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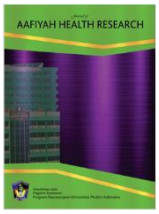

Original Article

The Effectiveness of Tuberculosis Control Program in Rural Area, Indonesia

*Kiswah Tamrin

Mattabong Primary Healthcare Center, Pinrang Regency, South Sulawesi, Indonesia

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Corresponding Author:
E-mail:
kiswaharief@gmail.com

Abstract
Background: Pulmonary tuberculosis (TB) is a contagious infectious disease caused by the Bacterium Mycobacterium Tuberculosis, which can attack various organs, especially the lungs. Since 1995, Indonesia has implemented a program to eradicate pulmonary TB through pulmonary TB treatment with the DOTS (*Directly Observed Treatment Short-course)* strategy that can break the chain of transmission of the disease. The high number of pulmonary tuberculosis patients in the working area of the Mattombong Health Center is inseparable from the participation of the government, health workers, facilities, and infrastructure, as well as the participation of the community which lacks synergy in the discovery and treatment of pulmonary TB disease. Lack of synergy seems to be a condition where public awareness is not yet high, in order to carry out regular and disciplined treatment, while on the other hand monitoring and evaluation of health workers is still lacking. This study aims to describe the effectiveness of Tb control program in rural area, Indonesia.
Methods: This is a qualitative study. The data collection method was done by in-depth interviews and observations. Informants in this study consisted of chief program at the Deli Serdang District Health Office, Head of primary healthcare center (puskesmas), Pulmonary TB Officers, Laboratory Officers, Pharmacy Officers, Pulmonary TB Patients, and Drug Swallowing Supervisors (PMO).
Results: The implementation of the pulmonary TB control program had not been effective because the patient's recovery rate in 2021 was still 25%. This figure is still far from the target for the success rate of treatment or cure for pulmonary TB nationally, which is 85%.
Conclusions and suggestions: Based on the results of the research, it is hoped that the Pinrang District Health Office will continue to actively carry out supervision and monitoring of the implementation of the DOTS Strategy in the working area of the Puskesmas. besides evaluating and solving problems in TB disease management.

INTRODUCTION

The global tuberculosis report in 2019 by World Health Organization (WHO) reported the estimated cases of tuberculosis in the world are around 10 million people (between 9 – 11.1 million people). While Southeast Asia demonstrated the highest percentage that around 44% of the total cases in the world. The highest countries, there were India around 2.7 million (27%), China around 889,000 (9%), Indonesia around 842,000 (8%), Philippines around 581,000 (6%), Pakistan around 525,000 (6%), Nigeria around 418,000 (4%), Bangladesh about 364,000(4%) and South Africa about 322,000 (3%). The results of WHO estimates found that every year the bacterium tuberculosis (Mycobacterium tuberculosis) kills about 2 million people (WHO, 2019). Based on a 2017 WHO report, the incidence of tuberculosis in Indonesia is 391/100,000 population and the death rate is 42/100,000 population (WHO, 2017).

In Indonesia, the prevalence of pulmonary TB is grouped into three regions, Sumatra (33%), Java and Bali (23%), and Eastern Indonesia (44%). Pulmonary TB is the third leading cause of death after heart disease and respiratory disease in all age groups and the first leading cause of death among other infectious diseases. In addition, it is estimated at 61,000 deaths each year (Depkes RI, 2011). The

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majority of TB cases were in Sulawesi province, Southeast Sulawesi Province with a prevalence of 86.8 %, West Sulawesi Province with a prevalence of 84.3%, then in Central Sulawesi Province with a prevalence of 66.3%, and the lowest case was in South Sulawesi Province with a prevalence of 64.9% (Ministry of Health of the Republic of Indonesia, 2015).

In the province of South Sulawesi, the number of patients with pulmonary TB was 9,180 people, the number of new cases of pulmonary TB was 8,939 people, BTA positive treatment was 7,947 people, 6,955 people recovered, and complete treatment was 132 people (Erwin, et al, 2015). While in Pinrang Regency until 2019, there were 4,662 people who were categorized as suspected tuberculosis. The number of new cases of pulmonary TB was 8.939 people, positive BTA treated in 7.947 people, recovered by 6.955 people, and completed treatment by 132 people (Erwin, et al, 2015). While in Pinrang Regency until 2019, there were 4,662 people who were categorized as suspected tuberculosis. the number of new cases of pulmonary TB was 8.939 people, positive BTA treated in 7.947 people, recovered by 6.955 people, and completed treatment by 132 people (Erwin, et al, 2015). While in Pinrang Regency until 2019, there were 4,662 people who were categorized as suspected tuberculosis (Pinrang Official Health Center, 2019).

