

Myths and Facts
on the Economics of
Tobacco and Tobacco
Control

Interministerial Meeting

March 4, 2003

Myth 1

- The tobacco industry provides governments with substantial revenues

Facts:

- Tobacco results in a net economic loss in most countries
 - lost productivity from tobacco attributable morbidity and mortality
 - high costs of treating diseases caused by tobacco
 - range of social, environmental, and other costs

ALL DEVELOPED COUNTRIES, 1990s:

Annual Tobacco Deaths (in millions)

Age Range	<u>Tobacco Deaths</u>		Years
	million	% of all	lost per
	per year	deaths	death
35 to 69	1.1	30%	22
70+	0.9	13%	8
Total	2.0	17%	16

Healthcare costs from smoking

- Annual (gross) healthcare costs:
 - 0.1-1.1% of GDP, or 6 -15% of total health costs in high-income countries
 - proportionally similar in lower-income countries
- Net (lifetime) healthcare costs:
 - Differences in lifetime costs are smaller than annual costs
 - Best studies do suggest there are net lifetime costs
 - Pension or “smokers pay their way” arguments are complex

Myth 2

- Reducing tobacco use is an issue that only affluent countries can afford to address

Fact:

- The epidemic of disease and premature death caused by tobacco is shifting rapidly to low and middle income countries
 - reducing tobacco use is an issue that less affluent countries can not afford to ignore

Most smokers live in developing countries

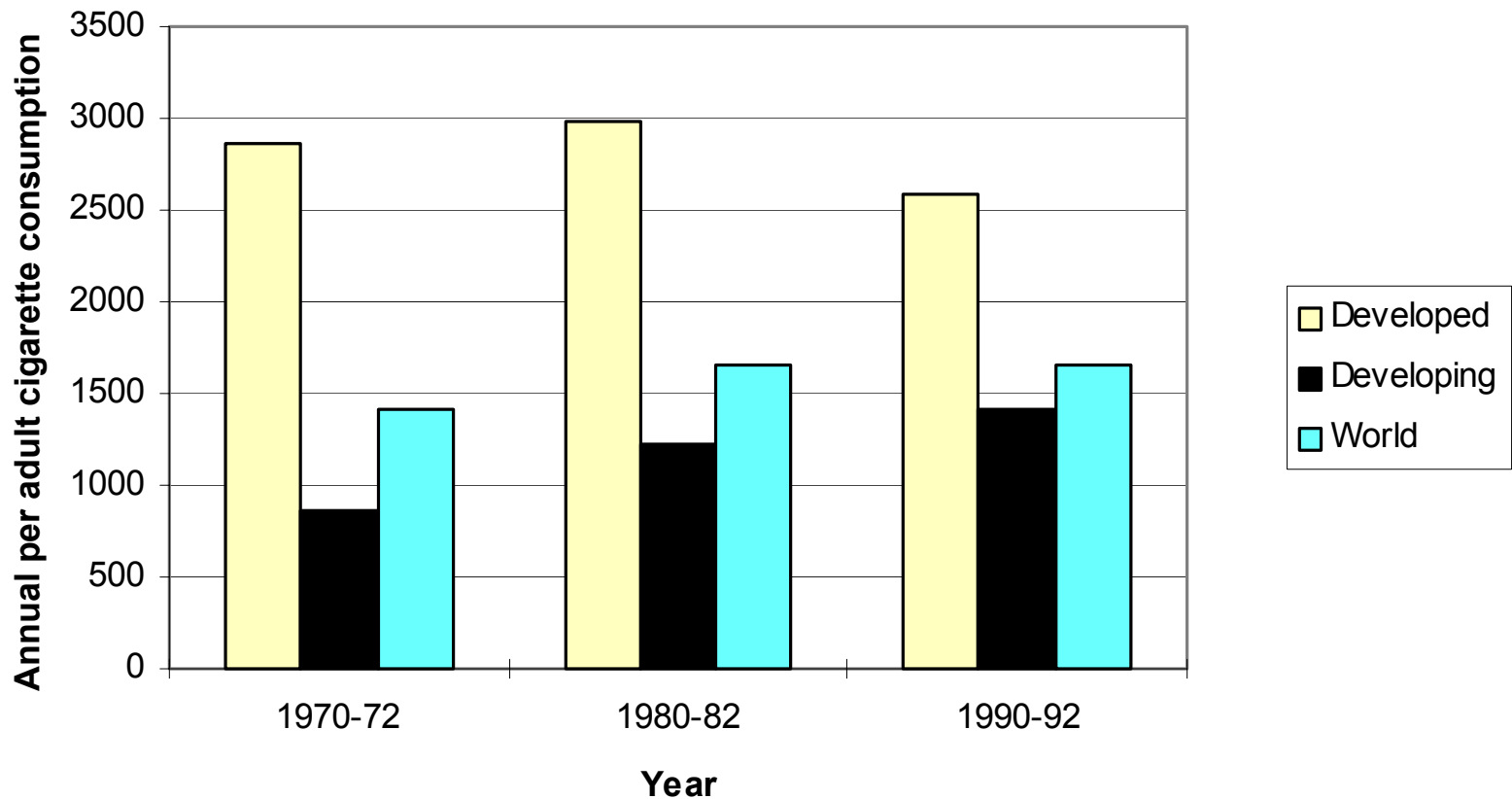
Current smokers in 1995 (in millions)

