency, from 25 health centers is insufficient, there is a shortage of 10-11 types of staff at each health center, and human resources are not evenly distributed due to geographic and safety conditions; b). Facilities and infrastructure in meeting the needs of Health Human Resources in Health Centers are still lacking. There is no planning team in compiling plans for Health Human Resource needs at the Tolikara Regency Health Centers, but information on Health Center Health Human Resource data is available. 2. Process: a). Efforts to meet the needs of health human resources in health centers that are understaffed, by accepting contract/apprentice or honorary staff funded by the health centers, honorary staffs by the local government and proposing to the Ministry of Health through the Nusantara Sehat program; b).

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The method for planning and fulfilling human resources for health is that some health centers use the Workload Analysis (ABK) method and some use the Minimum Manpower Standards (SKM) from the Regulation of the Minister of Health Number 75 concerning Health centers.

Keywords: Needs; Calculation; Health Human Resources; Health Centers.

1. Introduction

Every individual and every part of the country must work toward, fight for, and enhance health since it is both a human right and an investment. Only then can people live healthy lives and achieve the highest level of public health. In order for health staffs to be able to apply their knowledge and expertise in health services to the community, as required by the 1945 Constitution and Law 36 of 2009 described above, they must have the ability for competence and professionalism in their disciplines [1].

According to Law Number 36 of 2014 concerning health staffs, a health staff is someone who has dedicated their lives to the healthcare industry and has acquired knowledge and/or skills via education in the field, some of which require permission to carry out health initiatives [2].

The government and local governments are responsible for providing and ensuring the fulfillment of human resources for health. According to Article 13 of Law Number 36 of 2014 Concerning Health Staffs, the Central Government and Regional Governments are required to Equally Distribute Health Staffs in Number, Type, and Competency to Ensure the Continuity of Health Development. In accordance with Article 27 paragraph 3, in the case of a vacancy, the Government and Regional Governments shall supply replacement health personnel [2].

In the 2020-2024 National Long-Term Development Plan for the Health Sector, it is stated that the problems faced in fulfilling the current health human resources are that the health human resources in health centers are not up to standard, the competence of health human resources in health centers is not yet optimal, the fulfillment of health human resources in hospitals is not up to standard (lack of specialists), so the solution taken to overcome this problem is the fulfillment of standard health staffs in health centers, the fulfillment of specialist doctors in class C hospitals according to standards, increasing the competence of health staffs related to national priority programs (reducing maternal mortality, infant mortality, stunting, disease control), affirmation of strategic health staff education for disadvantaged areas, borders and islands (DTPK) areas, creation of a scheme for placing health staffs to meet the standard for the number of health staffs (contract system) with an adequate incentive approach, increasing the competence of health cadres at Community-Based Health Efforts (UKBM) in the Health Centers (Integrated service post and Integrated guidance post) and provide adequate rewards according to the specified performance [3].

In Tolikara Regency, which is serviced by 25 health centers and 26 assistant clinics, there are still a very small number of health professionals compared to the number of professionals required to care for the total population. If we take into consideration of the regulation of the minister of health number 43 of 2019 and the challenging topographical circumstances of the region, this figure is much lower. Additionally, there are still extremely few people of high skill, particularly paramedics. The majority of the nurses are cadres that the

mission trained and then hired as public staffs. Aside from that, the inconsistent staffing across all Health Service Unit (UPK) is the biggest issue with the health workforce. There are still up to 11 Health Centers without medical personnel. In order to address the issue, hiring health staff members on a one-year contract as well as hiring regional contract staffs has been done [4].

Because the distribution and fulfillment of the need for health human resources—both in terms of number and type—have not been distributed fairly in the Tolikara Regency health centers, the authors conducted their study on planning analysis and fulfillment of health human resource needs for health centers in Tolikara Regency in order to use it as a benchmark for Tolikara Regency in planning health human resource needs.

