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Programmatic management of drug-resistant tuberculosis financing in Lampung Province

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Abstract

Purpose: This research aims to get an overview of Programmatic Management of Drug-Resistant Tuberculosis (PMDT) Financing in Lampung in 2021. **Methods:** This is a mixed-methods research study aimed at determining the amount of financing for PMDT from a payer perspective and assessing the local government's commitment. Financing calculation using Lampung Provincial Health Office, Global Fund, and BPJS Kesehatan financial data. The local government's commitment was evaluated by a focus group discussion with the Lampung Provincial Health Office officer. **Results:** The total financing for the PMDT in 2021 was Rp 6,072,456,520, with 92.12% of funding sources coming from donors, 6.17% from APBN, 1.71% from JKN, and 0% from the APBD. The activities with the highest costs are the provision of anti-tuberculosis drugs at 35% and additional logistics at 34%. **Conclusion:** The main challenge in financing PMDT is the high-cost requirement, which the local fiscal capacity doesn't support. It should be an essential concern for local governments to ensure the program's sustainability after the termination of Global Fund funding. The government must enhance local fiscal capacity in the post-pandemic era and promptly develop and implement a national health insurance scheme to finance PMDT.

Keywords: drug resistance; health financing; tuberculosis

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INTRODUCTION

Drug-resistant tuberculosis (DR-TB) poses a threat to TB control and is one of the significant public health issues in many countries around the world. According to the WHO Global TB Report 2020, it is estimated that there are 10,000,000 new TB cases globally, with an estimated 465,000 of these being Drug-Resistant TB (DR-TB) [1]. According to the WHO, data from Indonesia estimates that the prevalence of MDR-TB is 2.4% among all new TB patients and 13% among previously treated TB patients, with a total estimated incidence of MDR-TB cases of 24,000, or 8.8/100,000 population [1].

The management of drug-resistant TB (TB-RO) is more complicated and requires more attention compared to the management of drug-sensitive TB. The control of DR-TB is carried out using the directly observed treatment, short-course (DOTS) strategy framework, where each component is emphasized in

the management of drug-resistant TB cases through a programmatic approach called Integrated Management of Drug-Resistant TB (IMDR-TB) or Programmatic Management of Drug-Resistant TB (PMDT). Strengthening the Integrated Management of Drug-Resistant Tuberculosis aims to improve service quality and ease of access for detection and treatment, thereby breaking the transmission chain and preventing the occurrence of XDR TB [2].

In December 2019, the Stop-TB Partnership published the Global Plan to End TB 2018–2022, which includes financing estimates for 128 lower-middle-income countries (including Indonesia). The estimated funding for TB management in 2020 is at least US$13 billion and will increase to US$15 billion by 2022. From the estimated US$13 billion in 2020, US$4.3 billion (33%) was used to manage MDR-TB. This amount of funding is quite significant, considering that the number of MDR-TB patients is estimated to be only 13% of all pulmonary TB patients.

The implementation of MTPTRO in Lampung Province began in 2014. The evaluation results based on the 2018 Health Office strategic plan indicate that the percentage of the health budget allocated in the Lampung Provincial Regional Budget has reached 14.7%. Based on the preliminary study conducted, it was found that the financing of drug-resistant TB management in Lampung Province in 2021 relied solely on the state budget (APBN) and the Global Fund. There is no funding from the regional budget (0% is sourced from the provincial and district/city regional budgets). The government's target for 2024 is for 70% of towns/regencies to have sufficient funding to meet the tuberculosis SPM. All tuberculosis program services are hoped to be provided domestically.

In PMK Number 67 of 2016 concerning Tuberculosis Control, it is stated that the allocation of funds at both the central and regional levels must be carried out through the commitment of financing from the central and regional governments. The availability of regional government funds indicates that the financing of the TB program will be more sustainable. In this context, it is essential to research and evaluate the financing of drug-resistant TB management as input to ensure the adequacy of funding and the sustainability of the drug-resistant TB management program in Lampung Province.