<u>Region</u>	<u>Number</u>
Low/Middle income	933
High Income	209
World	1,142

Quit rates low in low income countries

- ◆ 5-10% in China, India
- ◆ 30-40% in UK

Per capita cigarette consumption has increased in developing countries



Source: WHO 1997

WORLD: Annual Tobacco Deaths **(in millions)**

	2000	2020
Developed	2	~3
Developing	~2	~7
<i>World Total</i>	4	~10



Past smokers, mainly adults



Current smokers, mainly teenagers and young adults

Myth 3

- Tobacco control measures will result in farming and manufacturing job losses

Facts:

- Tobacco use is growing in many low and middle income countries and rising globally
- Tobacco growing and production small part of most economies
- No net job losses (often gains) in most countries as tobacco use falls

Studies on the employment effects of dramatically reduced or eliminated tobacco consumption

<i>Type of country</i>	<i>Name and year</i>	<i>Net change as % of economy in base year given</i>
Net Exporters	US (1993)	0%
	UK (1990)	+0.5%
	Zimbabwe (1980)	-12.4%
Balanced Tobacco Economies	South Africa (1995)	+0.4%
	Scotland (1989)	+0.3%
Net Importers	Bangladesh (1994)	+18.7%

Source: Buck and others, 1995; Irvine and Sims, 1997; McNicoll and Boyle 1992, van der Merwe and others, background paper; Warner and others 1996

