



Evaluating the Return on Investment of Tobacco Control Intervention in Indonesia



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INTRODUCTION

There are about a hundred million smokers in Indonesia, and approximately 63% of men and 5% of women were active smokers^{1,2}. With nearly 2 million cases of tobacco-related non-communicable diseases (NCDs) and 230,862 tobacco-related NCDs deaths in 2015, Indonesia lost US\$ 45.9 billion as a result of tobacco use³. Evidence-based smoking prevention measures, that can reduce the future burden of smoking need to be prioritized⁴. Although several interventions have already had high impact, the prevention intervention services currently have low coverage. Only a limited literature explains how to conduct economic analysis on national-level program based on health-sector resource needs and priorities. Some developing countries chose the OneHealth method, developed by World Health Organization (WHO), which was designed to estimate resource needs for health programs^{5,6}.

OBJECTIVE

The objective of this research is to calculate the return on investment (ROI) associated with the implementation for priority of tobacco control policy interventions used OneHealth tool.

MATERIALS AND METHODS

Intervention Selection

The types of tobacco control interventions were chosen based on a review from experienced staffs in the Ministry of Health and the Ministry of Finance.

Cost Analysis of Interventions

The WHO Costing tool was used to estimate the costs of policy interventions. The OneHealth Tool (OHT) calculates the cost of policy interventions using an ingredients-based approach.

Evaluating the Health Benefits

The OneHealth Tool (OHT) was used to model the number of lives saved and healthy years gained over a 5-year period in order to assess the benefits of implementing or scaling up health interventions

Valuing the benefits

The predicted health benefits -avoided deaths and increased life years- are converted into economic gains by modeling the increased labor productivity resulting from better health.

Return on investment (ROI)

Return on investment (ROI) analysis quantifies an investment's efficiency. If the net financial benefit from an investment exceeds the cost of making the investment (ROI>1), the investment is successful

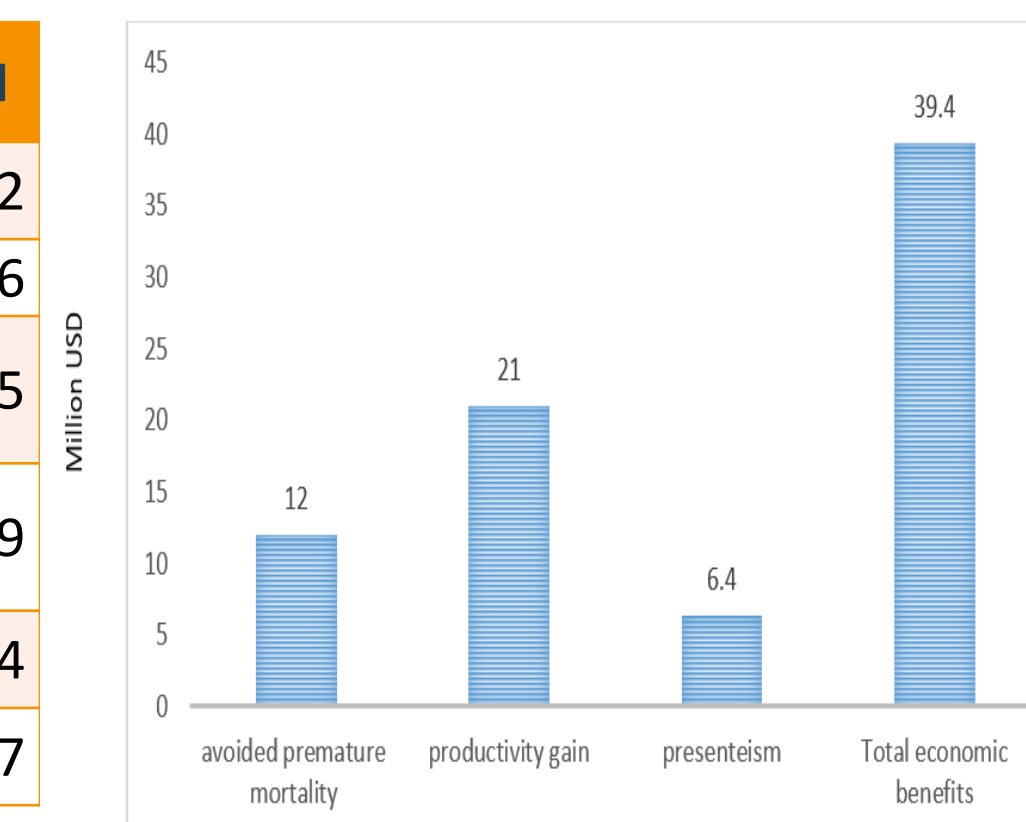
RESULTS

1. Estimated Health Benefits and Implementation Costs by Intervention Package (5 years)

Intervention package	Deaths averted	Life years gained	Total 5-year implementation costs (million USD)
Increase excise taxes	597	7,315	1,900
Bans on TAPS*	430	4,324	1,543
Eliminate exposure to secondhand smoking	216	6,457	2,032
Implement plain graphic health warnings	235	2,334	756
Implement mass media campaigns	426	10,452	2,421
Total	1,904	30,882	8,625

2. ROI of Each Tobacco Control Intervention and Chart Picture Recovered Economic Output

Intervention	Benefit (million USD)	Cost (million USD)	ROI
Increase excise taxes	3.45	1.9	1.82
Bans on TAPS	2.34	1.5	1.56
Eliminate exposure to secondhand smoking	2.49	2	1.25
Implement plain graphic health warnings	2.37	0.7	3.39
Implement mass media campaign	3.21	2.4	1.34
Total	13.86	8.5	1.87



CONCLUSION

Finally, scaling up the recommended Package of treatments over the five-year period 2020-2024 will save lives. Overall, the findings suggest that engaging in tobacco control interventions will help the Indonesian government escape substantial direct and indirect costs. Tobacco control interventions, like robust campaigns, can continue to be funded by policymakers and public health officials

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