2. Methods

This type of research is descriptive qualitative with a case study approach. Case studies are better understood as an approach to study, apply and interpret a case in its natural context without any outside intervention. Among all the various case studies, the most prominent trend is the attempt to highlight a decision or a set of decisions, namely why the decision was taken, how it was implemented and what the results were [5].

The research was conducted at the Tolikara Regency Health Office and 5 Health Centers in Tolikara Regency, namely Health Centers in urban areas, remote areas and very remote areas. The research was carried out in November 2022.

The population in this study is Health Human Resources in the Tolikara Regency Health Center.

The informants in this study were: The parties involved in Planning the Needs and Fulfillment of Health Human Resources for Health Centers, namely the Head of the Health Center, Head of the information and public relations program sub-section, Head of the Health Resources Sector, Health Human Resources section staff managing data and Renbut at the Health Regency Office which is directly related as a source of data for Health Human Resources and several Heads and Administrative Heads of Health Centers in the Tolikara Regency area. Sources of informants are determined purposively. The characteristics of these informants can be seen in Table 1.

Table 1: Characteristics of Informants Based on Age, Education, Length of work, and and Position.

No	Informant	Age (years)	Education	Length of work (years)	Position
1	Informant 1	55	Master of Sciences	31	Head of the PPSDK Division of the Tolikara Regency Health Office
2	Informant 2	46	Master of Management	26	Head of the Health Human Resources Section of the Tolikara Regency Health Office
3	Informant 3	36	D3 Nursing	8	Staff of the Health Human Resources Section of the Tolikara Regency Health Office
4	Informant 4	41	S1 Psychology	15	Head of the Personnel Section of the Tolikara Regency Health Office
5	Informant 5	39	Bachelor of Medicine	8	Head of the Karubaga Health Center

3. Results

3.1. Input results

Based on the results of interviews that researchers conducted at the Health Regency Office and at the Karubaga Health Center, Tolikara Regency. The procedure for recruiting health staffs at the Karubaga Health Center does not yet have a written Standard Operational Procedure (SOP) but still refers to Permenkes number 75 of 2014. Permenkes number 75 of 2014 states the standard for staff requirements at the health centers. Health centers staffs are divided into two types, namely medical and non-medical personnel [6].

3.1.1. A description of the Tolikara Regency Health Human Resources

An organization's health human resources are directed and managed in an effort to enable them to think and act in ways that are appropriate for the realm of health. Planning for the proper type and amount of health staffs takes into account the required services, healthcare facilities, and personnel. By enhancing the health human resources information system, fact-based (evidence-based) planning for human resources for health is carried out.

a) Requirements for a Health Center with Inpatient and Outpatient Services

Similar to inpatient health facilities, outpatient facilities require a large number of medical and paramedical staff. General practitioners (2 individuals) are more prevalent in non-inpatient health centers than inpatient health facilities (1 person). The requirement for nurses (5 individuals) is lower in terms of standards than the health centers with inpatient treatment (8 people). The requirement for midwives (4 individuals) is also lower than that for health centers with inpatient treatment (7 people).

b) Overview of a specialist doctor

Four types of professionals are listed as practicing in Tolikara Regency in 2021: pediatricians, ENT specialists, radiology specialists, and clinical nutrition specialists. These specialists are located in Karubaga Hospital. Four general practitioners are now enrolled in study programs in anesthesia, pediatrics, clinical pathology, and surgery to further their education as specialty doctors.

c) Overview for General Physicians

The availability of new civil servant (PNS) general practitioners for three health centers services, namely Karubaga, Bokondini, and Kutime, staffed by government civil servant physicians. To address this deficiency, the Tolikara Regency health office hired ten general practitioners with Temporary employees (PTT) certification. Karubaga Health Center also has a large number of general practitioners since it has a VCT service unit and a Nutrition service unit, both of which are still linked with Karubaga Health Center.

d) Dentist Overview

The only two dentists in Tolikara Regency who will have PTT Regional status till 2022 will be working at Karubaga Hospital and Karubaga Health Center. This situation will remain unchanged until 2022.