METHODS

This research is a mixed-method study. The descriptive quantitative approach was conducted using a survey method to obtain the amount of funding allocated for TB-RO management from the perspective of funders/payers, as well as the budgetary needs for TB-RO management through normative calculations according to the MTPTRO guidelines in Minister of Health Regulation No. 13 of 2013 and the Technical Guidelines for the Management of Drug-Resistant Tuberculosis in Indonesia in 2020.

Qualitative methods were employed to gather data on the financing conditions of TB-RO service implementation in healthcare facilities and policymakers' commitment to financing the TB-RO management program in Lampung Province, through focus group discussions.

Data collection was conducted from February to June 2021 at the Lampung Provincial Health Office, RSUD Dr. H. Abdul Moeloek, Lampung Province, Global Fund, BPJS Kesehatan Main Branch Lampung, BPJS Kesehatan Metro City, BPJS Kesehatan Kotabumi, and the Lampung Healthy Initiative. The financial data was collected through a document review of the financial reports for the 2021 TB RO program. Primary data were obtained through focus group discussions with informants selected using purposive sampling that met the principles of appropriateness and adequacy, with criteria including policymakers responsible for and involved in the preparation, determination, and use of the budget at the Lampung Provincial Health Office and members of the Clinical Expert Team for Drug-Resistant Tuberculosis, according to the Decree of the Director of RSUD dr. H. Abdul Moeloek.

The projected financing needs for TB-RO over the next five years are calculated using the Health Financing Costing System (Siscobikes). Siscobikes is a tool developed by the Center for Health Financing and Guarantee (PPJK) of the Ministry of Health to assist local governments in preparing plans and budgets for the health sector SPM. It aims to be targeted and evidence-based.

RESULTS

Details of financing based on activity components

Table 1 shows the financing details for each activity component. The total financing for all MTPTRO activities in Lampung Province in 2021 is Rp 7,140,953,195. The element of the activity with the highest cost is the provision of OAT, amounting to Rp 2,091,050,571. The details of other activities include the provision of non-OAT logistics amounting to Rp2,076,409,840; human resource development amounting to Rp142,721,000; monitoring and evaluation amounting to Rp388,228,000; MTPTRO service networking amounting to Rp5,232,000; MTPTRO

Table 1. Details of TB-RO control financing in Lampung Province based on financing components

Activities component	Activities detail	Total (Rp)
Managerial		
Provision of OAT	According to the regimen, the patient needs OAT therapy during treatment.	2,056,444,571
	Distribution of medicines, laboratory supplies, etc., from the province to the district/city	34,450,000
	Distribution of medicines, laboratory supplies, etc., from regencies/cities to health facilities	156,000
Provision of Non-OAT Logistics	All materials and medical equipment, except for OAT, are used to support the management of TB and MDR-TB patients.	2,076,409,840
Human Resources Development	Capacity building to initiate TB-RO services	23,174,000
	SITB training for TB-RO health facilities (OJT for staff in the new TB-RO service)	27,945,000
	Counseling training for health workers in healthcare facilities that will start TB-RO services	23,174,000
	Counseling training for healthcare workers in health facilities that will start provincial-level TB-RO services	17,420,000
	Clinical mentoring for TB-RO at the district/city level	35,648,000
	Provincial-level TB-RO clinical mentoring	15,360,000
Monitoring and Evaluation	Monitoring the evaluation of the TCM testing and specimen transportation system	120,164,000
	Monitoring and evaluation of tuberculosis microscopic BTA examination laboratories	253,840,000
	Clinical audit/mini-cohort to monitor the treatment of MDR-TB patients, the decentralization process, and the implementation of a patient-centered approach.	14,224,000
	Coordinate a meeting with BPJS to discuss strengthening the referral system and access to financing for TB and TB-RO patient treatment.	0
MTPRO Service Network	Development activities for services and referrals in the TB-RO service network	0
MTPRO Service Network	Decentralization of TB-RO patient treatment to satellite health facilities	5,232,000
Preparation of MTPRO facilities	Development and fulfillment of TB-RO service facility needs	23,174,000
Service		
Diagnostic process	Diagnostic tests on patients before, during, and after treatment	1,399,675,596
Inpatient and outpatient care	Inpatient and outpatient treatment costs for patients during treatment	
Management of side effects	The cost of side effects that appear in patients during treatment	
Supportive lab examination	Supporting lab tests on patients before, during, and after treatment	
	The cost of packaging and shipping specimens/test samples from healthcare facilities to TCM healthcare facilities.	334,188
	Shipping Costs for Test Samples from TB-RO Referral Health Facilities or TB-RO Health Facilities to LPA/cDST Referral Laboratories	10,753,000
Socioeconomic support	Cost enablers as support for diagnosing TB-RO patients to start treatment until recovery	711,175,000
	Reward for Officers who support the treatment of TB-RO patients until they are cured or complete	0
	The case manager and companion take medicine	268,200,000
	Provision of shelter	24,000,000
	Total	**7,140,953,195**