Based on these issues, it is necessary to have efforts to control TB disease programs, especially in rural areas. Since 1995, the TB eradication program has been implemented in primary healthcare (Puskesmas) by implementing the *DOTS (Directly Observed Treatment Shortcourse)* strategy recommended by WHO. Then, it was developed along with the formation of the National Integrated *Movement for TB (GERDUNAS)* which was formed by the government on March 24, 1999. The eradication of TB disease has turned into a pulmonary TB control program. Handling TB cases is one of the DOTS strategies that are able to control TB disease because it can break the chain of transmission of the disease. A regional representative study showed as many as 6 (60%) health centers in the implementation of pulmonary TB treatment with the DOTS strategy were categorized as good performance and 4 (40%) health centers showed not a good performance. The independent variables that were significantly related to the treatment of pulmonary TB with the DOTS strategy were health workers, patient compliance medication guide equipment, and support for drug-taking supervisors and those that were not significantly related were program policy infrastructure and environmental acceptance. In addition, it showed that the most influential on the treatment of pulmonary TB with the DOTS strategy was the equipment. Medication guide equipment for patient compliance and support for drug-taking supervisors and which are not significantly related are program policy infrastructure and environmental acceptance (Sawaluddin, 2011).

The implementation of the DOTS strategy at the puskesmas is very dependent on the facilities and infrastructure, as well as the participation of health workers, so that case finding and treatment for patients with pulmonary tuberculosis can be addressed immediately. There are five components in the DOTS strategy, namely: political commitment from the government to run a national TB program, diagnosis of TB through microscopic examination of sputum, TB treatment with a combination of Anti Tuberculosis Drugs (OAT) which is directly supervised by the Drug Drinking Supervisor (PMO), Continuity of OAT supply and Standard recording and reporting to facilitate monitoring and evaluation of pulmonary TB control programs (Mansyur, et al, 2015).

Based on initial data obtained from the puskesmas, there were a total of 16 patients at the Mattombong Health Center, 13 patients at the Lasinrang Health Center, and 8 patients at the Tada Palie Health Center. The highest patient data is at the Mattombong Health Center. The high number of pulmonary tuberculosis patients in the working area of the Mattombong Health Center is inseparable from the participation of the government, health workers, facilities and infrastructure as well as the participation of the community which lacks synergy in the discovery and treatment of pulmonary TB disease. in order to carry out regular and disciplined treatment, while on the other hand monitoring

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and evaluation of health workers are still lacking. Therefore, this study aims to describe the effectiveness of the Tb control program in a rural area, Indonesia.

METHOD

Type, Location, and Informants

The type of research used is qualitative research which aims to find out clearly and more deeply about the effectiveness of the TB control program in the work area of the Mattombong Health Center, Matiro Sompe District, Pinrang Regency in 2021. This research was carried out at the Mattombong Health Center, Jalan. Axis Pinrang – Langnga, Patobong, Mattirosome, Pinrang, South Sulawesi. The research time will be carried out from June to July 2021.

Informants are people who can provide the necessary information. The selection of informants in this study was carried out by purposive sampling. The researcher uses the purposive sampling technique because the researcher wants to increase the depth of the data according to the research objectives of several characteristics of the informants. Purposive sampling is the determination of informants based on certain goals so that the selected informants are in accordance with the research objectives. In addition, the informant has appropriate knowledge and can describe all conditions related to the research topic. The informants in this study were: 2 health problem control staff (PMK) at the Pinrang District Health Office; The head of the Mattombong Health Center, Mattirosompe District, Pinrang Regency as many as 1 person; There IS 1 doctor of the Mattombong Health Center, Mattirosompe District, Pinrang Regency; P2TB officers at the Mattombong Health Center, Mattirosompe District, Pinrang Regency as many as 1 person; Patients with pulmonary TB at the Mattombong Health Center, Mattirosompe District, Pinrang Regency as many as 3 people; There are 3 families of Mattombong Pulmonary TB patients, Mattirosompe District, Pinrang Regency.

The criteria for informants are as follows: involved in pulmonary TB control activities, able to communicate well, and willing to become informants. The criteria for informants with pulmonary TB are as follows: Patients who have been diagnosed with pulmonary TB; Pulmonary TB patients who have given up treatment; Patients who are currently taking pulmonary TB treatment; and Patients who have completed pulmonary TB treatment.

