



OPTIMIZING THE NATIONAL HEALTH ECONOMY: UTILIZING TOBACCO EXCISE TO IMPROVE UNIVERSAL HEALTH COVERAGE

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ABSTRACT

Tobacco Excise Tax (TET) plays a strategic role in increasing state revenue, which can be utilized to strengthen the National Health Insurance (NHI) system. This study aims to analyze the impact of raising tobacco excise taxes on the national health economy and the sustainability of health financing. A Systematic Literature Review (SLR) approach was employed, reviewing 20 journal articles published between 2018 and 2023. These articles were selected through a systematic process based on inclusion criteria such as topic relevance, applied methodology, and geographic focus. The findings reveal that increasing tobacco excise taxes is an effective strategy for enhancing public health and supporting economic development. Revenue from tobacco excise can serve as a sustainable source of funding for health initiatives, including addressing the JKN deficit, which amounted to IDR 31.7 trillion (USD 2.2 billion) as of May 2020. This funding shortfall, exacerbated by the COVID-19 pandemic, underscores the urgent need for alternative solutions. Additional revenue generated through increased tobacco taxes could be allocated to reduce the deficit and expand health service coverage. By raising excise tax rates, the government can simultaneously increase state revenue and encourage healthier behavior by reducing tobacco consumption. Thus, this policy has a dual role in improving public health indicators while strengthening the financial stability of NHI. A synthesis of the 20 reviewed articles indicates that such policies, if implemented consistently, could significantly reduce the JKN deficit and support the long-term sustainability of the national health system.

Keywords: excise; economy; health; tobacco

How to cite (in APA style)

Mutiarahati, N. L. A. C., & Sridyantari, L. V. (2024). Optimizing the National Health Economy: Utilizing Tobacco Excise to Improve Universal Health Coverage. *Indonesian Journal of Global Health Research*, 6(S6), 425-436. <https://doi.org/10.37287/ijghr.v6iS6.4960>.

INTRODUCTION

In 2018, the contributions received by BPJS Kesehatan were Rp. 60.6 trillion, while the cost burden reached Rp. 68.5 trillion. This figure shows that the Social Security Fund (DJS) is experiencing a deficit. This is also due to the high financing for catastrophic diseases. Therefore, an estimate of the total health financing for kidney failure for BPJS Kesehatan participants in 2023-2025 is needed so that BPJS Kesehatan can prepare itself for the risks that may be faced. (Nurtandhee, 2023) The government's efforts to realize UHC have various challenges. Until October 2019, there were still around 17 percent of the population who had not become JKN participants, even though Law No. 36 of 2009 concerning health has regulated that everyone has an obligation to participate in the social health insurance program. (President of the Republic of Indonesia, 2009). Another challenge is the financial aspect which has continued to experience a deficit since the first year of JKN in 2014. The BPJS Kesehatan deficit is generally predicted to increase in 2019, reaching 28 trillion rupiah. According to BPJS Kesehatan, the deficit is caused by the large number of people suffering from chronic diseases, so that the cost of health services increases. The high burden of health is not balanced by adequate contributions, which is also a cause. (Djamhari et al., 2020)

Another factor affecting the BPJS deficit is that the uncontrolled cigarette epidemic will cause a burden of diseases caused by cigarettes that are expensive to treat, will worsen the BPJS Kesehatan deficit and increase the burden on the Government's health budget. The policy of significantly increasing cigarette prices through excise instruments will reduce the level of affordability, especially for children and novice smokers. This policy not only prevents the growth of child smokers in the short term and in the long term can save millions of lives by reducing the prevalence and intensity of smoking, regardless of the addictive effects of cigarettes. Through cigarette excise reform, the Indonesian Government can choose a faster path to achieving the target of Indonesia Emas 2045. The government is trying to reduce the prevalence of smokers in Indonesia and patch the JKN deficit by raising cigarette prices and allocating the Tobacco Excise Revenue Sharing Fund (DBHCHT), cigarette tax contributions from the regions, and cuts to the General Allocation Fund (DAU). Tobacco Excise (CHT) can provide the largest contribution to state revenue due to the increase in excise rates carried out by the government every year.(Nafi'ah, 2021). Furthermore, in his research, it was stated that tobacco excise rates contribute to state revenue in the form of excise. In order to achieve this target, increasing tobacco excise is one step.

