

PERFORMANCE OF TUBERCULOSIS PROGRAM OFFICERS IN THE IMPLEMENTATION OF CONTACT INVESTIGATIONS IN MEDAN CITY

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ABSTRACT

Indonesia is the second country with the most TB cases in the world. One of the efforts to overcome TB in Indonesia is the active discovery of TB cases through contact investigations. However, the implementation of contact investigations has not been fully optimal, including in Medan City. The implementation of contact investigations still reached 14.79 percent in 2020. The performance of TB program officers is one of the factors that determine the achievement of the implementation of contact investigations. This study aims to explore the performance and factors that contribute to the performance of TB program officers in the implementation of contact investigations in Medan City. This research was qualitative research conducted from December 2022 to January 2023. The data collection method was an in-depth interview and review of documentation. The location of study was conducted at six health centers in Medan City. The research informants totaled 37 people consisting of the Deputy TB Supervisor (Wasor TB) of the Medan City Health Office, TB program officers of health centers, TB cadres, heads of health centers, laboratory analysts, doctors, TB sufferers, and drug swallowing supervisor (PMO). The results showed that the performance of TB program officers was not optimal. Factors that contributed to performance were the limited number of TB program officers at health centers, limited time from TB program officers because they had other duties, limited funds for the implementation of contact investigations, suboptimal coordination between TB program officers and cadres, and obstacles from the community who were not willing to conduct contact investigations.

Keywords: *Performance, tuberculosis, contact investigation*

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INTRODUCTION

Based on World Health Organization (WHO) data, it is estimated that there will be 10.6 million tuberculosis (TB) cases in 2021 globally, with 1.6 million of them dying. Indonesia itself is the country that occupies the second position of the most TB cases in the world after India (World Health Organization, 2022). TB mitigation is one of the focuses of achieving the Sustainable Development Goals (SDGs) where the target is to end TB as an epidemic in the world by 2030.

The discovery of TB cases is an important step in tb management. Because TB disease will not be treated completely if there are still tb cases that are not found or not reported. One of the efforts to actively find TB cases is contact investigation, which is the early detection of all close contacts exposed to TB patients. The implementation of contact investigations to determine TB cases early is in line with the concept of five levels of prevention proposed by Leavels and Clark in Notoatmodjo (2012), where the third level of prevention is early diagnosis and prompt treatment. In addition to being able to detect TB cases early, contact investigation activities can prevent diseases from becoming more dangerous and reduce the risk of transmitting TB to others. Contact investigation can also detect individuals who have latent TB infection and require preventive treatment (Kementerian Kesehatan RI, 2019).

WHO guidelines regarding systematic screening have been issued in 2013 and 2021. The guidelines explain that one of the highly recommended target populations for systematic screening is domestic contact and other close contacts of TB sufferers (World Health Organization, 2013, 2021). The implementation of contact investigations has also become a national policy in various countries as an effort to overcome tuberculosis (Biermann, Tran, et al., 2020; Rodriguez et al., 2017). Research related to contact investigations has also been carried out in various countries, such as Afghanistan, the United States, Georgia, India, Cambodia, Pakistan, Peru, Swaziland, Tanzania, and Uganda, as well as in Vietnam. The results showed the effectiveness of contact investigation activities, where contact investigations can increase the discovery of TB cases with varying results, starting with an increase of 1.6 percent to above 50 percent (Baliashvili et al., 2018; Beyanga et al., 2018; Ramanathan et al., 2022; Velleca et al., 2021). Another study related to contact investigations conducted in Medan City also found that the proportion of TB infections in children who had domestic contact with TB patients was 39.5 percent, which is higher than the data previously reported by the Medan City Health Office, where only 5.4 percent of children infected with TB were found from domestic contact with TB patients (Siregar et al., 2019).

The implementation of contact investigations in Indonesia as one of the efforts to actively find TB cases has been stated in the Regulation of the Minister of Health of the Republic of Indonesia Number 67 of 2016 and also in Presidential Regulation Number 67 of 2021 concerning Tuberculosis Management. Based on the technical guidelines for the implementation of contact investigations issued by the Ministry of Health in 2019, the target of contact investigations is all contacts exposed to index cases. Index cases are all TB patients either new or relapsed, including drug-sensitive TB (SO) and drug-resistant (RO) TB patients, as well as child TB in household areas and in other areas such as workplaces, dormitories, schools, daycares, prisons, orphanages, and so on (Ministry of Health of the Republic of Indonesia, 2019).

