

Supporting Sustainable Development Goals through Community Service at Posbindu PTM for Non-Communicable Diseases in Kecamatan Bogor Timur

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ARTICLE INFO

Keywords: Non-Communicable Diseases (NCDs), Sustainable Development Goals (SDGs), Posbindu PTM (Integrated Post for Non-Communicable Diseases)

Received : 20, May

Revised : 22, June

Accepted: 24, July

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ABSTRACT

Non-communicable diseases (NCDs), including heart disease, stroke, cancer, diabetes, and chronic lung disease, are collectively responsible for the majority of deaths worldwide. To reduce the mortality rate caused by NCDs, the United Nations set goal 3 of the Sustainable Development Goals (SDGs): to ensure healthy lives and promote well-being for all at all ages. To support this goal, community services of IBI Kwik Kian Gie have participated in the Posbindu PTM program in RW 06, Kelurahan Katulampa, Kecamatan Bogor Timur. This activity was held in June, July, and August 2023. Based on the evaluation of the Posbindu PTM program, it can be concluded that Posbindu PTM in RW 06, Kelurahan Katulampa, Kecamatan Bogor Timur, should be continued with some evaluations and improvements for future programs.

INTRODUCTION

Changes in the type of disease burden have occurred over the last three decades, shifting from infectious diseases to non-communicable diseases (NCDs). Every year, 41 million people die from NCDs, which is approximately 74 percent of all deaths worldwide. Of this number, 17 million people die before the age of 70 due to NCDs, and 86% of these premature deaths occur in low- and middle-income countries. There are four types of NCDs that contribute to around 80 percent of these deaths: cardiovascular disease, cancer, chronic respiratory disease, and diabetes (World Health Organization, 2023). Cardiovascular disease is the leading cause of death among NCDs, accounting for approximately 17.9 million deaths each year, followed by cancer (9.3 million deaths), chronic respiratory diseases (4.1 million deaths), and diabetes (2 million deaths, including those from chronic kidney disease due to diabetes).

Due to the high death rate from NCDs, the United Nations (UN) has set a goal of reducing NCD-related deaths as part of the 17 Sustainable Development Goals (SDGs). Specifically, goal 3 aims to ensure healthy lives and promote well-being for all ages. Within this goal, target 3.4 explicitly focuses on reducing the death rate from NCDs and mental health issues. The UN aims to reduce premature deaths from NCDs by one third by 2030 through prevention, treatment, and promoting healthy lifestyles. In the Indonesian context, NCDs have also become a national health problem, with a tendency to increase across all age groups. In Indonesia, there has been a shift in disease patterns, now dominated by NCDs. While previously more common in older people, NCDs are increasingly prevalent in the 10-14 year age group, with stroke, heart disease, and diabetes being the most common diseases.

For the elderly, health problems are generally chronic degenerative diseases. According to the 2018 Riskesdas data, elderly people tend to experience NCDs such as hypertension, nutritional problems, joint diseases, diabetes mellitus, heart disease, and stroke. Data shows that 16.4% of elderly people are underweight and 25.1% are overweight. Additionally, mental and emotional disorders, including dementia (12.8%) and depression (7.7%), are significant concerns for the elderly. Based on these trends, the Indonesian government, aligning with the global goals (SDGs), aims to reduce premature deaths from NCDs by one third by 2030 through prevention and treatment, as well as improving mental health and well-being. One strategy to achieve this goal is by activating Integrated Development Posts (Posbindu) and Integrated Service Posts (Posyandu) at the neighborhood level (RT/RW). These activities are coordinated by the Ministry of Health, involving hospitals and Community Health Centers (Puskesmas). The Kwik Kian Gie Institute of Business and Informatics (IBI KKG) acts as a facilitator for organizing these activities in RW 06, Baranangsiang Indah, East Bogor District, West Java.

Studies on Posyandu for the elderly and Posbindu PTM published in journals and internal university reports categorize reports into three types: implementation reports, establishment process reports, and effectiveness reports.