The government has decided to increase the tobacco excise tax (CHT) for cigarettes by an average of 10% in 2023 and 2024. This cigarette excise increase is lower than in 2022 which reached 12%. This CHT increase takes into account the target of reducing the prevalence of child smokers aged 10-18 years to 8.7% in the 2020-2024 National Medium-Term Development Plan (RPJMN). This decision is also in line with the government's policy of increasing education and socialization to the public regarding the dangers of smoking.(Rizaty, 2022). Based on the government revenue report, in the excise category, the government receives the majority of excise revenue from cigarette excise. The increase in cigarette excise will encourage government revenue to increase. In 2021, state revenue in cigarette excise was realized at IDR 203.81 trillion(BPK RI, 2022).

The excise tariff policy and the allocation of tobacco excise revenue sharing funds in Indonesia, intended to reduce cigarette consumption while optimizing state revenue, have not yielded proportional results. Data from the Central Statistics Agency indicate that the percentage of smokers in Indonesia has remained stable without significant decline. Moreover, according to the Ministry of Health's Riskesdas data, there has been an increase in smoking prevalence among the population aged 10 years and among those aged 10–18 years. This trend sharply contrasts with global data released by WHO, which shows a significant decline in cigarette consumption among individuals aged ≥ 15 years, dropping from 32.7% in 2000 to 22.3% in 2020. Furthermore, WHO reports that the Southeast Asia region consistently records the highest smoking prevalence compared to other regions, with rates declining from 50% in 2000 to 29% in 2020 but remaining disproportionately high.

This study seeks to analyze the optimization of tobacco excise policies and revenue-sharing mechanisms in Indonesia, focusing on their effectiveness in reducing cigarette consumption and enhancing state revenue. It addresses the gap between the intended outcomes of these policies and actual smoking trends, particularly the increasing prevalence among younger age groups. Additionally, it explores the broader implications of tobacco excise policies for strengthening Universal Health Coverage (UHC) and examines Indonesia's position within the regional context, where smoking prevalence remains a critical challenge.

METHOD

The approach used in this study is the Systematic Literature Review (SLR) method, which is by examining each discourse from various credible and relevant scientific sources related to the topic raised. The purpose of the SLR method is to present previously published material by providing the latest information and analysis. The data collection process begins by finding, collecting, and combining important data from various scientific sources that can be analyzed and developed. For literature studies, researchers usually use electronic search engines such as Google Scholar, Pubmed, Scimedirect to search for sources. In this particular study, 20 national and international journals were obtained through this method. Researchers select the latest journals in the range of 2018 to 2023 to be studied further and used as research references. After obtaining the appropriate journal, researchers analyze and group the selected journals into a table containing the name of the researcher, year of publication, journal title, research method, and research results. In this journal, researchers will also discuss the results of new findings that can later be used as a comparison between one source and another, then a conclusion will be drawn. So that researchers can analyze and enrich information about the topic being studied from different perspectives.

RESULT

Table 1.
Summary of Reviewed Articles

Researcher	Article Title	Research methods	Research result
(Purnamasari et al., 2019)	Increase In Cigarette Tax To Prevent Smoking Initiation In Children And Funding National Health Insurance In Indonesia	The research method uses a survey by telephone with a sample of 1000 respondents. The list of mobile phone numbers of potential respondents was selected systematically random sampling interval 100,000 to 200,000.	The results of the study showed that 87.9% agreed that the price of cigarettes would be increased so that children do not start smoking. The majority of respondents (86.2%) also agreed about increasing cigarette prices to finance the deficit. JKN. The perception of respondents who agree with the increase in cigarette prices to prevent smoking initiation in children also tends to agree to increase cigarette prices to finance the JKN deficit.
(Ispriyarso, 2018)	Regular Function Of Cigarette Tax In Health Sector Society And Law Enforcement	The research was conducted using an exploratory method, by tracing the necessary information.	Regional government in implementing regular function of cigarette tax, must be based on law, use of tax funds cigarettes, at least 50% to fund health services (health service facilities and infrastructure) health, provision of smoking areas, activities to raise awareness about the dangers of smoking, and and so on. In the field of law enforcement, the use of cigarette funds is allocated for eradication illegal cigarettes and enforcement of smoking ban rules.
(Thabrany, Hasbullah., 2018)	Public Support For Increase In Cigarette Excise For Jkn Funding	Using a cross-sectional study design with random sampling technique with a total of 1,000 respondents, both smokers and non-smokers.	86.20% of total respondents (n=1,000) support the increase in cigarette excise and some of the funds are allocated for JKN funding and 81.4% of smokers (n=404) support increasing cigarette excise and some of the funds being allocated to JKN funding