Based on the Indonesian Health Profile in 2021, North Sumatra Province occupies the 6th position where TB cases are the most found (Kementerian Kesehatan RI, 2022). Furthermore, based on the 2021 North Sumatra Provincial Health Profile, out of 33 regencies/cities, Medan City is the 2nd place where TB cases are the most found (Dinas Kesehatan Provinsi Sumatera Utara, 2021). The target of TB case discovery is one of the things that is monitored on the minimum service standard (SPM) for district/city health. The target of finding cases in SPM Medan City in 2020 is 12,516 cases, but what is found is still 5,478 cases (43.77%). While the SPM target in 2021 is 15,087 cases, what was found was still 5,127 cases (33.98%) (Dinas Kesehatan Kota Medan, 2020, 2021).

The results of the search on the TB Patient Register data in 2020, there are still few patients recorded as contact investigations, namely 810 cases or 14.79 percent. Then, as the health service facility that served TB patients the most in 2020, health centers were recorded to have conducted contact investigations of 591 out of 2,689 cases (21.98%) (Dinas Kesehatan Kota Medan, 2020, 2021). The lack of optimal contact investigation activities can be caused by the suboptimal performance of human resources, in this case, the performance of TB program officers.

Gibson, Ivancevich, Donnelly, and Konopaske (2012), state that performance can be influenced by three main variables, namely individual variables, organizational variables, and

psychological variables. Individual variables consist of abilities and skills that include a person's physical and mental condition in carrying out a job; a background that includes past experiences; family factors, as well as social level; and demographics that include gender, age, and ethnicity. Organizational variables consist of resources; Leadership; Rewards; structure; as well as the design of the work. Psychological variables consist of personality; attitude; learning; Perception; and also motivation. While Wirawan (2012) stated that performance can be influenced by internal employee factors, organizational internal environmental factors, and organizational external environmental factors.

Based on what has been conveyed by the experts above, there are many factors that affect performance. Regarding the lack of maximum contact investigation activities as an effort to actively find TB cases, the author is interested in exploring more deeply related to performance and factors that affect the performance of TB program officers in the implementation of contact investigations in Medan City.

METHOD

This research was qualitative research with in-depth interviews. Qualitative research is a method used to find truth through observation, explanation, and interpretation that produces explanations that are not in the form of numbers or quantitative frequencies, but in the form of narratives that are interpretive (Wibowo, 2014). The approach used in this study was phenomenology, which is a critical approach to tracing existing phenomena systematically (Saryono & Anggraeni, 2017). The research was conducted from December 2022 – January 2023 at six health centers in Medan City. The informants in this study were 37 people consisting of 1 Deputy TB Supervisor (Wasor TB) of the Medan City Health Office, 6 TB program officers of health centers, 6 TB cadres, 6 heads of health centers, 6 laboratory analysts, 6 doctors in charge of TB, 5 TB sufferers and 1 drug swallowing supervisor (PMO).

Research data collection was obtained from primary data by conducting in-depth interviews and secondary data with a document review. In this study, data collection tools were used in the form of interview guidelines and recording devices. Source triangulation and method triangulation were used in this study to obtain data validity. Data analysis is carried out through three stages, namely data reduction, data presentation, and drawing conclusions or verification (Miles & Huberman, 2014).

RESULTS AND DISCUSSION

Performance of TB Program Officers in the Implementation of Contact Investigations

Performance is the result of work in quantity and quality achieved by an individual in carrying out duties based on the responsibilities assigned to him. The percentage of contact investigation activities that have been carried out in Medan City can be seen in the Tuberculosis Information System (SITB) application which is an application to record and report all TB cases. The implementation of contact investigations recorded in 2020 in Medan City was 14.79 percent, while the achievement of contact investigations in patients who received services at health centers was 21.98 percent. This research was conducted until January 2023, so the total data on the implementation of contact investigations in 2021 cannot be displayed because data can still be updated until February 2023.

