



Implementation of Diabetes Mellitus Minimum Service Standards at Pekanbaru City Public Health Center: A Qualitative Study

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ABSTRAK

Introduction: Minimum service standards in the health sector, one of which is Diabetes Mellitus (DM). The achievement rate of minimum service standards for diabetes mellitus in Pekanbaru City in 2020 is 38.05% of the target set at 100%.

Purpose: This study aims to analyze the implementation of the minimum service standard policy of Diabetes Mellitus service indicators at the PHC in Pekanbaru City Area

Method: The method used in this study is a qualitative method with a descriptive approach and data collection using interview techniques (*in-depth interview*) conducted on the heads of Public Health Center (PHC), health workers and Non-Communicable Disease (NCD) program stakeholders in 4 PHC in Pekanbaru City and stakeholders of the Non-communicable Disease Control and Eradication Program of the Pekanbaru City Health Office.

Result: The results of this study show that the minimum service standard target in the health sector has not been achieved in the diabetes mellitus indicator from 6 research indicators consisting of policy standards and objectives, resources, characteristics of implementing organizations, communication between organizations, attitudes of implementers, and environmental, social and political are still found obstacles that hinder the pace of achievement of the target of minimum diabetes mellitus service standards in Pekanbaru City

Conclusion: The Pekanbaru City Health Office and the Pekanbaru City PHC have implemented the policy of minimum service standards for diabetes mellitus indicators quite well. The achievement of minimum service standards in each PHC has not reached the number set by the government of the Pekanbaru City Health Office. This is because there are still several obstacles in the implementation of minimum health service standards on diabetes mellitus indicators.

Keywords: Minimum Service Standards; Diabetes Mellitus; Health Policy Implementation

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INTRODUCTION

Minimum Service Standards (MSS) in the health sector are important guidelines for local governments in providing quality basic health services for their communities. One indicator of minimum health service standards is health services for people with Diabetes Mellitus. Minimum Service Standards (MSS) are regulated in the Regulation of the Minister of Health of the Republic of Indonesia Number 4 of 2019 concerning Technical Standards for Fulfillment of Basic Service Quality in the Minimum Service Standards in the Health Sector(1).

The realization of the percentage of people with Diabetes Mellitus who get health services according to standards in Pekanbaru City has increased in 2017-2018 but in 2018-2021 the achievement of minimum service standards in Pekanbaru City has decreased. In 2017 the achievement of minimum service standards in the field of diabetes mellitus in the city of Pekanbaru was 52.14, and increased by 100% in 2018. Then the achievement rate experienced a drastic decrease in 2020, the achievement of the minimum service standard in the health sector of diabetes mellitus indicators was only 39.18%, and in 2021 there was another decrease in the achievement of the minimum service standard of diabetes mellitus in Pekanbaru City to 38.05%.

Diabetes Mellitus (DM) has become a major concern in the field of global health due to its significant impact on public health and the economy. With the prevalence that continues to increase globally, including in Indonesia, Diabetes Mellitus is one of the urgent health problems to be treated seriously(2). Riau Province, especially Pekanbaru City, has been in the spotlight due to the high prevalence of Diabetes Mellitus in the region. The number of Diabetes Mellitus cases increase every year. Based on data from the Profile of the Pekanbaru City Health Office in 2019 from the 10 largest diseases in Pekanbaru City, Diabetes Mellitus is in third place, which is 8,716 cases(3). In 2020, people with Diabetes Mellitus increased to 10,650

cases. Then in 2021, the number of Diabetes Mellitus in Pekanbaru City increased to 11,507 cases(4).

The Pekanbaru City Government has established a policy that regulates Minimum Health Service Standards for Diabetes Mellitus Sufferers in Pekanbaru Mayor Regulation No. 06 of 2017 concerning Minimum Service Standards in the Health Sector within the Pekanbaru City Government states that the establishment of minimum service standards in the Health sector in Pekanbaru City is as a guideline for the Pekanbaru City regional apparatus in charge of health services in achieving Minimum Service Standards which is technically in Pekanbaru City(5).