Firstly, implementation reports, such as those by Huriah et al. (2016), Iskandar Muda Banda Aceh Health Care Academy Lecturer Team (2017), Astiarini & Kristian (2019), Rahmuniyati & Yuningrum (2020), and Firmasyah et al. (2021), show that Posbindu activities are generally conducted at the RW level and in public places like markets and universities. These activities identify common diseases among the elderly and map treatment types. For example, Firmasyah et al. (2021) found that many people had not been screened through Posbindu activities and highlighted the need for more outreach to attract people for early NCD detection.

Secondly, reports on the establishment process of Posbindu, such as those by Soelton et al. (2020), Dinengsih & Argarini (2020), Warijan & Wahyudi (2020), Sulistyaningsih & Listyaningrum (2020), and Nurhidayati et al. (2021), indicate that universities play a pioneering role in initiating Posbindu activities in areas without previous Posbindu activities. Universities provide motivation, socialization, training, and support for establishing Posbindu, as seen in the efforts in Nagarapadang village, Pulogadung, East Jakarta, Aisyiyah Ranting Ambarketawang, and Dusun Gunung Cilik.

Finally, the third category consists of evaluation reports assessing the effectiveness of ongoing Posbindu activities. Examples include the evaluation of Posbindu implementation in various areas such as the Cilongok 1 Community Health Center Working Area (Purdiyani, 2016), the UPT Mataraman Community Health Center Working Area (Iskandar et al., 2018), Sukolilo I Community Health Center (Suhbah et al., 2019), Uwie Village in the Muara Aya Health Center Working Area (Anggraeni & Fauziah, 2020), and Pesisir Barat Regency (Susilawati et al., 2021). The findings from these reports are relatively varied because each report uses different effectiveness indicators.

IMPLEMENTATION AND METHODS

Integrated Posyandu for the Elderly and Posbindu activities have been established for years in RW 06, Baranangsiang Indah, Katulampa Village, East Bogor District, but were halted for about two years during the pandemic. Recently, a Posbindu management meeting decided to resume these activities monthly starting in June 2023, with the involvement of the proposers. An evaluation of previous Posbindu activities highlighted the need for additional cadres. Consequently, the Posbindu RW 06 management reached out to the Kwik Kian Gie Institute of Business and Informatics (IBI KKG), seeking their involvement in the activities. The proposers agreed to participate and support the recruitment and training of new cadres, ensuring sufficient personnel for effective implementation.

The problem-solving process for this community service initiative includes three key components. Firstly, it involves assessing the needs and awareness of residents regarding health conditions related to non-communicable diseases (NCDs). Secondly, it addresses the requirement for additional cadres to assist with the monthly activities of the Posyandu for the Elderly and Integrated Posbindu. Lastly, the initiative includes collaboration with the East Bogor Community Health Center, whose team regularly participates in Posbindu activities by conducting health checks such as blood sugar, cholesterol, and uric acid levels. These components work together to ensure the successful execution of Posbindu activities in RW 06, Baranangsiang Indah Housing, Bogor.

RESULTS AND DISCUSSION

Activities

The activities of the Integrated Elderly Posyandu and Posbindu PTM for the Even Semester 2022/2023 ran according to the scheduled plan, namely in June, July, and August 2023. These activities took place from 08:00 to 11:00 at the RW 06 Multipurpose Building, Baranangsiang Indah, East Bogor. The monthly recapitulation, number of cadres, and participants present are summarized in Table 1. From Table 1, it can be seen that the average number of cadres attending each month was relatively constant. The highest attendance of cadres was on Saturday, June 17, 2023, with 13 people present. In terms of participant numbers, there was more fluctuation. The average number of participants was 26 people per month. The highest number of participants attended on Saturday, June 17, 2023, with 30 people, while the lowest attendance was on Saturday, July 15, 2023, with 24 people.