facility preparation amounting to Rp23,174,000; clinical services worth Rp1,399,675,596; supporting lab examinations (packaging and specimen shipping) amounting to Rp11,087,188; and socio-economic support amounting to Rp1,003,375,000.

The classification of activity components refers to Permenkes No. 13 of 2013, which generally divides activities into managerial and service activities. Managerial activities encompass several sub-activities, including providing OAT and non-OAT logistics, human resource development, monitoring and evaluation, as well as infrastructure and management activities at all levels. The financing of service activities includes all services provided directly to patients in clinical care at healthcare facilities, from the establishment of diagnosis to the completion of treatment and socio-economic support. Each sub-activity is further divided into several activity components, which reflect the use of each component to facilitate tracking and budget grouping.

All the details of the financing are the actual values according to the expenditures from the Lampung Provincial Health Office and the Global Fund, except for the sub-components of inpatient and outpatient care costs sourced from BPJS Kesehatan, and the sub-components of case manager activities, medication adherence support, and shelter provision sourced from the expenditures of the Lampung Sehat Initiative (ILS).

The expenditure for inpatient and outpatient activities sourced from BPJS Kesehatan uses estimated values because the claim data at BPJS Kesehatan is grouped by coding, which cannot be separated into drug-sensitive and drug-resistant tuberculosis. Thus, the estimated data is obtained by calculating the average cost per person for TB-RO claims by RSUD Dr. H. Abdul Moeloek for BPJS Kesehatan, and then multiplying this by the total number of TB-RO patients treated across all regions. The estimated probability of hospitalization is 100% of patients having been hospitalized, specifically during the initial phase of treatment initiation and hospitalization if the patient experiences severe drug side effects.

The expenditure for the sub-activities of case managers, medication adherence supporters, and shelter provision is based on estimated values, as accurate figures could not be obtained through the Lampung Sehat Initiative. Therefore, the estimated values are calculated based on the budget line of the principal recipient, which is determined according to the number of TB-RO patients handled in Lampung Province.

Details of financing based on cost sources

Figure 1 shows that the largest financing scheme is provided by donors from the Global Fund, amounting to Rp 5,886,116,210 (82.43%). The financing sourced from BPJS Kesehatan covers Rp 879,913,185 (12.32%). It is miserable that the funding sourced from the government only covers a small portion, namely the State Budget (APBN), amounting to Rp374,923,800 (5.25%) and the Regional Budget (APBD), 0%.

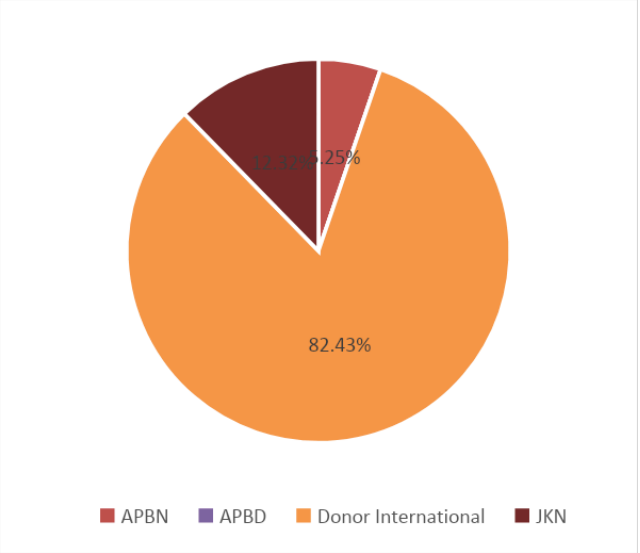

Figure 1. Details of financing based on cost sources

The financing needs for TB-RO management in Lampung Province for the years 2022-2026

