

Introduction to Tobacco Control Economics: Best Practices in Taxation

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Overview

- Rationales for tobacco taxation
- Types of tobacco taxes
- Impact of tobacco taxes on tobacco product prices
- Impact of tobacco product prices on tobacco use
- Best Practices in tobacco taxation
- WHO FCTC Article 6, Guidelines

Rationales for Tobacco Taxation

"Sugar, rum, and tobacco, are commodities which are nowhere necessities of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation."

Adam Smith, An Inquiry into the Nature and Causes of The Wealth of Nations, 1776

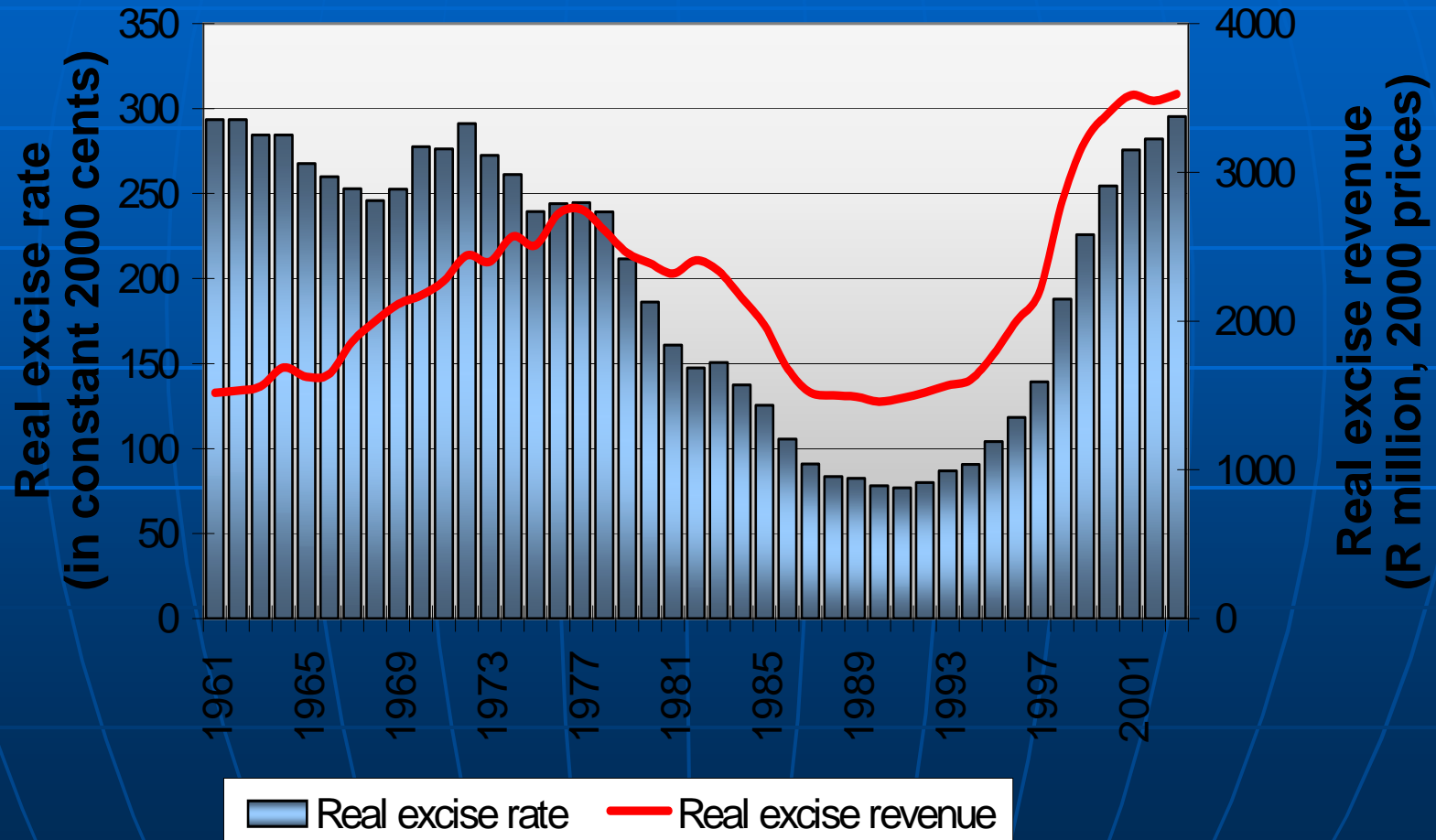
Why Tax?

■ Efficient revenue generation

- Primary motive historically and still true in many countries today
- Very efficient sources of revenue given:
 - Historically low share of tax in price in many countries
 - Relatively inelastic demand for tobacco products
 - Few producers and few close substitutes
 - One of many goods/services that satisfies the “Ramsey Rule”
- “This vice brings in one hundred million francs in taxes every year. I will certainly forbid it at once – as soon as you can name a virtue that brings in as much revenue” – Napoleon III on tobacco tax

Tobacco Taxes and Revenues

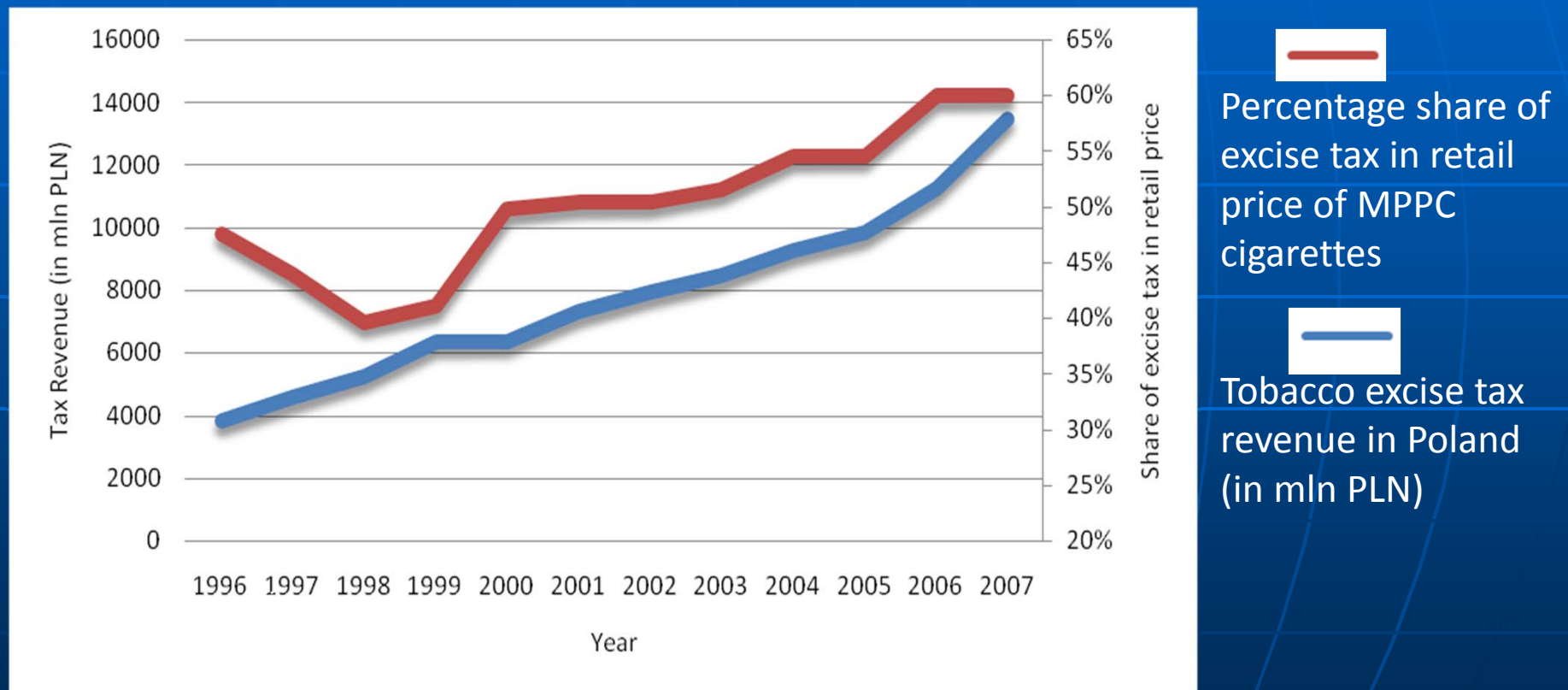
Inflation Adjusted Cigarette Taxes and Cigarette Tax Revenues, South Africa, 1961-2003



