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EXECUTIVE SUMMARY

High consumption of sugar-sweetened beverages (SSBs) is associated with a higher risk of non-communicable diseases (NCDs). Studies have shown that the implementation of SSB taxes is a cost-effective instrument for reducing SSB consumption, thereby contributing to the reduction of burden of NCDs (such as type 2 diabetes mellitus) in the long term. Using a modeling approach, this study aims to estimate the health and economic impact of SSB taxes on the burden of type 2 diabetes mellitus (T2DM) from 2024 to 2033 in Indonesia or over the next ten years, assuming the tax is implemented in 2024.

The results of this study suggest that SSB taxes, equivalent to a 20% increase in price, could prevent 756,103 overweight and obesity cases within one year; avert 3,095,643 cases of T2DM, and prevent 455,310 deaths over 10 years. Furthermore, over the same period, the tax could avert 268,080 Disability-Adjusted Life Years (DALYs) and could help the country save up to IDR 40.6 trillion, the estimated reduction of direct and indirect economic loss associated with T2DM.

These findings underscore the significant impact of SSB taxes on reducing the national burden of T2DM in Indonesia. Moreover, implementing SSB taxes aligns with the objectives outlined in the Long-term National Development Strategies "The Golden Indonesia 2045 Vision" and supports the realization of good health and well-being as articulated in the Sustainable Development Goals (SDGs).

INTRODUCTION

Sugar-sweetened beverages (SSBs)(1) have become very pervasive in the market and highly accessible in Indonesia [1]. High consumption of SSBs has long been associated with a higher risk of non-communicable diseases (NCDs) [2,3], including type 2 diabetes [4], metabolic syndrome [5], cardiovascular diseases [6], and cancers [7]. Globally, the consumption of SSBs has increased by 16% from 1990 to 2018 and is disproportionately affecting more countries with a lower socio-demographic development index [8]. In Indonesia, SSB consumption has increased 15 times over the past two decades [9]. At the same time, NCDs continue to rise and have become the main causes of mortality in Indonesia, with Type 2 Diabetes Mellitus (T2DM) ranking third [10].

A systematic review conducted by the World Health Organization (WHO) confirmed the effectiveness of SSBs excise taxes in reducing their consumption and, consequently, the risk of NCDs [11]. As of today, over 100 countries globally, including low- and middle-income countries (LMICs), have implemented this policy [12]. In Indonesia, the discussion on SSB taxes commenced in 2016 by the Ministry of Finance [13], however, as of March 2024, the proposed policy remains unimplemented.

Globally, many studies have highlighted the positive potential health and economic impacts of SSB taxation. The studies show that the implementation of the SSB taxes would reduce the burden of NCDs, reducing the incidence, associated mortality, and the economic losses, resulting from NCDs after several years of implementation [14-17]. In Indonesia, Bourke and Veerman (2018) [18] estimated the impact of an SSB tax on the potential health outcomes and inequality across different individuals based on their income levels. The study shows that a $0.30 (or approximately IDR 4,686) per liter tax on SSBs would significantly reduce the cases of diabetes, ischemic heart disease, and stroke, particularly among the highest-income groups, over 25 years of implementation. It also highlights the potential tax revenue that could be generated from taxing SSBs.

Using a modeling approach, Indonesia's 2018 Basic Health Research, and the price elasticity of SSBs computed specifically for Indonesia [19], this study updates and extends the previously mentioned study [18] by re-estimating the health impact of SSB taxes on the burden of T2DM and estimating the economic loss averted from a hypothetical SSB tax implementation over 10 years, from 2024 to 2033, assuming the tax is implemented in 2024. The 20% increase in SSB prices is assumed to be a proxy of SSB taxes in this study.

(1) Sugar-sweetened beverages (SSBs) are defined as: (1) all sweetened packaged beverages, which contain added caloric and non-caloric sweeteners; (2) all sweetened beverages in the form of liquid, concentrate and powder. These include, but not limited to carbonated drinks, energy drinks, fruit juices, isotonic, herbal and vitamin drinks, flavored milk, packaged tea and coffee, condensed milk, and syrup.