Contact investigation activities are one of the responsibilities of TB program officers in health centers. In its implementation, contact investigation activities are assisted by TBcadres, both cadres from the subdistrict and cadres from the Meranti Meraki Asa Foundation (YMMA). YMMA is the implementer of a community-based TB mitigation program that has cadres in several cities in Indonesia, including Medan. YMMA cadres work closely with health centers to support the government in eliminating TB. In this study, the health centers that became the location of the study were assisted by YMMA cadres in conducting contact investigations, because many village cadres were no longer active. In addition to TB cadres, TB program officers are also sometimes assisted by laboratory analysts and doctors in charge of TB when carrying out contact investigations.

Based on the results of interviews with informants, the process of conducting contact investigations is broadly in line with the technical guidelines for the implementation of contact investigations that have been issued by the Ministry of Health in 2019. However, there is a difference in the number of contacts checked by TB program officers and YMMA cadres when going to the field, where YMMA cadres are required to check at least 20 contacts according to technical instructions, but TB program officers do not always rely on a minimum of 20 contacts. The frequency of contact investigations conducted by officers is also based on the available Health Operational Assistance (BOK) budget of the health center, and the rest of the contact investigations that have not been carried out will be handed over to the cadres. Then, the recording and reporting of contact investigations in Medan City are also still not running optimally, where there is contact investigation data that has not been entered in the SITB application so it is not reported to the Medan City Health Office. This is as quoted in the following interview with Wasor TB:

This means that even though the health center has conducted a contact investigation, the data is not inputted into the application. That's the problem. So even if it's on his paper, there is no evidence of it. What do you want to say. If asked, they said that many contacts have been investigated, but the data has not been inputted, because they have not had chance and there is no time. (Informant 37, Wasor TB)

In addition to the uncredited contact investigation data, there are also index cases that have not been investigated at all which contribute to the low percentage of contact investigations in Medan City. This shows that the performance of TB program officers who are responsible for the implementation of contact investigations has not been optimal. In the following section, the results of the exploration of various factors that contribute to the performance of TB program officers in the implementation of contact investigations will be outlined.

Abilities and Skills

In this study, the ability to be explored is based on knowledge or the amount of information possessed by TB program officers related to TB disease and contact investigation. Meanwhile, skills are explored based on the skills possessed by TB program officers related to their duties in conducting contact investigations such as skills in identifying suspected TB and following up on the results of contact investigations. The results of the interview showed that the informant understood the contact investigation activities well. The informant understands the process or flow of conducting contact investigations in accordance with the technical instructions of the Ministry of Health. All key informants understood how to identify suspected

TB during contact investigation activities and mentioned that contact investigations should be conducted on all TB cases. It's just that there are differences in information known to TB program officers and cadres regarding the minimum number of contacts that must be investigated, where cadres have all known and sought investigations on at least 20 contacts, while TB program officers have not fully answered at least 20 contacts that need to be investigated. This is as an interview from one of the following informants, "visits to the patient's home can be made by cadres and or officers. Checked the contacts of his house, neighbors left right front and back. One patient who is positive must have 10 contacts examined." (Informant 1, TB Program Officer). Informant 1's answer was not in accordance with the technical guidelines for contact investigation from the Ministry of Health, where contact investigations were made on at least 20 contacts from each TB case. But in addition to this, all individuals who participate in the implementation of contact investigations have sufficient abilities and skills. The ability and skills of TB program officers contribute to their performance, as found in a study conducted by Pangestuti (2018), where the ability factor is one of the most influential factors on the performance of health workers in conducting contact investigations in Jember Regency. The skills of health workers and volunteers are supporting the active implementation of TB case discovery in Vietnam. Good skills make it easier for health workers and volunteers to detect suspected TB (Biermann et al., 2021).

Resources

In terms of resources, there are several conditions that become obstacles in the implementation of contact investigations. The first is the number of TB program officers, which is only one at each health center. Officers must also provide services to TB patients who come to the health center and record and report all TB case data. This makes TB program officers limited time to conduct contact investigations, causing there to be targeted for contact investigations that have not been visited or have been visited but have not been reported. This is as stated by one of the heads of the health center, "maybe the obstacle is because there is only one officer, there are many people who want to be visited. The human resources are lacking, in addition to the limited time." (Informant 4, Head of Health Center). Therefore, the implementation of contact investigations in health centers is assisted by YMMA cadres, as previously stated. TB program officers are also accompanied by analysts and doctors in charge of TB when carrying out contact investigations.