Source: Van Walbeek, 2003

Tobacco excise tax revenue in Poland

The excise tax revenue is increasing along with the tax rates



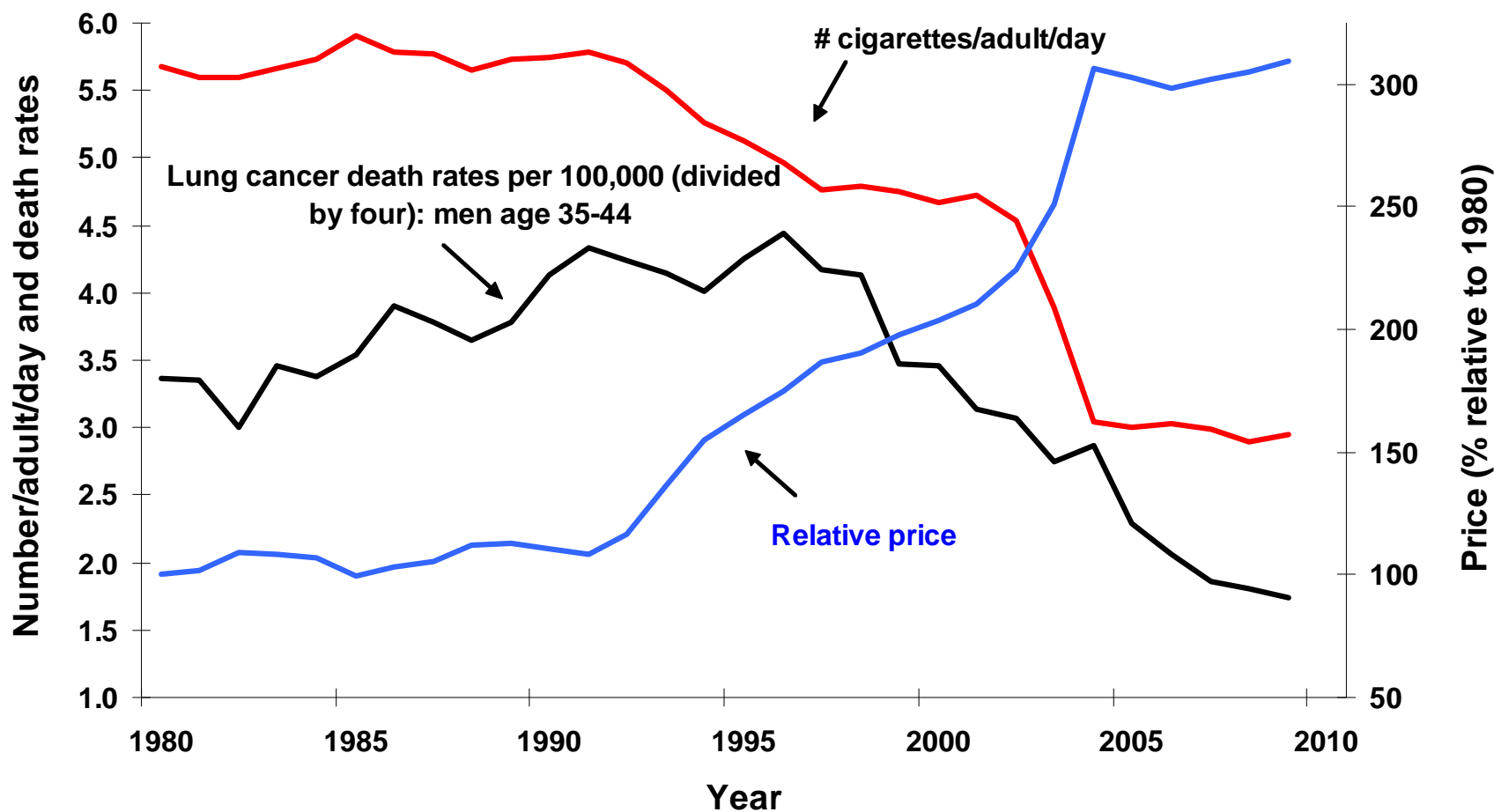
Source: Stoklosa & Ciecierski, 2010

Why Tax?

■ Promote public health

- Increasingly important motive for higher tobacco taxes in many countries
- Based on substantial and growing evidence on the effects of tobacco taxes and prices on tobacco use
 - Particularly among young, less educated, and low income populations
- *"... We [] have a package of six policy measures, known as MPOWER, that can help countries implement the provisions in the Convention. All six measures have a proven ability to reduce tobacco use in any resource setting. **But tobacco taxes are by far the most effective.**"* Director General Dr. Margaret Chan, WHO, 2008

France: smoking, tax and male lung cancer, 1980-2010

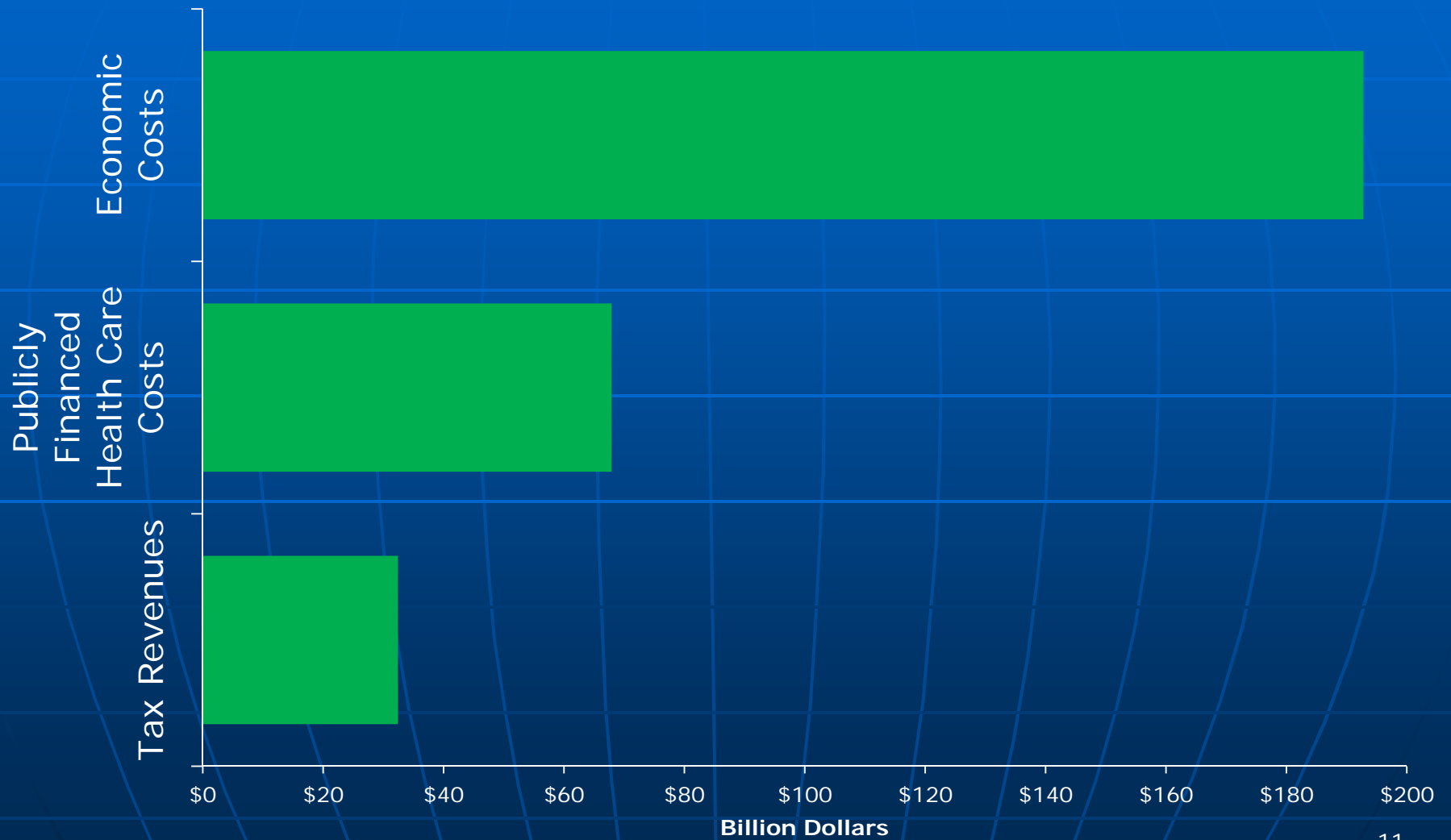


Why Tax?

- **Cover the external costs of tobacco and excessive alcohol use**
 - “Pigouvian” tax
 - Less frequently used motive
 - Account for costs resulting from tobacco, alcohol use imposed on non-users
 - Increased health care costs, lost productivity, property damage, criminal justice costs, etc. caused by exposure to tobacco smoke among non-smokers, harms incurred by non/moderate drinkers
 - Can also include “internalities” that result from addiction, imperfect information, and time inconsistent preferences

Economic Costs & Tax Revenues

United States



Sources: CDC/SAMMEC, CTFK, Tax Burden on Tobacco, and author's calculations

Why Tax Tobacco?

- **Other Motives affecting tax structure:**
 - To protect domestic industry and employment
 - To keep some brands/products affordable to the poor

Types of Tobacco Taxes

Types of Taxes

■ Variety of tobacco taxes

- Taxes on value of production
- Customs duties on tobacco leaf, tobacco products, imports and/or exports
- Sales taxes/Value added taxes
- Implicit taxes when government monopolizes production and/or distribution
- Excise taxes (or similar taxes)
 - Many of these are applied to variety of agricultural and/or consumer goods and services
 - Excise taxes are of most interest given specificity to tobacco products

Types of Taxes

■ Excise Taxes

- Two types of excises
 - Specific Taxes: excises based on quantity or weight (e.g. tax per pack of 20 cigarettes)
 - Ad Valorem taxes: excises based on value of products (e.g. a specific percentage of manufacturer's prices for tobacco products)
- Excise tax structure
 - Uniform: same tax rate applied to all brands/variants of a given product
 - Tiered: tax rate varies with price, product characteristics, or producer characteristics

Types of Taxes

■ Excise Taxes

- Excise tax systems
 - Specific: specific taxes applied to all brands/variants of a given tobacco product
 - Ad valorem: *ad valorem* rate applied to all brands/variants of a given tobacco product
 - Mixed system: combination of specific and *ad valorem* taxes applied to all brands/variants of a given tobacco product
- Can include:
 - Minimum specific floor: in *ad valorem* or mixed system, a minimum specific tax that sets a floor
 - Tiers: can have tiered taxes under all systems

Excise systems on cigarettes

	Number of countries
Total covered	182
Specific excise only	51
Ad valorem excise only	54
Mixture of both excises	56
No Excise	20

Source: WHO GTCR III

Cigarette Taxation Globally

	Excise System on Cigarettes			
Income Group	Only specific	Only ad valorem	Both specific and ad valorem	No Excise
High	11	2	25	7
Upper Middle	16	11	9	6
Lower Middle	18	19	12	3
Low	10	28	2	3
By Region				
AFRO	14	29	1	2
AMRO	13	16	2	3
EMRO	1	7	5	7
EURO	10	3	36	0
SEARO	3	2	2	1
WPRO	14	3	2	6
All Countries	55	60	48	19