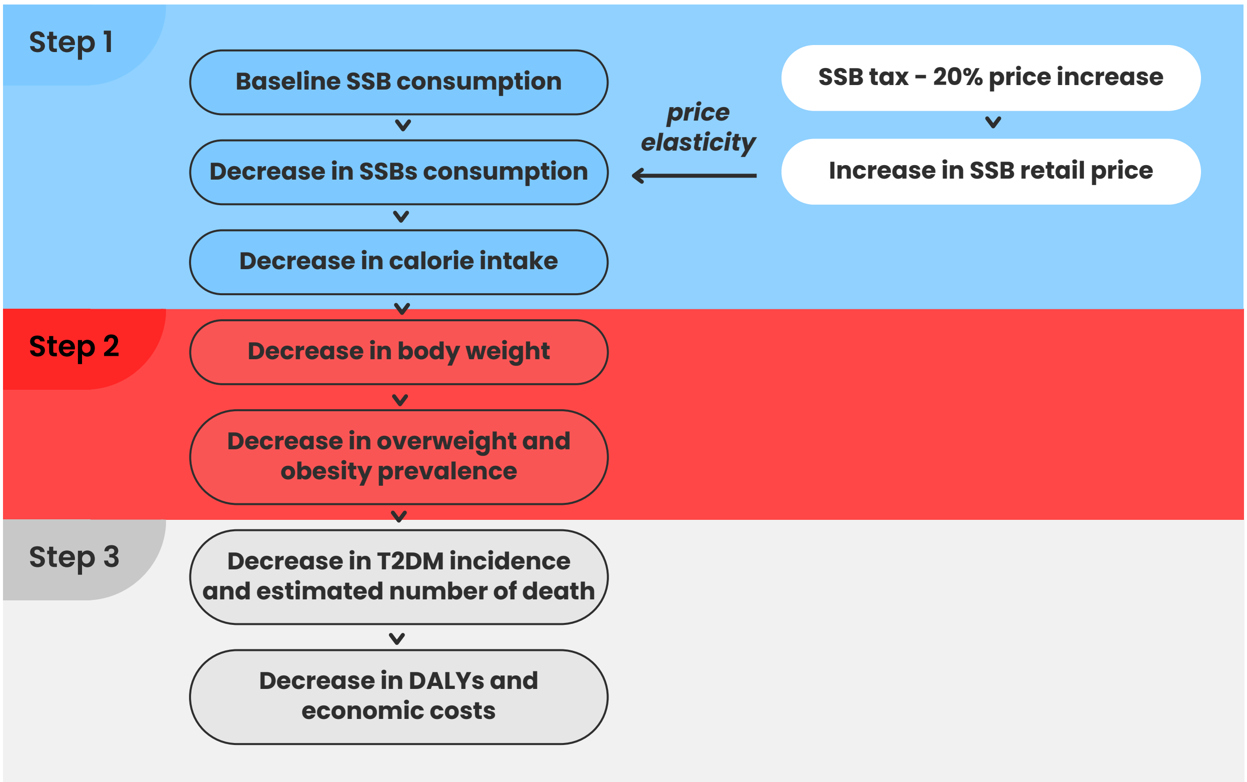
METHODS

Model structure and inputs

To estimate the impact of SSB taxes on the T2DM burden for the years 2024-2033, this study uses a modeling approach constructed based on the theoretical framework presented in **Figure 1**. The framework is constructed following the theoretical framework used in similar kinds of studies in Thailand [20], Vietnam [21], South Africa [22], US [23], UK [24], Mexico [25], Australia [26], including the previous study in Indonesia [18].

The theoretical framework of tax impact on the burden of T2DM starts with the decrease in SSB consumption at the population level due to a 20% increase in SSBs' prices, which leads to a decrease in the population's calorie intake (Step 1). The decrease in the population's calorie intake is then translated into a reduction in body weight and, subsequently, a reduction in BMI and overweight/obesity status (Step 2). The effect of changes in body weight and BMI is then modeled on T2DM's expected incidence and mortality, which are used to compute the averted disability-adjusted life years (DALYs) and the economic loss that can be reduced from the implementation of taxes (Step 3).