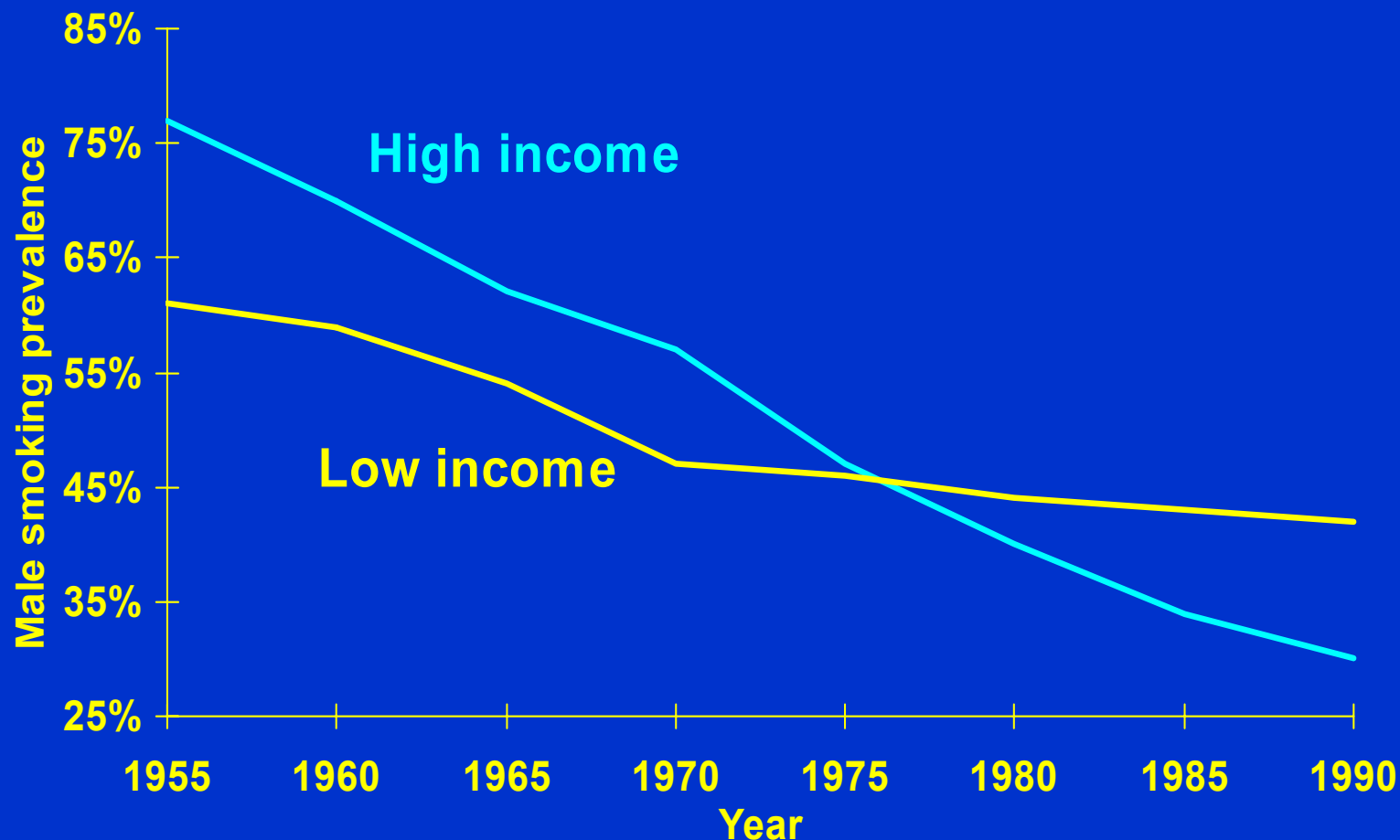
Myth 4

- Governments should not raise cigarette taxes because such increases will harm low income earners

Facts:

- Tobacco use concentrated in lowest income populations
- Low income populations most harmed by tobacco use
- Lowest income smokers most responsive to price changes

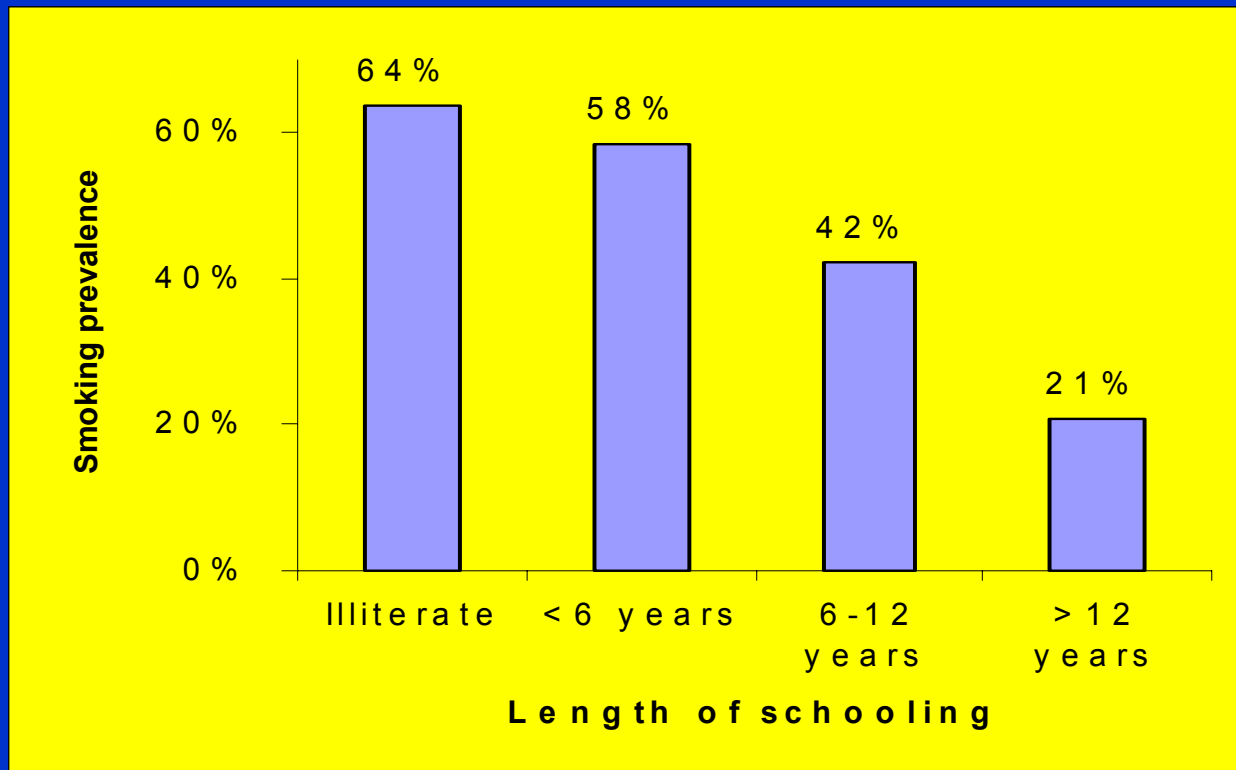
Trends in Smoking in Norwegian Males by Income Group