* Countries for which data are available

Source: WHO calculations using WHO GTCR 2009 data

Cigarette Taxation Globally

Table 2: Different bases for tiered systems around the world

Differential /Tiered Excise taxes on cigarettes		
		Number of countries
Total covered		156
With tiers		32
Base of tiers	Retail price	11
	Producer price	2
	Sales volume	1
	Production volume	1
	Type - filter/non filter	12
	Type - hand/machine made	2
	Type - kretek/white cigarette	1
	Packaging soft/hard	3
	Cigarette length	4
	Trade domestic/imported	1
	Weight (tobacco content in cigarette)	1
	Leaf content (domestic/imported)	3
<p><i>Note :Of the 155 countries with available data in TMA, 10 countries has no excise Some countries differentiate based on more than on criteria. 8 countries differentiate their excises based on more than 1 criteria</i></p>		

Source: TMA 2009

Strengths & Weaknesses of Tobacco Excise Taxes

- Specific taxes:
 - Generally produce more stable stream of revenue
 - Real value falls with inflation
 - Promote higher “quality” products
 - Easier to administer
 - Reduce incentives for switching down in response to tax increases

Strengths & Weaknesses of Tobacco Excise Taxes

- *Ad valorem* taxes:
 - More unstable revenues
 - Government subsidizes industry price cuts
 - but benefits from industry price increases
 - More likely to keep pace with inflation
 - Undervaluation problems
 - Can be addressed with minimum specific tax
 - Greater potential for switching down in response to tax increase

Strengths & Weaknesses of Tobacco Excise Taxes

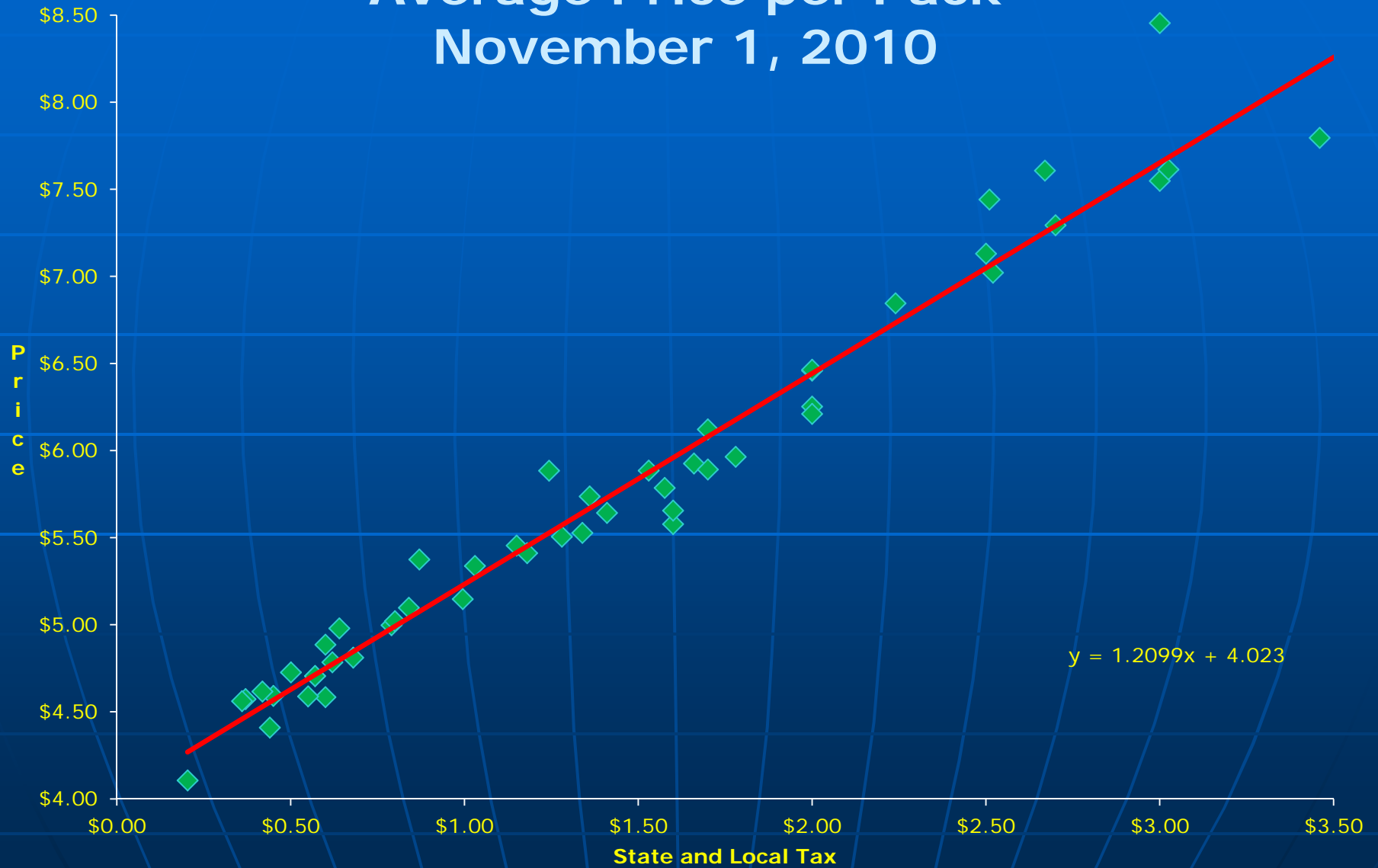
- Mixed *ad valorem* & specific systems:
 - Achieve some of the benefits of both excises, but also some of the problems of both
 - More complex administratively
 - Potential for undervaluation on ad valorem component
 - Can be addressed with minimum specific tax
 - Need to adjust specific component for inflation

Strengths & Weaknesses of Tobacco Excise Taxes

- Tiered taxes:
 - More complicated to administer
 - Subject to undervaluation problem
 - Revenues are less stable, harder to forecast
 - Greater potential for switching down in response to tax increase

Impact of Tobacco Taxes on Prices

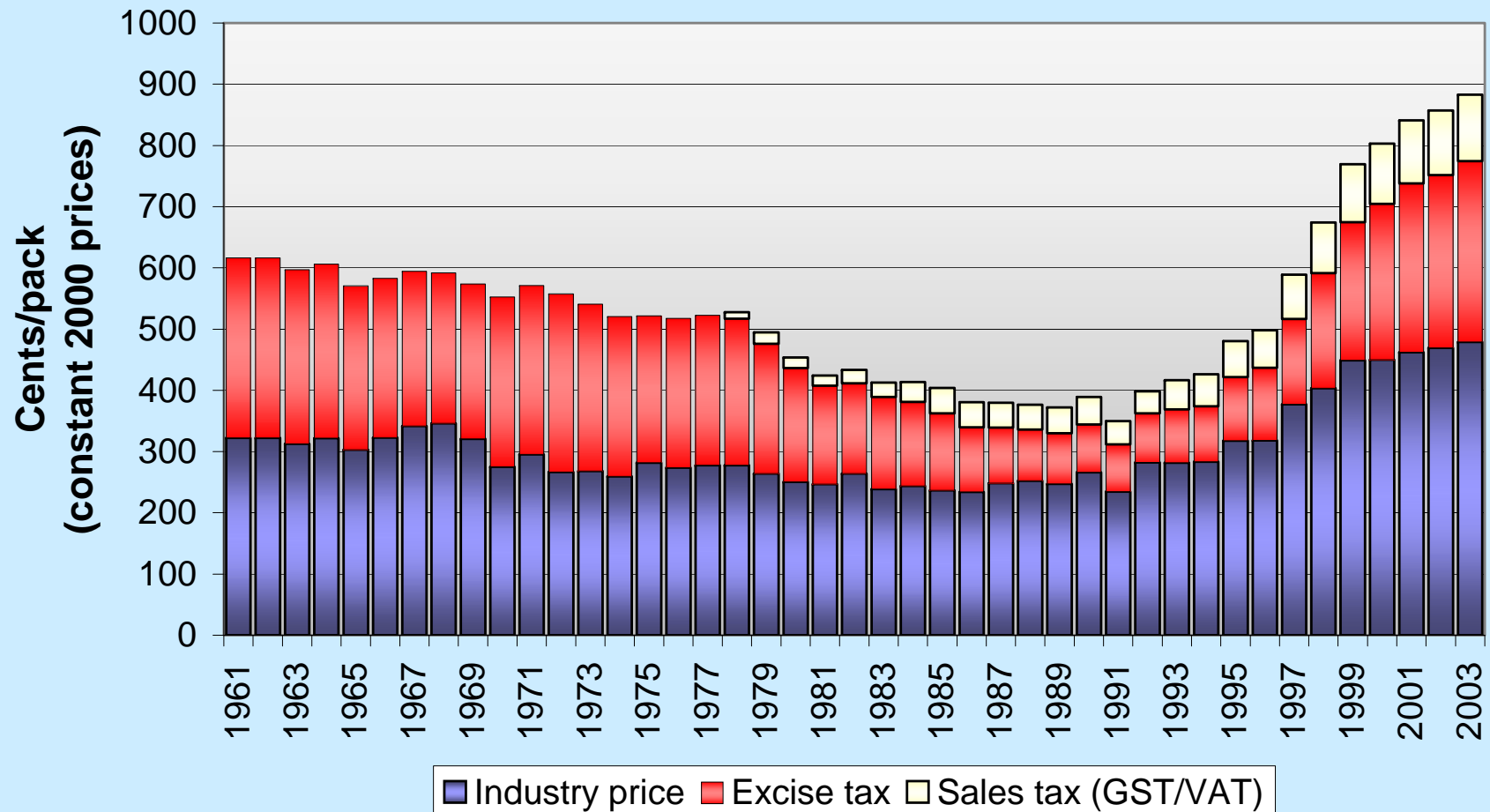
State and Local Cigarette Taxes and Average Price per Pack November 1, 2010