e) Nurse Overview

The number of persons in need of nurses in health centers who have civil servant status is 137 persons; however the number of nurses who have civil servant status who are currently employed by health centers services is just 69 persons. In light of this, a total of 68 nurses with the civil servant status are still required.

f) An overview of the pharmacist

The availability of pharmacists in 25 health facilities does not currently satisfy the requirements established for minimum staffing levels. The health centers services only have two pharmacists who have civil servants (PNS) status available to patients. There is a shortage of 23 staff members who have the civil servants status, and temporary employees (PTT) are needed to satisfy the demands of all health centers.

g) Midwife's description

There is a demand for 112 individuals holding the PNS status among midwives in health centers; however there are only 69 individuals holding the PNS status currently employed there. Therefore, there is a need for about 43 more midwives who have PNS accreditation in the health centers services. Because of this, recruitment of personnel with Non-PNS status (PTT) was carried out, both honorary and the health service task force, specifically 30 persons in health centers services. This was done in order to satisfy the need for midwives. There are HIV/AIDS service units and Nutrition service units at Karubaga health center. The Nutrition service unit is required to provide services at 8 integrated service posts every day for pregnant women, toddlers, and children, and all of the data from each of these units is still based on Karubaga Health Center. As a result, there are a large number of midwives working at Karubaga Health Center.

h) Overview of Health Center Staffs

There are a total of 8 persons working in Public Health at the health centers, and all of them have PNS status. To satisfy the criterion for the number of staff members required in each health centers service, there is still a need for 17 public health professionals, despite the fact that the requirement for Public Health staffs throughout all health centers is 25 PNS staffs.

i) An Overview for Health Analysts

The need for health analysts in each and every health center has not yet reached a standard level. They still require 20 health analysts despite the fact that there are only 5 health analysts that have PNS certification. In the meanwhile, there are six members of staff working in health centers services who do not have the position of public servant. There are HIV/AIDS service units and Nutrition service units, and these service units are still headquartered in the Karubaga Health Center. Therefore, there are three analysts working at Karubaga Health

Center to support these service units.

j) Sanitarian description

At the health centers, there is just one person working in the sanitation department. Because there is currently no sanitarian personnel at any of the other health centers services, there is a need for as many as 24 sanitarian staff members.

k) Nutritional Overview

There are already 2 health centers services that are in compliance with the calculation of the requirement for health professionals. These services are Karubaga Health Center and Mamit Health Center. The nutritionist staff in Health centers has been given new civil servant status, and there are 5 of them working for the organization. Therefore, there is still a need for as many as 24 nutritionists to have the position of a public worker in each health center service.

l) Overview of Administrative Personnel

The health centers and the healthcare services do not have any administrative staff members. In order for other individuals to have been simultaneously responsible for recording and reporting up until this point.

m) Craftsmanship Overview

Because there are only seven staff working with a status of Civil Servants now available, there is a need for an additional eighteen personnel in each health center service. The minimum number of participants required for any health center in the Tolikara area is 25 personnel. In the meanwhile, there are twenty personnel in the health centers area who are not civil servants.

n) Pharmaceutical Installation

A pharmacy warehouse is a place for receiving, storing, distributing, and maintaining supplies in the form of medicines, medical devices, and other medical supplies.

These supplies are intended to be used to carry out health programs needed for health services, prevention and eradication of diseases, at the Health Center/Hospital in accordance with the instructions of the Head of the Health Regency Office.

There are now 7 individuals working here, including 2 pharmacists, 1 pharmacist assistant, 3 nurses, and 1 support staff member, bringing the total number of persons working here to 7 staffs. Two of the seven staffs now employed have been granted PNS status, while the remaining staffs continue to have the status of honorary employees. In the meanwhile, the Tolikara Regency Health Office has a total of 69 staffs, 54 of whom have PNS status, and 15 of whom are regional contract staffs.

