

## PROGRAM IN EFFORTS TO REDUCE THE PREVALENCE OF LEPROSY IN KAMPUNG BESAR VILLAGE, TELUKNAGA DISTRICT

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### Abstract

The health profile in 2011-2013 released 14 provinces in Indonesia as a region with a high leprosy burden and 19 other provinces with a low leprosy burden. Banten Province in 2011 found 500 new cases with an NCDR of 4.58% and an increase in 2012 and 2013 with an NCDR of 6.75% and 6.09%. Objectives: Reduce the prevalence of leprosy in the work area of the Teluknaga Health Center, Tangerang Regency. Methods: The study used two approaches, namely the data approach and the Blum paradigm approach. Problem identification is made through an epidemiological approach by observing and analysing data from the previous period. Results: The existing problems are the factors of knowledge, attitudes, and behaviour of the community in dealing with leprosy, which is still poor and supported by a dense, arid, and poor ventilation environment. There are still people who have the attitude in the form of stigma that leprosy is a curse and do not agree that people affected by leprosy participate in joint activities. The behaviour of most people is still not good because they have never attended counselling about leprosy and have never conducted a leprosy detection check. In implementing the activities Plan, Do. Check and Action (PDCA). Conclusions: The existing problems are the factors of knowledge, attitudes, and behaviour of the community in dealing with leprosy, which is still poor and supported by a dense, arid, and poor ventilation environment

**Keywords:** Health Promotion, Leprosy

### Introduction

Leprosy, or Morbus Hansen, is a chronic infectious disease caused by *Mycobacterium leprae*, with the peripheral nervous system as its primary affinity, followed by the skin and respiratory tract mucosa. Leprosy is still commonly found in people worldwide and is influenced by various factors, so it requires a community diagnosis approach for its management. However, although multiple interventions have been carried out, many new cases have still been discovered. <sup>(1-3)</sup>

According to the World Health Organization (WHO), in 2016, a total of 214,783 new cases were discovered in 143 countries. The number of new cases in 2016 increased compared to 2015 due to increased active case discovery. The World Health Organization declared 22 countries as "global priority countries" for leprosy, which accounts for 94-96% of the disease burden and 92.3% of cases with level II disability. There were 12,437 cases in 2016 with grade II disability reported globally. The results of statistical analysis of leprosy from 2007-2016 show that the proportion of cases in most countries is almost always at the same level, even though there has been a reduction in the number of cases. This shows that disease transmission is continuing. <sup>(1-3)</sup>

The Southeast Asia region has the highest number of new case discoveries and the highest number of leprosy cases with grade II disabilities compared to Africa, America, the Mediterranean, the West Pacific, and Europe. Several Southeast Asian countries that contributed the most were Indonesia, Myanmar, and the Philippines. <sup>(1-3)</sup>

Indonesia contributed 16,826 of the 214,783 new cases in the world detected in 2016; level II disabilities accompanied 1363 cases, 62 of them being children, and 229 relapse cases were found, and currently, Indonesia cannot be declared free from leprosy. There were 10 provinces with high burden disease in 2017 based on the New Case Detection Rate (NCDR), namely the provinces of North Sulawesi, Central Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku, West Papua and Papua. There are 11 provinces with high burden disease for pediatric patients, namely Bengkulu, Riau Islands, Banten, West Kalimantan, North Kalimantan, Central Sulawesi, Southeast Sulawesi, Maluku, North Maluku, West Papua and Papua.<sup>(4,5)</sup>

Tangerang Regency is one of the regions in Banten Province that has the highest leprosy burden, with a leprosy prevalence rate ranging from 0.6-1.15 per 10,000 population since 2009-2016 and continues to increase so Tangerang Regency has not yet reached the national elimination target.<sup>(6)</sup>

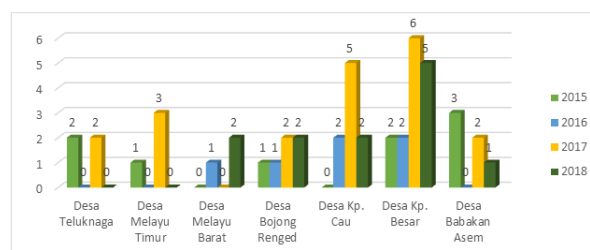
In the Teluknaga Community Health Center area in the 2015-2018 period, 60 leprosy cases were recorded. Data from Teluknaga Health Center in 2018 showed 12 leprosy cases. This means there are more than 10 cases per 100,000 population, so the target for eliminating leprosy has not yet been achieved.