Table 1: Monthly Recapitulation of Cadres and Participants in Posyandu Activities for the Elderly and Integrated Posbindu, RW 06, Baranangsiang Indah Housing, Katulampa Village, East Bogor District, Bogor City: Session 2 (June, July, and August 2023)

No	Day, Date	Total Cadres	Total Participants
1	Saturday, 17 June 2023	13	30
2	Saturday, 15 July 2023	9	24
3	Saturday, 12 August 2023	8	26

Source: Recapitulation by Proposer

The series of activities for the Integrated Posyandu for the Elderly and Posbindu PTM were carried out according to the scheduled plan for the Even Semester 2022/2023, which took place in June, July, and August 2023. These activities were conducted from 08:00 to 11:00 at the RW 06 Multipurpose Building, Baranangsiang Indah, East Bogor. The monthly recapitulation of the number of cadres and participants present is summarized in Table 1. As shown in Table 1, the average number of cadres attending each month remained relatively constant, with the highest attendance of 13 cadres on Saturday, June 17, 2023. Regarding participants, the number fluctuated monthly, with an average attendance of 26 participants. The highest number of participants was 30 on Saturday, June 17, 2023, while the lowest was 24 on Saturday, July 15, 2023.



Figure.1 Documentation of Posbindu Implementation in June, July, and August 2023

Evaluation of the Implementation of Duties and Roles of the Parties

Based on Table 2: Distribution of Tasks and Roles in the Technical Implementation of Integrated Posyandu for the Elderly and Posbindu PTM at the Village/District Level (Kementrian Kesehatan RI, 2021), the following is an evaluation of the implementation:

1. Provision of facilities and infrastructure, as well as the availability of examination sticks/reagents, was carried out independently by RW 06, Baranangsiang Indah Housing Complex.
2. Elderly empowerment activities have not been conducted in RW 06, Baranangsiang Indah Housing. Activities on the day of the Integrated Posyandu for the Elderly and Posbindu PTM were limited to health checks. Recommended activities by the Ministry of Health, such as elderly exercise, were not conducted due to limited time and resources.

Evaluation of Integration Implementation Steps

Based on the Ministry of Health's technical instructions, as detailed in the Flowchart of Posyandu for the Elderly and Integrated Posbindu (Kementrian Kesehatan RI, 2021), the following is a comparison between technical instructions and actual implementation:

- a. Step 1: The Integrated Posyandu for the Elderly and Posbindu PTM activities in RW 06, Baranangsiang Indah Housing have not provided monitoring books for ages 15 years and over, nor health books for the elderly and pre-elderly. A health card exists, and health monitoring results are recorded on it, but the card is kept by the Posbindu organizer, with no similar archives for participants to take home.
- b. Step 2: Interviews/risk factor analysis (FR) are often not conducted due to limited time and cadres. Exercise/healthy walking and cognitive enhancement activities have also not been carried out.
- c. Step 3: Activities such as examining mental and cognitive status, assessing the elderly's level of independence, and evaluating fall risk have not been performed.
- d. Step 4: Cross-sector activities and elderly empowerment have not been implemented.
- e. Step 5: Recording activities have been regularly carried out at the East Bogor Community Health Center.

Evaluation of the Frequency and Implementation of Inspections in the Integrated Posyandu for the Elderly and Posbindu for PTM

Based on the Ministry of Health's technical instructions (Ministry of Health of the Republic of Indonesia, 2021), several activities have not been implemented at the Integrated Elderly Posyandu and PTM Posbindu in RW 06, Baranangsiang Indah Housing:

- a. Hearing screening every six months.
- b. Counseling sessions once a month.
- c. Joint sports activities, including elderly exercise at the Elderly Posyandu.
- d. Independence status checks and fall risk assessments every six months.
- e. Mental, emotional (including dementia), and cognitive status examinations every six months.
- f. Empowering the potential of the elderly, recreational activities, and developing hobbies once a month or as needed.
- g. Home visits once a month or as needed.

Improving the Implementation of Posbindu Enhancement of the Health Database for Integrated Elderly Posyandu and PTM Posyandu Participants

Based on the evaluation results of Abdimas activities for Session 1, Odd Semester 2022/2023, one essential component for improvement is the enhancement of the Posyandu Elderly and Posbindu PTM database system. Improvements to the database system began in June 2023. Figures 2 and 3 depict the database system's interface and functionalities.

By utilizing this database system, data storage becomes more structured, minimizing data loss and making information retrieval easier. This data includes registration, examination, and reporting processes (Figure 2).