3.1.2. The Outcomes of the Health Human Resource Needs Calculation Based on the Minimum Employment Standards.

The following is a summary of the findings of the calculations performed for the minimum human resource standard at the Tolikara Regency Health Office that were used to determine the health human resource requirements for each health facility in the year 2023:

a. Health Care Facilities Serving Inpatients in Remote and Very Remote Areas

Based on the basic minimum requirements for inpatient health facilities in remote (Karubaga, Bokondini, and Kanggime) and Very Remote (Mamit) areas, the number of health human resources that are required to meet the demands of these health centers has been calculated as follows: The number of staff at the Karubaga Health Center already has more health staffs at this Health Center including doctors, nurses, midwives, pharmacy staff, laboratory experts and staffs. There are also many health staffs at this health centers because there are two services that are still based on the Karubaga health centers, namely the HIV/AIDS service unit and nutrition services which do require a lot of staff for this service.

According to the findings of a calculation that determined the requirement for staff based on minimal staff standards, the number of human resources at the Bokondini Health Center already has a greater number of staff members, including nurses and midwives, than at any other health center in the area. In the case of physicians, health analysts, and pharmacists, these requirements are in line with the demands of health professionals; nevertheless, the requirements for nurses and midwives go beyond what is required. The Kanggime Health Center is a facility that provides inpatient care in a relatively remote part of the area. The existing state of health human resources does not meet the requirements of health centers, particularly in terms of government employees; thus, the solution is to acquire regional contract staffs. The definition of the present staff as determined by the outcomes of the computation of the minimal workforce standard, includes health analysts, registered nurses, and medical physicians who are qualified to fulfill the requirements.

In a location that is quite far apart from other towns and cities, the Mamit Health Center provides inpatient medical care. The existing situation of health human resources is still short from the demands of health centers, particularly public officials, thus the solution is to procure regional contract staffs. According to the findings of the analysis that was done to determine the minimum workforce standard, the current workforce can be described as consisting of suitable pharmaceutical staff as well as an increased number of health analysts and staffs. This is the conclusion that was reached after the calculation of the minimum staff standard.

b. Non Inpatient Health Center in Remote and Very Remote Areas

In the overall number of 21 Health Centers, there is a shortfall of 10-11 different categories of employees. This deficit originates from the Non-Inpatient Health Centers. There are 5 other health centers for nurses, in addition to 3 additional health centers that are appropriate. There is one health center that is suitable for midwives, and that health center is the Kutima Health Center. There is one suitable doctor there. There are eight health centers that have an adequate amount of human resources to accommodate appropriate employees.

The management of health human resources has become one of the priorities in health development as a result of the development of the National Health System, which is based on the strengthening of health human resources. The goal of this priority is to improve the quality of health services and the health status of the nation as a whole. Because of the significant part that the Health Regency Office plays in the fulfillment of the current Health Human Resources in their respective regions, efforts are required to increase both the quality and quantity of Health Human Resources so that health services can operate as anticipated.

The implementation of efforts to fulfill human resources for health in the Tolikara Regency area is constantly being improved, as are efforts to fulfill human resources for health in health centers by continuously improving technical management capabilities at the health centers level. Both of these efforts are being carried out in tandem with improvements made to the Tolikara Regency area. When examined in further depth, the issue of managing human resources for health care is revealed to be a highly complicated one. The challenge that must be overcome involves not only the difficulty of managing human resources for health from the internal health office, but also the problem of engaging external elements across all programs and all sectors.

1) Human Resources

Human Resources (HR) is a highly vital aspect of an organization that cannot be separated from it in any way, whether it an institution or a company. In a nutshell, a company will utilize its human resources to achieve its objectives by employing people in the roles of movers, thinkers, and planners.

In terms of the availability and distribution of health human resources at the Health centers, there are still many deficiencies in each health centers, and there are 10-11 types of staff based on educational classification. These findings are based on the results of interviews with informants about the adequacy of health human resources for services at the Health centers.