The burden of leprosy causes not only a high number of sufferers but also the significant disability and economic problems it causes. The disabilities experienced by leprosy sufferers will make their lives dependent on other people and unproductive, thus affecting the sufferer's financial situation.

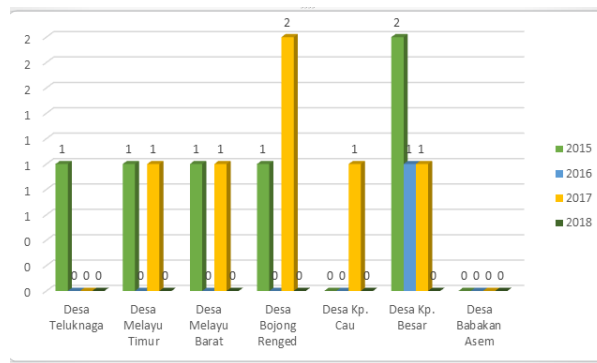
This situation is the main reason for choosing this topic because leprosy is still a problem worldwide, especially in Indonesia. There are many cases of leprosy in the working area of the Teluknaga District Health Center, so it is necessary to carry out interventions to reach population groups at risk, increase early detection activities, and reduce community discrimination against sufferers.

## Method

The research uses two approaches: the statistical epidemiology approach and the Blum paradigm approach. Problem identification is carried out through a statistical epidemiological approach by looking at and analysing data recorded in the previous period. Based on data at the Teluknaga Community Health Center for 2015-2018, 47 cases of multi-bacillary (MB) leprosy and 13 total cases of pausibacillary (PB) leprosy were recorded. Data from Teluknaga Community Health Center in 2018 showed 12 cases of leprosy; this means there were more than 10 cases per 100,000 population, so it had not reached the target for eliminating leprosy.



**Figure 1. Graph of the incidence of MB-type leprosy in the Teluknaga Health Center working area in 2015 - 2018**



**Figure 2. Graph of the incidence of PB-type leprosy in the Teluknaga Health Center working area in 2015 – 2018**

Based on the data, Kampung Besar Village was chosen because it had the highest number of new cases in the Teluknaga Health Center working area. In 2017, Kampung Besar village was in first place with the number of incidents, with 7 out of 26 cases. In 2018, Kampung Besar village ranked first, with 5 out of 12 cases. Kampung Besar Village had a population of 13,124 people in 2017, with 12 Neighborhood Units and 41 Neighborhood Units. After discussions with the person in charge of the Leprosy Prevention and Control Program and the Midwife of Kampung Besar Village, the scope of the location was narrowed to RT 008/ RW 016, Kampung Besar Village, because most leprosy incidents were found in this area.

Problem prioritisation is carried out using the Non-Scoring Technique using the Delphi method. Interviews were conducted at the Teluknaga Community Health Center with the head of the community health centre, the general practitioner at the community health centre, and the head of the Leprosy Prevention and Control Program at Teluknaga Community Health Center in terms of controlling leprosy. The discussion results were that interventions were carried out on lifestyle factors from the BLUM paradigm in RT 008/ RW 016, Kampung Besar Village. Genetic factors, health services, and the environment were not chosen for intervention because genetic factors increase a person's susceptibility to leprosy. Still, not much intervention can be done on genetic factors. Intervention with health services requires a long time to get maximum results apart from This involves assistance from health centre doctors and the role of the government, and intervention in the physical, social, and cultural environment is not easy to do because it is pretty challenging to cause changes that have persisted or have become habits.

