

**ACHIEVEMENT OF MINIMUM SERVICE STANDARDS IN THE  
HEALTH SECTOR OF THE NON-COMMUNICABLE DISEASE  
(NCD) DIABETES MELLITUS PROGRAM AT PUSKESMAS  
PASIE RAYA, ACEH JAYA REGENCY**

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**Abstract**

*This article examines the implementation and evaluation of Minimum Service Standards (SPM) in the health sector for Diabetes Mellitus (DM) and Non-Communicable Diseases (NCDs) in Pasei Raya, Aceh Jaya Regency. Fulfilling SPM is a joint responsibility of central and regional governments mandated by Law 23 of 2014 on Regional Government, Government Regulation Number 2 of 2018 on Minimum Service Standards, and Minister of Home Affairs Regulation Number 100 of 2018 on Implementing Minimum Service Standards. Analyzing data from reports of 80 UPT Puskesmas in Pasei Raya, Aceh Jaya Regency, calculated using a formula to determine the SPM achievement percentage for DM cases as per Minister of Health Regulation Number 4 of 2019 on Technical Standards for Fulfilling Basic Service Quality in Minimum Service Standards in the Health Sector, reveals that Aceh Jaya Regency's SPM achievement percentage for DM in 2020 was 18.99%, while that for non-communicable DM cases was 115.35%. The discussion explores the factors behind the SPM achievement for DM in Aceh Jaya Regency. Meanwhile, challenges hindering the fulfillment of SPM for hypertension and DM in Bandung City encompass constraints related to facilities and infrastructure, such as the absence of Posbindu PTM due to budgetary limitations. Additionally, not all UPT Puskesmas have trained personnel for PANDU PTM activities. There is still low awareness of, and adherence to, official recording and reporting formats. Moreover, not all UPT Puskesmas implement the PANDU PTM program.*

**Keywords:** Minimum Service Standards, Diabetes Mellitus, Non-Communicable Diseases

## 1. INTRODUCTION

The transition of disease patterns in recent decades has shifted from infectious diseases to non-communicable diseases or degenerative diseases (Lasmaysa, 2021). To date, degenerative diseases have become the biggest cause of death in the world. Even this has an impact on the losses that have been experienced by several countries in the world. As many as 38 million (68%) of the 56 million deaths in the world in 2012 were caused by degenerative diseases (WHO, 2018). Diabetes mellitus (DM) is one of the diseases whose prevalence continues to increase in the world, both in developed and developing countries, so it is said that DM has become a health problem or global disease in society. The World Health Organization (WHO) estimates that more than 346 million people worldwide have DM. This number is likely to more than double by 2030 without intervention. Almost 80% of DM deaths occur in low- and middle-income countries (Suiraoaka, 2012).

In 2019 Indonesia stood at the seventh position with 10 million patients. The number of DM sufferers is expected to increase in 2040, which is 16.2 million sufferers, which means that there will be an increase in sufferers by 56.2% from 2019 to 2040. Indonesia is also the third country where the number of people with impaired glucose tolerance (20-79 years) in 2020 is 29 million people (IDF, 2020).

According to the International Diabetes Federation in 2019, around 425 million people worldwide suffered from DM. The largest number of people with DM are in the Western Pacific region 159 million and Southeast Asia 82 million. China is the country with the most DM sufferers in the world with 114 million sufferers, followed by India 72.9 million, then the United States 30.1 million, then Brazil 12.5 million and Mexico 12 million sufferers. Indonesia is ranked seventh for the most DM sufferers in the world with 10.3 million sufferers (International Diabetes Federation (IDF, 2020).

A report from the Ministry of Health's Health Research and Development Agency in 2019 stated that there was an increase in the prevalence of DM sufferers obtained based on interviews, namely 1.1%, while the prevalence of DM based on doctor's diagnosis or symptoms in 2019 was 2% with the highest doctor-diagnosed prevalence in the DKI Jakarta area (3.4%) and the lowest area in the NTT province (0.9%). The prevalence of DM patients tends to increase in women (1.8%) compared to men (1.2%) based on the age category of the largest DM sufferers in the age range 55-64 years and 65-74 years. Then for the domicile area, more DM residents are in urban areas (1.9%) compared to rural areas (1.0%) (Risksedas, 2018).

Based on data from the Aceh Jaya Regency Health Office in 2019, the number of Diabetes Mellitus cases was 594 cases consisting of 183 cases in men and 411 cases in women. In Law 23 of 2014 concerning Regional Government, the fulfillment of the basic rights of citizens is embodied in the division of affairs between the central and regional governments. Basic mandatory services are included in concurrent affairs which are the duty of local governments and are also assisted by the central government. Basic mandatory concurrent government affairs consist of (six) affairs, namely education affairs, health affairs, public works affairs, social affairs, public housing affairs and residential areas, finally, public order and community protection affairs.