Source: Lund *et al.*, 1995

Smoking is more common among the less educated

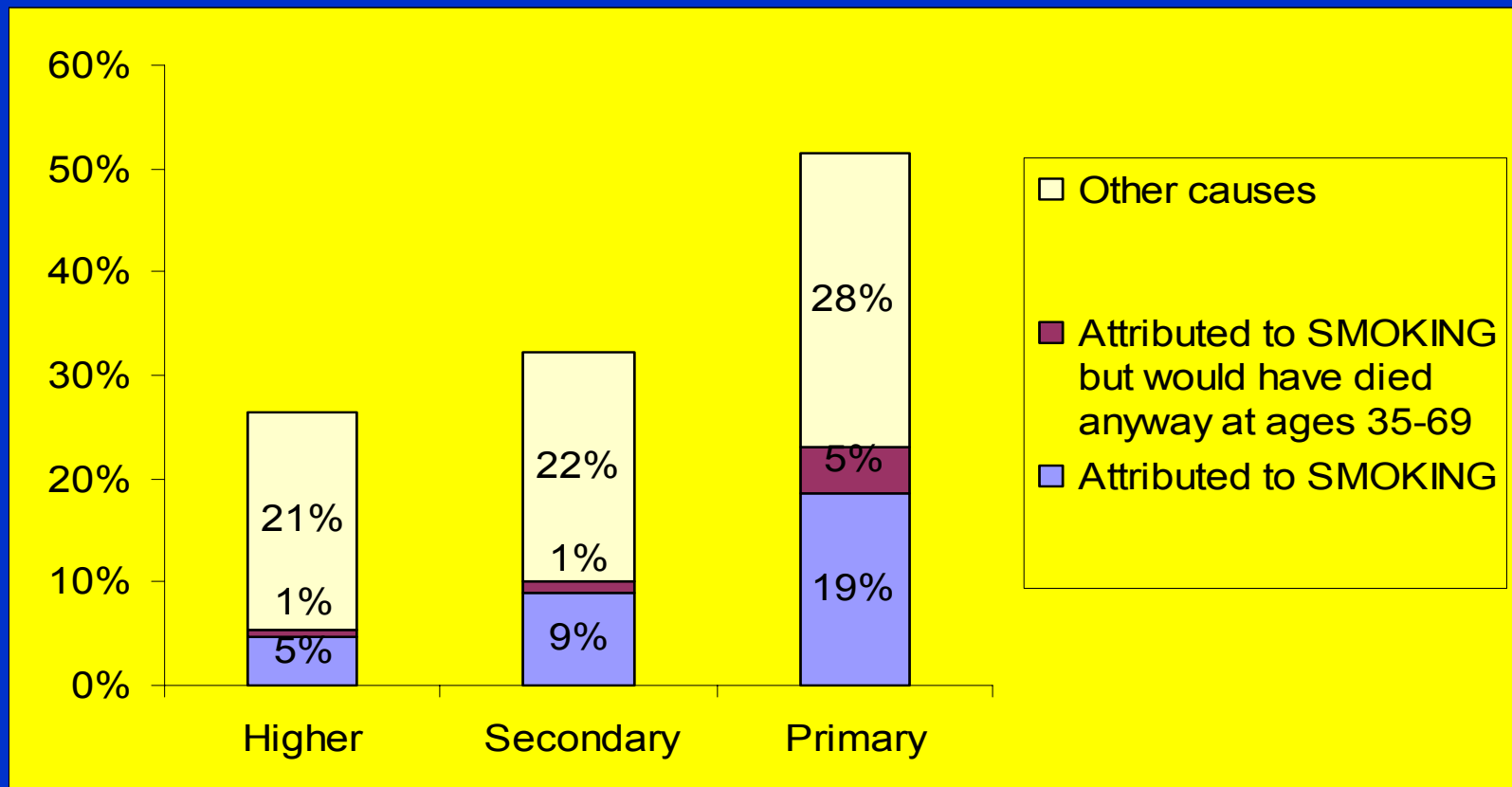
Smoking prevalence among men in Chennai, India, by education levels