Data Collection Technique

There are various data collection techniques that can be carried out in a study, namely as follows: in-depth interviews with informants conducted by conducting unstructured or open interviews. Guided by open-ended questions that have been prepared. To collect information so that it is not lost, stationery and tape recorders are used. As well as, observation or observation can be interpreted as a planning procedure, including seeing, and recording certain activities that have a relationship with research. In this study, observations were made by looking directly at certain activities related to the pulmonary TB patient control program. 3). Documentation is a technique of collecting data by collecting and analyzing documents, whether written, pictures, or electronically, at the research location that helps solve research problems.

Data Analysis

Data analysis used qualitative analysis with reference to the data analysis technique proposed by Miles and Huberman in qualitative data analysis is carried out interactively and takes place

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continuously, which includes three concurrent activities, namely (Sugiyono, 2017): 1). Data reduction is a process of summarizing activities, focusing attention, simplification, focusing on important things, and looking for themes and patterns. In the reduction process, the researcher is really looking for data that is really valid. Thus, the reduced data will provide a clearer picture. 2). Presentation of Data, in qualitative research apart from narrative text, data presentation can also be done with graphs, matrices, charts, and charts to facilitate drawing conclusions. 3). Data interpretation is the process of interpreting data. This interpretation can be in the form of the researcher's personal interpretation,

RESULTS AND DISCUSSION

The selection of informants in this study was based on knowledge and based on the suitability of the problems in this study and the informants were responsible for the health services. The second principle is adequacy where the selected informants are able to describe and provide sufficient information about the problems of this research. The following are research informants.

Table 1. Research Informants

No	Informant	Gender	Age	Position
1.	Jamaluddin,SKM	Man	49	Wasor TB Health Office Pinrang
2.	Dr. Darmawan	Man	43	Head of the Mattombong Health Center
3.	Dr. Musdalifah	Woman	37	Health Center Doctor
4.	St. Asma pabbajah, S, Kep Ns	Woman	40	TB officer
5.	Haedar, Amd	Woman	35	Laboratory Officer
6.	Astuti, Amd Far	Woman	40	Pharmacy Officer
7.	Patient Mr 'D'	Man	59	Patient
8.	Seruni	Woman	38	Medication Supervisor

RESULTS AND DISCUSSION

Input
Health workers

Interview result;
"Here, only 1 person is responsible for dealing with TB, namely Mrs. Asma. Its work starts from finding cases, screening, fixing them, and continuing to provide counseling to sufferers and the community. There are also doctors and analysis officers here. Training programs are also frequently conducted. Ibu Asma as a TB officer has also participated in a training held at the center, I forget when it was." (Informant 2)

"There is only one TB officer here, that is me. My work is also pretty good, sometimes I help people in the lab, look for TB suspects, check patients' sputum, give counseling about TB, the medicine, the treatment to wear a mask. If the training was attended in 2016 in Makassar, the Provincial Bapelkes

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was held. The material is about TB, modes of transmission, and symptoms. The training is only once, but the meetings are routine." (Informant 4)

Based on the research that has been done that the HR at the Mattombong Health Center shows that the program workforce standards have met the minimum number of health workers in the independent type health center but according to the results of interviews with TB officers, the number of officers at the Mattombong Health Center with workloads that must be done is not balanced. Too much workload that must be done by 1 TB officer is too much so TB officers say that their performance is not optimal. This creates a heavy workload for TB officers, starting from screening TB suspects in the community, giving PPNH, treating TB patients with AFB (+), counseling TB patients, administering OAT, monitoring treatment, and recording reports for each patient who is currently on treatment through PMO.

The health workers involved in the control of pulmonary TB at the Mattombong Health Center should not only be the responsibility of the pulmonary TB officers, but also other support such as other health workers, TB cadres, and PMOs appointed by the puskesmas to be involved in the TB control program. Pulmonary TB officers will not be able to handle pulmonary TB problems without collaboration with other health workers and TB cadres in case-finding efforts. Research by Juliani, et al (2012), provides recommendations that training is very important to improve work abilities and skills and improve employee performance. Tiered and continuous training for health workers and the community involved in the prevention of pulmonary TB is part of the development of human resources,

Facilities and infrastructure

Interview result;
"For facilities and infrastructure, we will see, if the puskesmas has complete facilities and infrastructure, then it can become a microscopic referral health center or an independent implementing health center. If it is not complete, it can be used as a satellite health center. But whatever it is, at least every puskesmas has a competent officer for it. So we always guarantee the availability of logistics in every puskesmas, including tools such as microscopes and no less important is that there must be personnel who can take care of these tools." (Informant 1)