Furthermore, Article 18 of Law 23/2014 on Regional Government states that regional governments prioritize the implementation of mandatory government affairs related to basic services. Therefore, to fulfill these basic services, it is necessary to establish Minimum Service Standards (MSS). The above law states that Minimum Service Standards (MSS) are provisions regarding the type and quality of basic services which are mandatory government affairs that every citizen is entitled to obtain at a minimum. In addition to Law 23 of 2014 on Regional Government, the legal umbrella for MSS is Government Regulation No. 2 of 2018 on Minimum Service Standards, Minister of Home Affairs Regulation No. 100 of 2018 on the Implementation of Minimum Service Standards, and technical regulations on MSS.

Minimum Service Standards (MSS) in the health sector are one of the MSS that must be provided to citizens (Rizki, 2020; Rusmiati, 2012). Technical regulations related to SPM in the health sector are contained in Regulation of the Minister of Health of the Republic of Indonesia Number 4 of 2019 concerning Technical Standards for Fulfillment of Basic Service Quality at Minimum Service Standards in the Health Sector. Article 2 of

the regulation stipulates that health SPM carried out by district/city governments consist of:

- a. Maternal health services for pregnant women;
- b. Maternity health services;
- c. Newborn health services;
- d. Health services for children under five;
- e. Health services at the age of primary education;
- f. Health services at productive age;
- g. Health services at an advanced age;
- h. Health services for people with hypertension;
- i. Health services for people with diabetes mellitus;
- j. Health services for people with severe mental disorders (Yanti, 2016);
- k. Health services for people suspected of tuberculosis; and
- l. Health services for people at risk of being infected with viruses that weaken the human immune system (Human Immunodeficiency Virus).

Although technical regulations in the health sector are still relatively new in 2019, the implementation of health services as stated in Article 2 of the Regulation of the Minister of Health of the Republic of Indonesia Number 4 of 2019 concerning Technical Standards for Fulfilling the Quality of Basic Services at Minimum Service Standards in the Health Sector has been carried out by local governments (Rifa'i et al., 2016). However, this regulation sets more measurable achievements and targets. SPM is considered very important to implement (Maula, 2019). That is because at least with SPM all regions are given instructions and directions related to uniform services, then SPM is also projected as an indicator of improving people's welfare because with an increase in SPM, it is expected that people's standard of living will also improve (Roudo & Saepudin, 2018).

Based on the description above, the researcher is interested in conducting research with the title "Achievement of Minimum Service Standards in the Health Sector of the Diabetes Mellitus Non-Communicable Disease (NCD) Program at the Pasie Raya Health Center, Aceh Jaya Regency" (Mahardika & Utami, 2019).

## **2. RESEARCH METHODS**

The data that has been collected is grouped and processed descriptively linked to the variable components regarding the management of the Pasie Raya Health Center non-communicable disease program in 2021. While data analysis is carried out qualitatively by analyzing, namely comparing the results of research with existing theories in the literature review as follows, data obtained from interviews or observations as a whole as raw data, then transcripts.

Transcripts are reduced in the form of research with a content analysis approach, namely comparing the results of research with the theory in the literature review. In this research using data analysis used by the Miles and Hubermann model (Basuki, 2021; Sugiyono, 2019). There are several data analysis methods which are divided into 4 major parts, namely data reduction, data collection, data presentation and conclusion drawing.

### 3. RESULTS AND DISCUSSION

#### 3.1. Research Results

##### 3.1.1. Diabetes Mellitus

Diabetes mellitus is still an important health problem in the world, including in Indonesia, because of the cases that occur and increase. This disease is a metabolic disease characterized by chronic hyperglycemia caused by damage/deficiency of insulin secretion, damage to the response to insulin hormone or both. The type of diabetes mellitus most commonly experienced by the public is type 2 diabetes mellitus because this type of disease tends to be related to a person's lifestyle and diet (Siswantoro & Purwanto, 2017). Diabetes (diabetes mellitus) is a metabolic disease caused by increased levels of glucose or blood sugar. Blood sugar is vital for health because it is an important source of energy for cells and tissues. This disease is divided into several types, namely:

- a. Type 1 diabetes, where the immune system attacks and destroys the beta cells in the pancreas that produce insulin.
- b. Type 2 diabetes, where the beta cells in the pancreas do not produce enough insulin, or the body's cells do not respond to the insulin produced.
- c. Gestational diabetes, which is diabetes that occurs during pregnancy.
- d. Other types of diabetes, which can result from other hormonal, immunologic, infectious, or genetic disorders.