Within the limitations of existing human resources, based on the results of interviews, coordination between TB program officers and cadres is also not optimal. There are cadres who find it difficult to get an index case ID number from the officer, even though the ID number is used to be able to enter IK data through the SOBAT TB application. This is as one of the cadres said,

There is a SOBAT TB application, we can input contact investigation data directly from the SOBAT TB application. The application can be directly connected to the ITB application, but there must be an ID number, this ID number is what we need to get from the health center. tb officers wouldn't give him. (Informant 5, Cadre).

Suboptimal coordination is also reflected in the excerpt of an interview with Wasor TB, "there are officers with cadres who have not been good as well as coordination as well" (Informant 37, Wasor TB). In another interview, information was obtained that there was

contact investigation data that had been carried out by cadres but had not been submitted to the TB program officer, so the data could not be entered, as stated by one of the TB program officers:

She (the cadre) did not provide a photocopy (of his contact investigation form), she gave it to the YMMA. Actually, it must also be submitted here so that the contact investigation data can be inputted, so as to know that this is indeed done. But it is not given, even though it has been delivered, it may have been forgotten or how. (Informant 1, TB Program Officer).

A copy of the contact investigation data that has not been submitted to the health center was also submitted by one of the cadres, "no, it should be handed over. Because there was no telling before. Now if you can leave it for the health center. Starting at the end of 2022, the equipment will be handed over to the health center." (Informant 11, Cadre). The informant's statement showed that the *copy* of the new contact investigation data at the end of 2022 alone was handed over to the health center, while it was not previously submitted because there were no instructions to submit it.

The lack of optimal coordination will certainly contribute to the performance of TB program officers in the implementation of contact investigations. Whereas in the midst of limited human resources or TB program officers who are only one person in the health center, the presence of cadres provides the extraordinary potential for increasing the quantity and quality of contact investigations. Faradis and Indarjo (2018) in the results of their research in Tegal City stated that coordination between government agencies and private agencies and community organizations is needed to support the achievement of the goals and objectives of the TB mitigation program.

Furthermore, the source of funds for the implementation of contact investigations comes from the BOK funds of the health center. It's just that not all health centers have budgeted contact investigation funds on their BOK. This BOK fund is also only for the investigation of contacts made by officers. As for cadres, of the six health centers that are the location of the study, only one health center has BOK funds for contact investigations carried out by cadres. The frequency of contact investigations at BOK also varies from health center to another health center, so the frequency of TB program officers carrying out contact investigations is highly dependent on the available BOK funds, and the target of contact investigations that have not been visited will be visited by cadres. There are health centers that allocate contact investigation funds only once per month, some twice per month, some three times per month, and some only eight times a year.

Furthermore, specifically for YMMA cadres, the contact investigation budget is funded by the *Global Fund*. YMMA cadres can claim successful contact investigation activities to YMMA and will receive rewards from YMMA. Based on research conducted in 20 countries with high TB cases involving the person in charge of the national TB program in each country, it is stated that human and financial resource constraints are the main obstacles in the implementation and active increase in TB case discovery (Biermann, Tran, et al., 2020).

For infrastructure, there are no obstacles to infrastructure to carry out contact investigations, but there are obstacles in the form of slow SITB applications during working hours, so sometimes officers have to bring home data that needs to be entered and done at night at home. To overcome the slowness of SITB, Wasor TB explained that currently the process of adding to seven SITB servers is being carried out for all of Indonesia. Meanwhile, to overcome the

time constraints of officers in conducting contact investigation entries, there is a SOBAT TB application that can be used by cadres during contact investigations that can be connected to the SITB application by using the index case ID number. Contact investigation data can be entered into the SITB application within 1x24 hours. It's just that the use of this application is not optimal. Apart from the suboptimal coordination between TB program officers and cadres in terms of providing index case ID numbers, there are also obstacles from the cadre side in using the application. Such cadres prefer and find it easier to fill in contact investigation data on manual forms than on the TB buddy application. This is due to the age factor and the uneventfulness of cadres using Android phones. There are also cadres who experience problems because of the limited RAM of their cellphones so it is difficult to operate the application on a cellphone, there are also those who have difficulties because they need a large enough internet quota to run the application, and even not a few cadres who do not have an Android cellphone. These conditions make the use of the SOBAT TB application unable to run optimally.