After the problem priorities were determined, the problem identified was the lifestyle of Posyandu participants in RT 008/RW 016, Kampung Besar Village, Teluknaga District, Tangerang Banten Regency. Problem-solving and alternative solutions using the fishbone technique. Some of these problems are:

1. Public knowledge about leprosy, its symptoms, causes, transmission methods, management, complications of the disease, and ways to prevent disability due to leprosy is still lacking. This is caused by a lack of education about leprosy and the prevention of disabilities caused by leprosy by health workers and a lack of health workers who are experts in leprosy cases and health workers who can provide good education.
2. There are still people who have an attitude in the form of a stigma that leprosy is a cursed disease and do not agree with leprosy sufferers participating in group activities. This is due to a lack of public knowledge about the causes and methods of transmission of leprosy and a lack of education about leprosy from health workers, giving rise to a bad stigma in the community. Some people refuse to provide education and early detection of leprosy. This is

due to the lack of public opinion regarding the importance of counselling and the assumption that people "are not sick yet, so they don't need it."

3. The behaviour of the majority of people is still not good because they never attend counselling about leprosy and never carry out leprosy detection examinations; this is because people do not know there is advice; people assume "they are not sick, so they don't need it," and there is a lack of counselling and examination activities by health workers. There are still people who rarely socialise, refuse to let leprosy sufferers participate in activities together, and do not provide motivation to leprosy sufferers; this is due to a lack of education about leprosy from health workers and a lack of public knowledge about leprosy.

### **Intervention Planning**

After prioritising the causes of problems and identifying problems, the next step is to formulate interventions to overcome existing problems in the field. Planned interventions include:

- Conduct training materials and correct counselling methods for Kampung Besar Village cadres
- Provide education regarding leprosy, symptoms, transmission methods, management, complications, and prevention of disability due to leprosy to the community
- Invite the public to eliminate the lousy stigma regarding leprosy
- Invite the community not to isolate each other, socialise together, and invite leprosy sufferers to joint activities
- Conduct home visits to leprosy sufferers for education, examination, and motivation
- Provide support to leprosy sufferers to undergo treatment to completion and to have the enthusiasm to recover

### **Results**

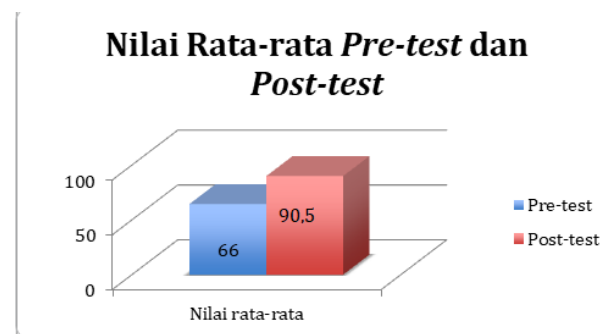
Data was obtained from observations by three young doctors and 1 village midwife of 4 village cadres while carrying out outreach exercises using banners and leaflets as outreach media. All cadres can carry out counselling well and clearly, indicating that cadres better understand leprosy and how to provide advising well. Kampung Besar Village cadres were monitored during training activities on October 29, 2018, because the Training of Trainers activity was a one-time event.

Data was obtained from the pre-test and post-test results, which consisted of 4 multiple-choice questions, with each question consisting of 3 answer choices. The value of one question is 25 points. The number of participants who took the pre-test and post-test was 50 women (100%). The pre-test results obtained an average score of 66. The pre-test results with a score of 25 were 3 people (6%), a score of 50 was 14 people (28%), a score of 75 was 32 people (64%), and a score of 100 as many as 1 person (2%). The post-test results obtained an average score of 90.5, with the lowest score being 50 and the highest 100. Post-test results with a score of 50 were 5 people (10%), a score of 75 was 10 people (20%), and a score of 100 was 35 people (70%). There was an increase in knowledge and an increase in the average pre-test and post-test scores by 37.12%.

Monitoring was carried out when the extension activity took place on October 29, 2018, because the extension activity was a one-time event.