Diabetes mellitus is commonly called the silent killer because this disease can affect all organs of the body and cause various complaints. Diseases that will be caused include impaired eye vision, cataracts, heart disease, kidney disease, sexual impotence, wounds that are difficult to heal and fester / gangrene, lung infections, blood vessel disorders, stroke and so on. Not infrequently, people with severe DM undergo limb amputation due to decay.

Risk factors for diabetes mellitus can be grouped into risk factors that cannot be changed and those that can be changed. Risk factors that can be changed are race and ethnicity, age, gender, family history of diabetes mellitus, history of giving birth to a baby weighing more than 4000 grams, and history of being born with a low birth weight of less than 2500 grams. While risk factors that can be changed are closely related to unhealthy living behaviors, namely overweight, abdominal / central obesity, lack of physical activity, hypertension, dyslipidemia, unhealthy / unbalanced diet, history of impaired glucose tolerance (TGT) or impaired fasting blood glucose (impaired GDP) and smoking.

Based on the results of the internship work that has been carried out by the author while at the Pasie Raya Health Center and data obtained from the Pasie Raya Health Center profile and data from the Non-Communicable Disease report at the Pasie Raya Health Center, the problems identified at the health center are specifically in the Diabetes Mellitus disease section:

**Table 1. Data on Diabetes Mellitus Patients in the Last Year from Pasie Raya Health Center**

No	Month	Male	Age	Female	Age	Number of Patients
1	January	2	55 – 70	2	45 – 70	4
2	February	2	51 – 50	2	46 – 50	4
3	March	2	40 – 70	1	40	3
4	April	1	38	3	46 – 60	4
5	May	3	62 – 60	5	35 – 50	8
6	June	0	0	5	32 – 40	5
7	July	6	53 – 70	8	37 – 70	14
8	August	14	42 – 70	4	31 – 70	18
9	September	3	42 – 70	13	37 – 70	16
10	October	3	33 – 70	13	38 – 60	16
11	November	4	53 – 70	13	38 – 70	17
12	December	1	40 – 70	7	42 – 80	8
Total		41		76		117

From the table above, it can be seen that the number of cases of Diabetes Mellitus patients at the Pasie Raya Health Center is 117 people consisting of 41 men and 76 women. The most affected cases of Hypertension were in August, namely patients aged 31 - 70 years including 14 men and 4 women, then the least sufferers were in March at the age of 40 - 70 years and over with a total of 3 people, then sufferers in February at the age of 46 - 50 years including 2 men and 2 women, then in April at the age of 38 - 60 years including 1 man and 2 women, in May at the age of 35 - 60 years including 3 men and 5 women, June at the age of 32 - 40 years including 0 men and 5 women, July at the age of 37 - 70 years including 6 men and 8 women, August at the age of 31 - 70 years including 14 men and 3 women, September at the age of 37 - 70 years including 3 men and 13 women, October at the age of 33 - 70 years including 3 men and 13 women, November at the age of 38 - 70 years including 4 men and 13 women, then the last sufferer in December at the age of 40 - 80 years including 1 man and 7 women.

Based on the age above, the highest number of cases of Diabetes Mellitus sufferers is the majority of female gender. Where the total number of cases of people with Diabetes Mellitus in the female sex is 76 people, while those in the male sex are 41 people, and the total number of cases of Diabetes Mellitus in the UPTD Pasie Raya Health Center work area is 117 people.

### 3.2. Discussion

This research is a descriptive evaluative study to determine how the implementation of Minimum Service Standards (MSS) for Non-Communicable Disease programs (services for productive age 15-59 years), health services for hypertension patients, diabetes health services at Pasie Raya Health Center using qualitative methods. Qualitative research is a type of research that produces descriptive data in the form of written or spoken words from people and observed behavior. Sugiyono (2019) explained that qualitative research methods are research methods based on the philosophy of post positivism, used to research on natural object conditions, where the researcher is the key

instrument, data collection techniques with triangulation, data analysis is inductive or qualitative, and qualitative research results emphasize meaning rather than generalization.