Leadership

Based on the results of the interview, the head of the health center has provided regular supervision of the work carried out by TB program officers including the implementation of contact investigations. This supervision is usually carried out at mini-workshops of health centers which are held once a month. Another thing that is done by the head of the health center is the provision of support in terms of costs, infrastructure, and cross-sectoral involvement in the implementation of the TB program. However, based on interviews with informants who are TB program officers, the head of the health center has not provided specific suggestions or ideas to overcome the obstacles encountered, including in terms of contact investigations. One tb program officer said, "if the head of the health center is focused on achieving the target if specific suggestions or specific ideas are not yet available." (Informant 1, TB Program Officer). Other informants also raised similar concerns regarding specific suggestions or ideas from the head of the health center, "none yet." (Informant 7, TB Program Officer). The influence of leadership on performance is shown by the results of research from Nirwesti et al. (2021), which states that there is an influence of leadership variables on the performance of officers in handling TB patients.

In terms of supervision, the interview results also showed that the Medan City Health Office was active in monitoring the work of TB program officers, including in terms of conducting contact investigations. YMMA also monitored the implementation of contact investigations by forwarding information from the health office related to index cases that have not been investigated for contacts to the Whatsapp (WA) group of YMMA cadres throughout Medan City. This is an excerpt of the interview with the following cadres:

The Health Office informed the foundation that there were patients who had not been investigated for contact. Then, the foundation will deliver to us. For example, there are five cases that have not been investigated by contacts, the foundation will ask why there has been no contact investigation, and what are the obstacles. (Informant 29, YMMA cadre).

Rewards

Based on the results of the interview, information was obtained that no special reward was given to tb program officers for carrying out contact investigations. However, there are health centers that budget contact investigation activities in the BOK health center and provide transport money in the amount of Rp 50,000 to TB program officers for one contact investigation. If there are two people who come down during a contact investigation, for example a TB program officer and a doctor in charge of TB, or a TB program officer and analyst, then each will be given a transport fee of Rp 50,000. However, the frequency of contact investigations carried out varies between one officer at a health center and an officer at another health center, which depends on the amount of BOK funds for contact investigations available at each health center. Thus, rewards contribute to the performance of TB program officers in carrying out contact investigations. This is as quoted in the following interview:

During 2022, contact investigations are conducted twice a month with available BOK funds. But the contact investigation activity was only carried out for 11 months, not 12 months. So that is about 22 times a year. Contact investigations at this health center are usually carried out by two people, me and a laboratory analyst. We were each given Rp 50,000 for one contact investigation. (Informant 1, TB Program Officer)

Another informant also mentioned, "contact investigations here once a month, I don't think that's enough. Rp 50,000 is given from BOK funds per one contact investigation." (Informant 19, TB Program Officer). Unlike informant 1 who conducts contact investigations twice a month, informant 19 only carries out contact investigations once a month according to available BOK funds.

According to Mathis, Jackson, Valentine, and Meglich (2017), in addition to direct rewards such as wages, salaries, bonuses, incentives, and awards. There are indirect rewards, one of which is training. In addition to contacting investigation transport funds, TB program officers are also given training or workshops to update and increase knowledge related to the TB program.

Similar to TB program officers, cadres will also get a reward of Rp 50,000 from YMMA for one contact investigation. However, the number is felt that the cadres are not adequate, and this is enough to contribute to a large number of inactive TB cadres. Because when investigating contacts to the field, cadres have to pay transport costs, must print photos of documentation during contact investigations, must spend more transport costs to deliver reports, and need to buy milk or supplements to strengthen endurance and reduce the risk of contracting TB. This is as an interview with one of the cadres,

Look, it's not a matter of money either, we were given Rp 50,000 from YMMA for one contact investigation, but we had to print photos, pay transport to deliver reports, etc. Because not all cadres have their own motorcycles, some take public transportation. So, if you say it's adequate, it's not adequate, yes, I think. But yes, just live it. (Informant 35, Cadre).

In addition to being rewarded for every contact investigation visit, cadres also often receive TB-related training. The organizers of the training are the Medan City Health Office, and the Provincial Health Office, also in collaboration with NGOs such as the KNCV Indonesia Foundation. The results showed that giving rewards contributes to performance because, with rewards, the motivation of employees will increase and produce a good performance. The

research shows the influence of rewards on performance as stated by Purba (2019), Nirwesti et al. (2021), and Nisa and Dyah (2017).

