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Analysis of the Management of the Integrated Non-Communicable Disease Control Program (Posbindu-PTM) in the Working Area of Rawasari Public Health Center in 2024

Gresela Yulya Br.Tanggang*[1] , Arnild Augina[2] , Rizalia Wardiah[3] , Adila Solida[4] , Silvia Mawarti Perdana[5]
[1-5] Kesehatan Masyarakat, Universitas Jambi, Jambi, Indonesia

greselagreselastg@gmail.com[1], augina@unja.ac.id[2] , rizaliawardiah@unja.ac.id[3], adilasolida@unja.ac.id,[4] silviamp@unja.ac.id[5]

Address: Jl. Jambi -Muara Bulian No.KM. 15, Mendalo Darat, Jambi Outer City District, Muaro Jambi Regency, Jambi
*Author Corresprodence : greselagreselastg@gmail.com**

Abstract. *Non-Communicable Diseases (NCDs) have become a significant health issue requiring serious attention. Data from the Jambi City Health Office shows an increase in NCD cases from 16,154 in 2022 to 16,246 in 2023, with 4,129 cases being the highest. This study aims to analyze the management of the integrated NCD control post (Posbindu) at Rawasari Community Health Center. Using a qualitative research method with a descriptive-analytical approach, the study involved 11 informants, including healthcare workers and Posbindu cadres. Data were collected through interviews, observations, and document reviews. The findings indicate that program planning is not yet optimal due to a lack of cadres and inadequate facilities and infrastructure. Task organization is functioning as expected, but the limited number of cadres forces healthcare workers to provide additional assistance. The program is implemented through socialization efforts, but the five-stage system is not fully standardized, and community participation remains low. Monitoring, recording, and reporting are in accordance with the 2019 Ministry of Health guidelines. Overall, the Posbindu NCD program at Rawasari Community Health Center is running fairly well, but challenges persist in planning and implementation. Improvements are needed, particularly in increasing the number of trained cadres, collaborating with relevant stakeholders, and optimizing the five-stage Posbindu service system to enhance program effectiveness.*

Keywords: *Management, Posbindu NCDs, Cadres, Non-Communicable Diseases.*

1. INTRODUCTION

Non-Communicable Diseases (NCDs) pose a major challenge in health development as they impact productivity and the quality of life of communities. NCDs are chronic conditions with slow recovery processes, including diabetes mellitus, hypertension, cancer, asthma, and heart disease. The main risk factors for NCDs include unhealthy diets, smoking, as well as high blood pressure and blood sugar levels (Ministry of Health of the Republic of Indonesia, 2022). According to WHO (2021), NCDs cause 41 million deaths annually, accounting for 71% of total global deaths, with 77% occurring in low- and middle-income countries (World Health Organization,2021).

The 2018 Riskesdas data showed an increase in the prevalence of Non-Communicable Diseases (NCDs) compared to 2013, including cancer, stroke, chronic kidney disease, diabetes, and hypertension (Ministry of Health of the Republic of Indonesia, 2018). In Jambi, joint

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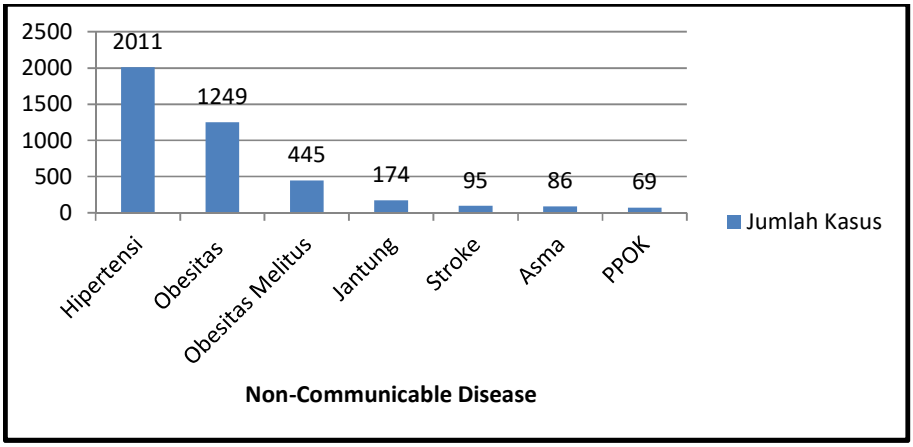
diseases, hypertension, and asthma are the most prevalent NCDs. Data from the Jambi City Health Office indicate an increase in NCD cases from 16,154 cases in 2022 to 16,246 cases in 2023. Health screening coverage also remains low, reaching only 26.6% of the 100% target.