Source: *Tax Burden on Tobacco*, 2011, and author's calculations

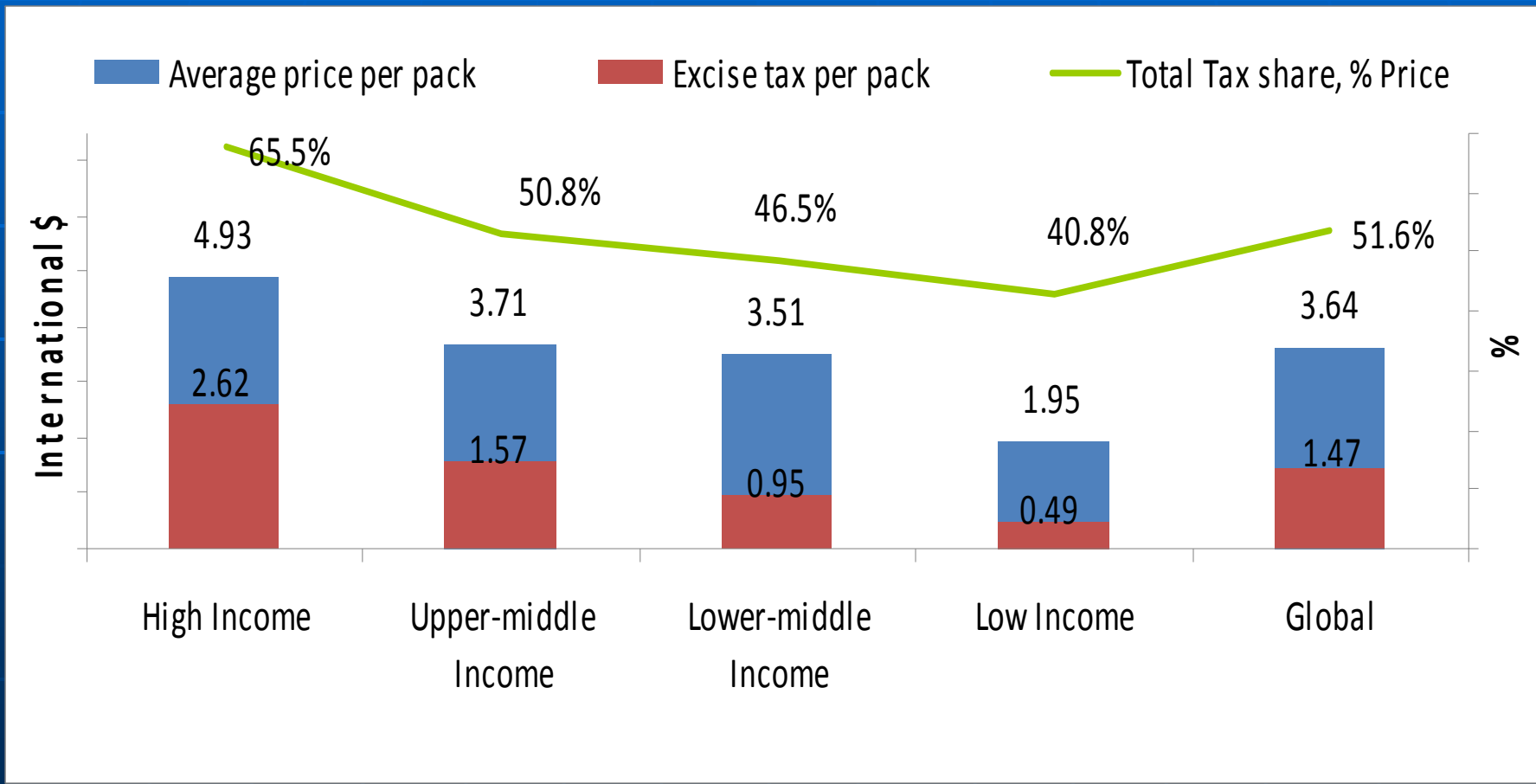
Taxes and Tobacco Product Prices

Inflation Adjusted Cigarette Taxes and Prices
South Africa, 1961-2003



Source: Van Walbeek, 2003

Average Price of the Most Sold Brand & Excise Tax per pack, and Total Tax Share By Income Group 2010

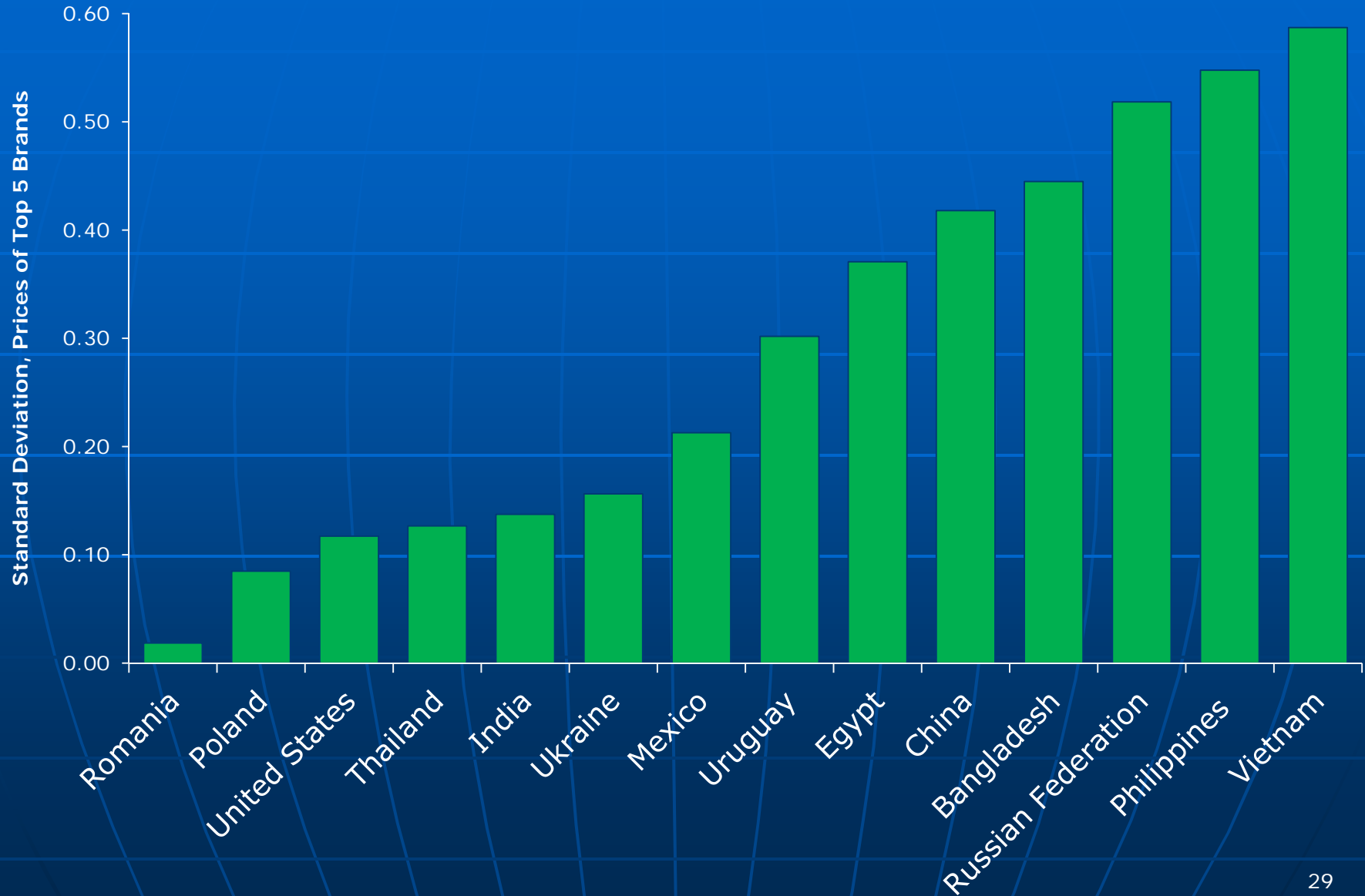


Source: WHO GTCR III

Average price and excise tax by tax structure, 2010

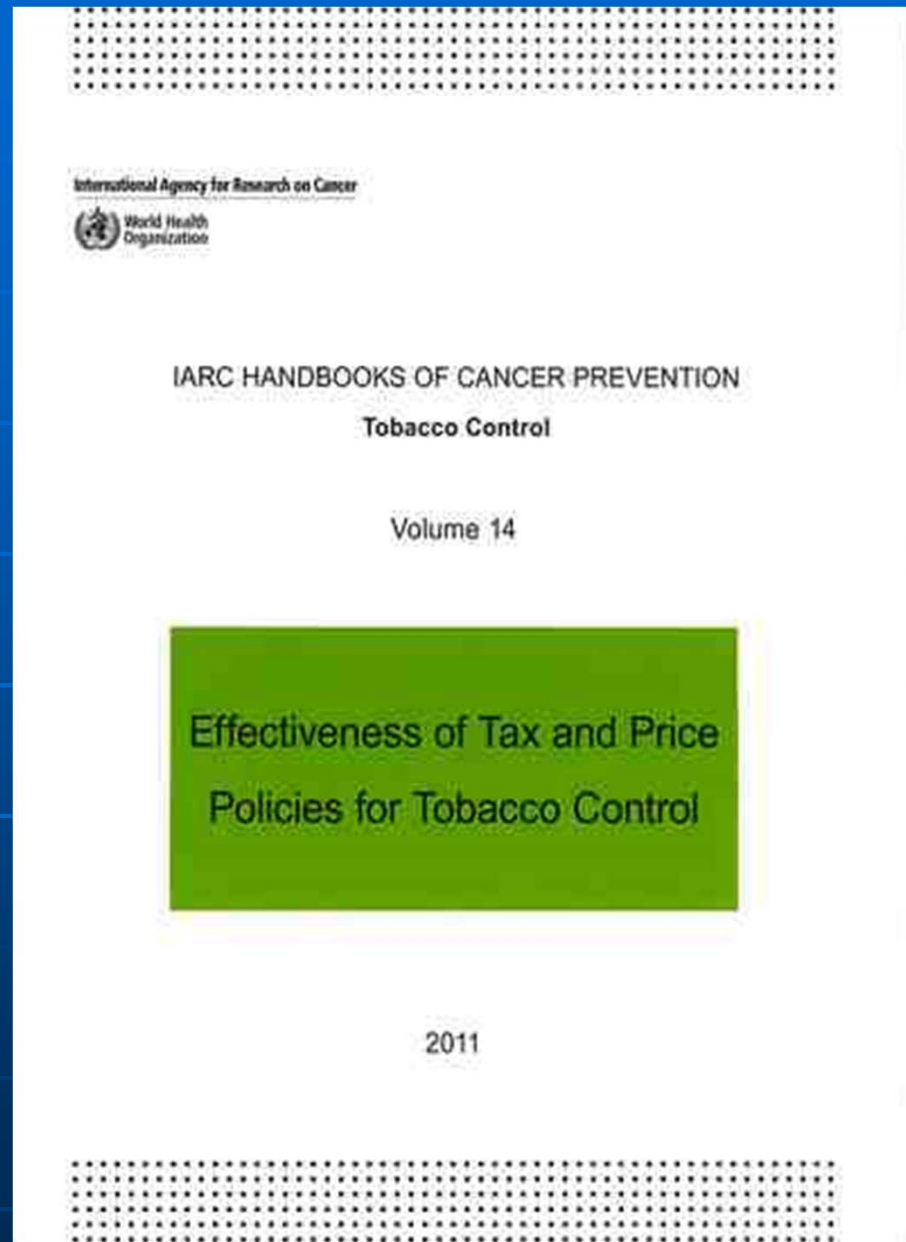
Excise tax structure	Average price PPP	Average excise PPP
Specific only	4.51	1.78
Ad valorem only	2.38	0.77
Mixed system	3.81	2.17
Relying more on specific	4.42	2.54
Relying more on ad valorem	3.40	1.91

