IMPLEMENTATION ANALYSIS OF THE TUBERCULOSIS CONTROL PROGRAM BASED ON MINISTER OF HEALTH REGULATION NUMBER 67 OF 2016 AT BANDARHARJO HEALTHCARE

***Srigita Prabawati[1], Bambang Wahyono[1]**

[1]Universitas Negeri Semarang

*gitaprabawati1@gmail.com[1], bambangbw@mail.unnes.ac.id[2]

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ABSTRACT

The working area Bandarharjo Health Center identified sac of tuberculosis.The healing tuberculosis or the cure rate in 2021 30% is still below a target 60%. The purpose of the study was to evaluate the suitability of the implementation of the P2PTB program at the Bandarharjo Health Center based on the Regulation of the Minister of Health Number 67 the year of 2016. This type of research is qualitative. The technique of taking informants by purposive sampling. The number of samples in the study were 14 informants. Instruments used were interview guides, observations and documentation. Data are analyzed and presented in narrative form. Research results show that health promotion Bandarharjo Healthcare communication media used not enough, surveillance; risk factors, the discovery and handling conducted in accordance substandard contrivance cases through passive conferring. Number active gasurkes and tuberculosis cadres limited, utilization of funds BOK not optimal, TCM made diagnosis enforcement. Writing and reporting delayed by network and mastery health workers application. Cooperation with MSI give good impact, and network with DPM or clinic not consistent. Development through SEMARMADUMANIS increase program performance. Supervision, monitoring, and evaluation through *Mini Cohort Analytic* (MICA). Advice that will be given is to improve the provision of therapy to prevent tuberculosis, the discovery efforts actively tuberculosis cases, improve the ability of health workers and cadres through training. And provision of rewards for cadres.

Keyword: Tuberculosis Control Program, Implementation of P2PTB Program, P2PTB at Puskesmas

BACKGROUND

A bacillus-shaped bacterium called Mycobacterium tuberculosis is the infectious illness that causes tuberculosis transmission of this illness into the nose, saliva, and sputum of tuberculosis patients through the air. Healthy individuals inhale saliva droplets that fly through the air, enter their noses, and travel to their lungs where they can develop pulmonary tuberculosis (Rosalia, 2018). According to the WHO Global TB Report from 2020, 10 million individuals worldwide have tuberculosis (TB), which results in 1.2 million deaths annually. With an estimated 845,000 tuberculosis patients and a mortality rate of 98,000, or the equivalent of 11 fatalities every hour, Indonesia is one of the nations with the highest burden of the disease in the world. There may have been as many as 283,000 tuberculosis patients who had not received treatment and were at risk of spreading the disease to people around them because only 67% of these cases were discovered and treated. The leading infectious agent and one of the top ten causes of death in Indonesia alone is tuberculosis (WHO Global TB Report, 2020).

Regionally, the The Dadapsari Village section of the North Semarang District is home to the Bandarharjo Health Center. One of the outpatient medical facilities in the North Semarang District is the Bandarharjo Health Center's section. Bandarharjo Sub-district, Dadapsari Sub-District, Kuningan Sub-District, and Tanjung Mas Sub-District are its four operational sub-districts. Cumi and Kuningan Support Health Centers, as well as one Tambak Lorok Health Post, are the two supporting health centers that the Bandarharjo Health Center has (Bandarharjo Health Center Profile Book, 2020). The Bandarharjo Health Center's (BHC) tuberculosis cure rate (CR) has decreased to 30% in 2021, which is still below the target of 60%. In the previous five years, the highest CR was 63%, which was achieved in 2019 with a target of 60%, and the lowest was 13%, which was achieved in 2017 with a target of 54%. In 2020, the Bandarharjo Health Center's tuberculosis patients had a success rate (SR) of 70%, falling short of the 80% national target. Four

cases of MDR tuberculosis (TB) have been reported at the Bandarharjo Health Center in 2021, an increase from the previous year.