Non-Communicable Disease Data at Rawasari Public Health Center in 2023



Sumber; Profil Puskesmas Rawasari Tahun 2023

Figure.1

Based on Figure 1, an initial data collection survey from Rawasari Public Health Center revealed that non-communicable diseases (NCDs) accounted for the highest number of cases, totaling 4,129. According to the 2023 NCD data from Rawasari Public Health Center, hypertension was the most prevalent NCD, with 2,011 cases, while COPD had the lowest prevalence, with 69 cases.

To address this issue, the government developed the Integrated Non-Communicable Disease Control Post (Posbindu PTM) in accordance with Minister of Health Regulation No. 71 of 2015. Posbindu PTM aims to increase community participation in monitoring NCD risk factors. However, its implementation still faces challenges, such as a shortage of health cadres, limited facilities and infrastructure, and low community participation. Therefore, strengthening resources and implementing innovative strategies are necessary to enhance the effectiveness of the Posbindu PTM program in controlling NCDs within the community.

2. LITERATURE REVIEW

1. Non-Communicable Diseases

NCDs are a type of disease that is not transmitted through specific chains of infection. Minister of Health Regulation No. 71 of 2015 on NCD Control defines NCDs as diseases that are not contagious between individuals and develop slowly over a long period (chronic). Health efforts focusing on promotive and preventive aspects are essential, while also

considering curative and rehabilitative measures, to reduce morbidity, disability, and mortality in an efficient, effective, comprehensive, and sustainable manner (Ministry of Health of the Republic of Indonesia, 2015).

2. Integrated Non-Communicable Disease Control Post (Posbindu PTM)

Posbindu serves as a community health initiative for controlling Non-Communicable Diseases (NCDs) through a community-based approach, starting from planning to evaluation. Community-Based Health Efforts (UKBM**)** engage the community as a key resource in implementation, acting as dynamic agents according to their needs and competencies.To ensure the efficient operation of Posbindu, structured implementation steps are required. These steps should be adapted to local conditions and community competencies while maintaining the integrity of the Posbindu process. Proper planning and execution will enhance the effectiveness of Posbindu in preventing and controlling NCDs at the grassroots level (Ministry of Health of the Republic of Indonesia, 2019).

Posbindu PTM (Integrated Non-Communicable Disease Control Post) is a program that involves community participation in the early detection, monitoring, and prevention of risk factors for Non-Communicable Diseases (NCDs) such as hypertension, diabetes, obesity, and other chronic diseases**.** This initiative is conducted independently by the community, guided by trained health cadres and supported by health workers from the public health center (puskesmas) (Tocqiun P,2019)**.**

3. Management of the Posbindu PTM Program

According to George R. Terry (2010), management consists of four main functions: planning, organizing, implementing, and supervising. In the context of Posbindu PTM, program management includes (Terry,2010):

1. Planning – Developing activity strategies, allocating resources, and setting program implementation targets.
2. Organizing – Assigning roles and responsibilities among healthcare workers, Posbindu cadres, and the community.
3. Implementation – Conducting health screenings, education, and socialization related to NCD risk factors.
4. Supervision – Monitoring data recording, reporting, and evaluating program effectiveness based on Ministry of Health standards.