Based on the findings of the interviews and the document data, it is possible to draw the conclusion that there is still a problem with the fulfillment of health human resources in Health centers. Specifically, the distribution of SDM is not evenly distributed, both in terms of the type and the number of health human resources. There are Health centers that have more health human resources, but on the other hand, there are also Health centers that have less. In addition to this, there are also Health centers that do not have any at or additional health human resources.

a) Adequacy of Human Resources for Health in meeting Health Center Accreditation standards

The findings of the interviews can be explained as follows: all of the interviewees stated that health human resources had an effect on the accreditation of health centers; interviewees stated that most health human resources had met the Health centers accreditation standards; however, one interviewee stated that health human resources did not meet the health centers accreditation standards. In Tolikara Regency, the requirements needed to earn health centers accreditation have been met, making this a successful accomplishment.

b) Health center services

According to the interview results, one informant said that the health centers service was running well, two said that it had been running even though it was not very good, and one said that it had not gone well because there were no health staffs at the health centers, so it can be concluded that the service is generally running even though it's not very good.

2) Facilities and other forms of infrastructure

In addition to providing the health staffs at the Health centers with support to help enhance health services in their individual work areas, the provision of buildings and infrastructure is also included.

a) Facilities and infrastructure to support the fulfillment of Health Human Resources and Health Center Operations

On the basis of the findings of the interviews, it is possible to explain that the six informants stated that the health centers infrastructure was not sufficient to support efforts to fulfill the health human resources and health centers operations. Consequently, it is possible to draw the conclusion that the facilities or infrastructure to support efforts to fulfill the health human resources and health centers operations had not been fulfilled.

b) Follow-up to guarantee the health center's facilities and infrastructure are adequate.

One of the interviewees stated that the follow-up was to fulfill the facilities or infrastructure of the health centers by gradually completing it, and two of the interviewees stated that they required policy support from the regional government and joint commitment. Therefore, it is possible to draw the conclusion that the health centers require policy support from the local government and joint commitment to fulfill the facilities or infrastructure.

3) Team in Charge of Planning in Order to Satisfy the Requirements of health human resources at Health centers

a) Participation in the formulation of health human resources at Health center's requirements and their fulfillment

In order to fulfill the requirements for human resources for health, careful planning is required. This is necessary so that the requirements for human resources can be met as anticipated, which means that the number and type of personnel can be precisely what is required. Therefore, a good health human resources planning team is required. According to the statements of informants at the Health Regency Office, which were followed up with interviews, there was one informant who said he was not involved, while two informants said he was involved in planning the needs and fulfillment of the Health Human Resources for Health Centers. This information was gleaned from the statements of the informants. One might draw the conclusion that not all cross-programs are involved in the process of establishing the requirements and ensuring that Human Resources for Health Centers are met.

b) The existence of a planning team for the needs of Health Human Resources for Health Centers

The findings of the interviews led to the conclusion that the Tolikara Regency Health Office did not have a planning team for the requirements of the health human resources, and that among the health centers, there was only one health centers that had a planning team. This was determined based on the findings of the interviews.

4) Information

a) Socialization or training on the method of planning the needs of Health Human Resources for Health Centers

According to the findings of the interviews, it was determined that out of the eight informants, as many as six informants had attended training and socialization of health human resource planning for health centers; however, not all Health centers implemented the results of training and socialization of planning for health human resource needs, and they did not socialize it to other Health centers staff; as a result, planning for health human resource was made only when it was necessary, and only based on estimates or on Minimum Skills Standard.

b) Clarity of information provided by the Health Office

Based on the results of the interviews, it was concluded that from the five informants it was clear about planning the needs of health human resources at the Health centers, related to the clarity of the information received from the Health Office about planning the needs of health human resources at the Health centers.

3.2. Process

3.2.1. Efforts made to fulfill the Human Resources for Health Centers

Transparency, participation, and accountability are the three primary components that make up effective governance, and they cannot be divorced from the concept of governance altogether. In planning the needs of health human resources, good governance is needed to support proper health human resource planning in fulfilling health human resource personnel at the health centers.

Based on the results of the interviews, it was explained that all informants said that the policy existed, but it was still verbal, there were no regulations and it still required various ways to fulfill human resources for health. It can be concluded that regulations are needed for planning policies and fulfilling health human resources for Health centers.