A pocket of tuberculosis was found in the Bandarharjo Health Center's working area. An area with a high risk of contracting tuberculosis is the tuberculosis sac area (Handayani, 2021). Socioeconomic conditions are typically bad in the Pantura area. The population in the Bandarharjo Health Center's operational region has a big territory and a comparatively high population density. Kelurahan Tanjungmas has the highest population density (9,419 people/km2). The population growth rate affects the likelihood of issues with a large population. It becomes very difficult to provide everyone's demands for food, clothing, housing, education, health, and other necessities when the population is vast and the growth rate is significant (Bandarharjo Health Center Profile Book, 2020). All health initiatives aimed at protecting public health, lowering morbidity, disability, or death, stopping transmission, preventing drug resistance, and lessening the negative effects of tuberculosis are considered to be part of the fight against the disease. Tuberculosis prevention encompasses these initiatives without neglecting curative and rehabilitative aspects. All relevant stakeholders, including the government, the corporate sector, and the community, are involved in the prevention of tuberculosis in an integrated, all-encompassing, and sustainable manner. A nationwide program called "Tuberculosis Control" must be conducted in all "Health Service Facilities", which include clinics, hospitals, and other medical facilities as well as private practitioners.

The Case Detection Rate (CDR) treated for all tuberculosis cases, the Case Notification Rate (CNR) treated for all tuberculosis cases per 100,000 people, the success rate of treatment for tuberculosis patients overall, the coverage of drug-resistant cases, and the treatment success rate of drug-resistant tuberculosis patients are the main indicators used to measure the progress or success of the Tuberculosis Control Program percent of TB patients who are aware of their HIV status. George C. Edwards III asserts that there are four key factors that must be considered in order to successfully implement policies. The four factors are bureaucratic structure, resources, disposition, and communication (Yalia, 2018). In this regard, the Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016 dated 22 December 2016 concerning Tuberculosis Control was issued by the Minister of Health of the Republic of Indonesia in his capacity as the health policy holder who oversees governmental affairs in the health sector. The Republic of Indonesia's Minister of Health plays a crucial guiding role in the implementation of tuberculosis control programs in public health institutions, particularly in Public health center. The Public health center, as an institution conducting the tuberculosis control program, needs to be monitored and evaluated to see if the program is being carried out in compliance with the standards established by the government. Therefore, in accordance with Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016 concerning tuberculosis control, which entails tuberculosis control activities, resources, information systems, coordination, networking, and partnerships, community participation, research and development, as well as coaching and supervision, researchers will examine the implementation of the tuberculosis control program at the Bandarharjo Health Center.

METHOD

The type of research that will be conducted is qualitative method with descriptive design. The qualitative method is a method by emphasizing the search for meaning by presenting data in the form of a description (Shidiq and Choiri, 2019). This qualitative research method examines to explore the situation of meaning under study which aims to find out information in-depth interview. Data collection techniques carried out in this study were using observation techniques and in-depth interviews. This study uses a *purposive sampling technique* to determine who will be the resource persons. There are two interviews to be conducted in this study, namely interviews during the preliminary study and interviews during the research. Interviews during the preliminary study used an unstructured interview type. Unstructured interviews are free interviews without binding interview guidelines (Shidiq and Choiri, 2019). The unstructured interview at the time of this preliminary study aims to outline the state of implementation of the tuberculosis control program at the Bandarharjo Health Center. Then for interviews at the time of the study, namely using the type of semi-structured research. Semi-structured interviews are interviews that at the time of implementation use interview guidelines developed from Regulation of the Minister of Health Number 67 of 2016 but are not bound and are more free to explore information. During the semi-structured interview, the researcher will listen and record what information the informants get regarding the implementation of the tuberculosis control program (Shidiq and Choiri, 2019).

The data sources used in this research are primary and secondary data sources The data sources accepted by public health office with research license. Primary sources that will be obtained are the results of in-depth interviews with sources including the Head of Heath Center, P2PTB Program Holders at the Health Center, Health Surveillance Officer (gasurkes), Laboratory Officers, and triangulation informants namely P2PTB Program Holders at the Semarang City Health Office, tuberculosis cadres, patients and PMO about the discussion of this research, namely the implementation analysis of the tuberculosis control program based on the Minister of Health Regulation number 67 of 2016 in the working area of the Bandarharjo Health Center Semarang City. Secondary data taken for this research are documents related to the research topic including WHO, the Indonesian Ministry of Health, Central Java health profile, Semarang City health profile, Bandarharjo Health Center health profile, tuberculosis case finding data, tuberculosis treatment data at Bandarharjo Health Center, and previous research related to this research topic. The data analysis carried out includes data collection, data reduction, data presentation, and drawing conclusions.