"I'm in the lab, and the lab facilities and infrastructure at this puskesmas are complete, starting from a microscope, glass preparations, sputum pots, TB 05, basically all lab equipment is complete." (Informant 5)

In terms of facilities and infrastructure, it is known that the implementation of the pulmonary TB control program, especially in case finding and sputum examination, will not be separated from the availability of facilities and infrastructure to support the success of the program. The Mattombong Health Center has adequate facilities and infrastructure. Logistics for microscopic examinations such as laboratory rooms, sputum storage pots, glass slides, microscopes and other auxiliary logistics are fully available. Facilities for the treatment process such as OAT supplies also never run out of stock. The provision of facilities that are still limited is provided by the Mattombong Health Center, namely transportation where there is no public transportation that passes through the puskesmas. Not all communities in the villages that are the working areas of the Mattombong Health Center have their own vehicles.

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Funding

Interview result;

"The funds are from the APBD, some are from the BOK, but if it's from the BOK, the focus is not just for TB, but for everything. There are also NGOs." (Informant 2).

"Funding for the TB program comes from various sources such as the central budget, the health office and the BOK. Until 2015 there was funding from the Global Fund." (Informant 4).

In terms of funding, it is known that the sources of funding for the implementation of P2TB at the Mattombong Health Center are the Regional Budget, BOK and grant funds. The Regional Budget of Pinrang Regency is limited in P2TB and the funding assistance provided is in the form of providing OAT for all types of TB patients. BOK provides financial assistance for the implementation of health education once a month. The international grant donor is KNCV (Koninklijke Nederlandse Centrale Vereniging tot bestrijding der Tuberculose) and the national funding source comes from the BOK and regional and provincial budgets. KNCV assistance is in the form of funds for the implementation of TB programs and periodic training for health workers for each profession. The majority of TB programs funded by KNCV are programs from the KNCV program itself, so it is possible to get sponsored programs from puskesmas. Since 2015, the Global Fund no longer provides any financial assistance for the implementation of P2TB in Pinrang Regency and only provides an online reporting system. When compared to KNCV and Global Fund funding, the Global Fund is still bigger because there are transportation funds and suspect screening funds provided. One of the main problems at the Mattombong Health Center is limited transportation. The absence of public transportation from residents' homes to the puskesmas makes it difficult for the community to visit the puskesmas regularly. Health centers are also limited to providing financial assistance for public transportation. Apart from transportation problems, The Global Fund also provides financial assistance for the screening of suspects in the form of conducting counseling and funding for the discovery of TB suspects. Each time there is a TB suspect finding, officers will be given additional funds from the Global Fund so as to increase the staff's motivation for screening TB suspects, but since the Global Fund funding has been completed, there is no longer any funding for assistance for screening TB suspects and finding TB suspects. With the burden of many officers at the puskesmas, of course this will affect the officers to carry out additional tasks by screening TB suspects directly. This is still a problem for the implementation of P2TB at the Mattombong Health Center. officers will be given additional funds from the Global Fund so as to increase the motivation of officers to screen TB suspects, but since the Global Fund funds have been completed, there are no more funds for assistance for screening TB suspects and finding TB suspects. With the burden of many officers at the puskesmas, of course this will affect the officers to carry out additional tasks by screening TB suspects directly. This is still a problem for the implementation of P2TB at the Mattombong Health Center. officers will be given additional funds from the Global Fund so as to increase the motivation of officers to screen TB suspects, but since the Global Fund funds have been completed, there are no more funds for assistance for screening TB suspects and finding TB suspects. With the burden of many officers at the puskesmas, of course this will affect the officers to carry out additional tasks by screening TB suspects directly. This is still a problem for the implementation of P2TB at the Mattombong Health Center.

The findings of this study are in line with the results of research from Budiman (2012), which found that the implementation of tuberculosis control from the funding aspect was adequate, the source of most of which came from the Global Fund. The contribution of the Global Fund donor funds is very significant to the ongoing TB control activities, while funding sources from the government are very minimal. This is because the local government considers the funds for program activities to be large enough in an effort to control tuberculosis.

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Process

Political Commitment

Interview result;

"The health office remains committed to the present because for TB disease control, it is obligatory to monitor and evaluate the implementation of TB DOTS in all health facilities, including the service at the puskesmas, in this case assigned as TB wasor and to continue to coordinate with all TB persons in charge" (Informant 1).