Job Design

Job design is the process of determining the tasks to be carried out, methods for carrying out tasks, and the relationship of these tasks with other tasks to meet the needs of individuals and organizations (Gibson et al., 2012). Based on the results of the study, the existing job description documents and functions have not yet displayed in detail the tasks that must be performed by the TB program officer. Then there are still TB program officers who do not know for sure about the technical instructions for implementing contact investigations. This, as one TB program officer said, "technical instructions for contact investigation, huh? There seems to be a yes. From the health service maybe, or from the Ministry of Health I think." (Informant 13, TB Program Officer). The informant's answer 13 was not so firm in providing an answer regarding the existence of technical instructions for the implementation of the contact investigation. However, the informant who was or TB said that the technical manual for contact investigation from the Ministry of Health has been shared with the WA group of TB teams throughout Medan City. Differences in answers from informants regarding technical instructions for conducting contact investigations can lead to differences in the conduct of contact investigations in the field. One of the things that were seen during the interview was that there was a discrepancy in the information that the informant knew about the minimum number of contacts that should be checked when carrying out a contact investigation (Gibson et al., 2012).

Based on the interview results, there are TB program officers who have other duties or multiple positions. This makes the officer's time quite narrow, thus contributing to his performance in the conduct of contact investigations. This is as in the following interview excerpt:

There are many obstacles. The officer had to go to the field but he was on double duty after completing services to TB patients at the health center. So we give time to carry out contact investigations after the task at the health center is completed. On average, one officer has two or three programs. (Informant 16, head of the health center)

Zarwita, Rasyid, and Abdiana (2019) in their research related to the analysis of the implementation of the discovery of pulmonary TB patients at the Balai Tuesday Health Center in Pantai Selatan Regency explained that the existence of multiple tasks is a challenge for TB officers in carrying out their duties in the TB program.

In addition to the details of the tasks that must exist and must be known by the employee or employees, feedback is needed on the tasks that have been done. Based on the results of the interview, monitoring the implementation of contact investigations has been routinely carried out. However, more detailed written feedback related to how many or percentages have been contacted investigations, how many or percentages have not, or which health center has the highest percentage of contact investigations, which health centers are still lacking, written feedback such as that has not been carried out by the Medan City Health Office which in this case can monitor the implementation of contact investigations in all health centers in Medan City. According to Mathis et al. (2017), feedback is useful to help employees know the effectiveness of their work so that it will contribute to improving their performance.

Perception

Perceptions are the responses of TB program officers about the benefits and importance of conducting contact investigations. Based on the results of the interview, TB program officers have a perception that contact investigations are important and useful to carry out because if you only expect TB suspects to come without taking to the field, it will be difficult to get suspected TB. As an interview from one of the TB program officers reads, "if we visit the house, it will appear to be direct. Sometimes other people feel that they are not coughing, while we think it is already coughing. Later, if you ask if anyone coughs at home, the answer is no." (Informant 7, TB Program Officer).

Although the perception of TB program officers shows confidence in the benefits and importance of contact investigation activities, information was obtained during interviews where there was a perception from TB program officers that entering the results of contact investigations that had been carried out by cadres was quite time-consuming and a little troublesome. So there is unreported contact investigation data which causes a low percentage of contact investigations. The informant who is was or TB explained that in fact, the contact investigation carried out by the cadre became the achievement of the contact investigation of the TB program officer. Meanwhile, if the cadre has to help enter the contact investigation data into the ITB application, the cadre also objected to having to work twice, where the cadre has gone to the field to carry out contact investigations, has manually filled in the contact investigation data on the contact investigation form, but also has to help enter the ITB application. This condition shows that perceptions contribute to the performance of TB program officers in the conduct of contact investigations. The influence of perception on performance is in line with the results of Pangestuti 's research (2018) which found that one of the variables that affect the performance of health workers in the discovery of TB cases with contact investigations in Jember Regency is the perception of health workers regarding their duties and roles.

Attitude

Attitude is an evaluative response or negative positive assessment by TB program officers to activities related to the conduct of contact investigations. Regarding one of the responsibilities given to TB program officers, namely to conduct contact investigations, TB program officers do not show objections or negative attitudes towards these responsibilities, but there are informants who state that because their responsibilities are not only TB programs, informants sometimes do not focus on carrying out their responsibilities as TB program officers. As one informant who is a TB program officer said, "because there is a lot of work, I just want to work TB to focus." (Informant 13, TB Program Officer).