Source: Gajalakshmi and Peto 1997

Smoking accounts for much of the mortality gap between rich and poor

Risk of death of a 35 year old male before age 70, by education levels in Poland, 1996



Source: Bobak *et al.*, 2000

Lower SES populations are more price responsive

- Growing international evidence shows that cigarette smoking is most price responsive in lowest income countries
- Evidence from U.S. and U.K. shows that cigarette price increases have greatest impact on smoking among lowest income and least educated populations
- In U.S., for example, estimates indicate that smoking in households below median income level about four times more responsive to price than those above median income level

Implies tax increases may be progressive

Myth 5

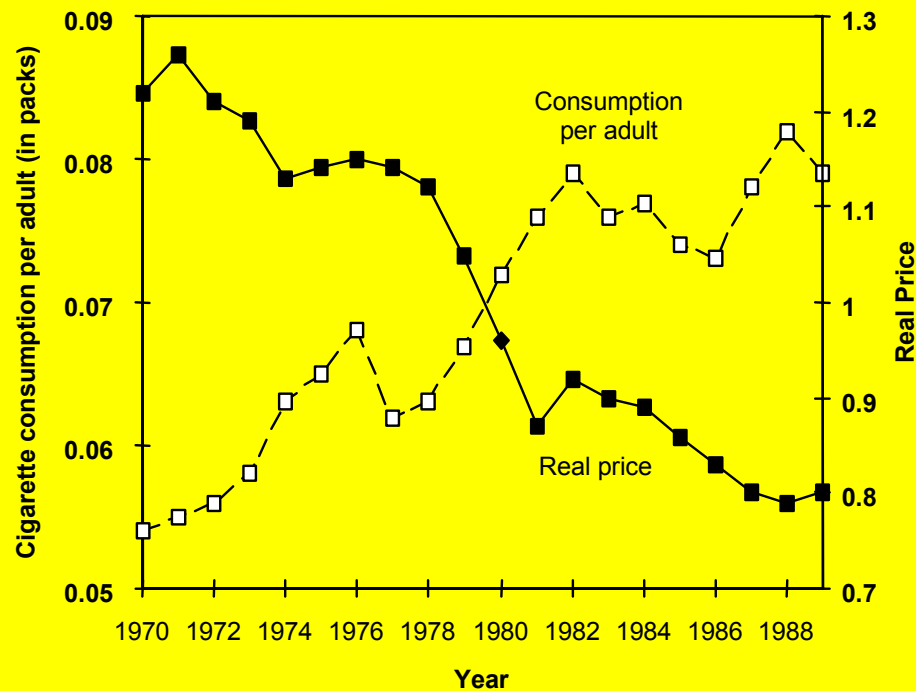
- Tobacco addiction is so strong that simply raising taxes will not reduce demand; therefore, raising taxes is not justified

Facts:

- Higher taxes encourage current smokers to quit and prevent former smokers from restarting
- Youth are discouraged from starting smoking by higher taxes
- Continuing smokers reduce consumption in response to higher taxes