"The Mattombong Health Center has implemented a pulmonary TB control program with the DOTS strategy. And monitoring continues to be carried out by P2TB, starting from finding suspects to recovering. So the government has a commitment in this regard, making a program and supervising the running of the program. The program requires funds, the funds are from the APBD and BOK, some are from various NGOs." (Informant 2).

Based on the research results, it is known that the stakeholders in Pinrang Regency expressed their commitment by implementing the National TB program policy (Stop TB, DOTS Strategy, DOTS Plus Strategy) and implementing the TB program policy in all health centers in the working area of Pinrang Regency, Implementing the P2TB program in accordance with with tuberculosis guidelines compiled by the Indonesian Ministry of Health, Conduct cross-sectoral cooperation as well as structural cooperation and cross-sectoral cooperation carried out such as with stakeholders at the sub-district level, village officials and international donors (KNCV). For structured collaboration has been carried out with the South Sulawesi Provincial Health Office, the existence of financial support to implement the Pulmonary TB program is one of the most important political commitments.

The findings of this study are in line with the results of research by Murti, et al (2010) who found that government support in financing the pulmonary TB control program is still low so that it affects the success of the implementation of the pulmonary TB control program. With full financial support, the implementation of the activities carried out will run well.

Case Detection

Interview result;

"As doctors, what we usually do is check for cough patients and we recommend checking for sputum and if the results are positive, we take treatment" (Informant 3).

“The first step is to go to the villages which are the working area of the Mattombong Health Center. Keep on filtering. But because I, as a TB officer, have problems with transportation, it's a bit difficult to do my job.” (Informant 4)

In the aspect of case detection, it is known that the discovery of patients / screening of TB suspects carried out by the Mattombong Health Center is still not optimal. There are 4 things that caused the screening of TB suspects to be said to be not optimal, namely the Case Detection Rate (CDR) at the Mattombong Health Center did not reach the target of 70%, the number of TB officers was only 1 person with a large workload, causing the performance of TB officers to be low. less than optimal, Limited funds for TB control because the donors of funds are not as much as the Global Fund in 2014 and below, TB which has not been made a priority by the puskesmas because the priority problems at the puskesmas are MCH services, pregnant women and postpartum women,

The findings of this study are in line with the results of research from Mansur, et al (2015), who found that the implementation of the DOTS strategy that has not been maximized can be influenced by six things, three of which are regarding the screening of TB suspects, namely the quality of TB officers in case finding efforts, screening of TB suspects to less active community and low case finding rate.

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Drug Distribution

"As a pharmacist, I always work closely with TB officers, so we can ensure the availability of OATs." (Informant 6)
"Medicine is always there. Usually my son goes to pick it up." (Informant 7)
"Drugs for patients are always available. The pick-up is scheduled." (Informant 7)
"Every time I take medicine for my father, I have to show the card to Mrs. Asma and she is given medicine." (Informant 8)

The Mattombong Health Center already has an adequate supply of medicine. The Mattombong Health Center always plans the supply of drugs well so that it never runs out of stock for patients. Drug planning is always made and submitted to the province for its provision and funds for drug supply come from the APBD. For the system of administering drugs to TB patients, the Mattombong Health Center makes a drug pick-up system once a week.

TB patients are limited to taking drugs only for a period of a week and not given directly in large quantities with the aim of making it easier to monitor the patient's progress during the treatment period. Patients and PMOs who seek treatment at the Mattombong Health Center also feel that there is no problem in obtaining pulmonary TB drugs at the puskesmas, they only show their pulmonary TB treatment cards, then weigh them and immediately give pulmonary TB drugs to patients or PMO once a week so that no drugs are consumed. scattered and TB officers more easily see the progress of patients during the treatment period.

Drug Administration Performance

Interview result;

"Initially, I was called by the puskesmas to remind my father to take medicine regularly. But because I work, I usually come home from work and then I see if the medicine has been taken or is it still there. If it's not there, I usually ask my father again, have you been drinking or not. And I always routinely take medicine when it runs out according to the allotted time." (Informant 9)
"So the PMO for the husband is when he takes his husband to the puskesmas. There, the officers said that they had to keep their husbands taking regular medication. Alhamdulillah, until now it has been routine. The puskesmas people also ordered them to regularly take medicine at the health center" (Informant 10)

Based on the research, it is known that the Mattombong Health Center has carried out treatment for TB patients accompanied by PMO. The Mattombong Health Center chooses PMO from family members who live in the same house with the patient. PMOs who accompany TB patients during the treatment period are required to be PMOs who have been trained in terms of commitment, SPS sputum collection, time to take medication, combinations of drugs that must be taken, recording in patient books and reporting to TB officers.

