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Health financing analysis in the implementation of minimum service standards in Lumajang Regency

Arie Risdiyanti*[1], Hadi Paramu[2], Sunarto[3]
[1]Postgraduate Study Program, University of Jember, Jember, Indonesia
[2]Faculty of Economics and Business, University of Jember, Jember, Indonesia
[3]Department of Public Health, Islamic University of Indonesia, Yogyakarta, Indonesia

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***Corresponding author:**
212520102027@mail.unej.ac.id

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ABSTRACT

Background: Health financing in Lumajang is still far from the target. Therefore, a study focused on the implementation of minimum service standards (MSS) in the health sector is needed. Despite the government emphasis on MSS health, disparities in service access and health conditions persist.
Objective: To provide insights into the effectiveness of health financing, serving as a foundation for policy recommendations to enhance the efficiency and effectiveness of health fund allocation in Lumajang Regency.
Methods: The study employed a quantitative approach, utilising district health accounts (DHA) and cost and benefit analysis (CBA). The budget allocation for different MSS health services was also investigated. The analysis involved examining the spending proportion relative to total health expenditure. The study design used a qualitative descriptive method. The data source was obtained from the budget realisation report for the MSS health sub-activities at the Community Health Center (CHC) and the Lumajang Health Office. Data analysis was performed by an integration of DHA and CBA approaches. We performed mapping costs and benefits analysis and calculated the sensitivity of financing to whether it is economically profitable and provides leverage for achieving MSS performance indicator targets.
Results: The realisation of local original revenue in the health sector tended to fall below targets. Central transfer funds dominated the funding sources in CHC. The highest health budget allocation of MSS was received by maternal health services, while other services only received a proportion relative to a decrease in total health expenditure**.**
Conclusion: In Lumajang Regency, analysis of the costs and benefits of regional health financing to fulfil MSS health showed that the benefit-cost ratio (BCR) value was > 1, meaning that health financing for MSS in the District Health Sector was profitable, so it should be used as a regional priority program in overcoming regional health problems.

INTRODUCTION

Equitable and quality health services are a fundamental prerequisite for achieving societal well-being. In this context, MSS in the health sector is a crucial benchmark.[1] Minimal service standards in health, as regulated by Minister of Health Regulation No. 4 of 2019, mandate that every citizen is entitled to basic health services of a minimal type and quality.[2] However, despite MSS health being a government priority to narrow regional gaps, on-the-ground realities still reveal significant disparities in service access and health conditions across various regions. Implementing MSS poses a complex challenge, particularly concerning local health financing schemes.[3] In this context, studying local health financing schemes in Indonesia becomes a focal point of interesting debate. Local governments

are responsible for planning, financing, and distributing health services, but policy complexity and local political interests influence their role in health financing allocation.[4] To achieve MSS health targets, the central government's role in health financing regulation remains dominant. In Lumajang Regency, despite an increase in the regional budget value in recent years, the budget allocation for MSS health has not seen a proportional increase.

Data shows that health financing in Lumajang Regency is still far from the desired target, as reflected in the decreasing percentage of the budget allocated to MSS Health from year to year. Reconciliation results of the regional budget implementation of Lumajang Regency (2019-2022) reveal data for MSS health financing recorded as 5.89% of the regional government's health budget in 2019 (amounting to IDR 19,871,181,718.00 out of a total of IDR 337,220,278,143.91). Subsequently, in 2020, it was 3.94% of the regional government's health budget (amounting to IDR 13,175,653,782.00 out of IDR 334,306,388,483.60). In 2021, it was only 2.01% of the regional government's health budget (amounting to IDR 8,525,902,328.00 out of IDR 423,663,017,207.13). The latest data for 2022 shows a further decrease to 1.89% of the regional government's health budget (amounting to IDR 7,963,801,042.00 out of a total of IDR 421,720,186,525.47).[5] Reconciliation results of budget and MSS health realisation data from 2019 to 2022 indicate significant fluctuations, with some MSS health indicators still below 50% of the target. This condition raises serious concerns, especially when compared with the monitoring and evaluation results of the Lumajang Regency MSS health team, noting that the performance of the MSS health program has yet to reach the 100% target.