Figure 1: Theoretical framework



Source: Authors' elaboration

Figure 1 is also supported by **Table A1** (see **Appendix A**) which describes the main model inputs, clarifications, and data sources. Data for these inputs and assumptions were drawn from the desk review and various available data sources which were deemed as the most updated and relevant for Indonesia context.

Simulation technique

The steps depicted in **Figure 1**, including the simulation technique used in each step, are clarified as follows:

Step 1 - Change in SSB consumption and calorie intake

In estimating the changes in SSB consumption and calorie intake due to a 20% price increase (i.e., SSB taxes), this study uses the findings from our previous study [19] that computes the price elasticities of SSBs and simulates the impact of the taxes on consumer demand. The study shows that on average, a 20% price increase on SSBs is estimated to reduce consumption by 17.5%.

The data on SSB consumption is taken from Indonesia's 2018 Basic Health Research [27]. This study covers three beverage categories: (1) "sweet drinks", that includes syrup, packaged sweet tea, and other non-carbonated sweetened beverages, (2) soft drinks and carbonated beverages, and (3) energy drinks. Since the beverage categories included in the current study are not directly comparable with our previous study [19], the average change in consumption caused by SSB tax (i.e., 17.5%) is used across all beverage categories.

As Basic Health Research only contains information on the frequency of SSB consumption, the baseline consumption of SSBs is obtained by multiplying the consumption frequency with 22.8 grams of sugar ($\simeq$ 91.2 kcal), the average amount of sugar contained per standardized serving sizes of SSBs obtained from the study conducted by Haning et al. [28]. The baseline consumption is standardized into the amount of energy (kcal) consumed daily from SSBs and the change in calorie intake is estimated based on the decrease in daily energy intake consumed from SSBs.

Step 2 - Change in body weight, BMI, and obesity status

To estimate the change in body weight, a regression analysis of sex, age, and SSB consumption (in kcal) per day after tax on the body weight is performed. The change in BMI is then calculated by dividing the estimated weight (kg) after tax by the squared height (m^2). The change in individuals' BMI is assumed to be impacted only by a decrease in SSB consumption, keeping other factors (physical activities, diet, etc.) constant. The mean of BMI among all adults (aged ≥ 20 years old) is then used to estimate the change in overweight status (BMI=25-26.9) and obesity status (BMI ≥ 27) as a result of a tax.

Step 3 - Change in type 2 diabetes mellitus burden

The number of type 2 diabetes cases (incidence) and associated deaths after tax implementation is calculated by multiplying the projected diabetes incidence and case fatality rate (CFR) with the computed disease specific Population Attributable Fraction (PAF) for the years 2024 - 2033, which is calculated based on sex and age groups for all populations aged ≥ 20 years old. The data of projected diabetes incidence and case fatality rate (CFR) is obtained from the 2019 Burden of Disease data [10] and projected linearly. The decrease in incidence and deaths due to tax is computed as the difference between incidence and deaths due to SSB taxes versus if there are no SSB taxes (counterfactual scenario). Considering the recognition lag of the policy [29], we assume the changes in the incidence of and mortality due to type 2 diabetes will take place starting one year after the tax is commenced in 2024 (i.e., 2025).

The economic benefits of taxes are measured by the averted disability-adjusted life years (DALYs) and saved economic costs [30,31]. DALYs, represent the sum of the years of life lost due to premature mortality and the years lived with a disability due to a disease or health condition (i.e., T2DM) in a population [32]. The averted DALYs is calculated as the difference between the DALYs before and after the SSB taxes' implementation. Saved economic costs consist of two components: (1) saved direct costs, which are obtained by multiplying the number of avoided disease cases with the standard T2DM treatment cost, which is assumed to be constant in 2024–2033 based on 2023's T2DM standard treatment costs [33] adjusted with inflation; and (2) saved indirect costs, which are obtained by multiplying the averted DALYs with the forecasted GDP per capita.