Cigarette Tax Structure & Prices



Source: Chaloupka, et al., in progress

Impact of Prices on Tobacco Use



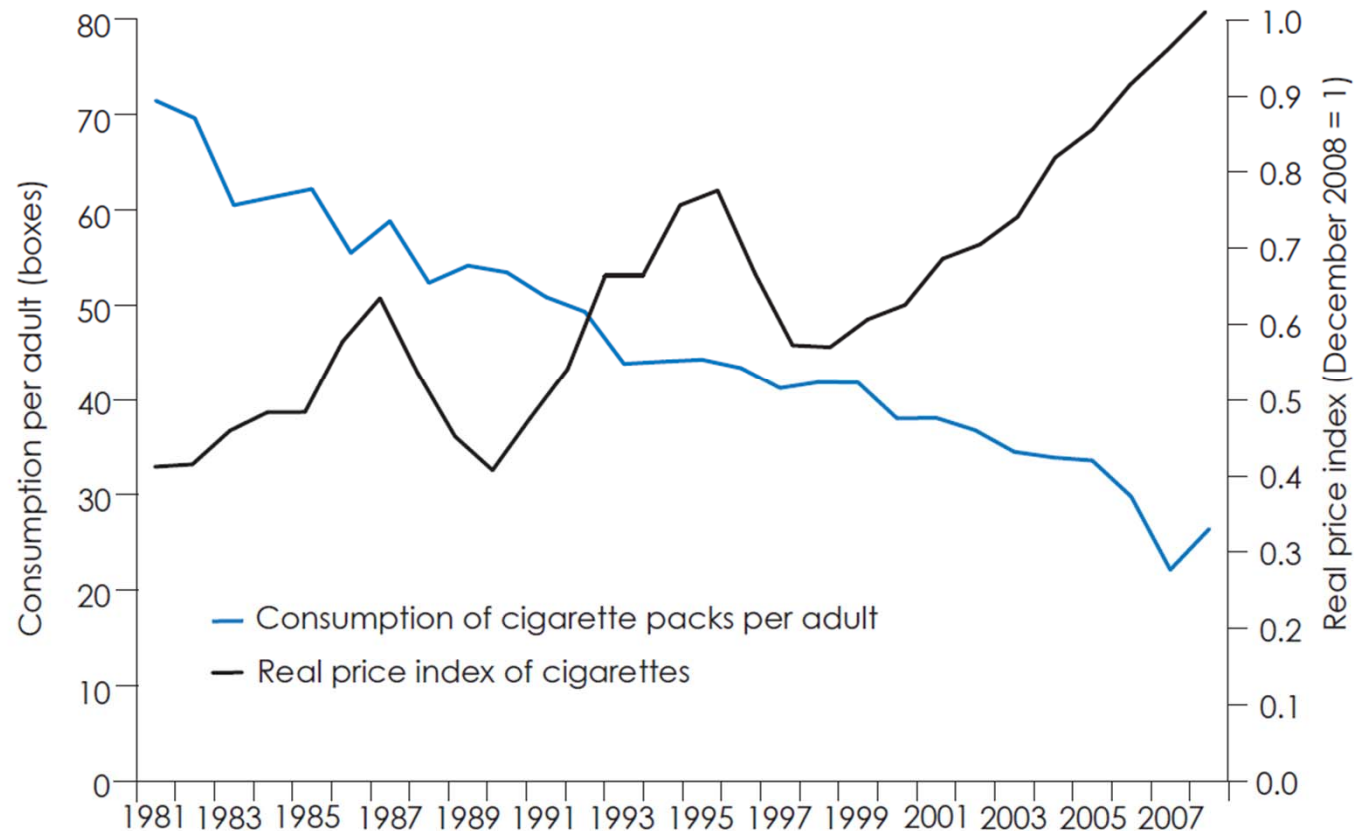
Sufficient Evidence that:

Increases in tobacco excise taxes that increase prices result in a decline in overall tobacco use.

Taxes, Prices and Tobacco Use

Mexico

Graph 2.1: Cigarette consumption and real price, 1981-2008



Source: Waters, et al., 2010

Sufficient Evidence that:

Increases in tobacco excise taxes that increase prices reduce the prevalence of adult tobacco use.

Cigarette Prices and Adult Smoking Prevalence, United States, 1970-2010

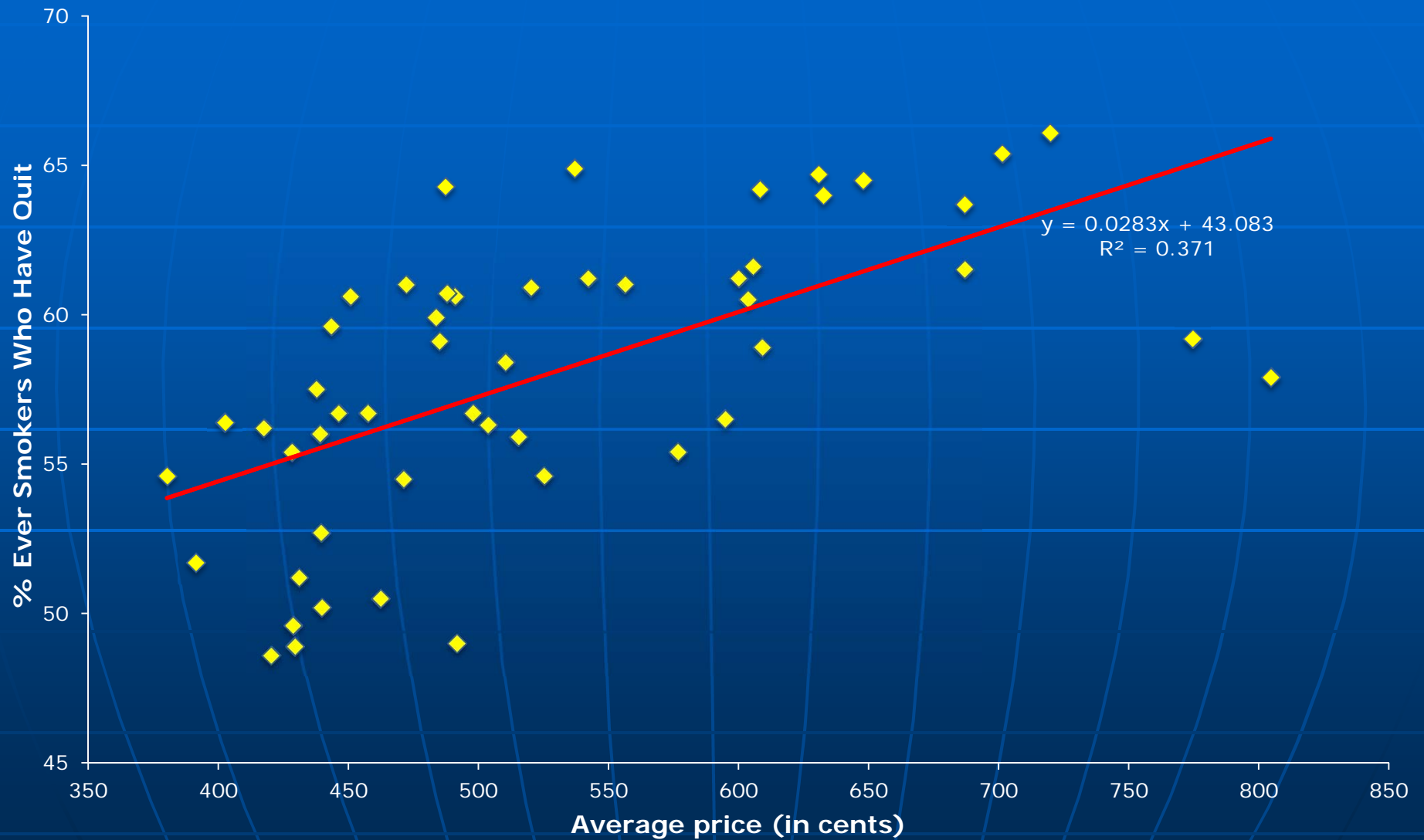


Source: *Tax Burden on Tobacco*, 2011, National Health Interview Survey, and author's calculations

Sufficient Evidence that:

Increases in tobacco excise taxes that increase prices induce current tobacco users to quit.