Therefore, this study delves deeper into the health financing scheme in Lumajang Regency. The primary focus will be on DHA analysis as a tool to understand health fund flows systematically.[6] Additionally, the CBA approach will be applied to measure the economic efficiency of basic health services and evaluate the impact of investments in fulfilling MSS health financing.[7] The study aimed to provide insights into the effectiveness of health financing, serving as a foundation for policy recommendations to enhance the efficiency and effectiveness of health fund allocation in Lumajang Regency. This study is expected to reveal a clearer connection between health financing schemes, the fulfilment of MSS health targets, and the economic impact of these investments in Lumajang Regency. Better alignment between programs, activities, outputs, and outcomes is anticipated through comprehensive and evidence-based analysis. This served as an important initial step to enhance the effectiveness and efficiency of resource utilisation in achieving MSS health targets in Lumajang Regency.

METHODS

Study design

The study employed a qualitative descriptive approach to examine government-derived health financing for the implementation of the MSS within the health sector of Lumajang Regency. The study was conducted from January to September 2023.

Population and sampling

The study involved the Lumajang Health Office and a total sampling of 25 CHCs in Lumajang Regency.

Data sources

Data for this study were sourced from secondary data. Specifically, the budget realisation reports for the MSS health Sector sub-activities at the 25 CHC and the Lumajang District Health Office spanning four years (2019-2022).

Data collection

The data collection in this study involved using instruments administered by the researchers. Additionally, secondary data were utilised, acquired through a comprehensive review of the budget documents related to financing the MSS in the health sector of Lumajang Regency. This review encompassed an examination of funding sources, budget allocations, and health expenditures. The researchers conducted a thorough analysis, correlating the information with the budgetary years from 2019 to 2022.

Various documents were scrutinised during this process, including revenue documents, budget realisation reports for the 2019-2022 period, government performance accountability reports for the same years, regional health profiles from 2019 to 2022, and other relevant

references. The health financing data pertaining to the implementation of MSS health in Lumajang Regency were instrumental in supporting the refinement of this study.

Data analysis

The obtained data underwent processing through various stages using simple Excel pivot table calculations. These stages included editing, coding, data entry, cleaning, and tabulating. Following the processing, the study data was analysed and presented according to each variable.[11] The data analysis employed an integration of the DHA and CBA approaches. This involved mapping costs and benefits and calculating the sensitivity of financing to determine its economic profitability and its potential to leverage the achievement of MSS performance indicator targets. A pivot table was utilised to comprehensively analyse all MSS health expenditures, encompassing those at the Health Office, CHC, and other service units that utilise government-sourced funds to fulfil MSS health requirements. The integrated approach focused on income allocation, expenditure allocation, and the appropriateness of budget expenditures.[12] The analysis is conducted by considering eight dimensions of DHA, including funding sources, budget managers, service providers, types of activities, budget items, programs, activity levels, and beneficiaries.[13] The identification of costs and benefits illustrates the comparison between the total costs and benefits derived from MSS health financing.[14] Upon identifying the values of benefits and costs, a BCR calculation is conducted to assess whether the benefits are commensurate with the investment made.[15] The BCR is determined by comparing total benefits with total costs. Subsequently, an assessment of the cost requirements for achieving the targets of MSS health in Lumajang Regency is carried out. This assessment evaluates the gap between the identified needs and the budgetary expenditure. The classification of the budget based on programs serves to clarify program objectives by determining the desired outputs. Additionally, the program's impact is assessed in terms of health outcomes, financial protection, and community responsiveness.[16]

Ethics

The ethical approval of this study includes informed consent, anonymity, and confidentiality of the subject. This study has received ethical approval from the Ethics Commission of the Faculty of Dentistry, University of Jember, with number: No.1785/UN25.8/KEPK/DL/2022.