Pass through-rate and sensitivity analysis

Theoretically, in studying the impact of taxes on consumer behavior, the extent to which excise taxes were passed on to consumers in the form of higher prices or pass-through rates is unlikely to reach 100%, because most markets do not have perfect competition and the tax may be partially absorbed by the manufacturers [17] and retailers [21,22]. In this study, we set the tax pass-through rate at 80%, which we consider to be the most feasible and may be close to the overall rate after the implementation of SSB taxes according to a systematic review [34]. In our analysis, we assume the pass-through rate to be halved during the first three years of implementation (to 40%) before being fully applied starting in the fourth year, considering the implementation lag of the policy [29], which could take years in Indonesia [35]. In addition, for sensitivity analysis, this study also tested the pass-through rates of 60% and 100% to compare the outcomes when the tax pass-throughs to consumers are lower and higher than expected (for the results, see **Table B1** in **Appendix B**).

RESULTS

Health benefits of SSB Tax

The 20% increase in SSB prices as a result of implementing the equivalent SSB tax rate would reduce the consumption of SSBs and decrease the daily sugar intake by 5.4 grams (≃21.6 kcal) for males and 4.09 grams (≃16.36 kcal) for females on average. The tax would then shift their body weight and, subsequently, their BMI. On average, body weight would decrease by -0.15 kg for males and -0.11 kg for females. This would then result in a reduction of BMI by -0.06 kg/m^2 for males and -0.05 kg/m^2 for females, on average (see **Table C1** in **Appendix C**).

Within one year, the shift in BMI would prevent 175,690 (-1.68%) and 77,837 (-0.59%) cases of overweight among males and females, respectively. Additionally, it would also prevent 231,528 (-1.85%) and 271,048 (-1.05%) cases of obesity among males and females, respectively. In total, it would prevent 253,527 (-1.07%) overweight cases and 502,576 (-1.31%) obesity cases.

Figure 2 shows the impact of SSB taxes on T2DM incidence (new cases). In a no SSB tax scenario (the status quo), the number of new T2DM cases in 2024–2033 is estimated to increase every year and have an upward trend (blue line), whereas the number of new T2DM cases is estimated to decrease every year and can have a downward trend when the tax is implemented in 2024 (red line). The total number of new T2DM cases by 2033 without SSB taxes would reach 8,949,768 cases, cumulatively (**Table 1**). However, if SSB taxes were implemented in 2024, the estimated number of T2DM new cases could be reduced significantly to 5,854,126 cases (-34.6%) by 2033. The tax is estimated to prevent 3,095,643 new cases of T2DM over 10 years of its implementation compared to the counterfactual scenario.

Table 1: Estimated number of new T2DM cases in 2024 - 2033 (no tax versus with tax implemented in 2024)

Year	No tax	With tax
2024	776,180	776,180
2025	803,518	743,477
2026	830,580	712,435
2027	857,302	682,938
2028	883,650	614,347
2029	909,602	555,199
2030	935,132	503,937
2031	960,206	459,305
2032	984,784	420,281
2033	1,008,815	386,027
TOTAL	**8,949,769**	**5,854,126**

Source: Authors' calculations

Figure 2: **Estimated T2DM new cases in 2024 - 2023 (no tax versus with tax implemented in 2024)**