According to the interview results, all informants claimed that the Health centers tried to fulfill their health human resources by presenting requests for health human resources or hiring honorary employees or apprentices, but the health office did not provide written reply. The Tolikara Regency Health Office recruited regional honorarium staffs and submitted requests to the Ministry of Health through the Nusantara Sehat program, while the Health centers recruited apprentices to meet their health human resource needs.

3.2.2. The method used in calculating the planning needs and fulfillment of health human resources for Health Centers

Health human resources at the health center must be planned correctly to meet demands in quantity and type. From the results of the interviews, it was explained that three informants said they used the Workload Analysis (ABK) method, two informants said they used the Minimum Power Standards (SKM) method to calculate health human resources planning, so the conclusion is that planning for health human resources needs at Health centers was by health centers in Tolikara Regency uses the SKM and ABK methods even though it is not regularly implemented every year.

4. Discussion

4.1. Input

4.1.1. Health human resource adequacy from health center availability and distribution

According to Law no. 36 of 2014, health professionals are anybody who dedicates himself to the health sector and possesses knowledge and/or skills from health education that require authorization to carry out health activities [2]. Health staffs play an important role in improving the maximum quality of health services to the community so that the community can increase awareness, willingness, and ability to live healthily to achieve the highest degree of health as an investment for the development of socially and economically productive human resources and one of the elements of general welfare as referred to in the Preamble to the 1945 Constitution of the Republic of Indonesia.

Health personnel are the main key in the success of achieving health development goals. Health staffs contribute up to 80% in the success of health development [3]. Of all existing health human resources, around 40% work at the health center. The number of health staffs is quite large but their distribution is uneven. In addition, the composition of the health human resources working at the Health centers is still very unequal [6].

Until 2022, there are 545 health staffs in Tolikara Regency serving in health centers services. The number of health staffs in Tolikara Regency is still very less compared to the health staffs needed to serve the entire population in Tolikara Regency which is served by 25 Health Centers and 26 Assistant clinics.

This number is even less if we refer to Minister of Health Regulation 43 of 2019 and seen from the difficult geographical conditions of the area. In addition, the quality of personnel, especially paramedics, is still very limited. Most of the nurses are cadres trained by the mission and appointed as civil servants. Besides that, the main problem in this health workforce is the uneven distribution of personnel in all Health Service Units. Of the 25 health centers, there are 10-11 types of staff that are lacking in each of the non-inpatient health centers, while inpatient health centers are sufficient, such as doctors, nurses, midwives, medical laboratory experts, and pharmacists. There are several advantages of staff such as midwives and nurses, especially in inpatient health centers, although there are still some shortages of types of staff. So it can be concluded that all Health centers are still lacking staff based on minimum staff standards, as well as the uneven distribution of staff such as nurses and midwives.

The uneven distribution of some of the more staff at the health centers because some civil servants, honors, apprentices or contracts who will be placed at the health centers need staff, but refuse because of the geographic

conditions of the health centers and uncertain security is a concern for the human resources.

4.1.2. Facilities and infrastructure in meeting the needs of human resources for health

In the era of globalization, the development of the service sector is increasingly important in efforts to improve people's welfare and health. The Health centers as the first strata health center, which is responsible holistically in providing individual health services and community health efforts requires the support of qualified health centers staff as well as the support of adequate facilities and infrastructure.

The availability of health human resources has a significant impact on the success of health development. The goal of health human resource procurement is to establish the quantity and kind of staffs required based on the needs. If human resource needs are not effectively planned, there will be a scarcity of employees, which will have an impact on service and patient comfort while also increasing burden [7].

An increase in population and a lack of increase in the number of health human resources can lead to increased workload and services that are not optimal, as well as health programs for the community that do not run well. Meanwhile, every year, many new villages and sub-regencies are expanded, necessitating the construction of new health centers and supporting health centers to bring health services closer to the community. Physically, the health centers facilities are expanding year after year, but the availability of health human resources, which has been insufficient so far, will inevitably become scarcer.