Although it does not show any objectionable or negative attitude regarding the responsibility of TB program officers to conduct contact investigations, as previously stated in the point of perception, there is a presumption from TB program officers that it is quite troublesome to enter the results of cadre contact investigations. This contributed to a less positive attitude on the part of TB program officers which led to a delay in determining the results of contact investigations that were ultimately not queued. Limited time, other responsibilities besides being a TB program officer, and the slowness of SITB are also things that make it difficult to

determine contact investigation data into the ITB application. So there are TB program officers who hope for help in entering the data.

Motivation

Motivation is encouragement from within and outside the TB program officer to achieve the target of implementing contact investigations. According to Afandi (2018), motivation can be seen from the dimension of peace, namely a sense of comfort, pleasure, and enthusiasm because needs are met and the dimension of encouragement to be able to work as much as possible. The results of the interview showed that the motivation of the TB program officer in carrying out his duties was due to the form of responsibility and his obligation as a TB program officer. However, there has not been great enthusiasm for carrying out a series of jobs as a TB program officer, including contact investigation activities. One of them is because of the considerable reports on the TB program. This is as stated by one of the heads of a health center, "The saturation of TB program officers is not, but it is troublesome with reports of yes. Especially now that the reports are all online. The problem is there. There are too many reports if I say." (Informant 10, head of the health center). The study involving 39 experts from various worlds from non-profit organizations, government agencies, funders, research institutions, etc., showed that the motivation of implementors influences the active implementation of TB case discovery (Biermann, Atkins, et al., 2020). Similarly, research conducted by Der et al. (2022) shows that lack of motivation from health workers is an inhibiting factor in the discovery of TB cases.

In addition, this study has also explored the motivations of cadres who help TB program officers in conducting contact investigations. Especially what drives cadres can survive to and become cadres even for more than 10 years. One of the cadres said, "I think this is a useful activity at our age, social activities, the activities are positive, which is clear." (Informant 35, Cadre). The passage of interviews with cadres shows that there is a push from within the cadres who are strong enough to survive as cadres, in addition to of course there are rewards that they get in their activities as cadres, although the number is not too large and according to them is actually inadequate.

External Environment

The external factors that also contribute to the performance of TB program officers in the implementation of contact investigations are external factors that come from the community, namely the existence of index cases that are embarrassed to be visited or closed, neighbors around index cases who are not willing to be investigated by contacts or are not willing to show identity so that they cannot be recorded, the target of contact investigations that are not at home, the target of the investigation of contacts who have moved, as well as the targets of investigations of contacts whose identity addresses and domiciles do not match. As for the target of contact investigations whose domicile is outside the work area of the health center where he is treated, it is a challenge to be able to reach out and investigate his contacts. The existence of objections from the public to conducting contact investigations is not only happening in Indonesia. Stigma, discrimination, and distrust of TB sufferers have also been obstacles to the discovery of active TB cases in Vietnam and India (Biermann et al., 2021; Shamanewadi et al., 2020).

CONCLUSION

The existence of contact investigation targets that have not been visited or who have been visited but have not been recorded and reported on the SITB application has caused a low percentage of contact investigations in Medan City and shows that the performance of TB program officers has not been optimal. There are several factors that contribute to this performance, such as limited human resources, namely there being only one TB officer at each health center, limited time that TB program officers have for the implementation of contact investigations, not optimal coordination between TB program officers and cadres, limited contact investigation budgets derived from health center BOK funds, and slow SITB applications during working hours. From the leadership side, there has been no specific advice or idea given by the head of the health center to overcome the problems found during the contact investigation. In terms of rewards, there are limited rewards for TB program officers in carrying out contact investigations sourced from BOK health center funds. In terms of job design, there are other responsibilities that are owned besides the TB program. The perception and attitude of TB program officers have been good where TB program officers believe in the benefits and importance of contact investigations, and demonstrate a sense of responsibility for carrying out contact investigation activities. However, there are perceptions and attitudes that are not positive regarding the determination of contact investigation data that has been carried out by cadres by TB program officers. In terms of motivation, TB program officers have carried out contact investigation activities as their responsibility, but there is less enthusiasm due to a large number of reports in TB programs and SITB applications that are slow during working hours. Meanwhile, from the external environment, there are still TB patients and their families who are embarrassed to visit, as well as people who are not willing to conduct contact investigations. The presence of TB patients who live outside the health center work area is also a challenge in carrying out contact investigations.

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