Source: Authors'calculations

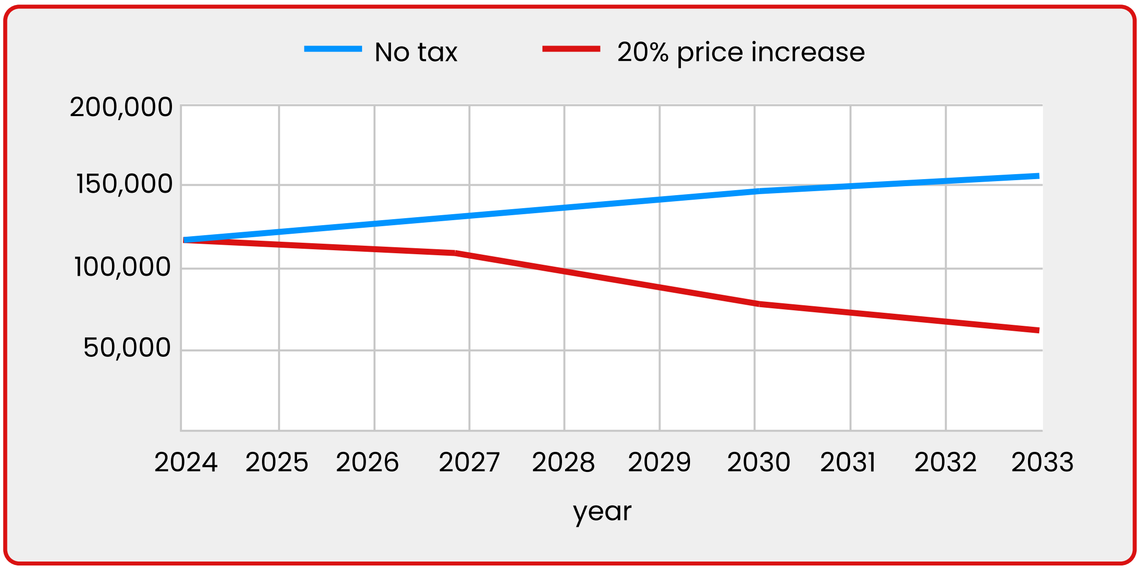
Figure 3 shows similar trends on mortality caused by T2DM if there was no tax in place (blue line) versus if there are SSB taxes implemented in 2024 (red line). Without SSB taxes, the total number of deaths associated with T2DM would increase every year and cumulatively reach 1,393,417 deaths by 2033 **(Table 2)**. However, if SSB taxes were starting to be implemented in 2024, the estimated number of deaths associated with T2DM would be reduced significantly to 938,107 deaths (-32.68%). This means SSB taxes would prevent 455,310 deaths caused by T2DM over 10 years of implementation.

Table 2: **Estimated number of deaths caused by T2DM in 2024 - 2033 (no tax versus with tax implemented in 2024)**

Year	No tax	With tax
2024	119,515	119,515
2025	123,994	116,210
2026	128,492	112,976
2027	132,977	109,798
2028	137,423	99,656
2029	141,805	90,600
2030	146,106	82,497
2031	150,310	75,238
2032	154,409	68,729
2033	158,387	62,888
TOTAL	**1,393,417**	**938,107**

Source: Authors' calculations

Figure 3: Estimated deaths caused by T2DM in 2024 - 2033 (no tax versus with tax implemented in 2024)



Source: Authors' calculations

Economic benefits of SSB Taxes

The 20% increase in SSBs prices as a result of SSB excise taxes would be economically beneficial to Indonesia as it would avert DALYs and avoid potential economic loss caused by type 2 diabetes. SSB taxes would potentially avert 172,554 DALYs for males and 95,526 DALYs for females, with a total of 268,080 DALYs averted, over 10 years of implementation **(Table 3)**.

Table 3: Estimated DALYs averted over 10 years of tax implementation

Year	DALYs loss before tax (a)			DALYs loss after tax (b)			DALYs loss averted (a-b)		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
2024	66,355	34,449	31,906	66,355	34,449	31,906	0	0	0
2025	68,645	35,695	32,950	63,304	32,170	31,134	5,341	3,525	1,816
2026	70,912	36,932	33,980	60,435	30,046	30,389	10,478	6,886	3,591
2027	73,153	38,158	34,994	57,734	28,066	29,668	15,419	10,092	5,327
2028	75,364	39,372	35,992	51,800	23,966	27,835	23,563	15,406	8,158
2029	77,543	40,571	36,973	46,731	20,529	26,202	30,812	20,042	10,771
2030	79,689	41,754	37,935	42,373	17,637	24,736	37,316	24,117	13,199
2031	81,799	42,920	38,879	38,607	15,196	23,411	43,192	27,724	15,468
2032	83,871	44,069	39,803	35,335	13,129	22,206	48,536	30,940	17,597
2033	85,902	45,197	40,705	32,480	11,374	21,105	53,422	33,823	19,600
TOTAL	**763,235**	**399,118**	**364,117**	**495,155**	**226,564**	**268,591**	**268,080**	**172,554**	**95,526**

Source: Authors' calculations
Note: The DALYs presented are DALYs of T2DM associated with consumption of SSB as a risk factor

In terms of cost savings, **Table 4** shows that Indonesia could avoid direct health care costs amounting to IDR 24.9 trillion and indirect economic costs amounting to IDR 15.7 trillion incurred from diabetes. Over 10 years, the country could save IDR 40.6 trillion from the 2024 implementation of an SSB tax equivalent to a 20% price increase.