3. METHOD

The type of research used in this study is descriptive research with a qualitative approach**,** involving research procedures that produce descriptive data in the form of words or information from people in the surrounding environment**.** The data collection method is conducted in natural conditions**,** utilizing primary data sources and secondary data sources(Moleong,2017)**.**

The primary data in this study were collected through in-depth interviews and observations. The in-depth interviews were conducted with key informants, including the NCD program coordinator at the public health center (Puskesmas), healthcare workers involved in Posbindu, Posbindu PTM cadres, and Posbindu participants as triangulation informants. Observation was used as a data collection technique that allowed researchers to understand the meaning and behavior of the subjects studied. Meanwhile, secondary data were obtained by reviewing documents related to the research topic, serving as supporting evidence to enhance credibility. The main instrument in this research was the researcher, who collected data using interview and observation guidelines.

The collected data were manually processed through three stages. The first stage is data reduction, which involves selecting and transforming data from field notes to deepen the analysis, categorizing issues, removing irrelevant information, and organizing data to facilitate drawing conclusions. The second stage is data presentation, where the reduced data are structured to simplify decision-making. The final stage is conclusion drawing, where the findings are presented in a narrative form and compared with theories from the literature review. Data validity was ensured using source and method triangulation techniques.

4. RESULT

1. Characteristics of Informants

Informant Code	Gender	Age	Position	Education
H	Female	57	Posbindu PTM Program Coordinator	S1
S	Female	46	Indra Coordinator	D3
MN	Female	48	Head of Rawasari Posbindu Cadre	S1
L	Female	48	Head of Beliung Posbindu Cadre	SLTA

M	Female	48	Head of Mayang Mangurai Posbindu Cadre	SLTA
RTS	Female	49	Member of Rawasari Cadre	SLTP
N	Female	48	Member of Beliung Cadre	SLTA
Z	Female	57	Member of Mayang Mangurai Cadre	SPG
W	Female	49	Rawasari Posbindu Participant	SLTA
R	Female	50	Beliung Posbindu Participant	SLTA
P	Female	46	Mayang Mangurai Posbindu Participant	D3
Total	11			

2. Program planning management of Posbindu PTM

Several key variables in planning that are essential for the successful implementation of the program include human resource planning, infrastructure, funding sources, and fund utilization.

> *"If it's about human resources and cadres... the human resources are sufficient, and the cadres are also sufficient. Each Posbindu has two cadres." (H, 57)*
>
> *"It's sufficient, from the first station to the fifth station. Like scales, height measurement tools, blood pressure monitors, waist circumference measuring tapes, glucometers, as well as masks and gloves—all are complete." (S, 57)*
>
> *"There is actually no specific funding for Posbindu. But there is only transportation funding. Since the funds come from BOK, the Puskesmas manages it so that Posbindu can be carried out." (M, 48)*

The conclusion from the human resource planning aspect in Posbindu PTM indicates that the number of cadres is still insufficient, with only two cadres per Posbindu. However, they have received two training sessions from the Health Office and Puskesmas and have been officially recognized with an SK (Decree). The cadres demonstrate good competence, understanding NCDs, their risk factors, impacts, and control measures. Cadre recruitment is done voluntarily or through appointment by the neighborhood head (RT), with official recognition issued by the sub-district (Kelurahan). The target group for Posbindu PTM includes healthy individuals, people with NCDs, and at-risk individuals aged 15 and above.

In terms of infrastructure, facilities remain incomplete. Some Posbindu centers operate in borrowed spaces such as residents' homes or mosques. Additionally, only one cadre possesses the "Buku Pintar Kader" (Cadre Smart Book), some participants lack a "KMS" (Health Monitoring Card), and there is no available safety box for sharp waste disposal. From a funding perspective, Posbindu PTM implementation is supported by the Health Operational Cost (BOK) funds, which are already sufficient. These funds are allocated for procuring infrastructure, cadre training, and operational costs, including cadre transportation expenses.