RESULTS

Health financing in the implementation of MSS health in Lumajang Regency

The budget allocation for MSS Health in Lumajang Regency is detailed for 2019-2022. The highest budget is for maternal health services (Table 1). The annual average is IDR 3,548 million. The lowest budget allocation for productive age health services averages IDR 865.35 million, and elderly health services average IDR 902.63 million. Meanwhile, in the realisation of spending on MSS in the Health Sector during 2019-2022, the highest realisation was for maternal health services. The annual average is IDR 3,084 million. The lowest realisation for elderly health services averaged IDR 594.07 million, productive age health services averaged IDR 623.57 million and health services for people with serious mental disorders averaged IDR 624.06 million. Total actual expenditure compared to the budget ceiling fluctuates each year. In 2019, it reached 76.26%, and in 2020, the budget realisation was only 43.15%, meaning there was a remaining 56.85% that was not realised according to the initial planning ceiling. In 2021, the realisation increased to 85.41% but fell again in 2022 to 65.73%.

Budget allocation for health services under the MSS health during 2019-2022 showed fluctuations. In 2019, maternal health services received the highest allocation, while in 2020, services for individuals with severe mental disorders had the highest allocation. Expenditure realisation tends to decrease from 2019 to 2022, with an average expenditure absorption of around 65.73%. Although the highest budget allocation is for maternal health services, the highest absorption percentage is in the services for hypertension and tuberculosis patients. The total expenditure realisation shows fluctuations compared to the budget allocation, with a significant decrease in 2020 and fluctuations in the following years.

Table 1. Allocation of expenditure budget for health sector MSS in Lumajang Regency fiscal year 2019-2022

	Program MSS health	Health Budget for MSS Health Services (in million IDR)							
		2019		2020		2021		2022	
		Budget Ceiling	Realisation	Budget Ceiling	Realisation	Budget Ceiling	Realisation	Budget Ceiling	Realisation
1.	Pregnant Women's Health Services	2,411.84	1,761.88	1,045.16	884.40	1,381.23	904.13	1,866.59	1,219.24
2.	Maternal Health Services	6,377.99	5,728.03	3,662.52	3,501.76	2,866.66	2,356.80	1,286.69	751.18
3.	Newborn Health Services	2,049.29	1,399.33	1,200.31	1,039.55	273.79	208.01	1,779.91	276.59
4.	Toddler Health Services	2,111.44	1,461.49	972.11	811.35	426.33	249.77	855.91	470.69
5.	Health Services at Primary Education Age	1,953.59	1,303.63	948.06	787.30	660.17	322.26	963.43	606.97
6.	Health Services in the Productive Age	1,913.39	1,263.43	928.93	768.17	27.39	11.55	591.70	451.14
7.	Health Services for the Elderly	1,683.74	1,033.79	918.91	758.15	323.77	145.56	684.11	438.79
8.	Health Services for People with TB	1,471.06	1,025.50	4,499.60	926.49	2,091.88	1,969.04	1,560.36	1,498.98
9.	Health Services for People at Risk of HIV Infection	1,471.06	1,025.50	4,499.60	926.49	1,628.60	1,584.07	1,005.46	863.19
10.	Health Services for Hypertension Sufferers	1,588.21	1,153.37	3,256.68	926.45	434.26	354.39	715.98	689.40
11.	Health Services for Diabetes Mellitus Sufferers	1,588.21	1,289.81	3,337.24	1,007.02	475.25	397.71	517.68	487.94
12.	Health Services for People with Severe Mental Disorders	1,437.03	1,425.43	5,263.37	838.53	43.98	22.61	287.78	209.68
Total		26,056.87	19,871.18	30,532.50	13,175.65	9,981.97	8,525.90	12,115.60	7,963.80
Percentage (%)			76.26%		43.15%		85.41%		65.73%

Data source: Regency fiscal report (*Laporan realisasi anggaran*) Lumajang 2019-2022; MSS: Minimum Service Standards; TB: tuberculosis; HIV: Human Immunodeficiency Virus, IDR: Indonesian Rupiahs

highest allocation/realisation of expenditure lowest expenditure allocation/realisation

Identification of the impact (costs and benefits) of the implementation of MSS health in Lumajang Regency

Table 2 illustrates that each year, the cost elements for implementing MSS health in Lumajang Regency comprise both direct and indirect costs. The results generally indicate that direct costs surpass indirect costs for financing MSS services in the health sector. This suggests that the cost of MSS services in the health sector in Lumajang Regency is performance-based. Notably, direct costs exhibit a decreasing trend each year, with the highest recorded in 2019 at IDR 19,816.28 million and the lowest in 2022 at IDR 7,963.80 million. On the other hand, indirect costs peaked in 2019 at IDR 54.90 million and reached the lowest point in 2021 at IDR 10.80 million.