The number of patients with Diabetes Mellitus in the city of Pekanbaru was 11,507 cases but the achievement of minimum service standards in the city of Pekanbaru only reached 38.05% of the target that had been set, which was 100%. It is important to evaluate the implementation of minimum Diabetes Mellitus service standards at the Pekanbaru City Health Center to ensure that the services provided are in accordance with the established standards.

Based on the description above, the author is interested in conducting research on the implementation of minimum service standards for Diabetes Mellitus in PHC in Pekanbaru City. Understanding the factors that influence the implementation of health policies related to diabetes mellitus in Pekanbaru City, is expected to provide broad insight for policymakers, health practitioners, and all parties involved in efforts to increase the achievement rate of minimum service standards for health on diabetes mellitus indicators in Pekanbaru City.

METHOD

This research uses qualitative methods with an analytical descriptive approach in the form of in-depth interviews. This research uses Van Metter and Van Horn's theory there are 6 variables

including, standards and policy objectives; resources; characteristics of the executing organization; communication between implementing organizations; attitude of the executors; economic, social, and political environment(6). This research was conducted at 4 PHC in Pekanbaru City and the Pekanbaru City Health Office in 2023. The informants selected through purposive sampling technique, and consisted of the main informants as informants who were used to find the main information by researchers including health service workers at PHC, Heads of PHC and Non-Communicable Disease (NCD) program holders at PHC. Then triangulation informants are used to comparing information and clarifiers from the main informants, including one of the diabetes

mellitus patients at the PHC which is the location of research and the Program Holder of the Non-communicable Disease Control, and Eradication Program at the Pekanbaru City Health Office.

RESULT

The number of informants in this research was 17 people. From Table 1 it is known that the informants consisted of 4 heads of community health centers, 4 health service officers at community health centers, 4 program holders at Community Health Centers, 4 Diabetes Mellitus patients at Community Health Centers, and the Division at the Pekanbaru City Health Service

Table 1. Characteristics of respondents

	Informer Code	Age	Position/Position
1	ID1	45	Head of PHC
2	IU2	49	Head of PHC
3	IU3	51	Head of PHC
4	IU4	55	Head of PHC
5	IU5	38	PHC Health Services
6	IU6	42	PHC Health Services
7	IU7	35	PHC Health Services
8	ID8	44	PHC Health Services
9	IU9	29	PHC Non-communicable Disease Program Holders
10	ID10	32	PHC Non-communicable Disease Program Holders
11	IU11	43	PHC Non-communicable Disease Program Holders
12	ID12	48	PHC Non-communicable Disease Program Holders
13	IT1	30	Diabetes Mellitus Patients at PHC
14	IT2	53	Diabetes Mellitus Patients at PHC
15	IT3	34	Diabetes Mellitus Patients at PHC
16	IT4	59	Diabetes Mellitus Patients at PHC
17	IT5	44	Field of Disease Control of Pekanbaru City Health Office

Based on the results of research conducted by researchers at 4 PHC in Pekanbaru City and the Pekanbaru City Health Office, quoted from informant IU10

"We follow the rules of the government only. The regulation of the minister of health number 4 of 2019 is a regulation from the center, the regulation

from Pekanbaru is in the Mayor's regulation number 6 of 2017 " (IU10, Holder of the NCD PHC Program) which shows that the implementation of optimal health services to the community in Pekanbaru City is guided by the Minister of Health Regulation No. 4 of 2019 concerning Technical Standards for Fulfillment of Basic Service

Quality in the Minimum Service Standards in the Health Sector and Pekanbaru Mayor Regulation No. 06 of 2017 concerning Minimum Service Standards in the Health Sector within the Pekanbaru City Government.

This was also confirmed by the IT5 triangulation informant from the Pekanbaru City Health Office in the field of Non-communicable Disease Control and Eradication Program who stated that the Pekanbaru City Health Office was guided by the Minister of Health Regulation No. 4 of 2019 and Pekanbaru Mayor Regulation No. 06 of 2017.