**Table 1 Characteristics of Research Results**

Variable	Proportion (%)	Mean $\pm$ SD	Median (Min-Max)
N=50			
Gender			
100% female			
Pre-test scores		66 $\pm$ 15,78	75 (25-100)
below average	17 (34%)		
above average	33 (66%)		
Post-test scores		90,5 $\pm$ 16,7	100 (50-100)
below average	15 (30%)		
above average	35 (70%)		
Increase in value		24,5 $\pm$ 17,12	25 (0-75)
Percentage increase in grade point average	37,12%		

**Figure 3 Comparison of the average pre-test and post-test scores**

A total of 10 questions given by young doctors in the question and answer session with prizes could be answered by the participants in the counselling activity. This indicates that the participants' knowledge increased after being given the counselling, and the participants remembered the material provided. Monitoring was carried out during the question and answer activity with prizes on October 29, 2018, because this activity was a one-time event.

The results of the intervention from the activities of home visits for leprosy sufferers in RT 008/RW 016, Kampung Besar Village, were assessed by leprosy patients & their families knowing more about the disease they were suffering from, patients complying with taking medication and going to the health centre every month, learning how to prevent disability, and being motivated. to

recover. The neighbours around the patient's house understand how leprosy is transmitted and controlled so that the patient is still allowed to live together in their neighbourhood.

Monitoring was carried out when the activity occurred on October 29, 2018, because this activity was a one-time event. Further tracking can be carried out at the community health centre when the patient is controlled and takes medication every month and reports from village cadres.

The final activity was placing banners and videos about leprosy to be displayed at the Community Health Center so that people would understand more about leprosy. The intervention results were assessed by placing banners and showing videos in the patient waiting room at Teluknaga Health Center because most visitors gathered there. While waiting their turn, they could read the banner and watch the video.

### **Constraint**

Obstacles in the second intervention include the LCD and PowerPoint slides that were prepared could not be used due to technical problems, so the counselling only used banners and leaflets; all the counselling participants were female, so the distribution of participants was uneven; the activity participants exceeded the expected target of 74 participants, so only 50 participants received pre-test, post-test, and leaflet sheets.

Obstacles in the third intervention included 74 counselling participants competing to get only 10 prizes because the estimated number of participants was only 50 people, and questions and answers that had been prepared on PowerPoint slides could not be displayed, so young doctors gave different questions and answers. True orally.

Obstacles in the fourth intervention included one of the patients feeling inferior and embarrassed so that, at first, they refused to explain their illness and be examined. Still, after being persuaded, the patient agreed to be read; not all leprosy patients' homes could be visited due to limited funds and time, as well as the difficulty of eliminating the stigma of leprosy. to citizens

### **Discussion**

Based on WHO data in 2016, 214,783 new cases were discovered from 143 registered countries, with a global new case detection rate of 2.9 per 100,000 population. The number of new cases in 2016 increased compared to 2015, which amounted to 211,973 new cases. This is due to increased active case finding adopted from WHO national programs and improved reporting and data collection. WHO declared 22 countries as "global priority countries" for leprosy, which accounts for 94-96% of the disease burden and 92.3% of cases with level II disability. Most of these countries are in Africa, South America, and Southeast Asia, with Indonesia being one of them. In the 2016 period, there were 12,437 cases of level II disability reported globally. This figure has decreased compared to 2015, namely 14,284. <sup>(1-3)</sup>

A review of relapsed leprosy cases found 2743 relapsed leprosy cases in 54 countries in 2016. Brazil reported 1431 cases, India reported 536 cases, Indonesia reported 229 cases, and 51 other countries reported 547 cases. Compared with 2015, the number of relapse cases was found to have decreased significantly from 3039 to 2743 cases. Most cases of relapse are caused by stopping multi-drug therapy treatment. <sup>(1-3)</sup>

Maintaining active case-finding initiatives at the national level by all countries, especially priority countries, will reduce leprosy cases with level II disabilities globally. Suppose you look at the results of the statistical analysis of leprosy from 2007-2016 (figure 1). In that case, it shows that the proportion of cases in most countries is almost always at the same level, even though there has been a reduction in the number of cases. This shows that disease transmission is continuing. <sup>(1-3)</sup>

