

Arguments against tobacco taxation: Poverty

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Poverty: short-run and consumption

- 1 No changes in consumption (no behavioral change): wrong
 - Increase in tax
 - All smokers still smoke, and have the same frequency and intensity
 - ⇒ This goes against empirical evidence on tobacco taxation (NCI et al. 2016)
- 2 Consumption (short-run)
 - Cessation: Tax burden of these consumers go down to zero (30%-50%)
 - Remaining smokers:
 - ✗ Payment of tax (higher burden)
 - ✓ Reduction in frequency and intensity (lower burden)
 - ⇒ Need for monitoring & evaluation at **micro** level (e.g. microsimulation ex ante, impact evaluation ex-post)
 - Low-income households more responsive to changes in price (elasticities): higher cessation,
 - Lower expenditure on these tobacco products: higher income available

Poverty: long-run and health

3 Long-run

- Reduction in Non-Communicable Diseases: lower morbidity, mortality and disability
- Reduction in Out-Of-Pocket Expenditure (catastrophic expenditure, poverty incidence)
- Increase in productivity

Poverty: long-run and health



Tax & Price

- Tax structure
- Tax increase
- Pass-through
- Pricing
- Elasticities



Smoking

- Prevalence
- Frequency
- Intensity
- Quitting
- Second-hand Smoke



Health

- Morbidity & Mortality
 - ✓ Heart disease
 - ✓ Stroke
 - ✓ Lung Cancer
 - ✓ Copd
- Life Years Gained



Healthcare

- Utilization
- Costs
 - ✓ Health Coverage
 - ✓ Out-Of-Pocket



Poverty

- Income
- Expenditures
- Crowding-Out

Individual Heterogeneity



Poverty: long-run and health

System	SDG	Units	Before tax increase (baseline)		After tax increase	
			Estimate	Conf. Interval	Estimate	Conf. Interval
Society	Health (SDG 3)					
	Tobacco tax (specific component) (SDG 3a)	Thousand COP\$ per 20-stick pack	2,350.0000	[2,350.0000, 2,350.0000]	7,000.0000	[7,000.0000, 7,000.0000]
	Price	COP\$ per 20-stick pack	7,028.6000	[7,028.6000, 7,028.6000]	13,950.3000	[13,950.3000, 13,950.3000]
	# Smokers	Million smokers	4.5073	[4.5069, 4.5122]	3.4485	[3.433, 3.4670]
	Smoking intensity	Cigarettes per day	2.0000	[2.0000, 2.0000]	1.7770	[1.7770, 1.7770]
	Cigarette consumption	Million 20-stick packs	332.4277	[332.2955, 332.5188]	215.5461	[212.3045, 218.8151]
	Deaths (excluding SHS)	Millions	2.2547	[2.2529, 2.2559]	1.8093	[1.789, 1.829]
	Averted deaths from smoking	Thousands			445.3339	[426.0748, 466.3759]
	SHS averted deaths	Thousands			15.9333	[11.2864, 20.6529]
	Healthcare expenditure					
	Healthcare costs savings	MMM COPS			2,158.8017	[1,957.1571, 2,356.076]
	Heart disease	MMM COPS			799.1106	[747.1224, 848.3346]
	Stroke	MMM COPS			693.55480	[635.1308, 754.8049]
	COPD	MMM COPS			344.0871	[307.2251, 381.3045]
	Lung cancer	MMM COPS			322.0492	[267.6787, 371.6319]
	Out of Pocket savings	MMM COPS			194.2922	[176.1441, 212.0468]
	Poverty (SDG 1)					
	Averted poverty	Thousand people			28.9008	[14.7922, 47.9571]
	Averted catastrophic expenditure	Thousand people			337.6163	[296.3577, 379.7444]

Poverty: long-run and health

System	SDG	Units	Before tax increase (baseline)		After tax increase	
			Estimate	Conf. Interval	Estimate	Conf. Interval
	Gender (SDG 5)					
	# Smokers					
	Men	Million	2.8455	[2.8443, 2.8481]	2.1773	[2.1556, 2.1977]
	Women	Million	1.6618	[1.6611, 1.665]	1.2713	[1.2542, 1.2915]
	SHS averted deaths					
	Men	Thousands			7.2059	[4.1213, 11.2842]
	Women	Thousands			8.7152	[5.1394, 13.2422]
Economy	Education (SDG 4)					
	Averted loss of knowledge capital per smoker	Years of education			10.1180	[9, 11]
	Averted loss of knowledge capital (total)	Million years of education			3.3685	[3.1504, 3.5999]
	Domestic resources (SDG 17)					
	Tobacco tax revenue (Specific component)	MMM COP\$	797.4834	[797.1662, 797.6947]	1,359.8950	[1,337.1956, 1,382.7563]
	Tobacco tax revenue (Specific component) adjusted for smuggled surplus	MMM COP\$	1,089.6746	[1,089.6746, 1,089.6746]	2,157.9202	[2,135.0359, 2,180.6037]
Earth	Reduction in cigarette butts littered (SDG 12)	Million cigarette butts			1,753.2242	[1,704.6168, 1802.2621]
	Water pollution avoided (SDG 6)	Thousand Million liters			1,753.2242	[1,704.6168, 1802.2621]

Poverty: Lessons

- 1 Use your micro data to look beyond health
- 2 Work in tandem with poverty/equity sector

Gracias! Thanks!

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`https://www.worldbank.org/en/programs/the-global-tax-program`

References I

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