Table 4: Estimated economic loss avoided over 10 years of tax implementation

Year	Direct cost (in IDR 000)	Indirect cost (in IDR 000)	Total cost (in IDR 000)
2024	-	-	-
2025	385,160,546	250,003,093	635,163,639
2026	788,517,148	510,211,904	1,298,729,052
2027	1,211,099,467	781,347,685	1,992,447,152
2028	1,953,761,753	1,246,994,673	3,200,756,426
2029	2,680,128,521	1,699,551,928	4,379,680,449
2030	3,396,686,474	2,143,803,353	5,540,489,828
2031	4,108,625,073	2,583,568,100	6,692,193,173
2032	4,820,258,940	3,022,018,346	7,842,277,286
2033	5,535,242,203	3,461,835,861	8,997,078,064
TOTAL	**24,879,480,125**	**15,699,334,945**	**40,578,815,070**

Source: Authors' calculations

DISCUSSION

This study shows that the 2024 implementation of SSB taxes which increase the price of products by 20% would decrease the Indonesian population's SSB consumption, BMI, and subsequently type 2 diabetes incidences, deaths and both direct and indirect health care costs. These changes would prevent 756,103 cases of overweight and obesity within a year of implementation. Over 10 years of the taxes' implementation, it would prevent 3,095,643 new cases of T2DM and avert 268,080 productive years of population loss (i.e., DALY loss). From an economic perspective, the country would save IDR 24.9 trillion in direct health care costs and avoid IDR 15.7 trillion indirect costs associated with T2DM. SSB excise taxes would align with Long-term National Development Strategies "The Golden Indonesia 2045 Vision", which push for control on products that could potentially bring negative health impacts (e.g. through taxation), to advance public health, strengthen the health system, and eventually achieve health for all by 2045 [36]. Moreover, this policy can contribute in achieving the Sustainable Development Goals (SDGs) goal number three (Good Health and Well-being), aiming to decrease mortality from NCDs by one third by the year 2030 [37]. According to the 2023 Sustainable Development Report, Indonesia is reported to remain facing significant challenges, as the risk of dying due to NCDs among adults only reduced from 25.6% in 2000 to 24.8% in 2019, while the objective is to reduce the risk to 9.3% by 2030 [38].

The findings of this study support the conclusion of previous Indonesian [18] and international health and economic evaluations that taxing SSBs is a cost-effective policy to improve population health [39]. Compared with the findings from the previous evaluation [18], where the SSB tax has the potential to avoid 2,490,379 new cases of diabetes and 1,643,967 deaths caused by diabetes over 25 years of implementation, this study found that the tax could potentially avoid more new cases of T2DM and save more lives within 10 years of implementation. The possible explanation for this is the use of different data sets and differences in key assumptions, such as price elasticity, pass-through rates, and others, which may lead to the variances in the outcomes. Nevertheless, this study adds more evidence on the potential economic impacts of the SSB tax [18,19], showing that the country would also be able to save on healthcare costs as well as to avoid productivity losses caused by type 2 diabetes beyond 10 years.

Although this study is not the first to evaluate the health and economic impact of the SSB tax in Indonesia, it uses the most recent and relevant data available for the Indonesian context. Indonesia's Basic Health Research data is widely used and known as the most credible health survey data, despite its limitations. This study also uses the price elasticity computed for Indonesia, which is derived from Indonesia's socio-economic survey, a nationally-representative household survey, to project the shift in SSB consumption as a result of excise taxes.