Cigarette Prices and Cessation US States & DC, 2009

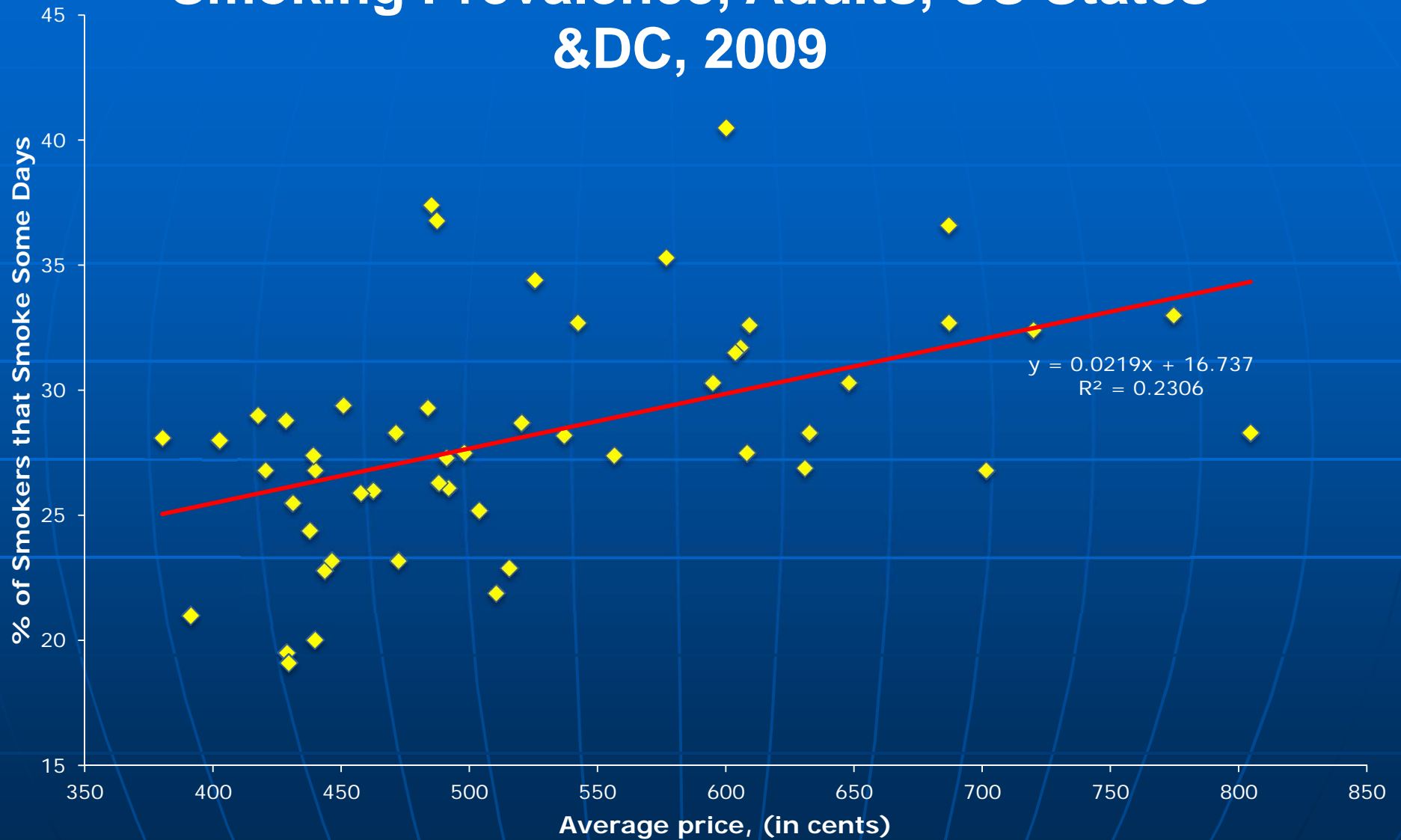


Source: BRFSS, *Tax Burden on Tobacco*, 2010, and author's calculations

Sufficient Evidence that:

Increases in tobacco excise taxes that increase prices lower the consumption of tobacco products among continuing users.

Cigarette Price and Less than Daily Smoking Prevalence, Adults, US States & DC, 2009



Source: BRFSS, *Tax Burden on Tobacco*, 2010, and author's calculations

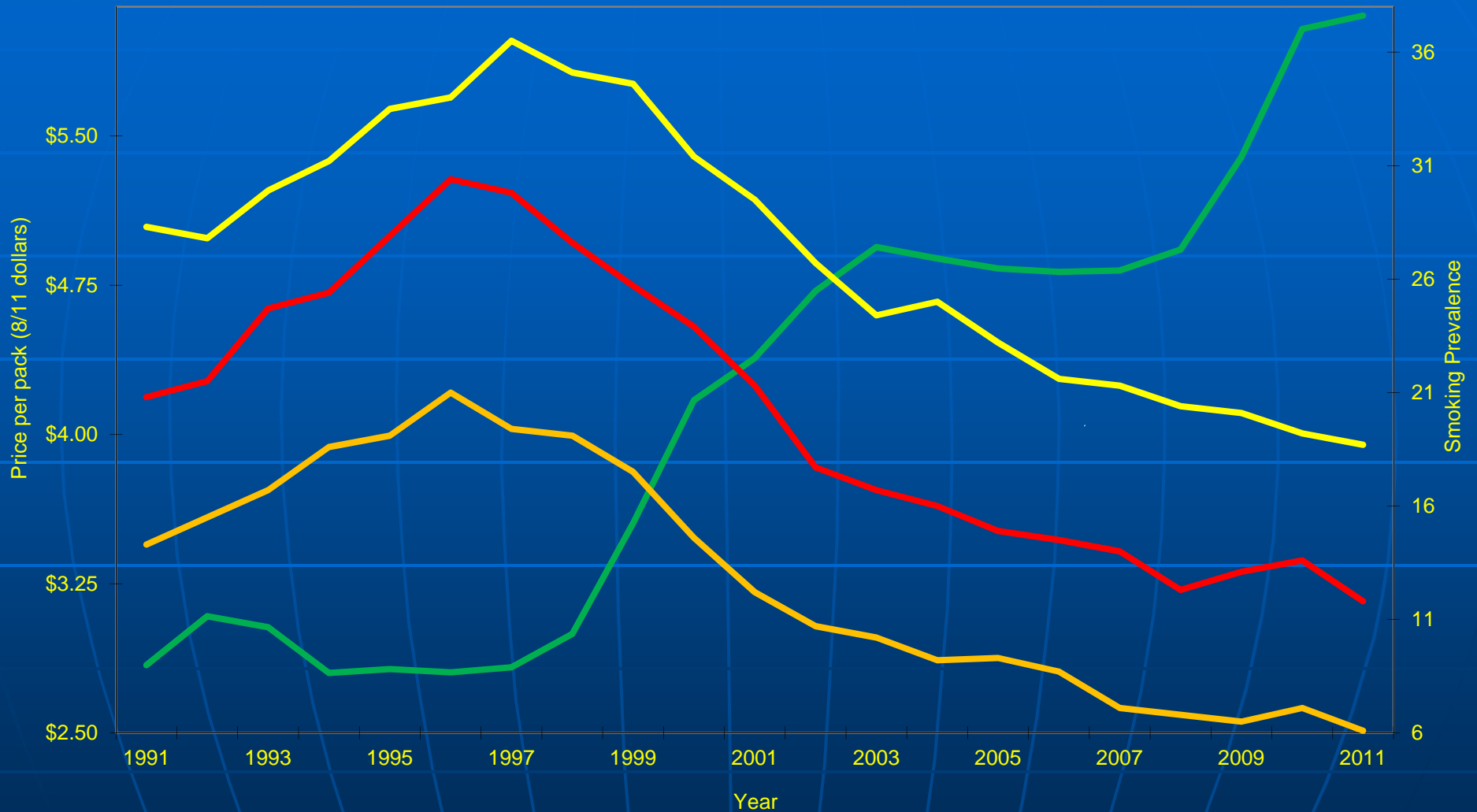
Sufficient Evidence that:

Increases in tobacco excise taxes that increase prices reduce the initiation and uptake of tobacco use among young people, with a greater impact on the transition to regular use.

Sufficient Evidence that:

Tobacco use among young people responds more to changes in tobacco product taxes and prices than does tobacco use among adults.

Cigarette Price and Youth Smoking Prevalence United States, 1991-2011



— Cigarette Price
 — 12th grade prevalence
 — 10th grade prevalence
 — 8th grade prevalence