3. Program Organization management of Posbindu PTM

Based on the in-depth interviews with informants regarding the division of tasks and authorities according to the main duties and functions of Posbindu PTM, the following results were obtained based on the interview transcript with the program coordinator:

> *"The first thing we do is create an RUK (Proposed Activity Plan), then we consult with the BOK officer. After that, we create the RPK (Activity Implementation Plan), followed by scheduling and execution. Since there are only two cadres in the Posbindu, we, as health workers, also participate in examinations and education." (H, 57)*
>
> *"My tasks include preparing the venue, and I can also assist in weighing and measuring height, just like today." (RTS, 49)*

The conclusion from the organizational aspect of Posbindu PTM implementation highlights the essential roles of the Head of the Public Health Center (Puskesmas), Program Coordinator, health workers, and cadres in running the program effectively. The Program Coordinator is primarily responsible for planning, coordinating, and implementing activities. The first step involves preparing the Proposed Activity Plan (RUK), which outlines the schedule and resource requirements. This is followed by coordination with BOK (Health Operational Assistance) authorities and the formulation of the Activity Implementation Plan (RPK). The coordinator also ensures that cadres are informed about the Posbindu schedule. During implementation, the coordinator supervises activities to ensure they run smoothly and according to procedures. Afterward, monitoring and evaluation are conducted to assess the outcomes, and a final report is prepared to be submitted to the Health Department.

Based on the in-depth interviews conducted by the researcher, it was found that cadres have essential roles and functions in the implementation of Posbindu. Their

responsibilities include informing the community about the activity schedule, preparing or cleaning the venue before the event begins, and carrying out the Posbindu station procedures. These procedures involve measuring blood pressure, weight, height, and waist circumference, providing education, and recording the results. Health workers play an equally important role in the implementation of Posbindu. However, the key difference is that cadres do not conduct blood sugar, uric acid, or cholesterol tests, as these are only performed by health workers.

4. Program Implementation management of Posbindu PTM

Implementation management in this context relates to an organization's efforts to guide and mobilize all involved resources to actively participate in the realization of the planned program or activities.

> *"There is, during the SPJ approval and the Village Head's signature at the Lokmin meeting. There is also socialization, but the health promotion team conducts most of it. There is a doctor, the head of the health center, and the program coordinator." (S, 57)*
>
> *"The equipment is already complete, such as height measurement, weight measurement, blood pressure checks, and others. However, uric acid and cholesterol tests depend on availability—if the equipment is available, the tests are conducted; if not, they are not carried out. But blood and glucose tests are always available." (S, 57)*
>
> *"Participation is still low, it hasn't met the target yet. The most frequent participants are usually those aged around 35-50 years old." (H, 57)*

Based on in-depth interviews conducted by the researcher, information was obtained that the health center (Puskesmas) has conducted socialization and promotion regarding the implementation of Posbindu PTM, carried out by the Head of the Puskesmas, doctors, and the Posbindu PTM program coordinator. The socialization was conducted during SMD (Community Socialization) and Lokmin (Mini Workshop) activities at the village and sub-district levels. The Puskesmas does not collaborate with other parties at the village level in implementing the Posbindu program but works together with various programs within the Puskesmas, such as Posyandu, Elderly Health Services (Lansia), Indra, and UBM.

The implementation system of Posbindu has adopted the five-table system, but it is not yet fully in accordance with the established guidelines. This is because the implementation of Posbindu PTM is still assisted by the Posbindu program managers

from the Puskesmas and healthcare workers, meaning it is not entirely run by Posbindu cadres. The implementation of Posbindu PTM does not always run smoothly and still faces several challenges, such as difficulties in encouraging community participation and issues with the venue.

5. Program Supervision management of Posbindu PTM

The research results indicate that the recording and reporting system for Posbindu PTM activities is carried out manually and through the Sehat Indonesiaku (ASIK) application. However, data entry into the ASIK application is only performed by the program coordinator. Although the program coordinator has provided information regarding the use of ASIK and training has been conducted, Posbindu cadres are still unable to use the application during activities.