According to the results of the study, it was found that there were still PMOs who did not carry out their commitments properly because there were TB patients who stopped taking medication before the treatment period was over, PMOs who could not be contacted to find out the progress of the patient and PMOs who were wrong in giving sputum to be examined microscopically. This certainly has a big influence on the implementation of P2TB at the Mattombong Health Center. In line with the research findings, the results of Puri's research (2010), found that PMO performance was closely related to the recovery of pulmonary TB patients.

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Recording and Reporting

Interview result;
"Regarding the record, we always take notes. So if there is a positive result and given medicine. Everything is recorded and later handed over to the P2TB Puskesmas officers for later reporting." (Informant 3)

"The health office will provide a form regarding pulmonary TB and that is what will be filled in at the puskesmas. Every month a meeting is held at the office, usually the person in charge is present, so the data must be ready and complete because everything will be checked for completeness." (Informant 4)

Based on the research, it can be seen that the Mattombong Health Center has implemented a recording and reporting system in accordance with 15 formats (TB 0.1 to TB 15) determined by the Pinrang District Health Office and also an online reporting system, namely ETB-12 which is reported quarterly. Both offline and online reports are all reported and sent to the Pinrang District Health Office. To monitor and evaluate the performance of the puskesmas in the implementation of the TB control program, the Health Office supervises by going directly to the puskesmas to directly check the performance of the puskesmas and holding evaluation meetings with the puskesmas and their TB officers which are held every three months. One of the objectives of supervision is to monitor indicators for the successful implementation of TB control programs, such as the case finding rate and case cure rate at the Mattombong Health Center which did not reach the target for 3 consecutive years and became a major problem in the implementation of P2TB, but the supervision that had been carried out so far had not been able to find a solution so that the case finding rate and cure rate reached targets for the following year. According to the research results, the thing that causes the target has not been achieved is the very limited funding. Even when the supervision implementation found a solution, it still could not be realized because the solution required large funds such as screening suspects to each village per month, picking up patients and special TB counseling by activating TB cadres in each village in the working area of the Mattombong Health Center.

Output

The discovery of pulmonary TB cases at the Mattombong Health Center has not reached the target set by WHO. The discovery rate of pulmonary TB cases in 2021 is 25.0% or about 4 people out of 16 cases of BTA (+). This shows that the implementation of pulmonary TB treatment using the DOTS method has not been maximized due to: local government commitments that have not been implemented, screening of pulmonary TB suspects who are still passive, TB diagnosis by microscopic examination with incorrect sputum, and PMOs who are not routinely trained. Wahab (2012), in his research recommends that in order for the TB control program to run effectively, all aspects of DOTS must be implemented together. If the implementation of the TB control program is carried out in an integrated, sustainable,

CONCLUSION

Based on the results of research regarding the analysis of the implementation of pulmonary TB with the five components of the DOTS strategy at the Mattombong Health Center, Pinrang Regency, it has not been maximized because the administration has not been in accordance with the DOTS strategy. This can be seen from 1). Inputs; the health workers at the Mattombong health center for program personnel standards have met the minimum number of health workers, but there is only one TB officer, so the workload is too much. for adequate facilities and infrastructure. for funding for the

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implementation of TB control, the government still relies on international donors from the Global Fund and KNCV. 2). Process; from political commitments that have not been carried out by local governments. Political commitments play a role in the running of a program. 3). Outputs.

Suggestion

Based on the conclusions of the research above, the suggestions that can be given from this research are as follows: 1). The Pinrang District Health Office is to remain active in supervising and monitoring the implementation of the DOTS strategy in the work area of the puskesmas. In addition to evaluating and solving problems in the implementation of TB control. 2). It is hoped that the Mattombong Health Center will continue to build cooperation with various parties in promoting health in the community. The concrete step that can be taken is to form a special team to carry out active screening of TB suspects in every village that is included in the work area of the Mattombong Health Center. 3). Pulmonary TB officers are expected to be more active in finding cases of pulmonary TB.

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Declaration of Conflict of Interest

All authors state that there is no potential Conflict of Interest in this research and article.

Declaration of Conflicting Interest

The author (s) declared no potential conflict of interest with respect to the research, authorship, and/or publication of this article

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