Cigarette price and consumption show opposite trends (1)

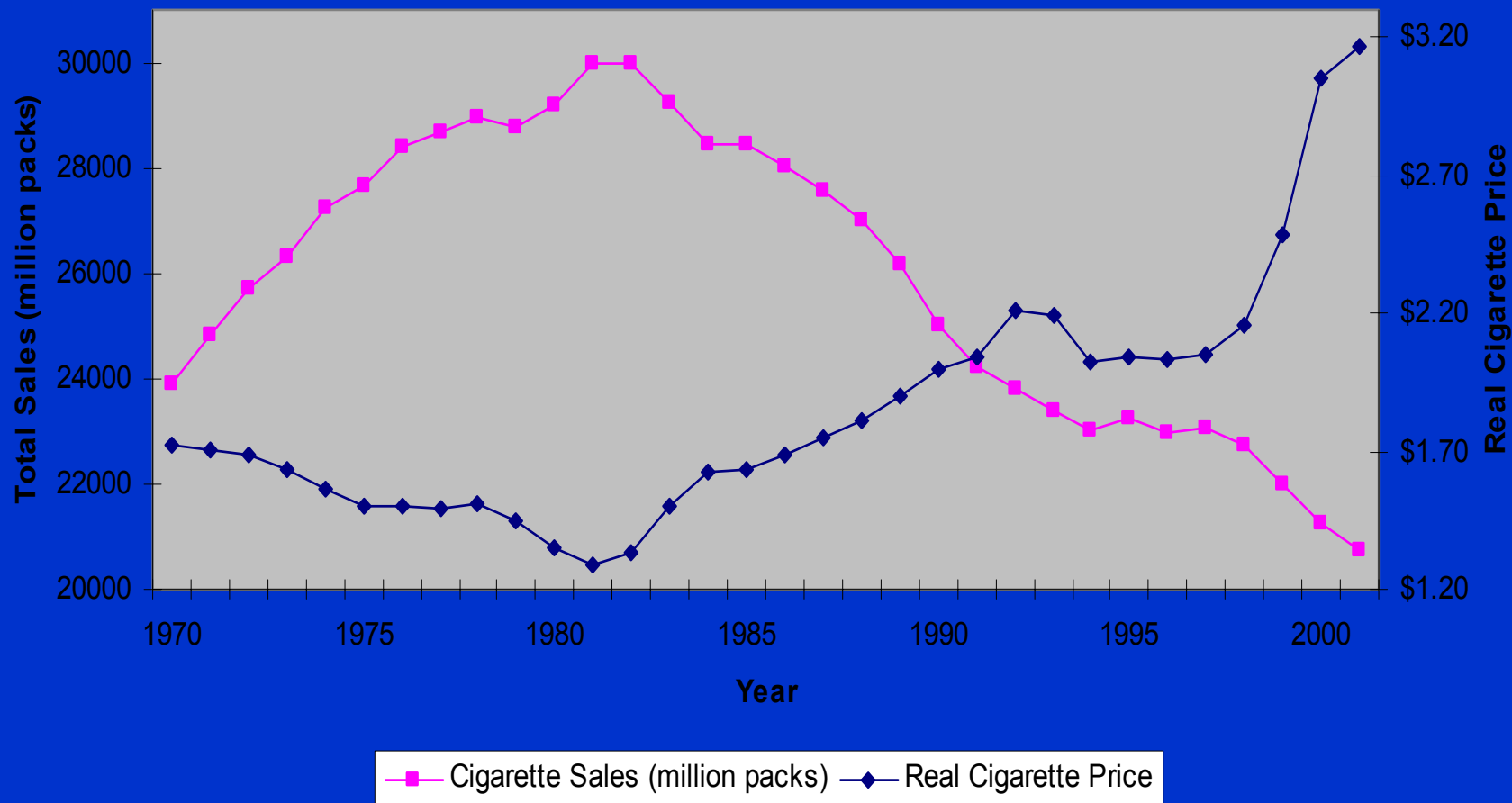
Real price of cigarettes and annual per adult cigarette consumption in South Africa 1970-1989



Source: Saloojee 1995

Cigarette price and consumption show opposite trends (2)