The calculation of financing needs for TB-RO control requires baseline data from the previous year, which will serve as a reference for projections to determine the budget necessary for TB-RO control financing in subsequent years. In this study, 2021 will be used as the reference year in calculating financing needs and subsequently projecting needs until 2026. In addition to the reference year, general data, such as the population growth rate and inflation rate (5%), as well as program data, are also required, specifically the target for TB-RO case detection.

TB-RO cases are estimated using the formula = (2.4% * estimated new pulmonary tuberculosis cases) + (13% * estimated retreatment pulmonary tuberculosis cases). According to that formula, the target number of instances to be found in 2022 is 862. This case estimate is used as the program target. This calculation will result in the minimum cost requirements the government must meet or budget for over the next five years.

The calculation of TB-RO financing needs in Lampung Province for the years 2022-2026

Assumption	not cohort
Perspective	payer
Early years	2021
Population of Lampung Province	9,081,792
% Annual Population Growth Rate	1%
Number of TB-RO cases in 2021	69
Inflation	5%
Projection of the target for TB-RO case findings	

The number of targets that are the focus of the program	Assumptions for the 5-year projection						Assumption of annual increase (%)
Number of TB-RO case findings	2021	2022	2023	2024	2025	2026	1
	69	862	871	879	888	897	

Table 2. Projection of MTPTRO financing needs

	Unit cost of TB-RO control activities by year and inflation					
	2021	**2022**	**2023**	**2024**	**2025**	**2026**
	103,492,075	**108,666,679**	**114,100,013**	**119,805,014**	**125,795,264**	**132,085,028**
Projection of Budget Needs for TB-RO Control Activities by activity component, year, five-year target, and inflation						
Activities component	2021	2022	2023	2024	2025	2026
Provision of Non-OAT Logistic	2,076,409,840	27,237,080,379	28,897,531,161	30,621,098,031	32,481,355,864	34,451,086,735
Provision of OAT	2,091,050,571	27,429,128,577	29,101,287,169	30,837,006,881	32,710,381,360	34,694,000,770
Monitoring dan Evaluation	388,228,000	5,092,538,591	5,402,994,395	5,725,251,064	6,073,064,952	6,441,347,100
Human resources Development	142,721,000	1,872,127,204	1,986,257,465	2,104,725,978	2,232,589,877	2,367,978,351
MTPTRO Service Network	5,232,000	68,630,191	72,814,085	77,157,015	81,844,369	86,807,567
Preparation of MTPTRO facilities	23,174,000	303,982,426	322,514,069	341,750,127	362,511,738	384,495,136
Clinical services	1,410,762,784	18,505,527,475	19,633,677,671	20,804,710,455	22,068,614,367	23,406,896,894
Socioeconomic support	1,003,375,000	13,161,662,500	13,964,035,313	14,796,907,453	15,695,832,206	16,647,657,166
Total budget requirement	7,140,953,195	93,670,677,345	99,381,111,329	105,308,607,005	111,706,194,734	118,480,269,719

Table 2 shows the financing needs projection calculations, in 2022, Rp 93,670,677,345 reached Rp 118,480,269,719 in 2026. That amount is significantly higher than the financing amount in 2021, which was only Rp 7,140,953,195. The drastic increase in financing needs is due to the projections being calculated based on estimated case findings. In contrast, the realization in 2021 of case findings in Lampung Province reached only 8.4% of the target, so financing was based on the number of patients found. The projected costs per activity component also increase each year due to inflation. The challenge in the coming years is for the government to meet the needs of its healthcare system while also providing quality treatment budgets for tuberculosis patients in Indonesia.