RESULT AND DISCUSSION

The research results were obtained through in-depth interviews with key informants, and triangulated informants. The main informants used in this study were 4 people including the Head of Heath Center, P2PTB Program Holders at the Health Center, Health Surveillance Officer (gasurkes), and Laboratory Officers. The triangulation informants used in this study were 10 people, including P2PTB Program Holders at the Semarang City Health Office, 3 tuberculosis cadres, 3 tuberculosis patients, and 3 tuberculosis PMO in the working area of Bandarharjo Health Center. The following are the characteristics of the informants in this study:

Table 1Characteristics of Main Informants

No	Informant Name	Age	Origin	Last education	Functional
1	SP	56	Bali	S2	Head of Health Center
2	ISN	27	Semarang	S1 Nursing	P2PTB Program Holders at the Health Center
3	SU	30	Magelang	S1	Health Surveillance Officer
4	CDS	26	Semarang	D3	Laboratory Officers

Table 2Characteristics of Cadre Informants

No	Informant Name	Age	Origin	Last Education
1	S	61	Semarang	Junior High School
2	R	59	Semarang	Senior High School
3	ES	50	Semarang	Junior High School

Table 3Characteristics of Patient and PMO Informants

No	Informant Name	Age	Origin	Last Education
1	A	46	Semarang	Junior High School
2	B	60	Solo	Elementary School
3	C	54	Semarang	No School
4	D	19	Semarang	Senior High School
5	E	34	Semarang	Senior High School
6	F	28	Klaten	Vacational High School

Table 4Characteristics of P2PTB Program Holders at the Semarang City Health Office

No	Informant Name	Age	Origin	Last Education
1	MS	52	Jepara	S2 (Master Degree) Epidemiology

Providing education through an interpersonal approach with tuberculosis patients and presenting patient family members as Medication Supervisors (in Indonesia named *Pengawas Minum Obat*/ PMO) with direct verbal communication are two ways that public health center promotes health in relation to tuberculosis. Together with other public health center field activities, such as Mosquito Larvae Eradication (in Indonesia named *Pemberantasan Jentik Nyamuk*/ PJN) activities carried out by health surveillance officers, health promoters, and epidemiologists with assistance from regional cadres, health promotion related to tuberculosis with a focus on the community is carried out. Collaboration was also done on events like PKK[1], FKK[2], and Hamlet/ RW and Neighbourhood/ RT meetings, which were organized in each sub-district for socializing about tuberculosis.

Every morning at the public health center, health promotion officers conduct routine outreach activities with guests with a daily-changing topic. IEC (Information, Communication, and Education) media, including powerpoints, leaflets, and posters displayed at public health center, verbal media, as well as social media with a specialized team of health promoters via Instagram and formed a whatsapp group consisting of cadres for tuberculosis dissemination, are used for communication.

The use of Triangulation 1 Informants to provide repeated socialization at each change of old staff to new officers to ensure that they had an equal and adequate understanding of the management of the P2PTB Program at the public health center as well as related to the absence of their staff during HR development activities related to the tuberculosis control program were the main obstacles to socialization's implementation. Another issue was the communication channels used during the socialization.

The Bandarharjo Health Center uses social media as a platform for health promotion, which is carried out via Instagram with the target community regularly exercising by a specific team of health promoters. The "INSAN SABAR" program, which provides Saturday and Wednesday health information at the Bandarharjo Health Center in the form of posters with health information posted every Saturday and Wednesday with various themes, one of which is related to cough ethics and tuberculosis, carries out health promotion on social media. The Bandarharjo Health Center offers a "BOLANG-BALING" program called *mBolange public health center BAndarharjo kanggo penyuluhan keliLING*, which is a mobile activity for health education that is subsequently shared on the Bandarharjo Health Center's social media.

In a method that enables users to not only use but also create and share health-related information, social media offers a medium to strengthen and promote strategic health communication and effective data dissemination. The use of social media for advocacy and communication in the promotion of health offers exciting new opportunities for improved efficiency and reach, as well as the potential to reduce communication costs. This efficiency presents a chance to decrease spending while broadening the scope of health promotion initiatives. While using social media to promote health has been somewhat successful in changing people's health behaviors, there are still issues that need to be resolved when using social media, such as handling user privacy and disinformation. For those who already use social media, it is relatively simple to see the use of social media as a universal communication channel, but for some segments of the population, such as the elderly, the physically and cognitively disabled, and those with low digital health literacy, social media is unlikely to be an effective option (Stellefson et al., 2020).