Health services for people with diabetes mellitus that are according to standards include; blood sugar measurement, lifestyle change education, and referral to advanced health facilities. The results of research conducted by researchers at 4 PHC in the Pekanbaru City Area and The Pekanbaru City Health Office show that blood sugar measurement once a month in health care facilities has been carried out routinely by health workers through activities inside the building and activities outside the building such as Integrated Assisted Post activities, field screening activities, and other activities.

Minimum Service Standards (MSS) in the health sector is an obligation that must be given to every citizen. Noting the increasing need for quality health services, the government strives to provide health services through the role of quality and affordable PHC by the general public. However, there are obstacles in the implementation of the achievement of minimum health service standards in people with diabetes mellitus, these obstacles have resulted in non optimal achievement of minimum service standards in the health sector for people with diabetes mellitus in Pekanbaru City. From the results of research conducted by researchers at 4 PHC in the Pekanbaru City area, quoted from the main informant IU11.

"Our constraint is on the number of health workers who are still lacking because 1 person has a lot of responsibilities. There is so much work, so

it hampers us too and has an impact on the achievement of each program that is less than optimal. In addition, the community also does not have awareness in checking their health at the PHC. Even though we go to the house, there are still those who refuse" (IU11, PHC Non-communicable Disease Program Holder).

The statement from IU11 shows that in addition to the lack of public awareness of health control in the PHC, there are also constraints on the high workload of health workers which causes program achievements that are not achieved optimally, one of which is the achievement of minimum service standards for people with Diabetes Mellitus in Pekanbaru City. This is of course a special concern for Pekanbaru City Health Office.

Quoted from a triangulation informant from the Pekanbaru IT5 City Health Office

"Our constraint is on the target, maybe the use of real data on the population, so Pekanbaru must have definite data on the number of targets that must be pursued by the PHC. If the real data we know who to pursue, now we have prevalence. Then for health workers, indeed we currently lack human resources. Not only for PHC but for agencies such as the Health Office, it is also lacking. We have entered this into our evaluation material for the future and hopefully, there will be improvements." (IT5, P2P Field of Pekanbaru City Health Office).

A statement from IT5 shows that Pekanbaru City does not have clear data on the target of Diabetes Mellitus and only relies on prevalence. In addition, the lack of health workers does not only occur at the Pekanbaru City Public Health Center, but it will be sought for improvement in the future.

PHC has the responsibility to monitor and evaluate the minimum health services in its area, including from all available health facilities, both government and private, and report the results to the local health office(7). Pekanbaru City inputs data reporting minimum Diabetes mellitus service standards to the ASIK application owned by the Pekanbaru City government.

in its application, there are still findings such as still not being well-educated in the use of the ASIK application for health workers at PHC. Quoted from IU9

"Our data collection is through the ASIK application, then later it can be seen what percentage of the entire number of Diabetes Mellitus patients who carry out routine control to the PHC. But we still find it difficult to use it because we don't really understand how to use the application. So we rely more on interns who input data into ASIK. Sometimes the problem is also because this ASIK input uses KTP and BPJS numbers, so field screening officers very often experience problems in collecting data to the application because the community does not bring an ID card. Actually, you can input manually using your name, date of birth, and address according to your ID card, but many of our officers don't understand how" (IU9, PHC Non-Communicable Disease Program Holder).

From IU9's statement, it is known that the officer's understanding of using the ASIK application is still not optimal so the input still relies on interns at the PHC.

Quoted from the Program Holder of the Non-communicable Disease Control and Eradication Program at the Pekanbaru City Health Office

"Actually, we are in accordance with the policy rules, but there are other factors that make our achievement low, such as in the PHC the program holder not only holds 1 program, he still holds 2 or 3 programs, so he is complicated to take care of the programs handled, so that the data input to the ASIK application is not on target, then the two program holders sometimes change frequently, so it is not synchronized with the information that has been provided either through the WA group or directly, for example I have conveyed information about manual data collection in the ASIK application but who understands only the previous program holders but the new Non-Communicable Disease program holders do not understand and only understand how to input using NIK. In fact, with a manual it can" (IT5, Non-communicable Disease Control and Eradication Program Field of the Pekanbaru City Health Office).