Researcher	Article Title	Research methods	Research result
(Hesti et al., 2019)	Benefits Of Increasing Excise Tax And Tobacco Prices In a Systematic Review	Systematic literature review based on PRISMA (Preferred Reporting Items for Systematic Review and Meta-Analysis	Research result shows that research related to tobacco tax benefits and prices is a focus reduce the prevalence of adult and adolescent smokers, providing benefits to 20% of total smokers low-income population, and generate significant socio-economic benefits. In the past also found that countries implementing the FCTC and increasing tobacco taxes experienced a significant decrease in smoking prevalence compared to Indonesia.
(Luthfi, 2019)	Effectiveness Of Cigarette Tax Use And Intercept Funds General Allocation In Reducing The Guarantee Fund Deficit Social Health	Descriptive method	Excise receipts results and tobacco is excise tax revenue the biggest compared to with excise tax revenue from the goods other excise duties. Average excise tax revenue tobacco products for 5 years last reached 96 percent of the total excise revenue.
(Wulandari & Waluyo, 2019)	Effectiveness Of Utilization Of Excise Revenue Sharing Funds Tobacco Results In Health Sector In The City Surakarta 2018	Method research law normative	Utilization of DBH CHT in the city Surakarta year 2018 in terms of regulation already in accordance with the technical instructions PMK.222/PMK.07 /2017 from start early drafting until reporting with has carry out Article 66A paragraph (3) which in realize with PERGUB 7/2018 that governor manage and use DBHCHT and arrange distribution DBHCHT to regent/mayor in their respective areas each based on contribution acceptance of results tobacco excise.
(Indonesian Heritage, 2019)	Potential And Constraints In Optimizing Regional Cigarette Tax Funds For Health	Policy Brief	The regional government is disadvantaged by this earmarking policy because the implication is a reduction in the allocation of funds that could previously be used for disease prevention and health promotion, but now must be diverted to help fund BPJS Kesehatan. This is considered counterproductive because funds for health promotion and disease prevention programs should be increasing in accordance with the government's health vision. From the BPJS side, this earmarking policy has not helped much in treating the deficit. BPJS's income from cigarette funds is very small compared to the efforts made by BPJS, so there is a discourse to revise existing regulations or change previous solutions with new schemes.
(Jha et al., 2020)	Impact Of Cigarette Tax Increase On Health And	Extended cost-effectiveness analysis for estimate, by income quintile, life years gained,	With the increase in cigarette prices, around 1.5 million men will quit smoking in four years. states, with the lowest income group having 7.4 times more