One hundred forty-three countries provide data reports on leprosy, 33 countries report 0 new cases, 59 countries report 1-99 new cases, 38 countries report 100-999 new cases, 10 countries report 1000-9999 new cases, and 3 countries (Brazil, India, and Indonesia) which reported more than 10,000 new cases discovered in 2016. <sup>(1-3)</sup>

The Southeast Asia region has the highest rate of discovery of new cases compared to Africa, America, the Mediterranean, the West Pacific, and Europe, namely 8.2 per 100,000 people or 161,263 new cases. The highest number of leprosy cases with grade II disability is also found in Southeast Asian countries. There were 7398 (3.8/1,000,000 population) cases out of 12,819 global cases discovered in 2016. Several Southeast Asian countries that contributed the most to the number of level II disability cases were Indonesia with 1363 cases, Myanmar with 358 cases, and the Philippines with as many as 68 cases. <sup>(1-3)</sup>

Indonesia contributed 16,826 of the 214,783 new cases detected worldwide in 2016. A total of 6314 cases were female, 1923 cases were found in children, level II disabilities accompanied 1363 cases, 62 of them being children, and 229 relapse cases were found. <sup>(1-3)</sup>

Indonesia has achieved leprosy elimination status; namely, the prevalence of leprosy was less than 1/10,000 of the population (less than 10/100,000) in 2000. After that, Indonesia could still slowly reduce the incidence of leprosy. The prevalence rate of leprosy in Indonesia in 2017 was 0.7/10,000 population. However, this statistical result cannot yet be accepted because there are 10 provinces where the prevalence is still above 1/10,000 population, so currently, Indonesia cannot be declared free from leprosy. The rate of discovery of new cases in pediatric patients during the 2013-2017 period was found to be the highest in 2013, namely 11.88/100,000 population. <sup>(4,5)</sup>

The 2013 Indonesian Health Profile through the Data and Information Center released that the number of leprosy sufferers had decreased from 20,023 cases in 2011 to 16,856 cases in 2013, and the discovery of new cases of leprosy in 2013 was the lowest in the last 5 years with a rate of 6.79 per 100,000 inhabitants. Specifically, there was the highest rate of discovery of new cases in the child population in the last 5 years, in 2012-2013, with an increase of 11.88 per 100,000 population. <sup>(7)</sup>

Globally, leprosy is divided into 2 main groups based on region: regions with a high leprosy burden and regions with a low leprosy burden. Areas with a high leprosy burden are defined if the NCDR (new case detection rate) in the province exceeds 10 cases in 100,000 residents or if there are more than 1000 new cases in the province. <sup>(7)</sup>

The 2011-2013 health profile identified 14 provinces in Indonesia as areas with high leprosy burden rates and 19 other provinces as low leprosy burden areas. Eastern Indonesia is a region where all provinces and cities are areas with a high leprosy burden. Banten Province 2011 found 500 new cases with an NCDR of 4.58% and experienced an increase in 2012 and 2013 with new cases of 757 and 702 people and an NCDR of 6.75% and 6.09%. <sup>(7)</sup>

The 2013 Indonesian Health Profile through Infodatin released data that the most number of leprosy sufferers were in East Java Province, but had decreased in the last 2 years with a decrease of 1,152 cases, while Banten province was ranked seventh in Indonesia with many instances of 702 people, but experienced the highest spike in cases of all provinces in Indonesia with the number of new cases reaching 202 people. <sup>(7)</sup>

There are 10 provinces with high burden disease or more than 10 cases per 100,000 population in 2017 based on the New Case Detection Rate (NCDR), namely the provinces of North Sulawesi, Central Sulawesi, Southeast Sulawesi, Gorontalo, West Sulawesi, Maluku, North Maluku, West Papua, and Papua. There are 11 provinces with high burden disease for pediatric patients, namely Bengkulu, Riau Islands, Banten, West Kalimantan, North Kalimantan, Central Sulawesi, Southeast Sulawesi, Maluku, North Maluku, West Papua and Papua. <sup>(4,5)</sup>