This shows that the Health Office has provided information about the use of the ASIK application but not all health workers receive the information properly.

The Pekanbaru City Health Office and PHC in Pekanbaru City's effort in increasing the achievement of the target of implementing the minimum service standard such as education for Diabetes Mellitus Patients during activities of the Integrated Non-Communicable Disease Assisted Post and carrying out routine blood sugar checking controls at least once every 1 month for patients with diabetes mellitus. It aims to increase awareness of Diabetes Mellitus sufferers on the importance of checking blood sugar for their health (8). The intervention can be a preventive effort to improve the degree of public health in accordance with the government's objectives in Law No. 36 of 2009 (9).

Educational activities on lifestyle changes and medication adherence in the community have been carried out. Activities are carried out when patients make regular visits and checks, then education is also carried out through activities outside the building such as the Integrated Service Post for the elderly, the Integrated Non-communicable Disease Assisted Post and the Chronic Disease Management Program, besides where education in the form of media such as banners, brochures, leaflets, and videos has also been carried out at the PHC. These activities are carried out by medical personnel and health workers such as; Doctors, Nurses, Health and Environmental Promotion Personnel, and Non-communicable Disease Officers at PHC and Pekanbaru City Health Office.

Referral activities to advanced healthcare facilities are carried out if the PHC cannot handle the condition of patients with congenital diseases, and complications, and patients who have carried out routine control and received pharmacological therapy but whose health conditions have not improved. After the patient gets a referral letter and the health condition is stable, the patient will get a referral letter back so that the patient will be

re-controlled in a first-level healthcare facility.

DISCUSSION

Policy Standards and Objectives in the Implementation of Minimum Diabetes Mellitus Service Standards at PHC in Pekanbaru City Area

Policy implementation can be measured if the targets and objectives of the policy are in accordance with the circumstances and needs that exist at the policy implementation level. Policies will not run optimally if standards and objectives do not match circumstances and needs or are too ideal(6). Achievement strategies in policy implementation are needed(10), This is certainly related to the implementer's understanding of the policy itself. Policy standards and objectives are closely related to the disposition of implementers (11).

The results of interviews with PHC show that health workers have understood and implemented the Minister of Health Regulation No. 4 of 2019 well. However, field facts found that there are still people who do not comply with routine control to health services, resulting in inaccurate data on Diabetes Mellitus patients at PHC and affecting the reporting of achievement targets. In controlling Diabetes Mellitus, a person's education affects attitudes and behaviors towards the disease. People with a high level of education, usually have a lot of knowledge about health so they tend to have awareness in maintaining their health (12). Research conducted by Yulianti et al suggests that behavioral aspects such as self-care measures such as diet, exercise, taking medication, and blood sugar monitors, need to be done routinely to obtain optimal glycemic control (13).

In addition, the Pekanbaru City Health Office and PHC in Pekanbaru City find it difficult to access data on Diabetes Mellitus patients in hospitals, and clinics, the data contained in the Pekanbaru City PHC area is not integrated with existing data in hospitals and clinics, this is due to Health Law No. 36 of 2009 which says that patients must obtain the right to medical confidentiality(7). The Pekanbaru City Health Office has given directions to PHC

to increase field activities and provide education through various activities. The target target of Diabetes Mellitus service is the age of 15 years and over, in accordance with Pekanbaru Mayor Regulation No. 06 of 2017.

Measurement of the success rate of implementation performance can be measured through policy objectives at the policy implementation level that are realistic and sociocultural. If the size and objectives of the policy are too ideal, the policy will be difficult to realize. According to Van Metter Van Horn, policy performance is basically an assessment of the achievement of these standards and goals (14). Although it is expected to reach 100%, the majority of regions find it difficult to achieve the target due to different conditions and resources. Evaluation of implementation performance is necessary to conform to realistic objectives.

Resources in the Implementation of Minimum Diabetes Mellitus Service Standards at PHC in Pekanbaru City Area

Based on the results of research conducted in 4 PHC in Pekanbaru City that aspects of resources include; human resources, financial resources, and infrastructure, these aspects are important in the implementation of Minimum Service Standards (MSS) in PHC.