This study is not without limitations. The use of consumption frequency and assumed sugar contained per SSB's standardized serving sizes instead of the actual surveyed amount of SSB intake (in mL) per day as baseline consumption data might pose measurement errors. In addition, this study is limited by the types of beverages included in the Basic Health Research and does not account for the entire SSBs sold in the market. Moreover, it is important to note that while SSB taxes can also, in the long term reduce the burden of other diseases such as ischemic heart disease and stroke, as demonstrated by [15,18,40,41], this study only focuses on the impact on type 2 diabetes due to data limitations. Due to lack of inclusion of all SSBs in the market as well as data limitations to test the impact of taxes on other diseases, the health and economic benefits of taxing SSBs are likely greater than estimated in this study.

CONCLUSION

This study demonstrates that the imposition of excise taxes on sugar-sweetened beverages (SSBs) would substantially contribute to the reduction of the national burden of type 2 diabetes in Indonesia. Moreover, the implementation of such taxes can contribute to delivering "Health for All" objective, outlined in the Long-term National Development Strategies "The Golden Indonesia 2045 Vision" and Sustainable Development Goals (SDGs) number three, which aims to ensure healthy lives and promote well-being for all individuals across all age groups by 2030.

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APPENDIX

Appendix A

Model parameters and data sources

Table A1 Model parameters and data source

Indicators	Description	Data sources
Step 1: Change in SSB consumption and calorie intake		
Price elasticity	A parameter for estimating the change of SSB consumption pattern when the price is increased by 20% as a result of the taxation.	CISDI, 2023
SSB consumption frequency	The individuals' frequency of SSB consumption.	Indonesia's 2018 Basic Health Research
Sugar content (in kcal)	The average amount of SSB sugar contained per serving (22.8 gr).	Haning et al., 2016
SSB consumption baseline (in kcal)	The baseline of SSB consumption calculated by multiplying the individuals' frequency of SSB consumption with the average amount of SSB sugar contained per serving.	Author's calculation based on the 2018 Basic Health Research and Haning et al., 2016
Population size and forecast	Population structure and forecast by age and sex. Population size is assumed to represent the SSB market size in Indonesia.	Statistics Indonesia / Badan Pusat Statistik (BPS)'s census and population forecast
Step 1: Change in SSB consumption and calorie intake		
Baseline weight	The baseline weight of population by sex and age.	2018 Basic Health Research
Baseline height	The baseline height of population by sex and age.	2018 Basic Health Research
Baseline BMI	The baseline BMI (kg/m^2) calculated from baseline weight and baseline height.	Authors' calculation based on the 2018 Basic Health Research

Step 3: Change in T2DM burden		
T2DM prevalence	The prevalence of type 2 diabetes by sex and age calculated based the individual's medical history (diagnose) related to type 2 diabetes.	Authors' calculation based on Indonesia's 2018 Basic Health Research
T2DM incidence	The incidence of type 2 diabetes by sex and age.	Authors' calculation based on the 2014-2019 IHME's Global Burden of Diseases (GBD)
T2DM Case Fatality Rate (CFR)	The case fatality rate of type 2 diabetes by sex and age.	Author's calculation based on the 2019 IHME's GBD (number of incidences and the number of deaths)
T2DM-associated number of deaths	The number of deaths caused by type 2 diabetes by sex and age.	Authors' calculation based on the T2DM incidence and CFR obtained from 2019 IHME's Global Burden of Diseases (GBD)
Relative-risk factor	The relative-risk factor computed based on the type 2 diabetes prevalence and the individuals SSB consumption.	Authors' calculation based on the 2018 Basic Health Research
Population attributable fraction (PAF)	The population attributable fraction by sex and age calculated based on the relative risk factor of SSB consumption. In the calculation, individuals who are at risk of being diagnosed with T2DM are assumed to have a BMI 25 (overweight and obese).	Authors' calculation based on the 2018 Basic Health Research
Medical cost for diabetes	The estimated standard treatment cost of diabetes patients adjusted with inflation.	Social Security Agency on Health / Badan Penyelenggara Jaminan Sosial Kesehatan (BPJS - K) Forecasted inflation rate based on historical inflation data obtained from Statistics Indonesia
Indirect economic (productivity) loss	The estimated productivity loss caused by diabetes calculated from the averted DALYs multiplied by forecasted GDP per capita.	Authors' calculation based on the 2019 IHME's Global Burden of Diseases (GBD) and the IMF's forecasted GDP per capita

Appendix B

Sensitivity analysis

When the SSB excise tax is passed on to consumers to a greater extent, the health and economic benefits become more optimal **(Table B1)**.