Table 3 presents the dynamic total benefits of implementing MSS health each year, comprising the sum of direct and indirect benefits. The highest recorded MSS health service benefit value was achieved in 2022, amounting to IDR 271.61 billion. Conversely, the lowest benefit value occurred in 2021, totalling IDR 103.45 billion.

Table 2. Identification of direct costs and indirect costs of implementing MSS health in Lumajang Regency 2019-2022.

Program MSS health	Health Budget for MSS Health Services (in million IDR)							
	2019		2020		2021		2022	
	Direct Cost	Indirect Cost	Direct Cost	Indirect Cost	Direct Cost	Indirect Cost	Direct Cost	Indirect Cost
1. Pregnant Women's Health Services	1,761.88	0,00	884.40	0	893.33	10.80	1,219.24	0
2. Maternal Health Services	5,719.48	8.55	3,487.89	13.87	2,356.80	0	751.18	0
3. Newborn Health Services	1,369.33	30.00	1,039.55	0	208.01	0	276.59	0
4. Toddler Health Services	1,461.49	0.00	811.35	0	249.77	0	470.69	0
5. Health Services at Primary Education Age	1,287.28	16.35	1,039.55	0	322.26	0	606.97	0
6. Health Services in the Productive Age	1,263.43	0.00	768.17	0	11.55	0	451.14	0
7. Health Services for the Elderly	1,033.79	0.00	758.15	0	145.56	0	428.03	10.76
8. Health Services for People with TB	1,653.37	0.00	938.89	0	354.39	0	689.40	0
9. Health Services for People at Risk of HIV Infection	1,289.81	0.00	858.33	0	397.71	0	485.44	2.50
10. Health Services for Hypertension Sufferers	925.43	0.00	838.53	0	22.61	0	182.66	27.03
11. Health Services for Diabetes Mellitus Sufferers	1,025.50	0.00	925.36	1.13	1,969.04	0	1,498.98	0
12. Pregnant Women's Health Services	1,025.50	0.00	925.36	1.13	1,584.07	0	863.19	0
TOTAL	19,816.28	54.90	13,159.54	16.12	8,515.10	10.80	7,923.52	40.29

Data source: Regency fiscal report (*Laporan realisasi anggaran*) Lumajang 2019-2022; MSS: Minimum Service Standards; TB: tuberculosis; HIV: Human Immunodeficiency Virus, IDR : Indonesian Rupiahs

Table 3. Elements of benefits of implementing MSS health in Lumajang Regency.

Benefit		Value of MSS Health Services (in million IDR)			
		2019	2020	2021	2022
Direct Benefit	Avoid the costs of hospitalisation at the health centre	16,577.64	2,987.46	2,858.40	16,443.90
	Avoid outpatient costs at the health center	17,612.19	11,366.63	9,240.65	22,460.22
	Subtotal	34,189.83	14,354.09	12,099.05	38,904.12
Indirect Benefit	Avoid inpatient transportation costs	4,604.90	829.85	794.00	4,567.75
	Avoid productivity loss for hospitalised patients	6,729.90	1,316.01	1,259.15	7,310.62
	Avoid productivity loss for family companions who are hospitalised	3,364.95	658.00	629.58	3,655.31
	Avoid outpatient transportation costs	29,353.65	18,944.38	15,401.08	37,433.70
	Avoid productivity loss in outpatients	85,798.65	60,085.35	48,847.16	119,824.21
	Avoid productivity loss as an outpatient family companion	42,899.33	30,042.67	24,423.58	59,912.10
	Subtotal	172,751.38	111,876.25	91,354.55	232,703.69
Total		206,941.21	126,230.34	103,453.59	271,607.81

Data source: Regency fiscal report (*Laporan realisasi anggaran*) Lumajang 2019-2022; MSS: Minimum Service Standards; IDR: Indonesian Rupiahs