The Tuberculosis Information System named Sistem Informasi Tuberkulosis (SITB) application receives the data gathered from screening activities, finding suspects, and finding cases. Tuberculosis surveillance operations are carried out by screening activities, suspect discovery, suspect search efforts, and case search efforts. Case investigation and contact investigation activities are used to conduct screening activities for data monitoring. Continuous screening is done to check on the status of cases of tuberculosis that are being kept track of. The community's lack of openness and understanding, as well as the difficulties in extracting sputum, are the main barriers. This can make it difficult to conduct active tuberculosis monitoring efforts.

The passive case finding approach, in which patients visited the public health center to assess their own level of self-awareness, predominated in case finding. As a result, the number of positive AFB cases in the public health center working area remains high because there are still many cases that have not been found; therefore, it is

[1] A program at village level to educate women on various aspects of family welfare

[2] In addition to monitoring the assessment of health development at the sub-district level, it serves as a venue for community involvement in planning, developing, coordinating, and activating activities.

necessary to screen for tuberculosis in the public health center working area more intensively using the active case finding method, which is a method of capturing tuberculosis sufferers who have not been netted by health services through contact tracing (screening around the environment where tuberculosis.

TB risk factors being managed P2PTB program holders at public health center provide special emphasis on educating tuberculosis patients on how to manage their condition, engaging the community in outreach regarding the value of the behavior of clean and healthy life (PHBS), maintaining environmental health, and nutrition for enhancing endurance. By screening, performing contact and case investigations, educating patients and the general public about health issues, and conducting case and contact investigations, health surveillance officers and tuberculosis cadres manage risk factors. The lack of understanding among tuberculosis patients to constantly wear masks, smoking habits, and geographic conditions of residence in densely populated and slum regions are barriers to the implementation of tuberculosis risk factor control at the public health center.

The Bandarharjo Health Center's tuberculosis infections were discovered through passive and active searches both inside and outside of the building. Cases of tuberculosis are passively detected, specifically from patients who checked in person at the public health center and were thought to have the disease. Finding active tuberculosis cases, which includes reports from field-based health surveillance personnel, clinics, or independently practicing physicians in the public health center' operational region. Procedures for using door-to-door and contact investigations to screen for tuberculosis cases in communities with tuberculosis patients. If a patient is suspected of having tuberculosis during screening, health surveillance officials and tuberculosis cadres will offer them sputum pots. A suspected tuberculosis patient's sputum will be collected by health surveillance officials and tuberculosis cadres if they are unable to go straight to the public health center. Finding cases of tuberculosis is difficult because of the disease's negative reputation in the community, which makes people feel ashamed to perform a sputum test if they have a cough.

The Bandarharjo Health Center's staff diagnoses tuberculosis cases by doing a sputum examination on individuals who are suspected of having the disease and using the Molecular Rapid Test.

The public health center staff will provide anti-tuberculosis medications in accordance with the illness category indicated in the Minister of Health of the Republic of Indonesia Number 67 of 2016 if the findings of the sputum examination indicate a positive result for tuberculosis. Patients with tuberculosis are given a treatment card and must consistently ingest anti-tuberculosis medications for six months of treatment until they are deemed done. In order to ensure that patients routinely take their medication and visit the public health center, tuberculosis officers at the public health center work with the PMO to supervise the taking of medication from family members of tuberculosis patients. Priority is given to the patient's own family members when appointing PMO for tuberculosis patients due to the limited number of health professionals and cadres who can do this. As a result, these program holders and cadres are only able to monitor patients through PMO (Adyaningrum et al., 2019). PMO and public health center officers communicate using short message services to coordinate their efforts. Patient concerns about the side effects of anti-tuberculosis medications constitute a barrier to treating tuberculosis cases. Delivering immunity through the administration of the Bacille Calmette-Guerin (BCG) vaccine. To prevent tuberculosis, newborns between the ages of 0 and 2 months receive the BCG vaccine. According to the P2PTB program coordinator of the Semarang City Health Office, Semarang City's Universal Child Immunization (UCI), which includes the BCG vaccination, has met its goal. UCI is a requirement for completing all newborns' basic immunizations (children under 1 year of age). If the quality of immunization services is provided in accordance with standards, immunization programs can operate well and have an impact on reducing illness occurrence. The operational method for reaching high and even coverage may be seen from the achievement of UCI in villages or sub-districts, according to data from the 2021 Semarang City Health Profile. The total number of villages or sub-districts in Semarang City that have met the UCI's complete immunization coverage goal of 90% in 2021 is 177 sub-districts (100%) (Semarang City Health Office, 2021).