Based on Van Metter and Van Horn's theory, policy implementation also depends on available resources. Resources are also a determining factor in the successful implementation of a policy(15). Human resources in PHC have competence in their fields and have received training by the Pekanbaru City Health Office which is held specifically for health workers and cadres of the Integrated Assisted Post, this activity aims to increase understanding of the minimum health service standard policy in Pekanbaru City and improve the ability of health workers to handle cases of Non-Communicable Diseases in Pekanbaru City.

If the number of personnel is not met properly and the quality of Human Resources is in accordance with the established standards, the quality of service produced will not be as

expected(16). However, what is an obstacle at the Pekanbaru City Health Center is the number of health workers in the PHC which is still inadequate, causing excessive workload. Additional obstacles arise due to government policies related to honorary employees and the procurement of new employees.

In addition to human resources, the importance of financial resources in the implementation of minimum service standards in the health sector of diabetes mellitus indicators. The availability of budget funds at the Pekanbaru City Health Center comes from regional funding (APBD), BLUD, BOK, and national funding (APBN). The funds for handling diabetes mellitus are considered sufficient, but still considered insufficient to handle all cases of Non-Communicable Diseases as a whole. Some PHCs use personal funds for field activities, but they will claim these personal funds when the PHC has received funds BOK from the Government. Based on information submitted by the Pekanbaru City Health Office, budget absorption needs to be maximized in order to facilitate the implementation of minimum service standards in the health sector, especially diabetes mellitus. Funds that have not been maximally absorbed can be used in activities outside the PHC building such as Integrated Assisted Post activities, as well as joint physical activity activities and providing education in the community that can be assisted by health cadres.

Facilities and infrastructure in the PHC are adequate and well maintained, both in terms of adequate drugs and medical devices to buildings and rooms that are capable of carrying out diabetes mellitus health services. However, the use of medical devices at the Integrated Assisted Post is considered still poorly maintained.

Characteristics of the Implementing Organization on the Implementation of Minimum Diabetes Mellitus Service Standards in PHC Pekanbaru City Area

PHCs in Pekanbaru City have differences in the rules for implementing Minimum Service Standards (MSS) related to diabetes mellitus. Of the 4 PHCs that

became research sites, 2 of them have SOPs that further regulate minimum service standards, such as directions for measuring blood pressure and sugar for elderly patients or those at risk of non-communicable diseases. However, the other 2 PHC do not have special rules regarding the minimum service standards for diabetes mellitus.

Although there is no specific organizational structure for diabetes mellitus services, the division of tasks in the PHC is determined by the Head of the PHC. Person in charge of Non-Communicable Disease Prevention and Control Program selected from competent health workers. In the organizational structure, the application of minimum health service standards certainly has norms or rules that must be obeyed in a way that is useful for regulating how resources should carry out their duties in accordance with the rules that have been set. Nurlia's research in 2019 stated that organizational structure has a very important role in an organization, so that organizational structure is also very influential on service quality, where organizational structure is a tool to regulate human behavior to improve common goals in an activity so that the organization implemented gets good public services. However, if the organizational structure is not arranged properly, it will hamper the quality of good public services (17).

According to Edward, one of the main characteristics of the structure that can improve performance and encourage the organization to be better is the availability of Standard Operational Procedures (SOP)(18). Coordination between the PHC and the Health Office is carried out through regular meetings and reporting via WhatsApp Groups. The Health Office also conducts periodic field visits for evaluation. This has a positive impact on policy implementers, information is received faster and periodically. However, there are still complaints in submissions through WhatsApp Groups such as two-way communication that is not going well. In monitoring and evaluation, the Health Office reviews recording and reporting at the PHC and identifies obstacles faced. To improve the achievement of minimum

service standards, the Health Office implements a gradual increase strategy and provides sanctions if the PHC does not reach the set target.

Communication Between Implementing Organizations and Program Targets on the Implementation of Minimum Diabetes Mellitus Service Standards at PHC in Pekanbaru City Area

Communication largely determines the success of achieving the objectives of a policy. Effective implementation can be obtained when decision-makers already know what they are doing. Communication activities also range from changing human behavior (e.g., increasing participation in programs, and influencing a person) to simply educating and informing(19).