Table 4 illustrates that, based on the 4-year time series data, the direct BCR consistently > 1 each year. In 2019, the BCR stood at 1.72, indicating that for every IDR 1 million spent on the direct costs of implementing the health sector MSS, a profit of 1.72 times was achieved in the endeavour to enhance public health status. In 2020, the BCR was 1.09, denoting that for every IDR 1 million spent on the direct costs of implementing health sector MSS, a profit of 1.09 times was realised. In 2021, the BCR was 1.42, signifying that for every IDR 1 million spent on the direct costs of implementing health sector MSS, a profit of 1.42 times was attained. In 2022, the BCR reached 4.91, meaning that for every IDR 1 million spent on the direct costs of implementing health sector MSS, a profit of 4.91 times was accomplished in the pursuit of improving public health status. In 2022, the direct benefits received by the community attained the highest BCR value. The district's ratio of direct benefit value to direct expenditure for MSS health remains relatively consistent and stable. The value of benefits obtained is almost equivalent to the cost incurred. The calculation of total cost elements (total cost), obtained by summing direct and indirect costs, is then compared with total benefit elements.

Table 5 highlights that the total benefit value derived from financing the implementation of the health sector MSS for enhancing public health status is substantially greater than the total cost value. The difference is almost tenfold and even reaches thirtyfold. One contributing factor is that indirect benefits surpass direct benefits, significantly influencing the BCR value. The BCR values range from a minimum of 9.56 in 2020 to a maximum of 34.11 in 2022. For instance, in 2019, with a BCR of 10.41, it implies that for every IDR 1 million spent on implementing health sector MSS, a profit of IDR 10.41 million is gained. In 2022, with a BCR of 34.11, it means that for every IDR 1 million spent on the implementation of health sector MSS, a profit of IDR 34.11 million is obtained. Notably, in 2022, the value of benefits received is significantly higher compared to previous years. The comparison of benefit values with the financing of health sector MSS reveals that the volume of cases drives the disparity in benefit values served. Overall, the results consistently show BCR > 1, indicating that financing MSS health must be prioritised as a regional programme to address regional health challenges.

Table 4. Total cost and benefit elements of implementing MSS health sector in Lumajang Regency.

Variable	Value of MSS Health Services (in million IDR)			
	2019	2020	2021	2022
Direct Cost (DC)	19,890.98	13,159.54	8,515.10	7,923,52
Direct Benefit (DB)	34,189.83	14,354.09	12,099.05	38,904.12
Net direct benefit (DB-DC)	14,298.85	1,194.55	3,583.95	30,980.60
BCR (DB/DC)	1.72	1.09	1.42	4.91

MSS: Minimum Service Standards; BCR: benefit-cost ratio; Data source:Regency fiscal report (*Laporan realisasi anggaran*) Lumajang 2019-2022; IDR: Indonesian Rupiahs

Table 5. Total cost and total benefit elements of the implementation of health sector MSS in Lumajang Regency

Variable	Value of MSS Health Services (in million IDR)			
	2019	2020	2021	2022
Total Cost (TC)	19,871.19	13,175.66	8,525.90	7,963.80
Total Benefit (TB)	206,941.21	126,230.34	103,453.59	271,607.81
Net benefit (TB-TC)	187,070.03	113,023.10	94,927.69	263,644.01
BCR (TB/TC)	10.41	9.56	12.13	34.11

MSS: Minimum Service Standards; BCR: benefit-cost ratio; data source:Regency fiscal report (*Laporan realisasi anggaran*) Lumajang 2019-2022; IDR: Indonesian Rupiahs