Source: MTF, *Tax Burden on Tobacco*, 2011, and author's calculations

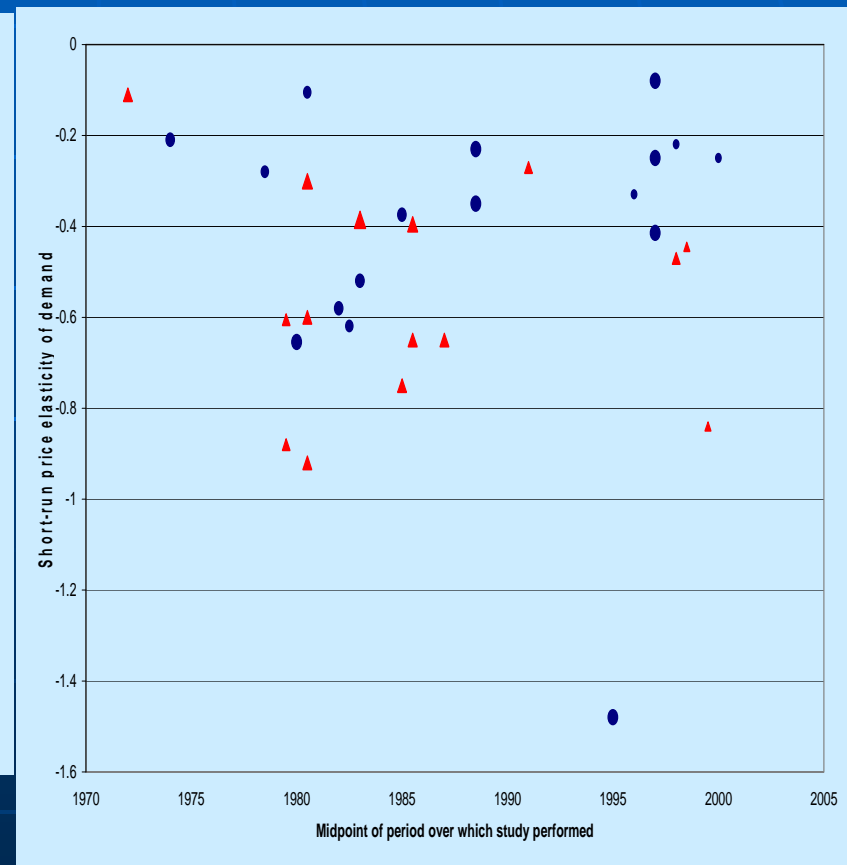
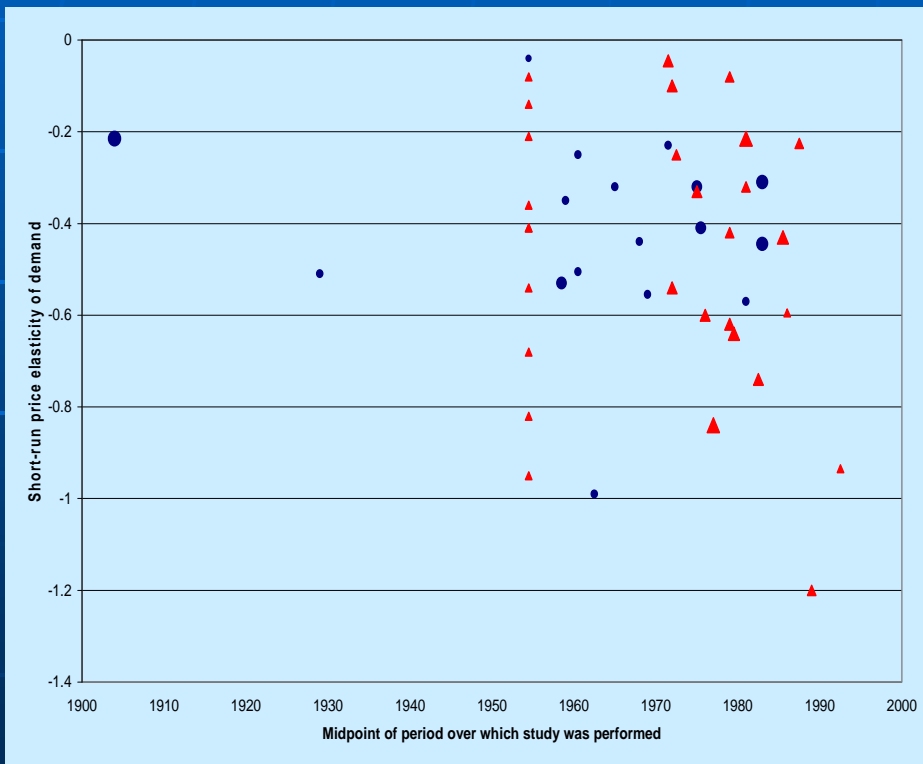
Limited Evidence that:

The demand for tobacco products in low-income countries is more responsive to price than is the demand for tobacco products in high-income countries.

Elasticity Estimates

Aggregate Demand Studies

High-Income, Non-US Low/Middle-Income



Source: IARC Handbook 14, forthcoming

Strong Evidence that:

In high-income countries, tobacco use among lower-income populations is more responsive to tax and price increases than is tobacco use among higher-income populations.

Limited Evidence that:

In low- and middle-income countries, tobacco use among lower-income populations is more responsive to tax and price increases than is tobacco use among higher-income populations.

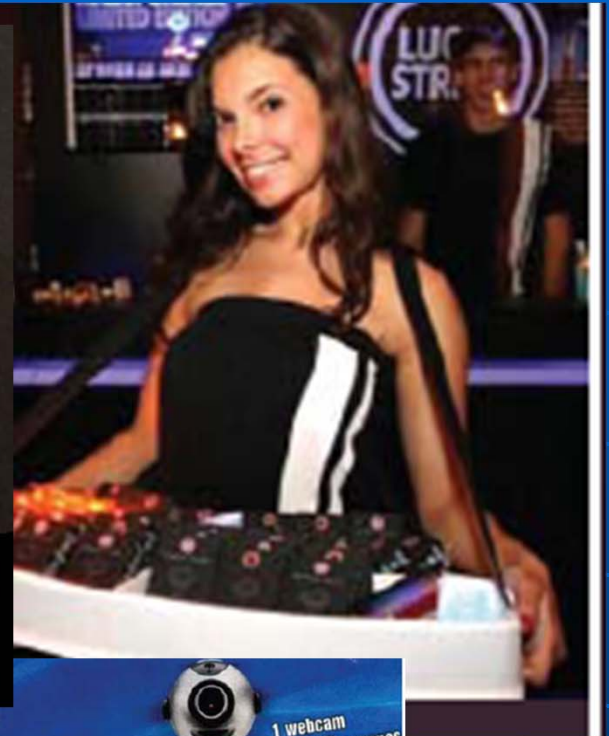
Strong Evidence that:

Changes in the relative prices of tobacco products lead to some substitution to the products for which the relative prices have fallen.

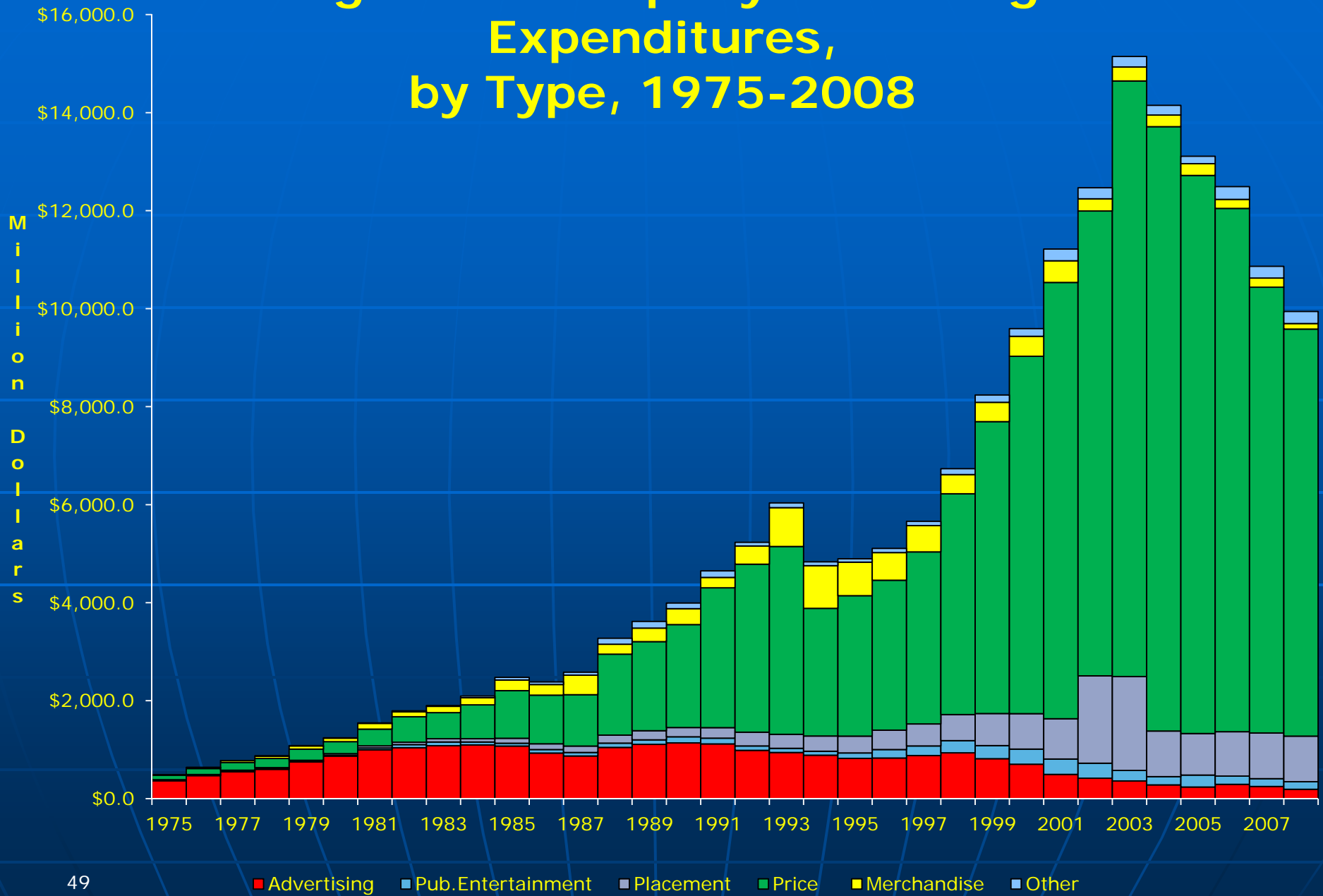
Sufficient Evidence that:

Tobacco industry price discounting strategies, price-reducing marketing activities, and lobbying efforts mitigate the impact of tobacco excise tax increases.