Tangerang Regency is one of the regions in Banten Province with the highest leprosy burden, with prevalence rates ranging from 0.6-1.15 per 10,000 population from 2009-2016 and continuing to

increase. The prevalence rate is the number of registered leprosy cases at a particular time per 10,000 population. The prevalence rate for the 2015-2016 period exceeds the national elimination target (less than 1/10,000 population), so Tangerang Regency has not reached the national target. <sup>(4,5)</sup>

Tangerang Regency is one of the regions in Banten Province with the highest leprosy burden, with prevalence rates ranging from 0.6-1.15 per 10,000 population from 2009-2016 and continuing to increase. The prevalence rate is the number of registered leprosy cases at a particular time per 10,000 population. The prevalence rate for the 2015-2016 period exceeds the national elimination target (less than 1/10,000 population), so Tangerang Regency has not reached the national target.

The Teluk Naga Community Health Center program in handling leprosy cases is based on the Basic Six Community Health Centers, which consist of health promotion, environmental health, maternal and child health, as well as family planning, disease control, and ecological improvement, improving community nutrition, and treatment. <sup>(8)</sup>

Decree of the Minister of Health number 1114/Menkes/SK/VII/2005 concerning Guidelines for Implementing Health Promotion in Regions explains that health promotion is an effort to improve community capacity through learning from, by, for, and with the community, so that they can help themselves, and develop activities that are sourced from community resources, by local socio-cultural conditions and supported by public policies that are health-oriented. <sup>(8)</sup>

Implementing health promotion efforts requires the right strategy and is supported by methods and media that are right on target. Tools and media to convey messages are needed to optimise promotional goals. The method in question is a communication method whose principles are based on various aspects, namely empowerment, building an atmosphere, and advocacy. The choice of method is essential by paying attention to the form of information packaging, the condition of the information recipient, and the background of the information recipient, as well as environmental aspects, including space and time. <sup>(8)</sup>

The means of information or media also need to be considered as best as possible by considering the target audience. One means of information is electronic media, namely LCD, video, and PowerPoint, as well as print media such as booklets, brochures, posters, leaflets, and many more. Information media is an effort to display the information that the message giver wants to share so that the target, in this case, the target community, can increase their knowledge, which is expected to change attitudes and behaviour in a more positive direction regarding the health problems around them. <sup>(9-15)</sup>

*PowerPoint slides are a visual information medium that can help strengthen people's understanding of oral material. The advantage of PowerPoint is that it includes animation, still and moving images, attractive colours, and a supportive display. Another benefit is that it is easy to use repeatedly, economical, and easy to carry in flash disk form. PowerPoint also has disadvantages, namely that it requires good skills in operating PowerPoint devices and other high-cost supporting media such as laptops, projectors, loudspeakers, and many more.* <sup>(9-15)</sup>

One audio-visual media that can be used in this activity is a film or video, which is used as a demo. The video has various advantages, namely that it is more dynamic and realistic so that the target will better understand the presented material. The video has multiple disadvantages that are more or less the same as using PowerPoint, namely that it requires supporting media at relatively high costs, starting from projectors, loudspeakers, laptops, and so on. <sup>(9-15)</sup>

Print media that are often used in outreach are leaflets and booklets. Leaflets are used for broad targets and are more economical, namely, in this case, all counselling participants and high school students, and booklets, with the advantage of providing a lot of space for information, are used to educate cadres who will evaluate the female students later, leaflets and booklets (flip sheets) themselves is a static media that prioritises visual messages that focus on images and words. or photos and involves various colour arrangements. The primary function is to provide a more detailed



explanation of the information being communicated and increase understanding compared to just using the oral method. The advantages are that it is easy to make and reproduce, long-lasting depending on the printing medium, covers many people, is cheap, does not require electricity, and can be carried anywhere. The disadvantage is that it is easily lost and requires quality printing facilities so that the results last long.<sup>(9–15)</sup>

Implementing activities to reduce leprosy sufferers' prevalence in the Teluk Naga Subdistrict Work Area requires a Plan, Do, Check, Action (PDCA) as follows.<sup>(22–25)</sup>

## **Plan**

Planning is a series of activities in formulating and describing various tasks and responsibilities for health workers or resources involved.<sup>(22–25)</sup> Planning is a series of activities in developing and defining multiple tasks and responsibilities for health workers or resources involved.