DISCUSSION

Despite being the foundation of a high-quality health system, primary health services in Indonesia frequently fall short of fulfilling their roles. While the government is responsible for delivering fundamental health services based on MSS, health financing remains a significant challenge. Health expenditure in Indonesia is comparatively lower than in other countries, and the budget allocation for the health sector MSS tends to decrease.[17] The capacity of regions to meet the financing requirements for basic health services, particularly to attain MSS targets, is not optimally realised. Even with an increase in regional health budgets, the effective allocation of funds for the health sector MSS is lacking. There is a decline in the percentage of regional health spending directed toward meeting MSS service needs despite an overall increase in the total budget. The constraint on funding for the health sector MSS contributes to the low achievement of MSS performance targets in Lumajang Regency. The predominant focus on the quantitative aspects of services to meet MSS targets, without ensuring equality and accessibility for vulnerable populations, poses a significant hindrance. The primary funding source is central government transfer funds, especially from the revenue-sharing fund, indicating a high reliance on central funds. Financing for the health sector MSS in Lumajang Regency has not yet become a priority in health budget allocations.[18] Studies suggest that the proportion of government financing for public health may not be sustainable in the future, given the faster growth of health financing needs compared to economic growth. Factors such as an ageing population and epidemiological transitions will escalate the financing burden, necessitating adjustments or interventions in health financing.[19]

The total actual expenditure, in comparison to the MSS health budget ceiling, fluctuates annually, ranging from 56.85% to 85.41%. The primary source of funds for meeting the MSS health is predominantly derived from central funds transfers, particularly non-physical *Dana Alokasi Khusus (DAK)* funds. The region exhibits a substantial dependence on the Central Government, with other alternative funding sources remaining relatively small. The allocation of the regional health budget for MSS health is largely directed towards direct expenditure, reflecting a performance-based budget. The total funding allocated for the implementation of MSS health in Lumajang Regency serves the purposes of prevention and public health services, encompassing activities such as counselling, information and education, early disease detection, monitoring health status, epidemiological surveillance, and control of infectious diseases.

Monitoring health status emerges as the dominant function of MSS health services every year.

Funding for the implementation of the health sector MSS remains highly reliant on central government funding despite MSS being a mandatory responsibility of local governments. District governments must allocate sufficient regional budgets to attain MSS indicator targets. Financing for health promotion and prevention programs, especially health sector MSS services, still lags behind curative financing.[20] The study also identifies variations in MSS achievements among CHCs, influenced by inhibiting factors such as budget constraints, infrastructure, and human resources. The dependence on assistance from the state budget, coupled with relatively small budgets from village funds and *Badan Layanan Umum Daerah (BLUD)*, hampers the achievement of MSS performance targets. Furthermore, a previous study reveals that financing is more oriented towards curative-rehabilitative activities compared to promotive-preventive activities, reflecting budget cuts in preventive health sector MSS services.[21] There is a pressing need for improvements in budget allocation and financing priorities to ensure that preventive efforts garner more attention. The newly enacted Health Law Number 17 of 2023, eliminating mandatory spending for health expenditures, calls for a performance-based budget principle. In this context, health financing in Lumajang Regency tends to be operational (direct spending) at over 98%, with capital expenditure less than 1%. The allocation of financing based on the level of activities indicates that the implementation of health sector MSS activities is primarily directed towards the community at the district, village, and community levels.[22] Although there are monitoring and evaluation programs, their intensity and methods vary across programs. Financing based on beneficiaries shows an almost equal distribution across all age groups, but additional investment is still needed in specific age groups, such as the productive age and the older people. To enhance the quality of health services and achieve health sector MSS targets, there is a need for coordinated health financing among involved agencies. Overall, this study underscores the necessity for expanded financing, increased budget allocation for health sector MSS services, and a heightened focus on preventive efforts to ensure comprehensive public health.[23]

Budget performance analysis aims to ensure effective and efficient government intervention in accordance with the root problems of the community. The CBA is conducted to evaluate programs by calculating total monetary costs and benefits. Financing for the MSS health in Lumajang Regency (2019-2022) is divided into direct and indirect costs. Generally, direct costs are greater than indirect, indicating the performance basis in health sector MSS services. The highest fulfilment of direct costs is in maternal health services, while the lowest is in newborn care services. Direct costs show a decreasing trend each year. The total benefits of implementing health sector MSS, including direct and indirect benefits, vary yearly. The highest benefit value was achieved in 2022 at IDR 271.61 billion, while the lowest was in 2021 at IDR 103.45 billion. Direct benefits come from avoiding inpatient and outpatient costs for patients at CHC. Direct benefits show annual variations, with the largest component coming from avoiding outpatient costs at CHC. Indirect benefits are greater than direct benefits, especially from avoiding the loss of productivity for patients and their companions during outpatient treatment.