Based on the research topic where researchers focus on knowing the implementation of Minimum Service Standards (MSS) for Non-Communicable Disease programs (services at productive ages 15-59 years), health services for people with hypertension, diabetes health services) at the Pasie Raya Health Center, which include:

**a. Input**

The inputs carried out in this study include 4 components, namely human resources, financing, facilities and infrastructure and policies. Based on the results of observations and in-depth interviews and document reviews with informants who have been determined.

a) Human Resources

Human resources are an important asset and act as the main driving factor in the implementation of all activities or activities of the agency. The number of officers handling Non-Communicable Diseases (NCDs) at Pasie Raya Health Center is 2 program management officers, namely the NCD doctor as handling the curative and promotive fields and the NCD nurse as handling preventive and promotive In the health services of the non-communicable disease program at Pasie Raya Health Center involves doctors, nurses, midwives, analysts and nutritionists, as well as other related personnel. Meanwhile, health services outside the building involve cross-sectors and cadres who have been trained. However, in reality it still does not meet the desired achievements because in terms of the number and volume of health workers at the Pekauman Health Center, it is not sufficient because the non-communicable disease program manager is only 2 people so that in carrying out activities it cannot be maximized.

b) Financing

Financing or budget for the implementation of Minimum Service Standards (SPM) for Non-Communicable Disease programs (services at productive age 15-59 years), health services for hypertension patients, diabetes health services) at Pasie Raya Health Center based on the results of observations and in-depth interviews and document reviews with informants who have been determined are sourced from the Regional Budget and Operational Assistance Funds (BOK). The Pasie Raya Health Center's 2020 per capita health budget is IDR 2,286,387,208. From all activities and procurement at the health center. So that the health financing of the puskesmas is still lacking because the budget is not only used for the needs of the non-communicable disease program but is also used for the needs of all programs at the puskesmas so that it will affect the activities and availability of health equipment not according to minimum service standards.

c) Facilities and Infrastructure

Facilities and infrastructure used in health services for non-communicable disease programs are in the form of medical devices, namely height, body weight tensimeter, abdominal circumference measuring instrument, glucometer, blood sugar test, thermometer and others related to examination and reporting and recording forms. The number of facilities and infrastructure of the puskesmas is sufficient according to the minimum service standards, but the number or volume cannot meet the standards because it is related to the available budget or budget limitations.

d) **Policies**

Policies governing Minimum Service Standards in the Health Sector refer to PP no 2 of 2018 concerning Minimum Service Standards, Permendagri no 100 of 2018 concerning the Implementation of Minimum Service Standards, Permenkes no 4 of 2019 concerning Technical Standards for Fulfillment of Minimum Services in the Health Sector. The implementation of activities is in accordance with the stages in the policies and guidelines that have been determined. However, the realization of the performance achievement target has not been met 100% because there are obstacles in implementation and not all predetermined policies can be implemented because they adjust to the conditions and circumstances in the field and are related to the previous 3 components, namely standards for the amount and quality of goods and / or services (facilities and infrastructure), standards for the amount and quality of personnel / human resources, technical instructions or procedures for meeting financing standards.

**b. Process**

The process carried out in this study is about the steps of activities to determine the systematic implementation of the minimum service standards of the non-communicable disease program, namely services at productive ages aged 15-59 years, health services for people with hypertension, diabetes mellitus health services at the Pasie Raya health center level, Aceh Jaya Regency (Wardani et al., 2019).

According to Wiestra, et al (2019) Implementation is an effort made to carry out all plans and policies that have been formulated and determined by completing all the needs of the necessary tools, who will carry out, where the place of implementation and when the start time The mechanism of health services for non-communicable disease programs at Pekauman Health Center is Determining the target recipients of services, planning Risk Factor screening services, hypertension services, diabetes mellitus services, coordinating and cooperating with cross-programs, cross-related sectors, education, referral, planning equipment and medicines, recording and reporting as well as control and supervision. Systematic implementation of SPM for non-communicable disease programs is in accordance with the minimum service standards. However, the reality in the field is still not able to implement it optimally.

**c. Output**

The realization of SPM targets for non-communicable disease programs in 2020 has not been met 100%, namely services for productive age 15-59 years 40.60%, health services for hypertension patients 13.51%, diabetes mellitus health services 74.96% due to obstacles in implementing activities.

#### 4. CONCLUSION

Based on the results and discussion of the research that has been described by the researcher, the conclusions drawn must be able to answer the problem formulation set by the researcher at the beginning of the study. Obstacles and problems in the implementation of minimum service standards for non-communicable disease programs for services at productive ages 15-59 years, health services for people with hypertension, diabetes mellitus health services in general include human resources, the number and volume of health workers at the Pekauman Health Center is not sufficient because the non-communicable disease program manager is only 2 people.

Puskesmas health financing is still lacking because the budget is not only used for the needs of non-communicable disease programs but is also used for the needs of all programs. The facilities and infrastructure of the puskesmas are generally quite good, but specifically related to medical devices or other tools, recording and reporting forms, especially non-communicable disease programs, have not met the minimum service standards because the number or volume cannot meet the standards. The policy on targets set from the Ministry of Health is too high so that the realization of performance targets has not been met 100% and so on.

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