Price-Reducing Marketing:



Cigarette Company Marketing Expenditures, by Type, 1975-2008

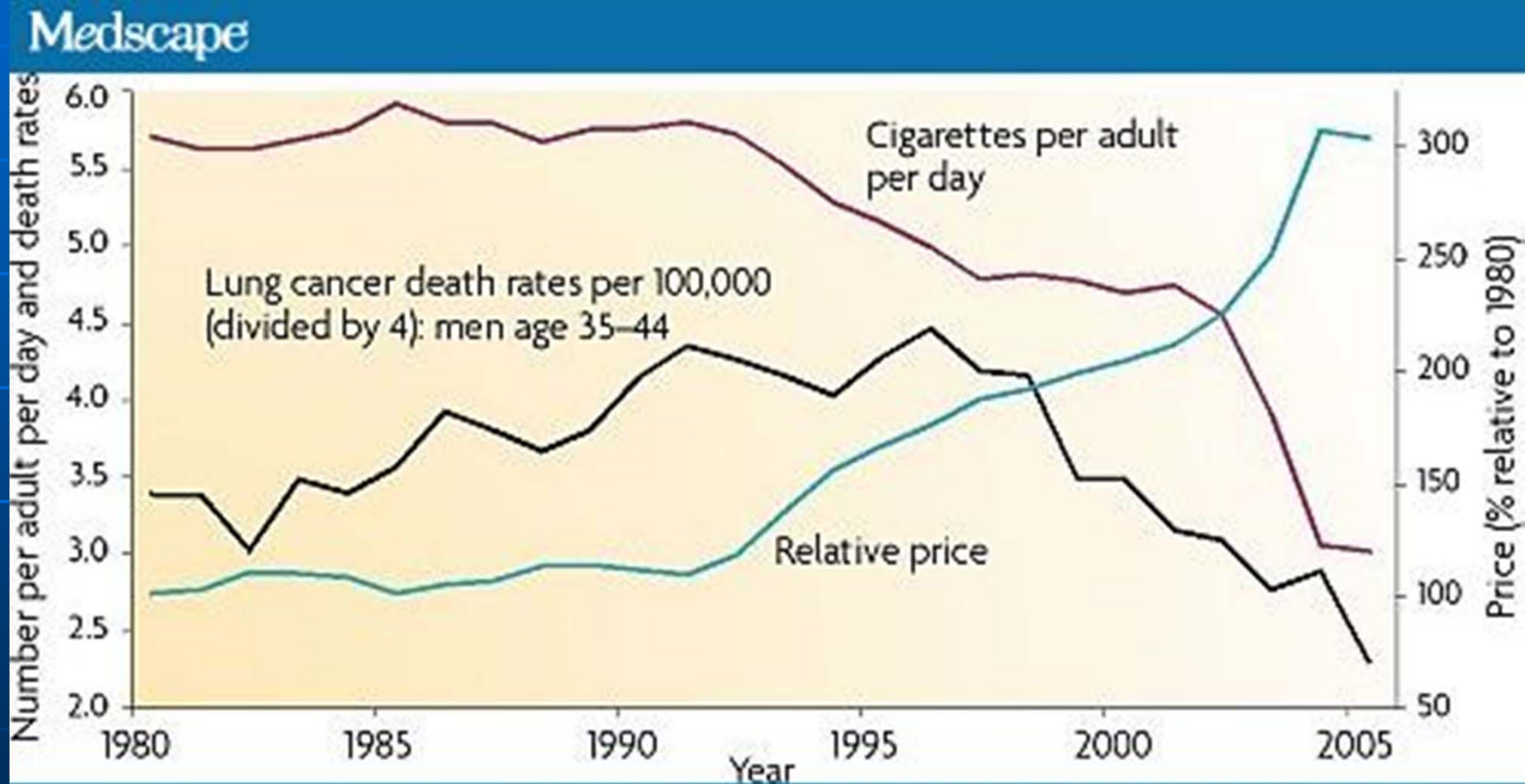


Source: author's calculations from data reported in FTC (2011)

Sufficient Evidence that:

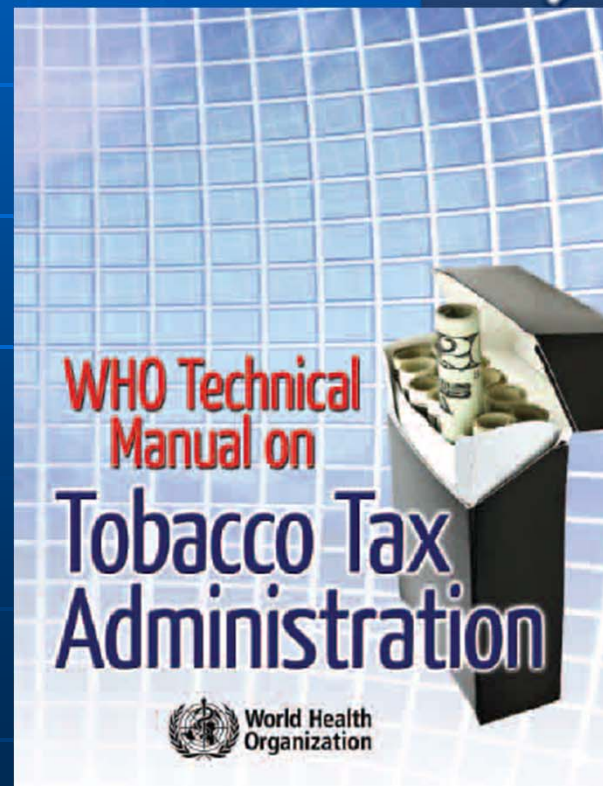
Tobacco tax increases that increase
prices improve population health

Taxes, Prices and Health: US, 1980-2005



Source: Nat Rev Cancer © 2009 Nature Publishing Group

WHO
FCTC
Article 6 &
Best
Practices in
Tobacco
Taxation



WHO FCTC

- Article 6: Price and tax measures to reduce the demand for tobacco
 - “The parties recognize that price and tax measures are an effective and important means of reducing tobacco consumption by various segments of the population, in particular young persons.”
 - “....each Party should...adopt or maintain, as appropriate, measures which may include:
 - “implementing tax policies and where appropriate price policies on tobacco products so as to contribute to the health objectives aimed at reducing tobacco consumption; and
 - Prohibiting or restricting, as appropriate, sales to and/or importations by international travellers of tax- and duty-free tobacco products.”

Article 6 Guidelines

- At 4th Conference of the Parties, Parties called for drafting of guidelines on implementation of Article 6
 - Guiding principles and recommendations adopted at COP5
 - Continued intercessional work on draft guidelines, with aim to adopt full guidelines at COP6 (October 2014)
 - Drafting group met June 3-7 in Geneva

WHO's Best Practices in Tobacco Taxation

- *Use tobacco excise tax increases to achieve the public health goal of reducing the death and disease caused by tobacco use*
 - As called for in Article 6 of the WHO FCTC
 - Additional benefit of generating significant increases in tobacco tax revenues in short to medium term

WHO's Best Practices in Tobacco Taxation

■ *Simpler is better*

- Complex tax structures more difficult to administer
- Greater opportunities for tax evasion and tax avoidance under complex tax structures
- Where existing structure is more complex, simplify over time with goal of achieving single uniform tax

WHO's Best Practices in Tobacco Taxation

- ***Rely more on specific tobacco excises as the share of total excises in prices increases***
 - Greater public health impact of specific excises given reduced opportunities for switching down in response to tax/price increases
 - Sends clear message that all brands are equally harmful
 - Where existing tax is ad valorem, adopt a specific tax and increase reliance on specific tax over time

Article 6 Guidelines

■ *Recommendation:*

- Parties should implement the simplest and most efficient system that meets their public health and fiscal needs, and taking into account their national circumstances. Parties should consider implementing specific or mixed excise systems with a minimum specific tax floor, as these systems have considerable advantages over purely ad valorem systems.

WHO's Best Practices in Tobacco Taxation

- ***Automatically adjust specific tobacco taxes for inflation***
 - Unless adjusted, real value falls over time, as does the real value of revenues generated by tax
 - Ensures the public health impact of tax is maintained
 - To date, not widely done (Australia, New Zealand)

Article 6 Guidelines

- ***Recommendation:***

- Tax rates should be monitored, increased or adjusted on a regular basis, potentially annually, taking into account inflation and income growth developments in order to reduce consumption of tobacco products.

WHO's Best Practices in Tobacco Taxation

- ***Increase tobacco taxes by enough to reduce the affordability of tobacco products***
 - In many low/middle income countries, positive relationship between income and tobacco use
 - Implies consumption increases even as taxes increase if increases in income larger
 - Depends on relative price, income elasticity
 - Increasing affordability will result in increasing tobacco use and its consequences

Article 6 Guidelines

■ *Recommendation:*

- When establishing or increasing their national levels of taxation Parties should take into account – among other things – both price elasticity and income elasticity of demand, as well as inflation and changes in household income, to make tobacco products less affordable over time in order to reduce consumption and prevalence. Therefore, Parties should consider having regular adjustment processes or procedures for periodic revaluation of tobacco tax levels.

WHO's Best Practices in Tobacco Taxation

- *Set tobacco excise tax levels so that they account for at least 70 percent of the retail prices for tobacco products*
 - Update of World Bank 'yardstick' of any taxes accounting for 2/3 to 4/5 of retail prices
 - Well above where most countries are currently
 - Further increases in countries that do reach this target

Article 6 Guidelines

- ***Recommendation:***

- Parties should establish coherent long-term policies on their tobacco taxation structure and monitor on a regular basis including targets for their tax rates, in order to achieve their objectives within a certain period of time.

WHO “Best Practices” for Tobacco Excise Taxes

- ***Adopt comparable taxes and tax increases on all tobacco products***
 - Maximizes public health impact of tobacco tax increases by minimizing opportunities for substitution

Article 6 Guidelines

■ *Recommendation:*

- All tobacco products should be taxed in a comparable way as appropriate, in particular where the risk of substitution exists.
- Parties should ensure that tax systems are designed in a way that minimises the incentive for users to shift to cheaper products in the same product category or to cheaper tobacco product categories as a response to tax or retail price increases or other related market effects.
- In particular, the tax burden on all tobacco products should be regularly reviewed and, if necessary, increased and, where appropriate, be similar.

WHO “Best Practices” for Tobacco Excise Taxes

- *Earmark a portion of tobacco tax revenues for related/other tobacco control and/or health promotion efforts*
 - Maximizes the health impact of tobacco tax increases
 - Increases public support for tax increases

Article 6 Guidelines

- ***Recommendation:***
 - Parties could consider, while bearing in mind Article 26.2 of the WHO FCTC, and in accordance with national law, dedicating revenue to tobacco-control programmes, such as those covering awareness raising, health promotion and disease prevention, cessation services, economically viable alternative activities, and financing of appropriate structures for tobacco control.

Summary

Best Practices in Tobacco Taxation

- Strong public health and economic rationale for increasing tobacco taxes
- Higher tobacco taxes lead to increased tobacco product prices
- Higher tobacco product prices reduce tobacco use, promote cessation, prevent initiation, and reduce the death, disease, and economic consequences of tobacco use
- Simpler tax structures are more effective in achieving public health goals of tobacco taxation.

For more information:

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Coming soon:

www.tobacconomics.org