Researcher	Article Title	Research methods	Research result
	Financing Outcomes In Four Indian States	savings medical expenses, the number of men who avoided unnecessary health expenditures very large and extreme poverty, additional tax revenues collected, and savings for Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) with the increase in cigarette prices to Indian Rupees (INR) 10 plus 10% ad valorem in four Indian states.	people who quit smoking compared to the upper income group (485,725 vs. 65,762). By quitting smoking, around 665,000 deaths can be prevented. This will resulting in an estimated 11.9 million years of life, with the lowest income groups earn 7.3 times more than the upper income group. From the cost treatment of INR 1,729 crore that could have been avoided, lower income group will save 7.4 times more than the upper income group. Approximately 454,000 men will be spared huge health expenses and 75,000 men will escape extreme poverty. Avoidance of medical costs and impoverishment will save around INR 672 crore in AB-PMJAY. The tax hike on which in turn will generate additional tax revenue of around INR 4,385 crore. In contrast to the distribution of health benefits, the additional income generated by the upper income group will reach around 3.1 times compared to with lower income groups.
(Diosana, 2020)	Raising Tobacco Taxes: The Fillipine Experience	-	This article presents the Philippine experience as a case study in pursuing bold reforms in tobacco and tobacco taxation.control amid strong resistance from the tobacco industry. It takes into account: 1) key events and factors that led to the success of reform of the Philippine tobacco tax system; 2) the impact of higher tobacco taxes on health and the economy; and 3)challenges that arise in tobacco taxation in the Philippines
(Nafi'ah, 2021)	Policy Strategy For Increasing Excise Tariffs On Tobacco Products In Order To Reduce Consumption	The research method used is library research using the context approach analysis or content study.	The results of the study show that the government's strategy in maximizing the policy of increasing the Tobacco Product Excise (CHT) tariff in The framework for reducing cigarette consumption in Indonesia is still not optimal, this can be seen from the supporting factors and inhibiting factors of the government in maximizing policy of increasing tobacco excise rates (CHT) in order to reduce consumption Indonesian cigarettes.
(Ahsan et al., 2021)	Jkn-Kis Program Deficit Funding Innovation Through (Additional) Levy On Cigarettes For Health (Pruk)	JKN-KIS Program Deficit Funding Innovation Study through Levies (Additional) on Cigarettes for Health (PRUK) conducted by the Deputy for Research and Development	Funds from tobacco or cigarette excise are very possible to fund DJS Health. This is because the purpose of excise collection is to control consumption in order to improve health quality. So the use of funds from cigarette excise should also be focused on addressing the health impacts arising from smoking behavior.
(Cheng & Estrada, 2021)	Cost-Effectiveness Analysis Of The 2019 Cigarette	Static model or single cohort model	The public payer and society perspective is taken where the perspective public payers only take into account direct costs and tax revenues allocated to the health

Researcher	Article Title	Research methods	Research result
	Tax Reform In The Philippines		sector, while the public payers only take into account indirect costs in the form of lost productivity. A discount rate of 7% is applied. Raising A 29% reduction in cigarette prices has been shown to prevent around 1961 tobacco-related deaths, which means saving around 34,571 years of life. disability-adjusted life expectancy (DALYs). Savings arising from prevention of hospitalizations and additional excise revenues for health is around USD 367 million. However, when productivity losses can be avoided due to the number of lives saved and hospitalization costs higher calculated from the perspective of society, the excise tax reform resulted in a net gain of USD 415 million. This would save the public payer USD 10,612 per DALY averted, while the general public would save USD 11,955 per DALY averted. Tax increases such as RA 11346 generate significant revenue that can be used for programs public health.
(Annisa et al., 2021)	Addressing The Deficit In Health Social Security Funds Through Governance Improvement	The method used in this study is descriptive. qualitative and quantitative primary data comes from observations and interviews. key stakeholders, as well as secondary data processing.	The results of this study found the deficit problem originated from the strategic purchasing policy aspect, the financial side operational, as well as on the policy for collecting JKN participant contributions, which needs to be carried out improvements so that the governance of the JKN program can run more effectively, efficiently and close any opportunity for fraud/corruption to occur.
(Parikesit & Yudithadewi, 2021)	Innovative Financing For Sustainable Health Care Coverage	The research was conducted using a qualitative approach and exploratory method, by tracing the necessary information through literature reviews from journals, official government and organizational websites, and online media.	Results research shows that other countries impose special taxes, such as sin tax, sweet tax, and Robin Hood tax to finance the continuation of the guarantee health services.
(Novendra, 2022)	Cigarette Tax Collection Authority In Relation With National Health Insurance	Approach legislation invitation And approach conceptual	Research result conclude that the government province in must share revenue from cigarette tax with the government district/city with pores by 70% for district/city the rest is 30% is allocated for .government province based on article Article 94 paragraph (1) of Law 28/2009
(Chakrabarti et al., 2022)	The Potential Distributional Health And Financial Benefits Of Increased Tobacco Taxes In	Calculating the potential impact of tobacco tax increases in Ethiopia on various outcomes—life expectancy, tax revenues, expenditure on cigarettes,	The results of the study show that tax increases in Ethiopia could encourage most smokers to quit smoking and thereby save nearly eight million life years.current residents' lives. This reform is also likely to increase tax revenues by