The prevalence of tuberculosis must be decreased by raising awareness among parents of the significance of taking precautions to shield their kids from contracting the bacteria that cause tuberculosis by administering the BCG vaccine promptly and in accordance with the recommended age for vaccination protection. because there is a strong correlation between the BCG vaccine's delivery and the prevalence of pediatric tuberculosis in Indonesia. Children who are up to date on their BCG vaccinations have a lower risk of contracting tuberculosis (Anindya & Ekaputri, 2022). In adult contacts with tuberculosis, administration of the BCG vaccine is linked to a decreased prevalence of latent TB

infection (LTBI). According to these findings, the BCG vaccine can offer protection against tuberculosis infection. This has ramifications for global efforts to combat tuberculosis, produce vaccines, and implement immunization programs (Katelaris et al., 2020).

Toddlers who come into contact with tuberculosis patients but who have not yet been diagnosed with the disease are given preventative medications, as are HIV-positive individuals who do not have any known contraindications to INH and who are PLWHA. There are still challenges in its execution at the Bandarharjo Health Center, chief among them the patient's family's opposition. This concurs with information from the P2PTB Program Holder at the Semarang City Health Office that the number of Tuberculosis Preventive Therapy (TPT) administration has not reached the target, namely only 9% of the 55% necessary because there are barriers to rejection from the patient's family and those concerned because the patient feels healthy and administration of tuberculosis prevention drugs takes a long time. According to information from the Performance Report of the Directorate General of Disease Prevention and Control (P2P) of the Republic of Indonesia Ministry of Health in 2021, TPT coverage for PLWHA was achieved to the tune of 5% of the national target of 40%, while household contacts of young children were reached to the tune of 3.6% of the target of 29% Indonesia Health Minister, 2021). It is advised that the HIV program and the tuberculosis program work together to promote the adoption of TPT, even if the supply of TPT can alleviate the growing burden of tuberculosis infection in people living with HIV (G. Caturegli et al., 2020)

The P2PTB Program was implemented at the Bandarharjo Health Center by a doctor, a nurse who served as the program manager, a health surveillance officer, three lab technicians, three pharmacists, two health educators, and an epidemiologist. According to Minister of Health of the Republic of Indonesia Number 67 of 2016, the minimum criteria for trained staff consists of 1 doctor, 1 nurse or tuberculosis officer, and 1 laboratory worker. This is the case for the P2PTB Program at the Bandarharjo Health Center. Only five individuals actively participated in tuberculosis screening in the neighborhood despite collaboration between the P2PTB program holders at the public health center and tuberculosis cadres in each sub-district. According to information from Health Surveillance Officers (in Indonesia name *Petugas Surveilans Kesehatan*/ Gasurkes), it is known that there are not enough gasurkes. In addition, starting in 2022, the number of gasurkes will be reduced and replaced by existing officers, with sanitarians currently serving as the primary role of gasurkes. The execution of tuberculosis case discovery was less than ideal due to a lack of gasurkes, numerous workloads, broad locations, and a lack of active tuberculosis cadres. According to study by Pratama et al. (2019), who claim that a lack of officers and a ton of work make it difficult to actively carry out case discovery and program implementation, these factors are not ideal (Pratama, Muchti Y *et all*, 2019).

The Central Java Province City Health Office supplies the anti-tuberculosis medications requirements, which are then delivered to the City Health Office in accordance with each health center's requirements. Depending on the number of TB cases discovered, anti-tuberculosis medications distribution for each health center is done upon request to the City Health Office. The Semarang City Pharmacy Installation provides drug stock to the Bandarharjo Health Center. At the Bandarharjo Health Center, anti-tuberculosis medications are offered in sufficient numbers and varieties to meet patients' demands. The Triangulation 2 and Triangulation 3 informants said that they came to the Public health center once a week to obtain medications, were immediately served by program holders for TB treatment, never experienced long waits for TB examinations, and always had access to anti-tuberculosis medications. The implementation efforts carried out by Bandarharjo Health Center staff adhere to Permenkes RI Number 67 of 2016's tuberculosis prevention guidelines. Computers, forms for recording and reporting tuberculosis patients fully at the public health center, and tuberculosis control manuals are all part of the ARI Poly and DOTS Units. The Purwoyoso Health Center lab is supported by the availability of Molecular Rapid Test (MRT) tools as laboratory examination media for tuberculosis patients, which are distributed from the City Health Office. The lab at the Purwoyoso Health Center already has a microscope that operates properly, reagents and sputum pots according to standards are available in sufficient quantities, and they are available in accordance with standards. The requirements for personal protective equipment (PPE) for laboratory personnel involved in tuberculosis examination have been met. According to research by Suarayasa et al. (2019), the tuberculosis preventive program used monies from the state budget to provide the diagnostic tools and medications needed to treat the disease. Provision is provided in response to the city health office's request *(*Suarayasa, Ketut et all, 2019).