Results of the focus group discussion

Focus group discussions were conducted with selected informants to understand financing practices and issues in healthcare facilities, the planning process, budgeting, and policymakers' commitment to the TB-RO control program.

Based on the results of the FGD conducted at RSUD dr. H. Abdul Moeloek is the main referral hospital for TB-RO services; the acts on the ground still show several financing-related issues faced by healthcare facilities implementing TB-RO services as follows: 1) The distribution of health facilities providing TB-RO services in Lampung Province is incomplete; 2) The issue of claims for financing through donor schemes; 3) There is no financing scheme or routine outpatient registration scheme for TB-RO patients in the hospital yet; 4) Minimal rewards for officers serving TB-RO.

The FGD at the Provincial Health Office focuses on exploring the financing conditions, budget planning flow, and policymakers' commitment to TB-RO financing. The total provincial budget of Lampung in 2021 was 7.6 trillion, while the budget of the Lampung Provincial Health Office was 419 billion. This means

the health budget accounts for only 6% of the entire regional budget. The most concerning thing is that no budget for the TB-RO control program is sourced from the regional budget (APBD). The informants, with the following statement, acknowledged the lack of a regional budget,

> *"Indeed, when talking about the overall APBD budget, the support for the APBD budget is still minimal."*

The current situation in the field is that the regional health offices, both provincial and district/city, have attempted to submit budget proposals through the APBD scheme but have not been successful, according to the informant's statement as follows,

> *"Actually, according to government regulations, the funds for achieving SPM are unbudgeting." It means it is not limited. It must be fulfilled to achieve 100% SPM. That's a positive point for lobbying to get the budget. But my friends said, "Ma'am, once it's on the desk, the activities will still be crossed out."*

Based on the results of the FGD, the challenges, and obstacles faced by the Lampung Provincial Health Office in financing drug-resistant tuberculosis are: 1) The high demand for funding the TB-RO control program; 2) The fiscal capacity of the region is limited, 3) Lack of cross-sector collaboration; 4) The existence of the COVID-19 pandemic; 5) There is no specific budget allocation for TB-RO yet.

DISCUSSION

This study found that the total funding for the TB-RO control program in Lampung Province in 2021 was IDR 7,140,953,195, with a unit cost per patient of IDR 103,492,075. Compared to the Global TB Report 2020 data, the estimated average unit cost of TB-RO in 89 countries in 2019 was 5659 USD, or around Rp84,885,000 [3]. However, because the WHO's calculations do not specify which components are included, the differences in unit costs cannot be compared in detail. The difference in estimated unit costs can only be approximated due to the difference in the year of data collection, which is influenced by annual inflation.

The proportion of activity components with the highest costs is the provision of anti-tuberculosis drugs (OAT) at 29.28%, followed by non-OAT logistics at 29.08%, and thirdly, the financing of clinical services at 19.60%. The results of this study differ from the WHO (2020) data in the Global TB Report, which states that in most countries (except China and Russia), 44% of funding is used for the provision of TB drugs and 31% for inpatient care costs.

The cost for the human resource development component is only Rp 142,721,000 (2%), while the preparation of MTPTRO facilities for the development and fulfillment of TB-RO service facility needs amounts to Rp 23,174,000 (0.32%). No funding was found for infrastructure development, including buildings or medical equipment. This is because, in 2021, there were no service development activities, medical equipment procurement, or the addition of healthcare facilities that provided TB-RO services. However, based on previous research stated that the factors influencing the success of MDR TB control in China are the strengthening of capacity in terms of infrastructure, technology, and human resources [4]. Policymakers and budget planning teams must enhance budget planning for infrastructure development and human resource development components, especially considering the conditions in Lampung Province, which currently has only three hospitals providing TB-RO services and a low coverage of TB-RO case detection.

Funding for the socio-economic support activity component amounts to Rp 1,003,375,000 (14.05%). This component is funded by the Global Fund, part of which is channeled through the community. The complexity of managing pulmonary tuberculosis must be viewed and managed holistically, not only on the clinical or treatment side but also by considering other factors that influence the success of the treatment. Research conducted by Fuady et al. (2018) on households still has the potential to bear catastrophic costs due to tuberculosis [5]. The total cost borne by households for MDR TB patients is 2,804 USD. The proportion of households experiencing devastating expenses due to MDR TB is 83%. Catastrophic costs in low-income families are caused by the tuberculosis patient's status as a breadwinner, job loss, and previous treatment history.