Researcher	Article Title	Research methods	Research result
	Ethiopia: Findings From a Modeling Study	and very large health expenditure (catastrophic health expenditure/CHE). By using parameters such as price elasticity of demand for cigarettes and smoking prevalence in Ethiopia from existing literature and sources. secondary data, we model the potential implications of the reform at the population level and at different wealth quintiles. We only focus on men because a small proportion of Ethiopian women smoke	USD26 million in 2018. first after its introduction. The richest quintile will bear the lion's share of this higher tax burden and the the poorest will bear the least share. In addition, deaths from major smoking-related diseases will decreased. This is expected to prevent up to 173,000 cases of CHE due to the costs involved in obtaining medical care. This analysis highlights that increasing cigarette taxes in countries with low smoking prevalence can reduce the number of smokers even further, and thereby protect against the health and financial costs of smoking in the future. Importantly, the impact of this policy could be progressive across the income spectrum.
(Septian & Djamaluddin, 2022)	The Impact Of Earmarking Policy On Tobacco Product Excise Towards Public Health Services In Indonesia	Using data secondary level provincial and district/city in Indonesia in 2018-2020, this study aims to find out how the influence of DBH CHT policy on the amount health facilities in the area. Analysis methods used in this study is regression Negative Binomial model panel data.	Initial validation results show that areas receiving DBH CHT experienced a significant increase in the number of health facilities compared to non-recipient areas. The results of the study show that DBH CHT has a positive and significant impact on increasing the number of integrated health posts at the district/city level but not on the number of hospitals and health centers. It is hoped that the planning and implementation process of DBH CHT policies can be better managed and supervised so that its benefits can be felt in improving public health services.
(Makarim & Purwana, 2022)	Increase And Simplification Of Excise Tariffs For Reducing Cigarette Consumption Expenditure And Prevalence Of Teenage Smokers	This study uses a research sample in the form of the amount of household cigarette consumption and the prevalence of adolescent smokers in provinces in Indonesia over a period of 5 (five) years, namely 2015 to 2019.	To reduce the prevalence of teenage smokers, a combination is needed other strategies besides using instruments related to tobacco excise rates. The government needs to immediately ratify the FCTC so that it can control tobacco consumption and use it to improve the health sector through BPJS.
(Samuel, 2022)	The Role Of Utilization Of Revenue Sharing Funds From Tobacco Excise In Achieving The Goal Of Imposing Excise	Qualitative method using secondary data in the form of state publication data tobacco producers and tobacco product data in the form of machine-made kretek cigarettes.	Study shows that the aim of utilizing DBH CHT itself is not aimed at suppressing cigarette consumption and appears to support increased plantation productivity and tobacco industry. The purpose of utilizing DBH CHT should be used for finance the transfer of tobacco crops to other alternative crops of higher value economic, training and skills of the workforce working in the industrial sector tobacco with training and skills that are useful for use outside the sector the tobacco industry itself.
(Manullang et al., 2023)	Government Policy On	Normative legal method to be able to answer	The use of cigarette levies for health funds is included in double taxation,

Researcher	Article Title	Research methods	Research result
	Utilizing Double Taxation On Cigarettes As Funding For National Health Insurance	implementation of government policy in the use of taxes double in national health insurance payments and the impact policy on the use of cigarette excise in guarantee payments National health, assessed by tax as a regular function.	namely cigarette tax which is the authority of local government levies and cigarette excise which are central government's levy authority. However, considering that BPJS experiencing a deficit, then through Presidential Regulation Number 82 of 2018 becomes the legal basis for the Regional Government to support the implementation of the Health Insurance program through cigarette tax contributions as part of the rights of each region/province. / district / city by 75% of 50%. cigarette tax which accepted.