The Regional Revenue and Expenditure Budget (APBD) funds, Health Operational Assistance (BOK) funds,

and deconcentration funds are used to distribute the monies available for the P2PTB Program at public health center. One of the funds used to assist service operations at Community Health Centers comes from the State Budget and is known as Health Operational Assistance (in Indonesia named *Bantuan Operasional Kesehatan/* BOK). Utilizing BOK in public health center allows for the operational implementation of public health initiatives aimed at promoting and preventing disease (UKM), including programs to control tuberculosis. This includes funding officer operations and transportation costs for tracking absentee tuberculosis cases and looking for tuberculosis contacts. Initiatives are prioritized in accordance with the amount of funding that is now available because tuberculosis prevention activities cannot yet be completely financed. The Mentari Sehat Indonesia Foundation (MSI) pays tuberculosis cadres for each pot of sputum collected and for each health outreach activity in the index case area rather than the health center for each suspicious finding, according to the cadres. While using BPJS Kesehatan, tuberculosis sufferers are not charged any fees each time they get a checkup or bring medication to the health center. The public health center has the lowest pulmonary treatment expenses while implementing the P2PTB program utilizing the DOTS approach, demonstrating that it is the most efficient health service for treating pulmonary tuberculosis (Ulya, F *et al*., 2018). A program's implementation, particularly the pulmonary tuberculosis control program, is aided by the availability of finances. The program implementation procedure will be effective and efficient if there are enough funds available (Aryani & Maryati, 2018).

Starting in 2022, Bandarharjo Health Center will have its own Molecular Rapid Test (MRT) tool to make it simpler to screen tuberculosis cases and make a diagnosis; no longer will sputum need to be brought to other medical facilities as was the practice in the past. Sputum samples are sent to the MRT Laboratory at the Bandarharjo Health Center from nearby medical facilities. According to the findings of laboratory staff interviews, there are challenges in using MRT tools, such as damage to one section of the tool that technicians from the Semarang City Health Office did not quickly repair, decreasing the tool's output. To detect Mycobacterium tuberculosis, which has genetic changes that make the bacteria resistant to treatments, particularly rifampicin, MRT is a new molecular-based technique. Large-scale studies' findings demonstrate that MRT inspection is more sensitive than microscopic testing at detecting tuberculosis (Amalia, 2018).

The public health center use the SEMAR BETUL application (*Semarang Berantas Tuberculosis*) for recording and reporting, while the SITB application contains information on treatment, cases, lab results, and drug stock levels from pharmacies. Implementation challenges included the inability to fill in real-time data as a result of resource limitations including power outages, application issues, and other activities of the public health center employees. A file application reporting system that hasn't been directly bridging is another barrier. Another barrier to adopting the Semar system is the issue with the provider, which still frequently has interruptions.

The P2PTB program administrator at the Semarang City Health Office disclosed that the Tuberculosis Information System (SITB) application was used for recording and reporting at the public health center, including case finding data, suspect finding, contact tracing, drug collection schedules, and laboratory request schedules. However, there are still challenges caused by some public health center officials' poor application skills. However, the frequency with which the public health center's TB officers input data into Semar Betul determines the data's accessibility. Obstacles to documenting and reporting tuberculosis cases to the SEMAR BETUL system include the public health center tuberculosis officers' lack of proficiency with the application. Staff members of health centers currently know 40% of the applications. The quality of effective tuberculosis officers will undoubtedly be related to thorough and accurate documentation and reporting (Maryani et al., 2020). Based on study by Setiawan et al. (2018), the manual medication recording information system was converted into a website-based programming utilizing the PHP programming language and the MS Windows operating system. Because patients are already classified by treatment date in both medication taking schedules and sputum re-examination schedules, it is simpler for officers to keep track of patient treatment schedules. Additionally, since the patient's cellphone number is already included in the database, sending messages to cops is simpler. (Setiawan et al., 2018).