"If this one is manual, there is also an online option using a mobile application, but sometimes the mothers who come don't bring their phones, so we use the manual method." (M,48)

The main obstacle in recording and reporting is the limited ability of cadres to use the ASIK application, especially due to the large amount of data that needs to be entered, despite the training provided. This issue was conveyed by the program coordinator and acknowledged by the cadres themselves. Therefore, it can be concluded that cadres still face technical difficulties in operating the ASIK application, even after receiving prior training.

5. DISCUSSION

1. Program planning management of Posbindu PTM

The planning management of Posbindu PTM at Puskesmas Rawasari still faces several challenges, particularly in terms of cadre personnel, facilities, and funding. Currently, the number of available cadres is still below the established standard of five cadres per Posbindu. Each Posbindu only has two cadres, even though they have received training. To address this issue, new cadre recruitment should be conducted by involving the community, such as neighborhood heads (RT), community heads (RW), and local organizations. Additionally, Posbindu facilities remain limited. Some Posbindu are still utilizing residents' homes or mosques, meaning they do not have a permanent location. Several essential supplies, such as participant monitoring books and medical waste disposal boxes, are also not adequately available. A potential solution is to use

multipurpose buildings or vacant rooms in the Puskesmas as permanent locations for Posbindu.

In terms of funding, Posbindu PTM is supported by the Health Operational Fund (BOK), which is used for medical equipment and cadre expenses. However, some Posbindu still rely on community self-funding, which may hinder activities. Therefore, financial management needs to be more efficient to ensure that all Posbindu can operate optimally. Overall, despite existing challenges, increasing the number of cadres, improving facility availability, and implementing effective financial management can help Posbindu PTM in detecting and controlling Non-Communicable Diseases (NCDs) within the community.

2. Program Organization management of Posbindu PTM

The division of tasks in Posbindu PTM involves various parties to ensure the smooth implementation of the program. The Head of Puskesmas acts as a supervisor, while the Posbindu PTM Program Coordinator is responsible for planning, coordinating, and executing activities, including drafting the Work Proposal Plan (RUK) and managing funds. Posbindu cadres are tasked with informing the community, preparing the activity location, and conducting basic health measurements such as blood pressure, body weight, and waist circumference. However, advanced medical examinations remain the responsibility of healthcare workers, who also provide education and follow-up if necessary. Previous research has shown that a clear division of tasks among the Head of Puskesmas, the Program Coordinator, cadres, and healthcare workers contributes to the program's effectiveness. With good coordination, Posbindu PTM can operate in a more structured and optimal manner (Fatimah, Wulandari, & Damayanti, 2023).

3. Program Implementation management of Posbindu PTM

The community health center (Puskesmas) promotes the Non-Communicable Disease (PTM) Posbindu program through activities such as Village Community Socialization (SMD) and Mini Workshops (Lokmin) at the village and sub-district levels. This socialization is conducted by the Head of the Puskesmas, doctors, and program coordinators to raise public awareness about the importance of early detection and prevention of non-communicable diseases. In its implementation, the Puskesmas collaborates with internal programs such as Posyandu and Elderly Care, without involving external parties. Information about Posbindu activities is usually conveyed through WhatsApp and public announcements, with community health volunteers (kader) serving as the main liaison. Previous research supports that the involvement of kader in

communication is effective in enhancing the dissemination of information to the community(Dewi.,Et.al, 2023).

The implementation of Posbindu PTM at Puskesmas Rawasari follows a five-table system, consisting of registration, interviews, basic health examinations, result recording, and education by healthcare workers. However, field implementation has not been fully optimized, as certain steps, such as Body Mass Index (BMI) calculation, are often not performed. Ideally, Posbindu operations should adhere to the 2019 Ministry of Health guidelines, which include participant data entry, risk factor interviews, physical measurements, medical examinations, as well as education and follow-up. Unfortunately, limitations in human resources and facilities prevent full compliance with the established standard operating procedures.