It has become a common issue that the Global Fund will stop its funding in Indonesia after 2023. The problem is reinforced by the formation of the RSSH (Resilient Sustainable System for Health) team, which consists of the Health Service Association team and is initiated by the Global Fund, aimed at strengthening the health system in addressing ATM and ensuring the availability of regional government budgets for practical activities in addressing ATM [6]

Furthermore, on December 8, 2021, the Ministry of Home Affairs and the Association of Health Offices signed Memorandum of Understanding No. 119/7099/SJ as a joint guideline to enhance coordination, synergy, and cooperation, particularly in strengthening ATM

planning and budgeting in the regions. If the needs are compared to the allocated budget, the budget sufficiency for tuberculosis control becomes a significant obstacle in Lampung Province. The research conducted by Setiawan in 2016 mentions that a short-term alternative strategy to ensure the sufficiency of funding and the sustainability of the program after the termination of Global Fund funding is to increase the government's financial commitment to replace the previously donor-sourced funding.

The lack of specific regulations governing TB-RO control in Lampung Province and a dedicated budget item for TB-RO financing indicate that TB-RO is not yet considered a significant issue. Significantly, the extent of health financing in the era of decentralization depends on regional policies. Therefore, local health services must be able to set health program priorities. Advocacy to policymakers, regional heads, and legislative bodies must be intensified to obtain a political commitment for increased budget allocation. Political commitment must be translated into policy formulation and subsequently formulated into financial resources and administrative support. 20 The health department, in collaboration with the RSSH team, must carry out various advocacy efforts in the form of meetings, visits, assistance, and policy briefs to strengthen the planning and budgeting of the regional budget (APBD) for the control of TB-RO to policymakers (executive and legislative).

The National Tuberculosis Control Strategy 2020-2024 states that the division of domestic financing responsibilities, which includes the State Budget (APBN), Provincial Budget (APBD), and Regency/City Budget (APBD), must be implemented with decentralization by the regional autonomy framework. The government's commitment to increasing funding from government sources still needs to be continuously pursued, considering the generally low government funding. However, the mobilization of funding sources must also consider the capacity of regional fiscal space, current conditions, the regional funding framework, and regional issues, especially those related to the COVID-19 pandemic.

Minister of Finance Regulation No. 120/PMK.07/2020 on the Regional Fiscal Capacity Map states that the Regional Fiscal Capacity (KFD) index of Lampung Province is 0.678 and falls into the moderate category. Meanwhile, for the KFD of regencies/cities in Lampung Province, it is mentioned that one regency falls into the very high category, one regency into the high category, three regencies into the medium category, seven regencies into the low category, and three regencies into the very low category. Regional fiscal capacity is urgently needed to ensure that all financing for the TB-RO control program can be budgeted through the regional government budget (APBD) in the coming years.

Some policy recommendations based on the results of this research are: 1) Establishment of specific regulations for TB-RO financing. The improvement of regulations is carried out by incorporating related points that support the TB-RO program. Furthermore, the regulation is encouraged to become a performance indicator for regions in allocating budgets and specific budget items for TB-RO control [7]; 2) Utilization of alternative resources. To address the issue of the termination of funding support from the Global Fund, the government must immediately increase efforts to secure funding for the TB-RO control program beyond existing sources.