According to Minister of Health of the Republic of Indonesia No. 67 of 2016, tuberculosis cases must be recorded and reported for clinics and Independent Practicing Doctors (*Dokter Praktik Mandiri*/ DPM) to the regional public health center. Suspected cases of tuberculosis must be reported to the Bandarharjo Health Center by clinics and DPM in the working area. There are still challenges at the Bandarharjo Health Center, including monthly reporting

delays from the clinic and DPM.

In cross-program partnerships, health center employees work with hospitals, the Semarang City Health Office, epidemiologists, gasurkes, sanitarians, health promoters, and other organizations. In order to conduct tuberculosis screenings, the Community Health Center works with cross-sectoral partners in the village and its subdistricts, such as the local Koramil, police, and religious authorities. Every six months, cross-sectoral meetings are organized to assess the effectiveness of the FKK and PKK in combating tuberculosis. Through operations to find suspects, help TB patients, and look for tuberculosis cases, the Public health center collaborates with the Mentari Sehat Indonesia Foundation (MSI) to support and guide tuberculosis cadres and oversee tuberculosis services. Globalfound is a non-profit organization that is the parent of MSI. The Mentari Sehat Indonesia Foundation works in the field of health to mobilize the local population in an effort to achieve self-sufficiency in combating infectious diseases like tuberculosis. For reporting tuberculosis patients, the public health center has a working network with clinics and DPM in the public health center' working region. It may be said that collaboration, networking, and partnerships are in line with Permenkes Number 67 of 2016 on the fight against tuberculosis. The number of cadres for tuberculosis to help with coordination hasn't been spread equally in each village, either. The network of clinics and DPM in the working area of the public health center then faces challenges since tuberculosis patients are not reported to the public health center, reporting is delayed, and reporting has not been consistent.

The Semarang City Health Office, hospitals, epidemiology officers, and P2PTB program holders at public health center work together across programs to implement the P2PTB program. Cross-sector collaboration with the industrial/company/workplace sector is not ideal because there are still many agencies that have not played a role in tuberculosis control. However, cross-sector collaboration with the sub-district heads, village heads, and religious leaders is carried out to get good support in tackling tuberculosis. Health promotion efforts may be hampered by a lack of cross-sectoral and community cooperation, which may lead to a low rate of tuberculosis patient diagnosis (Syakbania & Wahyuningsih, 2020).

The focus of the public health center is to emphasize and educate the public regarding tuberculosis transmission, increase the behavior of clean and healthy life (PHBS) for tuberculosis sufferers, and socialize to the community that this disease is contagious but can be cured in order to reduce negative stigma that results from people's ignorance of tuberculosis. Due to the negative stigma associated with tuberculosis, many patients are reluctant to disclose their condition, particularly coughing, to medical professionals. A thorough understanding of tuberculosis can raise public awareness and help stop the disease's spread. Additionally, awareness is linked to the belief that tuberculosis is a serious and contagious illness (Nurhaedah & Herman, 2020).

The challenge is the low level of awareness among tuberculosis patients themselves on the use of masks to prevent tuberculosis from spreading to others in the house. According to research from Saftarina & Fitri. (2019), the community's low compliance with using masks, particularly tuberculosis patients since they are painful and expensive, is the primary cause of tuberculosis (Saftarina & Fitri, 2019).

In order to support tuberculosis patients in their surroundings, tuberculosis cadres do outreach among the local populace. Residents find it challenging to want to have their phlegm tested when they are found to be coughing and may even choose to conceal their cough due to the negative stigma connected with tuberculosis. Patients with tuberculosis believe that their community does not reject them, and they receive encouragement from their neighbors to recover quickly. According to research by Hakam (2018), patients do not experience stigma or prejudice, and their immediate surroundings offers support and motivation to help them finish their treatment and recover. Even the family encourages and nags the patient to take their medication each day (Hakam, 2018).

The findings indicated that community involvement in tuberculosis detection and treatment was not perfect, that tuberculosis knowledge was still low, and that there was a negative stigma associated with tuberculosis that discouraged people from having their cough examined. The community in which tuberculosis sufferers live does not shun them, nevertheless, and families and patients have been welcoming to visiting health care providers. The community must assist the tuberculosis preventive program by being ready to conduct contact checks, report tuberculosis findings, treat patients, and be friendly and understanding toward tuberculosis sufferers, among other things. The greater the level of community support, the greater the program's chances of success, and vice versa (Syakbania & Wahyuningsih, 2020).