Planning is carried out through several stages of analysis, starting from situation analysis, analysis of the size of the problem based on epidemiological data from the Teluk Naga District Health Center, site scope analysis, analysis of the root of the problem using the fishbone method so that after prioritising the problem using Non-scoring technique (Delphi).

Kampung Besar Village was chosen because it has the highest number of new cases in the Teluknaga Health Center working area. In 2017, Kampung Besar village was in first place with the number of incidents, with 7 out of 26 cases. 2018 Kampung Besar village ranked first, with 5 out of 12 cases. Kampung Besar Village had a population of 13,124 people in 2017, with 12 Neighborhood Units and 41 Neighborhood Units. After discussions with the person in charge of the Leprosy Prevention and Control Program and the Midwife of Kampung Besar Village, the scope of the location was narrowed to RT 008/ RW 016, Kampung Besar Village, because most leprosy incidents were found in this area.

Details of planning intervention activities to reduce the prevalence of leprosy have been explained in the Planning of Action (POA).

## **Do**

Implementation is carrying out and implementing previously determined process planning (Plan) relating to procedures and work instructions according to the activities specified in the plan. Implementation is the realisation of activities implemented in the planning phase. At the implementation stage, it is hoped that all forms of responsibility in the form of procedures and instructions can be carried out as well as possible.<sup>(16–20)</sup>

Implementation of the first intervention activities includes carrying out training activities for Kampung Besar Village cadres entitled KETEMU (Ketahui, Temui, Obati, Rangkul) with discussions in the form of definitions, methods of transmission, symptoms, treatment, complications, and eliminating discrimination or stigma of leprosy with banners & leaflets, followed by discussion sessions, teaching good counselling techniques using banners and pamphlets to cadres, all cadres repeat the counselling and cadres are asked to be more proactive and pay attention to leprosy patients.

Implementation of the second intervention activity includes assessing female students' basic knowledge, attitudes and behaviour regarding leprosy through a pretest, carrying out outreach activities entitled KETEMU (Ketahui, Temui, Obati, Rangkul) with discussions in the form of definitions, methods of transmission, symptoms, treatment, complications and eliminating discrimination or stigma of leprosy using banners & leaflets, followed by discussions and question and answer sessions, as well as conducting post-tests after counselling to see improvements in knowledge and attitudes.

The implementation of the third intervention activity was a question and answer session with young doctors giving verbal questions totalling 10 questions with the result that 10 participants who could answer correctly would be given prizes.

Implementation of the fourth intervention activity is a discussion by young doctors and village cadres to determine the patient's house that needs to be visited, as well as deciding three houses for leprosy sufferers that need to be seen, carrying out activities to explain leprosy, carrying out a thorough physical examination of the patient and his family, describing how to prevent disability. , provide motivation to complete treatment and check-ups at the health centre every month and stay enthusiastic, approach neighbours around the patient's house and explain that leprosy is not easily transmitted, and provide souvenirs

The final activity in the framework of carrying out this activity in a sustainable manner is to explain the purpose of the activity and obtain permission from the head of the Teluknaga Community Health Center, the general practitioner, and the head of the leprosy prevention and control program to show an informative video and place a banner at the Community Health Center and discuss the placement of the banner and display of the video as well as submit informative videos and banners entitled “Ketemu (Ketahui, Temui, Obati, Rangkul) Orang Kusta” to the health centre.