The established policy must have a defined agenda for the short, medium, and long term. The current facilities and infrastructure of the Tolikara Regency Health Center were acceptable, according to informants, however shortcomings were discovered. This is due to the current facilities being compatible with the management team in carrying out the duties of the instruments utilized. According to the informant, the current personnel needs are dentists, thus not all health centers can conduct dental examinations.

4.1.3. Health Human Resources needs planning team

The results of interviews with informants showed that in preparing the human resources workforce planning for Health in Tolikara Regency, the results of the interviews did not form a planning team. Health human resources are people who work actively in the health sector, whether they have formal education in health or not, who for certain types require authority to carry out health efforts stated in Ministry of Health Regulation No. 33 of 2015 concerning Guidelines for Planning the Needs of Human Resources for Health [6].

Good human resource management will certainly affect the quality of health services provided [8]. As was done in Blitar Regency, anticipating increasing community accessibility to health services in the 24 existing health centers by recommending efforts to regulate the health workforce to improve the quality of service begins with an analysis of manpower policies [9]. A literature study conducted by Elarabi and Johari (2014) states that effective human resource management will have a strong influence on service quality and the development of hospital staff performance [10].

According to Robert L. and Jackson (2006) in Lestari (2014) human resource management there are several groups of activities that are interconnected with each other, namely: 1). Human resource planning and analysis performed to anticipate forces that will affect the supply and demands of employees in the future. 2). Equal employment opportunity [11]. Compliance with laws and regulations regarding equal employment opportunity affects all other human resource activities and is integral to human resource management. 3). Appointment aims to provide adequate supply of qualified individuals to fill job vacancies in an organization.

The lack of a health human resource planning team suggests that there may be a shortfall of human resource needs owing to a lack of coordination over the needs or techniques that are in compliance with health human resource planning. This demonstrates the Department of Health's lack of seriousness in planning human resource needs in accordance with existing demands.

4.1.4. Information on health human resource data at the health center

Information about health human resource data at the health center from the informant's statement revealed that the informant had attended training or socialization on planning human resource needs using existing methods in accordance with Ministry of Health Regulation No. 33 of 2015 concerning Guidelines for Planning the Needs of Health Human Resources [12].

Based on the results of data tracking that planning for human resource needs for health in health centers, uses the ABK method. The use of this method is in accordance with the existing socialization, but until now the distribution of health staffs in the health centers is not evenly distributed, where out of 14 health centers, 6 health centers have fulfilled the number of available human resources.

There needs to be attention from local stake holders in planning the field of human resources in improving services through appropriate health planning and the distribution of existing health staffs so that health services in accordance with the vision and mission of the Tolikara Regency Health Office can run as they should.

4.2. Process

4.2.1. Efforts to meet the needs of health human resources

The main issue in the development of health human resources is the occurrence of an imbalance of human resources in terms of the number, types of health staffs, their functions, and their distribution. Research at the Sajingan Besar Health Center, Sambas Regency, found that the number of health staffs including general practitioners available at the health centers is still experiencing a shortage and there are staff health services that are not in accordance with their competence, so that it is not enough to complete all health service efforts at the health centers [12].

Of the 25 health centers in Tolikara Regency, only 14 health centers have 10 types of health staffs, while the other 11 health centers have not had 10 types of health staffs. There are 2 Health centers that lack 1 type of health worker, there are 8 health centers that lack 2 types of health worker and there is 1 health centers that lack 3 types of health worker. From the results of the interviews and document data, it can be concluded that the

fulfillment of health human resources for health centers is still a problem, namely the distribution of health human resources is uneven both in the type and number of human resources, where there are more human resources for health, but on the one hand there are also those who are lacking, besides that there are also health centers which do not exist at all one or more human resources for health.

Weaknesses for health staffs at the Health centers and in the effort to recruit staff, according to informants' statements, several Health centers appointed honorary, apprentice or volunteer staff and some health centers wrote to the health office for approval and that health staffs could be provided to fill the vacancies in existing human resources.