Communication between organizations can build coalitions between interests, it is very effective in improving health(20). In working on this implementation process, good knowledge then communication run well too. Good communication distribution can make a good implementation as well(21). Policy actors can know what they have to prepare and do in order to achieve the targets and decision-makers should already know what will be done so that implementation can be communicated precisely and accurately(22).

Communication between the Pekanbaru City Health Office and the PHC in Pekanbaru City is carried out through the WhatsApp application and face-to-face meetings in activities held by the Pekanbaru City Health Office. According to the person in charge of the Non-communicable Disease Prevention and Control Program In PHC, the information submitted still needs to be improved to be clearer and more consistent regarding program targets. The information conveyed is still unclear and inconsistent regarding program targets in the activities of minimum service standards in the field of Diabetes Mellitus health. There is still no clarity between the use of data between real data or population estimation data.

Communication also occurs between health workers and people with Diabetes Mellitus through educational activities at

the PHC and outside the building such as the Integrated Assisted Post and healthy gymnastics activities. However, research shows that the education delivered to the public, especially for Diabetes Mellitus patients, is still less specific, the importance of health workers' expertise in communicating with patients to increase active participation and adherence to treatment and health control (23).

Through good communication, information about the prevention and management of Diabetes Mellitus can be more easily understood by sufferers, increase their awareness of maintaining health, and influence their behavior.

The Attitude of the Implementers on the Implementation of Minimum Diabetes Mellitus Service Standards at the PHC in Pekanbaru City Area

Persons in charge of the Non-communicable Disease Prevention and Control Program as well as heads of PHC showed good acceptance of the Minimum Service Standard (SPM) policy for services for people with diabetes mellitus. They have carried out services in accordance with applicable policies after receiving socialization from the Pekanbaru City Health Office.

Program implementers at PHC ensure health services for people with diabetes mellitus in accordance with applicable regulations. Routine blood sugar checks are carried out every month in accordance with the provisions in the Minister of Health Regulation No. 4 of 2019 concerning Technical Standards for Fulfillment of Basic Service Quality in the minimum service standards in the Health Sector. In addition, the administration of medicines and referrals to advanced health facilities are also well implemented.

However, there are still obstacles in its implementation, such as lack of public awareness in controlling blood sugar to health services and the limited number of health workers in each PHC, which causes the implementation of minimum health service standards to be less than optimal. According to research conducted by Nika Maya, et.all in 2023 stated that the community does not yet have awareness in

the importance of checking their health at the PHC, this is due to the problem of service schedules that collide with working hours, schools and community activities, besides that the level of understanding and knowledge of the community is one of the obstacles hampering the implementation of this minimum service standard (24).

The persons in charge of Non-communicable Disease Control and Eradication Program and the heads of PHC provide full support for the implementation of minimum health service standards for people with diabetes mellitus. This support includes education to the community about handling Non-Communicable Disease problems, health screening, and outdoor activities such as the Integrated Non-Communicable Disease Assisted Post. Providing health education is essential to provide the right information to guide healthy behavior(9). For people with Diabetes Mellitus, health education aims to prevent and treat Diabetes Mellitus holistically(25). This is considered effective in dealing with Diabetes Mellitus cases, especially lifestyle changes and self-care for people with Diabetes Mellitus. This can increase the patient's knowledge and awareness(26).

Through this education, it is hoped that the community can be more active in optimizing the implementation of minimum health service standards, because often the fear of health checks is triggered by a lack of knowledge about the prevention and treatment of Non-Communicable Diseases.

Field observations show that policy implementers at the PHC are active in dealing with Non-Communicable Disease (NCD) problems, especially in people with diabetes mellitus. However, in addition to the active role of health workers, public awareness is also needed so that the implementation of Minimum Service Standards in the Health sector can run optimally.