### ***Check***

Check is a series of activities to evaluate targets and processes and report on what has been produced. The inspection activities include examining all activity processes, monitoring, checking, measuring, evaluating, and correcting all activities carried out. This stage itself is included in quality control throughout an activity process. <sup>(16–20)</sup>

Examinations that can be carried out in this program are regarding the course of the training process on materials and correct methods of counselling to cadres and the community of Kampung Besar Village, eliminating the bad stigma of society regarding leprosy, as well as support for leprosy sufferers to undergo treatment to completion and to have the enthusiasm to recover.

### **Action (Act)**

The act stage is a stage regarding the total evaluation of all results and processes and carrying out follow-up actions with improved activities aimed at improving activities at a later time. <sup>(16–20)</sup>

The final result of this activity is to reduce the prevalence of leprosy in the working area of Teluknaga Community Health Center, Tangerang Regency, Banten Province. If the leprosy prevalence rate does not decrease in the future, more aggressive strategies and better planning are needed to reduce the leprosy incidence rate.

### **Conclusion**

The final result of this activity is to reduce the prevalence of leprosy in the working area of Teluknaga Community Health Center, Tangerang Regency, Banten Province. If the leprosy prevalence rate does not decrease in the future, more aggressive strategies and better planning are needed to reduce the leprosy incidence rate.

### **Suggestion**

The Tangerang Health Service and the community health centres within the Teluk Naga Community Health Center should increase promotive health activities in the form of education about leprosy in other villages within the working area of the Teluknaga Public Health Center and form external working groups in all villages within the active area of the Teluknaga Community Health Center so that the coverage of leprosy prevention and control activities is more excellent. wide

## References

- [1] UNAIDS. Global AIDS Update 2016. World Heal Organ. 2016;
- [2] WHO. Global Leprosy Strategy 2016-2020. World Health Organization. 2016.
- [3] Global leprosy update, 2016: accelerating reduction of disease burden. *Relev Epidemiol Hebd.* 2017;
- [4] Kemenkes RI. Data dan Informasi profil Kesehatan Indonesia 2018. Data dan Inf Profil Kesehat Indones. 2018;
- [5] Kemenkes RI. Hasil Utama Riset Kesehatan Dasar Tahun 2018. Kementrian Kesehat Republik Indones. 2018;
- [6] Tangerang DKK. Profil Kesehatan Kota Tangerang 2015. 2017. 2016;
- [7] Pusat Data dan Informasi Kementerian Kesehatan RI. Kusta 2018. InfoDATIN. 2018.
- [8] Kemenkes RI. Pedoman Pelaksanaan Promosi Kesehatan di Puskesmas.Pdf. Pedoman Pelaksanaan Promosi Kesehatan di Puskesmas. 2007.
- [9] Notoatmodjo S. Promosi Kesehatan dan Perilaku Kesehatan. *Journal of Chemical Information and Modeling.* 2012.
- [10] S N. Ilmu Kesehatan Masyarakat Prinsip-Prinsip Dasar. In: Rineka Cipta. 2003.
- [11] Notoatmodjo S. Kesehatan Masyarakat Ilmu & Seni. Rineka Cipta. 2011.
- [12] Notoatmodjo S. Komunikasi Kesehatan. Promosi Kesehatan Teori Dan Aplikasi. 2010.
- [13] Notoatmodjo S. Promosi Kesehatan, Teori & Aplikasi. Jakarta: Rineka Cipta. 2010.
- [14] Notoatmodjo S. Pendidikan dan Perilaku Kesehatan. Jakarta: PT Rineka Cipta (2005). Metodol Penelit Kesehat. 2003;
- [15] S Notoatmodjo. Pengantar Ilmu Kesehatan Masyarakat. Jakarta: Rineka Cipta. 2005.
- [16] Moen R, Norman C. Evolution of the PDCA Cycle. Society. 2009;
- [17] Gooch JW. PDCA. In: *Encyclopedic Dictionary of Polymers.* 2011.
- [18] Johnson CN. The benefits of PDCA. *Quality Progress.* 2016.
- [19] Johnson CN. The benefits of PDCA. *Qual Prog.* 2002;
- [20] Nahler G, Nahler G. PDCA-cycle. In: *Dictionary of Pharmaceutical Medicine.* 2009.