4.2.2. Methods of planning and fulfillment of health human resources

Based on Ministry of Health Regulation No. 33 of 2015 concerning Guidelines Preparation of Human Resource Needs Planning for Health, a method for planning Health Human Resources in groups, namely a method based on Institutions with an analysis of minimum manpower standards implemented by each type of Human Resources for Health in each health facility in accordance with their main tasks and functions. This method is used to calculate all types of health human resources [13].

The planning method in proposing human resources for health in Tolikara Regency from informants' statements used the Workload Analysis method (ABK stands for Workload Analysis in Indonesian). The ABK method for health for calculating the need for health human resources in health facilities in regency/city local government areas, is listed in Ministry of Health Regulation No. 33 of 2015 concerning Guidelines for Planning the Needs of Health Human Resources [13].

Human resources in planning the need for health staffs in the Health Service are under the Health Human Resources unit in planning. The method used is from informants' statements from socialization obtained in making plans using the ABK method. In Indonesia, Lukman's research (2015) entitled analysis of the needs and distribution of health centers staff in Aceh Besar Regency, concluded that there was a gap between the needs and the condition of staff at the health centers due to the absence of professional staff in human resource planning, not using a method of calculating personnel, no proper planning [14].

The Ministry of Health has prepared guidelines for planning the needs of health human resources using various methods, namely the Workload Analysis Method (ABK), Minimum Employment Standards (SKM) and the Population Ratio Method. ABK and Minimum Employment Standards are based on institutions while the population method is based on area, as stated in Ministry of Health Regulation No. 33 of 2015 concerning Guidelines for Planning the Needs of Health Human Resources [13]. Based on tracing the results of research conducted by researchers, the ABK method from the Ministry of Health in 2018 in Tolikara Regency has been used in research to calculate the need for health human resources.

Support for the fulfillment of health human resources at the Tolikara Regency Health Center is the existence of regulations regarding the fulfillment of health human resources at the Health Center based on Ministry of Health Regulation No. 75 of 2014, as well as methods for calculating the needs for health human resources in each

health center, as well as the regulation of Law No. 21 of 2001 concerning the fulfillment of human resources including health staffs for indigenous Papuans and the availability of data and information about meeting the needs of human resources health at the Health Center.

Obstacles in carrying out the planning and fulfilling the human resource needs for Health Centers in Tolikara Regency, namely the absence of a team in planning for needs preparation at the Tolikara Regency Health Office, the absence of budgetary resources in meeting the needs of Health human resources at Health Centers and the provision of facilities and infrastructure the need for health staffs such as dentists who need medical equipment and other equipment for doctors and other medical personnel, resulting in an uneven distribution of health staffs due to the lack of facilities and infrastructure.

5. Conclusion

From the results of the research and discussion above the researcher can provide the following conclusions:

1. Inputs

- a. An overview of the situation of the adequacy of health human resources in Tolikara Regency from the availability and distribution of health human resources in 25 inpatient and non-inpatient health centers, some staff are sufficient, particularly nurses and midwives in inpatient health centers. Each health center is short 10-11 different sorts of persons. Furthermore, human resources are not dispersed fairly owing to geographical circumstances and security, which cause some human resources to refuse to go to the health centers where there is a shortage of human resources.
- b. In health centers, facilities and infrastructure for meeting the demands of Health Human Resources are still insufficient.
- c. There is no planning team at the Tolikara Regency Health Office to plan the needs of health human resources.
- d. Data on health human resources are available at the health facility.

2. Process

- a. Efforts to meet the needs of health human resources in understaffed health centers by accepting contract/apprentice or honorary staffs funded by the health centers, honorary staffs funded by the local government, and submitting a proposal to the Ministry of Health through the Nusantara Sehat program.
- b. The method for planning and fulfilling human resources for health is that some health centers use the Workload Analysis (ABK) method and some use the Minimum Manpower Standards (SKM) from the Regulation of the Minister of Health Number 75 concerning Health centers.

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