Despite BCR being greater than 1, health funding for MSS in Lumajang Regency remains insufficient to meet the total service program targets. The expansion of health service coverage and social protection as fundamental human needs is crucial for achieving health development goals, and the success of such efforts heavily relies on the availability and adequacy of financing.

Health financing for health programs, particularly in the fulfilment of MSS services in the health sector, necessitates identifying fiscal space or health budget, which should be undertaken from the outset to optimise budget utilisation. A prominent issue in health financing in Indonesia is the limited health costs available and spent to meet health service targets, especially MSS services at the Regency/City level. In comparison with other countries, health expenditure in Indonesia remains low. The findings of this study indicate that the regional capacity to provide financing for basic health services, aiming to fulfil 100% of the MSS target in the health sector, is still suboptimal and has the potential for improvement.

In this context, a CBA is conducted to evaluate

the implementation of a program and activity based on the benefits of increased economic and social performance. This evaluation assesses the benefits generated compared to a scenario where the program is not in place. The calculation involves determining total costs in monetary terms and total profits in the form of money. Furthermore, the CBA approach is applied to measure the economic efficiency of basic health services and assess the impact of investments in fulfilling MSS health financing. For the fiscal years 2019-2022, health financing is required to implement MSS health in the Lumajang District health sector, covering both direct and indirect costs. Identifying benefit elements in implementing MSS health in Lumajang Regency's health sector includes both direct and indirect benefits. The budget for direct activities is observed to exceed the budget for indirect activities each year. Direct and indirect costs are calculated separately for each MSS health service indicator. Direct costs encompass expenses for medicines, equipment, medical and non-medical consumables, medical equipment, food and drink, guidance and assistance, goods handed over to the community, as well as costs for services, resource services, accommodation, and travel services within the MSS health service implementation department. Indirect costs comprise other expenses not directly associated with the implementation of MSS in the health sector. These include general operational costs, recurring fixed costs, personnel costs, stationery costs, printing, maintenance, training, and MSS health personnel.

The accomplishment of MSS health is contingent upon numerous factors, involving the participation of multiple stakeholders across various programmes and sectors, and requiring an extended timeframe. To narrow down the focus and define the scope of the study problem, several limitations are imposed in this study. The scope of the investigation is confined to analysing the implementation of health financing by the Lumajang Regency Government in pursuit of MSS health objectives, with a specific emphasis on the fiscal years 2019-2022. The methodological approach integrates DHA and CBA methods. The study underscores that health financing must align with endeavours to achieve MSS performance targets. Allocating financial resources judiciously and efficiently emerges as a pivotal factor in attaining the desired health goals.

CONCLUSION

This study reveals that in Lumajang Regency, the total health budget ceiling tends to increase, whereas the MSS health service budget ceiling in the health sector tends to decrease. Analysis using the CBA approach demonstrated a BCR value greater than 1, indicating that health financing for MSS was profitable. Therefore, it should be prioritised as a regional programme to address regional health challenges. Based on the findings of this analysis, recommendations are proposed to enhance budget allocations and improve policies and strategies, ensuring the coordinated and holistic fulfilment of MSS health. Several recommendations are suggested, including more efficient financing assessments, evidence-based financing priorities and performance targets, augmenting income for health, developing an affordable health insurance system and enhancing efficiency through technology.

CONFLICT OF INTEREST

The authors declare no conflict of interest in this study.

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AUTHOR CONTRIBUTION

AR: Conceptualization, Writing- Original draft preparation, Methodology, Software, Editing and Visualization. HP: Methodology, Supervision, Writing-reviewing, Data Curation. S: Visualisation, Investigation, Validation, Supervision, Reviewing.

LIST OF ABBREVIATIONS

BCR: Benefit-Cost Ratio; B*LUD:Badan Layanan Umum Daerah; DAK: Dana Alokasi Khusus*; DHA: District Health Accounts; CBA: Cost and Benefit Analysis; MSS: Minimal Service Standards; *CHC: Community Health Center*; TB: Tuberculosis; HIV: Human Immunodeficiency Virus

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