

FROM TOBACCO TO POTATO

Reducing tobacco spending significantly increases household expenditure on essential commodities

This policy brief is based on CISDI's research on the crowding-out effect of tobacco consumption in Indonesia (2022)[1]

» KEY POINTS

- ▶ Due to the pervasiveness of tobacco use in the country, most Indonesian households (6 out of 10) have tobacco spending. Smoking households, on average, spend a significant share (11%) of their monthly budget on cigarettes or other tobacco products.
- ▶ High tobacco spending crowds out household budget allocated to other commodities, including spending on essential needs such as staples, meat, vegetables, housing, education, and health care.
- ▶ The crowding-out effect of tobacco spending adversely affects human capital investment. On average, individuals living in a smoking household have lower daily nutrition intake than those in a non-smoking family. In addition, reduced education and health care spending among smoking families might negatively affect children's development, potentially bringing long-term consequences.
- ▶ Reducing tobacco spending significantly increases household spending on essential commodities. For instance, the simulation shows that cutting tobacco purchases by half would increase spending on staples by 14%, meat (35%), housing (24%), and education (31%)
- ▶ Effective tobacco control policy should be adopted to significantly reduce tobacco consumption as it would free up households' resources for essential needs. Moreover, tax revenues can be allocated to health and education programs to help with the human capital deficit attributed to tobacco consumption.

» TOBACCO CONSUMPTION IN INDONESIA REMAINS STEADILY HIGH

Despite reduced cigarette affordability in recent years¹, tobacco consumption in Indonesia has yet to show any substantial decline. The smoking rate among the adult population (15+ years old) only dropped by 1.6 percentage points in ten years, from 36.1% in 2011 to 34.5% in 2021[2].

After accounting for the population growth, it is estimated that there were 8.8 million more adult smokers in 2021 than in 2011. Additional smokers have contributed significantly to the total cigarette consumption in Indonesia, partially offsetting declines from the decreased affordability achieved by higher tobacco taxes[3].

» MOST INDONESIAN HOUSEHOLDS LIVE WITH A SMOKER; THEY DIVERT SIGNIFICANT RESOURCES TO BUY TOBACCO PRODUCTS

With a relatively high smoking rate, particularly among adult males, around 63% of households in Indonesia have at least one smoker. On average, tobacco-consuming households divert 10.69% of their monthly budget for tobacco purchases, which is relatively significant as it is the third-largest allocation after spending on housing and ready-made foods (Table 1).

Low-income households, on average, spend Rp270,448 or 10.73% of their monthly budget to buy tobacco. Meanwhile, on average, middle- and high-income households spend Rp485,470 (11.3%) and Rp626,179 (9%) on tobacco, respectively. This highlights that families across the income groups divert a significant share of their resources to smoking.

¹ Indonesia's Cigarette Tax Scorecard (2020) found that Indonesia's cigarette affordability decreased by 3.31% on average each year between 2014 and 2020.



» TOBACCO SPENDING CROWDS OUT HOUSEHOLD RESOURCES SPENT ON ESSENTIAL COMMODITIES

CISDI's recent study investigates the causal relationship between tobacco spending and expenditures on other non-tobacco commodities. The analysis confirms that tobacco expenditure reduces household spending on almost all other goods and services, including spending on essential needs such as food, clothing, housing, and durable and non-durable goods. The crowding-out effect of tobacco also diminishes a household's budget for education and health care.

Tabel 1. Comparison of share of expenditures between smoking and non-smoking households

SHARE OF EXPENDITURE (%)	Smoking household (A)	Non-smoking household (B)	Difference (A-B)
Food	49.30	50.48	-1.18
Staple	10.39	9.74	0.64
Meat and fish	6.16	6.51	-0.35
Dairy	2.72	3.04	-0.31
Fruit and vegetables	6.74	7.42	-0.68
Beverages	5.19	4.63	0.56
Ready-made food	14.17	15.15	-0.98
Other foods (spices, oils)	3.92	3.98	-0.06
Clothing	2.76	2.93	-0.17
Housing	10.03	14.00	-3.97
Utilities and fuel	8.12	10.23	-2.10
Durable and nondurable goods	6.23	7.07	-0.84
Education	2.33	3.15	-0.83
Health care	3.33	4.30	-0.97
Transportation	6.08	6.32	-0.24
Entertainment	1.12	1.50	-0.39
Alcohol	0.05	0.01	0.04