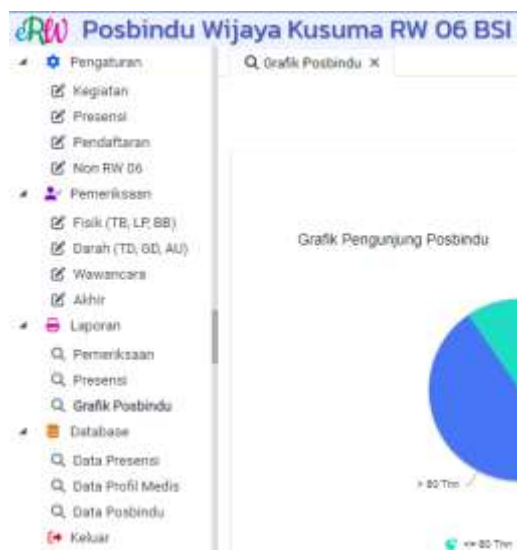


Figure.2 Database System Menu for Elderly Posyandu and Integrated Posyandu RW 06, Baranangsiang Indah, Bogor City, West Java

Additionally, the database facilitates easier visualization of data through graphs (Figure 3). For instance, the database system enables comparison of Posbindu visitors' numbers and BMI (Body Mass Index) examination results over time.

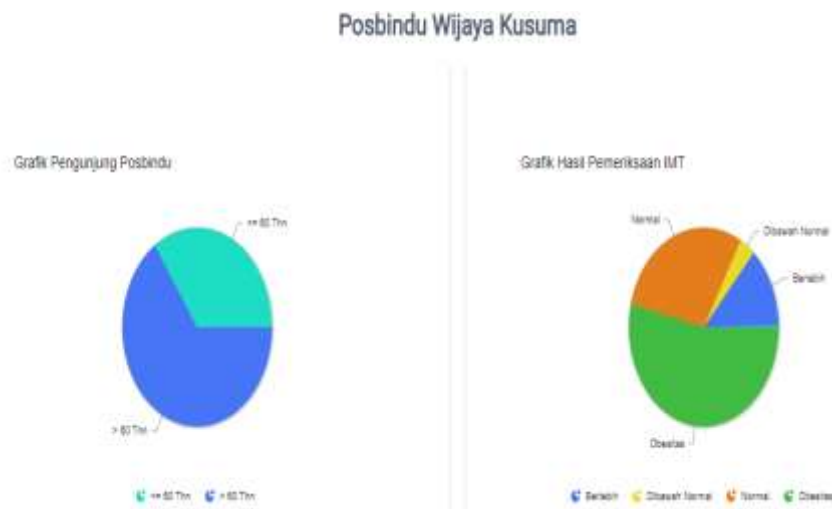


Figure.3 Example of Visual Graphs from the Database System for Elderly Posyandu and Integrated Posyandu RW 06, Baranangsiang Indah, Bogor City

CONCLUSIONS AND RECOMMENDATIONS

The activities of the Integrated Elderly Posyandu and PTM Posbindu in RW 06, Baranangsiang Indah Housing Complex have been running smoothly. During this reporting period, three activities were conducted at the same time and place, from 08:00 until finish, at the RW 06 Multipurpose Building, Baranangsiang Indah Housing Complex. The number of cadres attending was relatively fixed, with the cadre coordinator rotating each month for each RT. The number of participants fluctuated monthly, and one officer from the Community Health Center was routinely present. The response from participants was positive, although the attendees were mostly the same individuals.

More extensive outreach is needed to increase the number of participants in the Integrated Posyandu for the Elderly and Posbindu PTM activities in RW 06, Baranangsiang Indah Housing, especially those aged 15 years and over, and the pre-elderly. Future activities should include those not yet implemented according to the Ministry of Health's technical instructions for Integrated Elderly Posyandu and PTM Posbindu activities. Additionally, there is a need for more structured health data storage, both digital and integrated, as regulated by the Ministry of Health's technical instructions. Regular and structured monitoring and evaluation activities should also be implemented.

ACKNOWLEDGMENT

The author would like to thank RW 06, Baranangsiang Indah, East Bogor, the Posbindu cadre team, and the East Bogor Community Health Center for their collaboration in carrying out this activity since 2022.

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