Alternative funding sources that can be utilized for TB-RO financing include: a) National Health Insurance Fund: Collaboration with BPJS Kesehatan must be clarified, especially regarding the payment mechanism for healthcare facilities, the coverage of service packages in both FKTP and FKTL, the patient referral mechanism, and case finding. In addition, to ensure that the costs of the patient's treatment process can be covered by BPJS Kesehatan, a case-based cost scheme needs to be developed that includes all clinical services from the diagnostic process, inpatient and outpatient care, management of side effects, and supporting laboratory examinations. Establishing the case-based TB-RO scheme covered by JKN can simultaneously address the tariff scheme issues in hospitals and is expected to encourage cooperation between private hospitals and the government in TB-RO management; b) Philanthropy Fund: Data from BAZNAS in 2016 stated that through zakat institutions and charitable bodies, Indonesia could collect 98 trillion rupiah, with a zakat potential reaching 286 trillion rupiah. One of Indonesia's Zakat Management Institutions (LAZ), Lazismu, raised Zakat funds to 85 billion in 2016. The collected philanthropic results support education, the economy, and healthcare costs in Indonesia 37; 3) Responsabilidad Social Corporativa de Dana: Mobilization of non-governmental health financing sources through Corporate Social Responsibility can also be improved. Research conducted by Erfit in 2017 mentioned that in Jambi Province, the distribution of CSR partnership funds can generally be categorized into two forms: Partnership Programs with SMEs and Community Development in the form of social support covering health, agriculture, education, etc. 5 The Lampung Provincial Government can map out the needs for medical equipment or the development of healthcare facilities by the mapping of potential companies; 4) Village Fund: Since its first launch in

2015, the village fund budget allocation trend has increased over the past 6 years [8]. Village funds are expected to be utilized optimally, with a significant portion allocated to the health sector. Village regulation interventions have the potential to serve as a basis for accessing village funds to improve TB-RO treatment adherence at the village community level. 29; 5) Financing Efficiency: The research findings reveal that the Global Fund and BPJS Kesehatan still share funding sources for clinical services. This indicates that program budgeting and financing are still fragmented, the information systems in each regional unit are still running in parallel, and funding is still inefficient.

Based on research conducted by the WHO, increased health financing correlates with better health outcomes and is expected to improve even further when supported by allocative and technical efficiency [1]. Financing efficiency can be achieved by ensuring limited resources/funds are allocated to interventions with program leverage (cost-effective) or allocative efficiency. In implementing program activities, ensuring compliance with algorithms and service standards is necessary to guarantee technical efficiency [9].

This cost analysis presents several limitations. First, it does not account for clinical aspects of patients, such as therapy regimens, comorbidities, or final treatment outcomes, which may influence overall costs. Second, the financial calculation focuses solely on data from 2021, limiting the ability to assess trends or changes in financing over time. Additionally, expenditures related to inpatient care under BPJS Kesehatan are based on estimations, as the claims data are aggregated by codes that do not distinguish between drug-sensitive and drug-resistant tuberculosis cases. Estimated values were also used for specific sub-activities, including case management, medication adherence support, and shelter provision. Furthermore, qualitative data collection was limited to interviews conducted at RSUD Dr. H. Abdul Moeloek and the Lampung Provincial Health Office, which restricted the analysis from incorporating the perspectives of other regional institutions involved in the APBD budgeting process, such as the Financial Bureau or Regional Planning Agency.

CONCLUSION

In 2021, the total funding allocated for the Integrated Management of Drug-Resistant Tuberculosis (DR-TB) Control in Lampung Province amounted to Rp7,140,953,195. This funding was divided into two major components: managerial activities—which include the provision of anti-tuberculosis drugs (OAT), non-OAT logistics, human resource development, monitoring and evaluation, service networking, and facility preparation—and clinical activities such as diagnostics, inpatient and outpatient care, laboratory examinations, and socio-economic support. Among these, the highest expenditures were for the provision of OAT (Rp 2,091,050,571 or 29.28%) and non-OAT logistics (Rp 2,076,409,840 or 29.08%).

Projections of financing needs show a significant increase over time, with an estimated Rp93,670,677,345 required in 2022 and Rp118,480,269,719 by 2026. These projections are influenced by target case findings and inflation. The majority of funding currently comes from international donors, particularly the Global Fund (82.43%), followed by the National Health Insurance (JKN) at 12.32%, and the state budget (APBN) at 5.25%. Notably, there is no financial contribution from local or regional budgets (APBD). This heavy reliance on external funding, combined with the growing gap between financial needs and allocated budgets, poses a significant challenge to the sustainability and effectiveness of DR-TB control efforts in Lampung Province.

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