Additionally, community participation in Posbindu activities remains low and has not reached the target of 50 participants per month. The majority of attendees are aged 30-50 years, while participation from the adolescent group is minimal. To increase visit numbers, the Puskesmas has implemented a screening strategy at healthcare facilities. Previous studies have also indicated that the low attendance rate at Posbindu is influenced by various factors, including limited facilities and the impact of the COVID-19 pandemic, which has hindered the achievement of service targets (Natapradja, Et.,al, 2022).

4. Program Supervision management of Posbindu PTM

The recording and reporting system of Posbindu PTM at Puskesmas Rawasari has been running fairly well but is not yet optimal. Recording is done manually by Posbindu cadres and reported to the Puskesmas using a special form. The data is then entered by Puskesmas staff into the Sehat Indonesiaku (ASIK) application and submitted to the City Health Office. Although cadres have received training on using the ASIK application, they still experience difficulties in operating it, making digital recording entirely dependent on Puskesmas staff. Observations indicate that manual recording remains the primary method due to the cadres' technical limitations in using digital applications.

Although Posbindu activity reports can be submitted online through the PTM Information System or via a free SMS service, many cadres still rely on offline recording methods. This aligns with previous research, which indicates that training challenges and a lack of intensive mentoring have hindered the optimal implementation of digital recording(. Additionally, in the implementation of Posbindu PTM in this area, participants do not have a Health Monitoring Booklet or a Kartu Menuju Sehat (KMS).

As a result, participant health monitoring is only conducted through regular records kept by cadres and program coordinators. The absence of a Health Monitoring Card (KMS) makes the health monitoring process less structured and may hinder the smooth reporting and periodic evaluation of participants' health. Strategies to address this issue include more in-depth training for cadres in using the ASIK application and regular technical assistance. Additionally, providing a Non-Communicable Disease (PTM) Risk Factor Monitoring Book for participants can help them track their health conditions regularly. This way, they can better understand the health risks they face and take the necessary steps to maintain their well-being.

6. CONCLUSION

Based on research findings on the management of the Posbindu PTM program in the working area of Puskesmas Rawasari, several conclusions can be drawn regarding its implementation and management. From the planning aspect, the program still faces several challenges, particularly in terms of human resources, as each Posbindu has only two cadres, which is below the required standard. Additionally, facilities and infrastructure remain inadequate, including the lack of a permanent location, Health Monitoring Cards (KMS), and safety boxes. In terms of funding, the program is supported by the Health Operational Cost (BOK), which is considered sufficient to support activities such as the provision of facilities and infrastructure, cadre training, and operational costs, including cadre transportation.

In the organizational aspect, the division of tasks and responsibilities between the Posbindu PTM Program Coordinator and healthcare workers aligns with their respective roles and functions. However, due to the limited number of cadres, the implementation of Posbindu PTM is still assisted by healthcare workers. Regarding execution, communication and coordination have been carried out through socialization and promotion activities such as SMD (Village Community Socialization) and Lokmin (Mini Workshops) at the sub-district and district levels. The Posbindu PTM implementation system follows the five-table or staged system, but it has not yet fully adhered to the established standards.

Additionally, community participation in visiting Posbindu PTM has not yet reached the expected target. In terms of supervision, the recording and reporting of the Posbindu PTM program have been carried out properly and in accordance with the recording system outlined in the Ministry of Health’s 2019 guidelines. However, several challenges in planning and implementation still need to be addressed to optimize the program and maximize its impact on public health.

7. LIMITATION

Information regarding the budget is difficult to obtain through document review due to its sensitive nature. Therefore, budget-related data can only be gathered through interviews with relevant informants. The information obtained from supporting informants is not very detailed, resulting in data that only covers certain aspects. The implementation of Posbindu activities, which are conducted only once a month, extends the research process. If Posbindu is not conducted in the month when the researcher plans to observe, they must wait for the next scheduled session to conduct direct observations during the activity.

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