Since 2014, the government has begun to improve its commitment as an effort to fulfill the right to health as a basic right and to achieve Universal Health Coverage, the government has organized a National Health Insurance (JKN) program in the form of a Social Security Administering Body (BPJS). Referring to Law Number 24 of 2011 concerning the Social Security Administering Body, it explains the functions and duties of BPJS Kesehatan as follows: BPJS Kesehatan functions to organize a health insurance program (President of the Republic of Indonesia, 2011). It is explained in Law No. 40 of 2004 concerning the National Health Insurance System that Health Insurance is organized nationally based on the principles of social insurance and equity principles with the aim of ensuring that participants receive health care benefits and protection in meeting basic health needs. (President of the Republic of Indonesia, 2004). This means that increasing public health risks will be the responsibility of the government through BPJS.

Cigarettes are one of the causes of the state's financial burden. Sri Mulyani said that health costs due to smoking reach Rp17.9 trillion to Rp27.7 trillion a year. BPJS Kesehatan must cover Rp10.5-15.6 trillion of the total health costs of diseases caused by smoking. BPJS Kesehatan presents data on catastrophic diseases or diseases with high costs. The first position is heart disease. The proportion of financing reaches 49 percent. Then followed by cancer 18 percent, stroke 13 percent, kidney failure 11 percent. Where, the causes of these diseases are dominated by cigarettes. The BPJS Kesehatan deficit occurred, among other things, due to many independent participants who only registered when they were sick. The second problem is thought to be due to the large number of Non-Wage Recipient Participants (PBPU) from the independent or informal sector who only registered when they were sick and then stopped paying contributions after receiving health services. This certainly must be anticipated by improving the policy. The third problem is the low level of activity of independent or informal participants, or only around 54%. Meanwhile, Sri Mulyani assessed that the utilization rate or users are very high. The fourth problem occurs because the BPJS Kesehatan financing burden for catastrophic diseases (diseases whose treatment process requires special expertise with sophisticated medical equipment and requires lifelong health services) is very large and the recorded financing burden reaches more than 20% of the total benefit costs. (Victoria, 2019). The economic conditions in Indonesia are now uncertain, so that all needs are increasingly expensive. One of them is health services, health is a very important thing in human life. Health is a very basic need for everyone. However, health is often the downstream (impact) of various problems experienced by individuals and their surroundings. Whereas health is the initial capital for the potential development of individuals in life.

DISCUSSION

To overcome the problem of the JKN financing deficit, the government must implement an earmarking policy for cigarette excise revenues for JKN financing. The central government can seriously request regional governments to regulate and implement a fiscal earmarking policy for JKN financing. As we know, one of the causes of the JKN deficit is the high allocation for the treatment of catastrophic diseases including those caused by cigarette consumption, so the government needs to combine the fiscal earmarking policy with a tobacco consumption control policy from a non-fiscal perspective, some non-fiscal efforts include: Determining massive smoke-free areas by involving all actors (private sector, community organizations and regional governments) so that all parties have the responsibility to control cigarette consumption in their respective regions; The central government needs to include "not smoking" as one of the additional requirements for households receiving the Family Hope Program (PKH) because PKH is a conditional cash transfer program; Stricter regulation of cigarette and other tobacco product advertisements(Djamhari et al., 2020).

In accordance with the mandate of Law Number 28 of 2009 concerning PDRD, since 2014 the regional government has also imposed cigarette tax. According to the provisions of Law 28/2009, at least 50% of cigarette tax is used for health services and law enforcement, while the rest can be used for other development needs. The mechanism for transferring cigarette tax to the province is that the realization of cigarette tax revenues that enter the State Treasury will be deposited to the Province quarterly through the regional general account according to the proportion of distribution calculated based on the percentage of the provincial population to the national population. The province must distribute the cigarette tax received to all districts/cities amounting to 70% of the total cigarette tax revenues for the current year. The distribution of revenues between the province and districts/cities must be regulated by the Provincial Regulation. In order to provide direction for regions in using cigarette tax in the health sector, the Ministry of Health through Regulation of the Minister of Health No. 40 of 2016 issued Technical Instructions for the Use of Cigarette Tax for Funding Public Health Services(Novendra, 2022).