Economic, Social, and Political Environment on the Implementation of Diabetes Mellitus Minimum Service Standards at PHC in the Pekanbaru City Area

Economic, social, and political variables have a significant impact on policy achievement, including the implementation of minimum health service standards for people with diabetes mellitus. Social influence is especially evident in public education, where educated individuals can influence others to undergo routine check-ups and treatment. Families also provide important support, although not all families are able to provide full support, especially in elderly patients.

Meanwhile, the economic condition of the community and the access of people with diabetes mellitus to care can affect the achievement of optimal minimum service standards. The level of income affects the patient's ability to obtain the needed treatment and also the use of health insurance. Research by Rakasiwi & Achmad Kautsar states that people with higher incomes tend to use health insurance and apply a healthy lifestyle by paying attention to nutritious food intake and exercise carried out. A person's income can affect his health status. A person with a higher income has a healthier probability than a lower income(27). In Pekanbaru, despite significant economic growth, the percentage of poor people is increasing, which has an impact on healthcare accessibility.

In a political context, cross-sector support is crucial. Cooperation between PHC, schools, and local stakeholders can improve education, screening, and other activities that support minimum health service standards. This also applies to the Integrated Non-Communicable Disease Assisted Post, where collaboration between the city health office and PHC with related parties can strengthen the achievement of optimal minimum health service standards.

CONCLUSION

The implementation of Minimum Service Standards (SPM) for people with diabetes mellitus at the PHC in the Pekanbaru City Area has not been optimal. There are still several obstacles such as lack of early detection, inadequate availability of resources, and lack of public awareness in undergoing routine controls. However, health workers have understood

and implemented the regulations well, but there is still a need for improvement in communication between implementing organizations and education to the community. Environmental, economic, social, and political factors also have a significant impact on the implementation of minimal service standards. Therefore, cross-sectoral cooperation and joint efforts are needed to improve the quality of health services for people with diabetes mellitus in Pekanbaru City.

ETHICS APPROVAL

This research has received ethical approval from the Health Research Ethics Commission, Faculty of Public Health, with number: 064/EA/KEPK-FKM/2023

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AUTHOR CONTRIBUTION

The author conducts research and research, then makes the preparation of results reports and analyzes articles. All

authors read and agree to the final result of the article.

REFERENCE

1. Permenkes Republik Indonesia Nomor 4 Tahun 2019 Tentang Standar Teknis Pemenuhan Mutu Pelayanan Dasar Pada Standar Pelayanan Minimal Bidang Kesehatan. Menteri Kesehatan Republik Indonesia, 4 Indonesia; 2019.
2. Federasi Diabetes Internasional (IDF). Atlas internasional IDF edisi 10. 2021.
3. Dinas Kesehatan Kota Pektabrau. Profil Kesehatan Kota Pekanbaru 2019. Pekanbaru; 2021.
4. Dinas Kesehatan Kota Pekanbaru. Profil Dinas Kesehatan Kota Pekanbaru. Pekanbaru; 2022.
5. Peraturan Walikota Pekanbaru No 6 Tahun 2017 Tentang Standar Pelayanan Minimal Bidang Kesehatan di Lingkungan Pemerintah Kota Pekanbaru. Pemerintah Kota Pekanbaru, 06 Pekanbaru; 2017.
6. Van Metter DS, Van Horn CE. The Policy Implementation Process: A Conceptual Frame work. Vol. 6. Adm Soc; 1975. 445–488 p.
7. Undang-Undang Republik Indonesia No.36 Tahun 2009 Tentang Kesehatan.
8. Dahlan N, Bustan MN K. Pengaruh prolans terhadap pengendalian gula darah terkontrol pada penderita DM di PHC Sudiang Kota Makassar. Jurnal Ilmu Kesehatan. 2018;1:78–83.
9. Gever VC, Ezeah G. Did Nigerian media provide sufficient warning messages on coronavirus disease? The media and health education. 2020;35:460–70.