Academic and nonprofit organizations conducted tuberculosis research at the Bandarharjo Health Center, and based on the input received, the findings were evaluated and further improvements were implemented. Due to time restrictions and the duties of the staff at the health center, the Internal Health Center Bandarharjo has not formally done any research on tuberculosis.

The P2PTB Program Holder's "SEMARMADUMANIS" innovation program, which stands for Spirit to Eradicate Tuberculosis at the Bandarharjo Health Center and is an effort to increase the integration of officer services inside and outside the building on a regular basis by involving cross programs and cross-sectoral, was established to carry out development related to tuberculosis prevention at the Bandarharjo Health Center. The DOTS team, which includes physicians, program administrators, labs, health analyzers, epidemiologists, medical records, and pharmacists, is located inside the facility. It involves the work of regional and cross-sectoral cadres in sub-districts, sub-districts, FKK, PKK, as well as NGOs and youth organizations, for services outside the building. This initiative emphasizes the activity of the MSI and public health center-supported and -led TB cadres. It is intended that there would be an increase in the number of officers who are capable of managing programs with a wider area coverage and a comparably higher budget as a result of the involvement of several partners in program management (Betsalonia, 2020). The program's goal is to enhance the effectiveness of the tuberculosis control program to enable tuberculosis services in the Bandarharjo Health Center's operational region. The high rate of tuberculosis cases in the Bandarharjo Health Center's operational region led to the creation of this innovative initiative.

The Semarang City Health Office Mini Cohort Analytic (MICA) conducts monthly meetings to monitor and evaluate tuberculosis services in the city of Semarang. These meetings include evaluations of tuberculosis services from suspected discovery to lost to follow-up as well as other services that are not yet up to par. The accomplishment of performance metrics from the identification of suspected healthy individuals and contact investigations reveals Gasurkes' performance aim. There has never been a comparison of TB case-finding efforts between TB cadres and Public health center officers. Monitoring and evaluation should not only be done for the Public health center' coordinators for pulmonary TB management, but also for the other sectors engaged in the identification of pulmonary TB patients. This aims to determine how far the detection of pulmonary TB patients has been implemented and what issues are impeding the program's success (Putri et al., 2020).

Every three months, the Semarang City Health Office monitors and evaluates laboratory staff in relation to improving the internal and external quality of the lab; however, this has never been done for tuberculosis laboratory services. Internal and external laboratory quality assurance are required since the sputum laboratory is a crucial part of diagnosing a patient, assessing the effectiveness of treatment, and monitoring the course of that treatment.

The P2PTB program holder at the Semarang City Health Office reported that the city health office conducted technical guidance-based supervision, coaching, and evaluation of public health center work assessments by visiting the public health center on an as-needed basis. Regular Health Office oversight of the performance of officers at the Public health center can help or improve officers' handling of tuberculosis patients' detection and treatment, resulting in a higher percentage of performing well than officers who claim to infrequently supervise at work (Idha Setyowati, Lintang Dian Saraswati, 2018).

CONCLUSION AND SUGGESTION

Health promotion at Puskesmas Bandarharjo the number of communication media used not enough to tuberculosis, surveillance; risk factors tuberculosis control, the discovery and the handling of tuberculosis is conducted in accordance substandard but is a bad stigma obstacles the related tuberculosis cases so as to hinder contrivance actively; conferring immunity through bcg vaccination is optimal; and provision of preventive medicine there are still.The number of active in the gasurkes tuberculosis puskesmas bandarharjo limited, utilization of funds of BOK not optimal, the TCM at puskesmas bandarharjo made a diagnosis enforcement. Writing and reporting the bandarharjo network providers has been delayed by health workers and possession of information systems.The role of the community in the puskesmas bandarharjo has not been carried out in an optimum manner.Cooperation with the foundation of MSI give good impact, while working with network dpm or clinic has not been consistent. Development through the SEMARMADUMANIS to increase the tuberculosis eradication program performance. Supervision, monitoring, and evaluation on a monthly basis through *Mini Cohort Analytic* (MICA) by Semarang City Health epartment.

Based on the conclusions described above, the advice that will be given is to improve the provision of therapy to prevent tuberculosis, the discovery efforts actively tuberculosis cases, improve the ability of health workers and cadres P2PTB programs through training. And provision of rewards for tuberculosis cadres for finding suspect.

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