Table B1 **Sensitivity analysis for SSB tax (20% price increase) in Indonesia at different pass through rates**

	60% pass rate	80% pass rate*	100% pass rate
N of T2DM incidence (% change from incidence without tax)	6,350,413 (-29.04%)	5,854,125 (-34.59%)	5,430,900 (-39.32%)
N of T2DM deaths (% change from deaths without tax)	1,028,785 (-26.17%)	938,106 (-32.68%)	860,640 (-38.24%)
DALYs averted (% change from DALYs without tax)	227,211 (-29.77%)	268,080 (-35.12%)	302,898 (-39.69%)
Direct cost saved (IDR)	21,374,920,262,344	24,879,480,125,264	25,405,353,065,157
Indirect cost saved (IDR)	13,619,616,365,465	15,699,334,944,885	16,038,039,071,227

Source: Authors' calculations
Note: *baseline model

Appendix C

Estimated mean change in body weight and BMI

Table C1 Estimated mean change in body weight (kg) and BMI (kg/m^2) one year after tax implementation, grouped by sex and age

Sex	Age group	20% price increase (tax)	
		Body weight mean change in one year (95% CI)	BMI mean change in one year (95% CI)
Male	20 - 24	-0.158 (-0.159, -0.157)	-0.059 (-0.059, -0.058)
	25 - 29	-0.157 (-0.158, -0.155)	-0.058 (-0.059, -0.058)
	30 - 34	-0.158 (-0.159, -0.156)	-0.059 (-0.059, -0.059)
	35 - 39	-0.157 (-0.158, -0.156)	-0.059 (-0.060, -0.059)
	40 - 44	-0.156 (-0.157, -0.155)	-0.059 (-0.060, -0.059)
	45 - 49	-0.153 (-0.154, -0.152)	-0.058 (-0.059, -0.058)
	50 - 54	-0.150 (-0.151, -0.149)	-0.058 (-0.058, -0.057)
	55 - 59	-0.148 (-0.149, -0.146)	-0.057 (-0.058, -0.057)
	60 - 64	-0.144 (-0.145, -0.143)	-0.057 (-0.057, -0.056)
	65 - 69	-0.140 (-0.141, -0.138)	-0.056 (-0.056, -0.055)
	70 - 74	-0.132 (-0.134, -0.130)	-0.053 (-0.054, -0.052)
	75+	-0.129 (-0.131, -0.127)	-0.053 (-0.054, -0.052)
	Total male	-0.152 (-0.153, -0.152)	-0.058 (-0.058, -0.058)
Female	20 - 24	-0.110 (-0.111, -0.109)	-0.047 (-0.048, -0.047)
	25 - 29	-0.109 (-0.109, -0.108)	-0.047 (-0.047, -0.046)
	30 - 34	-0.110 (-0.111, -0.109)	-0.048 (-0.048, -0.048)
	35 - 39	-0.112 (-0.113, -0.111)	-0.049 (-0.049, -0.049)
	40 - 44	-0.114 (-0.115, -0.113)	-0.050 (-0.050, -0.049)
	45 - 49	-0.114 (-0.115, -0.113)	-0.050 (-0.051, -0.050)
	50 - 54	-0.113 (-0.114, -0.112)	-0.050 (-0.050, -0.050)
	55 - 59	-0.113 (-0.114, -0.112)	-0.051 (-0.051, -0.050)
	60 - 64	-0.110 (-0.111, -0.109)	-0.050 (-0.051, -0.050)
	65 - 69	-0.109 (-0.110, -0.107)	-0.050 (-0.051, -0.050)
	70 - 74	-0.108 (-0.110, -0.106)	-0.051 (-0.052, -0.050)
	75+	-0.111 (-0.113, -0.109)	-0.053 (-0.054, -0.053)
	Total female	-0.112 (-0.112, -0.111)	-0.049 (-0.049, -0.049)

Source: Authors' calculations