In research conducted by(Chakrabarti et al., 2022), a cigarette tax increase in Ethiopia could significantly encourage smoking cessation, potentially saving millions of lives that would otherwise be lost. The tax increase would raise revenues, with tax revenues increasing by \$26 million in the first year after the reform. It is worth noting that this represents about 7% of health spending on non-communicable diseases (NCDs) in Ethiopia, which was about \$4 per capita in 2017 for a population of over 100 million. The increased revenues could be used to finance universal health coverage, NCD interventions, and other pro-poor investments, potentially strengthening the progressivity of the tobacco tax increase. In addition to Ethiopia, the Philippines also has several policies related to cigarette taxes. The Philippines is a country with a high prevalence of smoking and has a history of strong tobacco industry lobbying, but in the last decade alone, significant steps have been taken to increase cigarette taxes. The latest tax increases have resulted in net benefits and are very cost-effective ICERs, consistent with previous findings that cigarette prices are a major determinant of smoking behavior. Tobacco control policies such as tax increases would cost very little if a tax collection system were implemented. Given the provisions that are earmarked, the relevant laws also generate significant revenues that could be used for public health programs.(Cheng & Estrada, 2021).

In Indonesia, cross-ministerial discussions to find alternative financing for health from cigarette levies have been conducted. One of the options discussed is to utilize additional cigarette levies managed by general insurance. The funds from the cigarette levies are transferred to the designated general insurance account to finance smoking-related illnesses.

Smokers who suffer from smoking-related illnesses can be treated directly in hospital with insurance coverage from the designated general insurance. The weakness of this option is the emergence of moral hazard, there is no incentive to quit smoking, because it is already guaranteed by insurance and if the illness is covered, smokers will tend to keep smoking. The second weakness is that determining smoking-related illnesses is difficult because there are many factors that cause a disease. In addition, there is no guarantee that the general insurance will always accept patients with smoking-related illnesses. If rejected, inevitably, BPJS Kesehatan will cover the cost of treatment. For this reason, there needs to be innovation in other funding sources to cover the JKN-KIS deficit. As mandated by Article 43 of Law Number 24 of 2011 concerning the Social Security Administering Body, where it is possible to raise funds from other legitimate sources in accordance with laws and regulations, this study will explore alternative funding sources and their mechanisms to cover the JKN-KIS deficit. The funding source in question, after learning from the experience of the Philippines and referring to the still high consumption of cigarettes, is an additional levy on cigarettes as non-tax state revenue. The potential funds that can be collected are still very large, assuming cigarette production of 342 billion cigarettes, then the additional PNBPN levy of IDR 50 per cigarette will generate IDR 17.1 trillion per year. The amount of funds is sufficient to cover the JKN-KIS deficit so far.

The Indonesian government has significantly increased health spending in 2021 and there are indications that this trend will continue in 2022. This increased investment in human capital is in line with President Joko Widodo's ambitious Golden Indonesia 2045 plan. Investment priorities in this area aim to increase national health insurance coverage, improve integrated health systems, and support prevention efforts. A portion of the newly generated tobacco tax revenues in 2022 could be used for these critical investments, including reducing the national health insurance deficit (i.e., the National Health Insurance - JKN) and expanding universal health coverage. In May 2020, even before the pandemic deepened the deficit hole, JKN faced an accumulated deficit of IDR 31.7 trillion (US\$ 2.2 billion) while 70 million Indonesians, most of them in the informal sector, remained uninsured. The COVID crisis has further exacerbated the funding crisis by shrinking revenues for the Social Security Agency (BPJS Kesehatan). Tax increases that would add another Rp 23.6 trillion to the state budget could easily cut the deficit in half by 2022 and then eliminate it completely by 2023 if the tax increases follow WHO best practices.

CONCLUSION

Implementing higher tobacco excise taxes could generate significant revenue for the state budget, reducing the deficit significantly in the coming years and eventually eliminating it altogether.

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