10. Arifin J, Wigati P, Suparwati A, et al. Faktor-Faktor yang Berhubungan dengan Kinerja Bidan Desa Dalam Pelaksanaan Program ASI Eksklusif di Kabupaten Kebumen. *Jurnal Kesehatan Masyarakat Universitas Diponegoro*. 2016;3:41–9.
11. Suryani AI, Agung Suharyanto. Implementasi Program Badan Penyelenggara Jaminan Kesehatan (BPJS) Dalam Meningkatkan Pelayanan Administrasi Kesehatan di Rumah Sakit Umum Sibuhuan. *Jurnal Administrasi Publik Unibversitas Medan Area*. 2016;4(1):86–99.
12. Irawan D. Prevalensi dan Faktor Risiko Kejadian Diabetes Melitus Tipe 2 di Daerah Urban Indonesia. *Analisa Data Sekunder Riskesdas*. 2010;
13. Yulianti K, Nursiswati, Urip R. Hubungan tingkat self care dengan tingkat HbA1c pada klien diabetes melitus tipe 2 di poliklinik endokrin RSUP Dr. Hasan Sadikin Bandung.
14. Carl Van Horn, Donald Van Metter. *Model-Model dalam Implementasi*. Yogyakarta; 1975.
15. Kurniawan, Wahyu, Kaarjuni Dt Maani. Implementasi Kebijakan Pembangunan Infrastruktur Jalan di Kecamatan Tabir Selatan Kabupaten Merangin dengan Menggunakan Model Donald Van Metter dan Carl Van Horn. *Jurnal Manajemen dan Ilmu Administrasi Publik* . 2019;67–78.
16. Donabedian A. *Basic Approaches to Assesment : Structure, Process, and Outcome. The Definition Quality and Approaches Its Assesment Health Administration Press*. 1980;
17. Nurlia. Pengaruh Struktur Organisasi Terhadap Pengukuran Kualitas Pelayanan (Perbandingan Antara Ekspetasi /Harapan dengan Hasil Kerja). *Meraja Journal*. 2019;2(2).
18. Maabuat ES. Pengaruh Kepemimpinan, Orientasi Kerja dan Budaya Organisasi terhadap Kinerja Pegawai. *J Berk Ilm efisiensi*. 2019;8:642–9.
19. Cooke SJ, Gallagher AJ, Sopinka NM, Nguyen VM, Skubel RA, Hammerschlag N, et al. Considerations for effective science communication. *FACETS*. 2017 May 1;2(1):233–48.
20. Clark NM, Lachance L, Doctor LJ, Gilmore L, Kelly C, Krieger J, et al. Policy and system change and community coalitions: Outcomes from allies against asthma. *American Journal of Public Health*, 100, 904-912. 2014;
21. *Improving Care and Promoting Health in Populations: Standards of Care in Diabetes-2024*. Vol. 47, *Diabetes care*. 2024. p. S11–9.
22. Edward III GC. *Public Policy Implementing*. London-England: Jai Press Inc; 1984.
23. Hancox JE, Chaplin WJ, Hilton CE, Vadaszy N, Gray K, Game F, et al. Motivation communication training programme for healthcare professionals to support adherence in patients with diabetic foot ulcers: A proof-of-concept study. *PLoS One*. 2014;
24. Maya Agustina N, Mahendradhata Y, Prawidya Putri L, Kebijakan dan Manajemen Kesehatan D, Kedokteran F, Masyarakat K, et al. Analisis Implementasi Kebijakan Standar Pelayanan Minimum Bidang Kesehatan Indikator Pelayanan Kesehatan Penderita Diabetes Melitus di Kabupaten Magelang. Vol. 12, *Jurnal Kebijakan Kesehatan Indonesia : JKKI*.
25. Ernawati U, Wihastuti TA, Utami YW. Effectiveness of diabetes self-management education (DSME) in type 2 diabetes mellitus (T2DM) patients : Systematic literature review. 2021;10:404–8.

26. Gagliardino JJ et al. Impact of diabetes education and self-management on the quality of care for people with type 1 diabetes mellitus in the Middle East (The International Diabetes Mellitus Practices Study, IDMPS). *Diabetes Res Clin Pract.* 2018;
27. Rakasiwi LS, Achmad Kautsar. *Ekonomi Keuangan.* 2021 [cited 2023 Sep 23]. *Kajian Ekonomi Keuangan.* Available from: <https://fiskal.kemenkeu.go.id/ejournal>