Source: Author's calculation based on Susenas (2017-2019)

Table 1 shows that smoking households, on average, allocate a smaller budget to non-tobacco commodities than non-smoking families. For instance, smoking households spend 49.3% of their monthly budget on food, which is 1.18 percentage points (pp) lower than non-smoking households who allocate 50.48% on food.

The same finding is also observed in non-food commodities. Compared to non-smoking families, the smoking households allocated 3.97 pp less on housing and 2.1 pp less on utilities. Moreover, smoking families spend 0.97 pp less on health care and 0.83 pp less on education compared to non-smoking households.

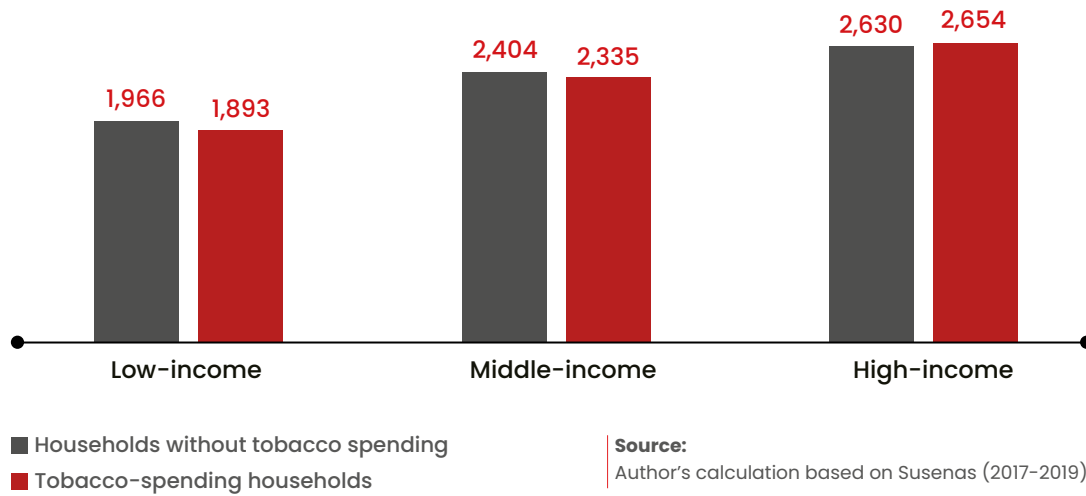
» THE TOBACCO CROWDING-OUT EFFECT ADVERSELY AFFECTS HUMAN CAPITAL INVESTMENT

The crowding-out effect of tobacco on food spending contributes to nutritional inadequacy among smoking families in the form of lower protein intake due to reduced dietary quantity and quality relative to those

living in non-smoking families^[4,5]. Figure 1 shows that low- and middle-income smoking households, on average, have lower per capita daily calorie intake than non-smoking families.



Figure 1. Average of daily calorie intake per capita (Kkal) between smoking and non-smoking households



The tobacco crowding-out effect on essential spending such as housing, utilities, education, and health care among the smoking households also potentially brings adverse impacts on human capital investment, particularly on children. Studies have suggested that Indonesian children with smoking parents have higher

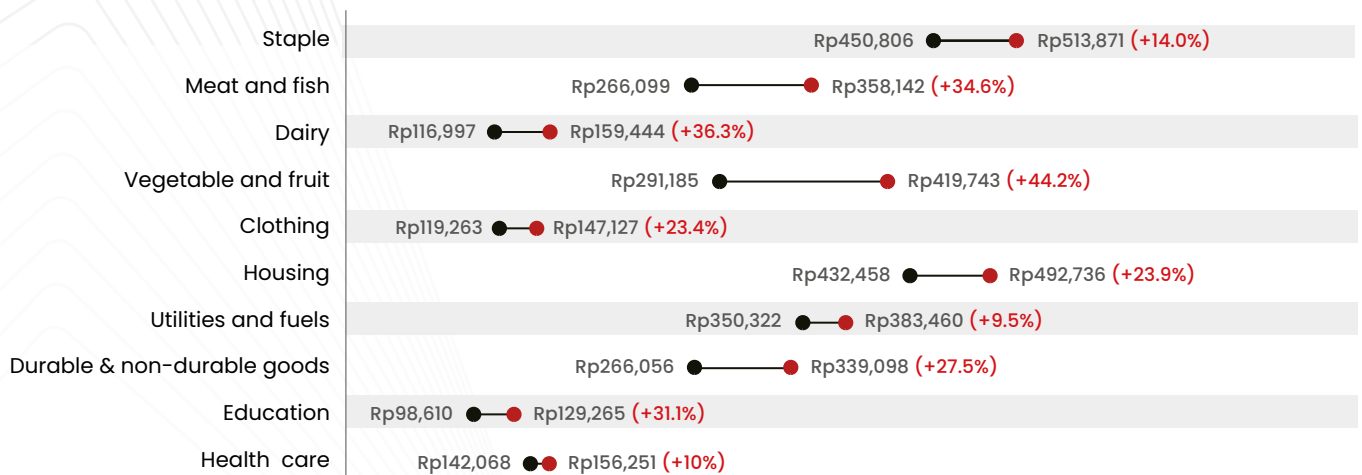
odds of stunting, lower health outcomes, and lower cognitive scores compared to children with non-smoking parents[6]. This indicates that the crowding-out effect of tobacco might have long-term consequences as lower children's human capital investment might detrimentally affect their future outcomes.

» REDUCING TOBACCO SPENDING WILL SIGNIFICANTLY INCREASE HOUSEHOLD SPENDING ON ESSENTIAL COMMODITIES

The simulation based on the crowding-out effect suggests that cutting tobacco spending by half from the current level (from Rp406,285 to Rp203,643) will increase household spending on staples by 14% from Rp266,099 to Rp338,142 (Figure 2). A significant rise is also observed in expenditures for vegetables and fruits

(44.2%), dairy products (36.3%), and meat (34.6%). In addition, reduced tobacco spending will also put an additional budget for spending on education by 31.1%, health care (10%), housing (23.9%), clothing (23.4%), and utilities (9.5%)

Figure 2. Impact of reduced tobacco spending by 50% on household's expenditure on other commodities



- Initial expenditure (average)
- Expenditure after cigarette spending is reduced by 50%

Source: Author's calculation based on crowding-out coefficients.
 Notes: The initial spending is the average spending on various commodities among the smoking households based on Susenas 2017-2019. The average tobacco spending is Rp407,285. A 50-percent reduction means that tobacco spending is reduced by Rp203,643, assuming that it will be fully reallocated to buy non-tobacco commodities.



Reducing tobacco spending will directly impact the household budget available for essential needs, which could benefit all household members, including women and children. To illustrate, there were 47.7 million smoking households in Indonesia in 2021, consisting of 184.5 million individuals. 78% of those who lived in the

smoking households did not consume tobacco but lived and shared resources with smoking family members. Therefore, reducing tobacco spending will help improve the welfare of a significant share of Indonesia's population.

» POLICY RECOMMENDATIONS

Given the pervasiveness of tobacco consumption and the extent of the tobacco crowding-out effect among Indonesian households, the following policy actions are recommended:

- 1 More effective tobacco control policy should be adopted to significantly reduce tobacco consumption in the country.** Reduced tobacco spending would improve the well-being of smoking households as it would free up resources for essential needs such as food, housing, education, and health care.
- 2 Tobacco tax revenue could be allocated to health care and education programs,** particularly for low-income populations, to help with the human capital deficit attributed to tobacco consumption. Moreover, tobacco tax revenue should also be allocated to support smoking prevention and cessation programs that help people quit smoking.

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