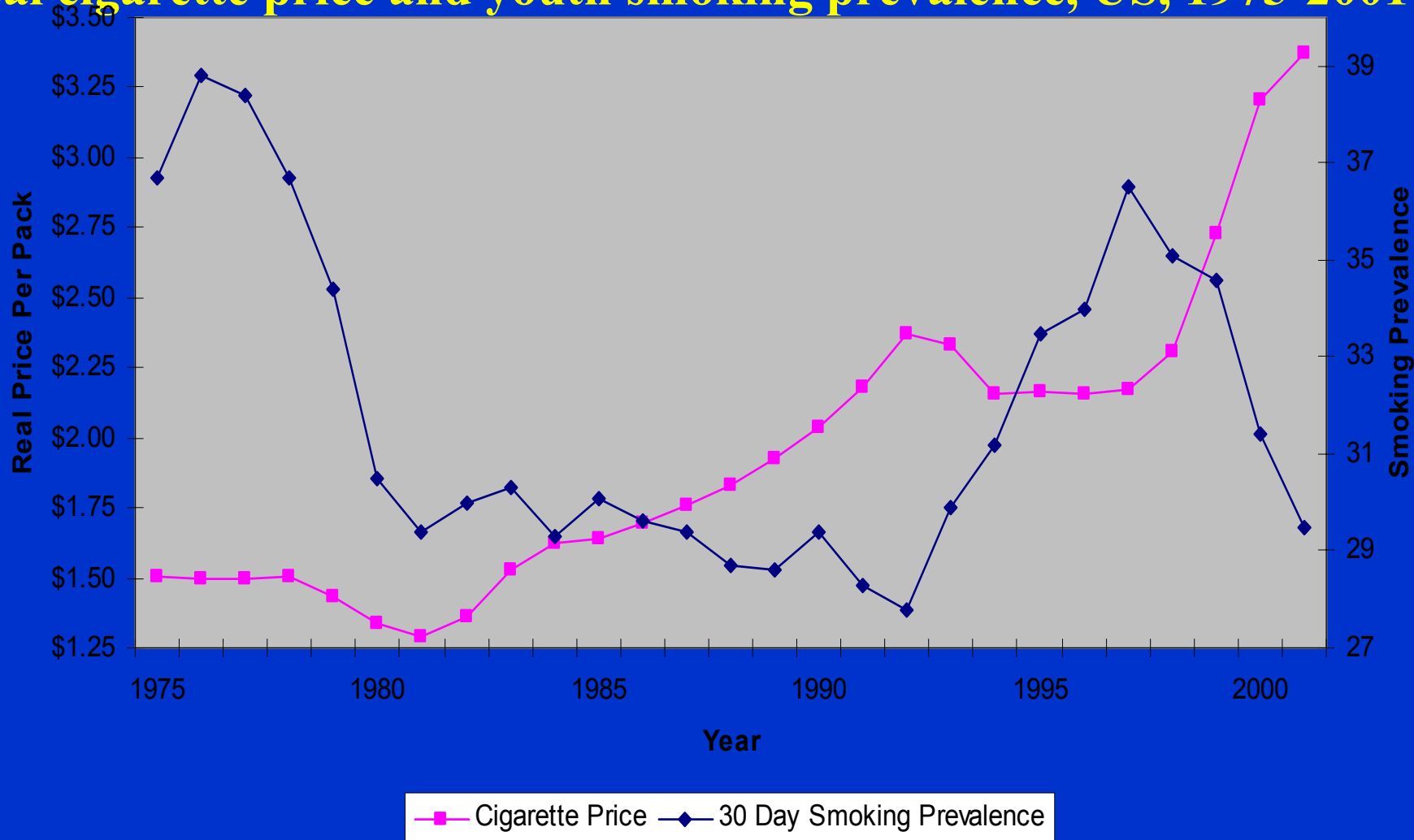
Total Cigarette Sales and Cigarette Prices, 1970-2001



Source: ImpacTeen, 2002

Cigarette price and youth smoking show opposite trends

Real cigarette price and youth smoking prevalence, US, 1975-2001



Source: ImpacTeen, 2002

Myth 6

- Governments will lose revenues if they raise cigarette taxes because people will buy fewer cigarettes

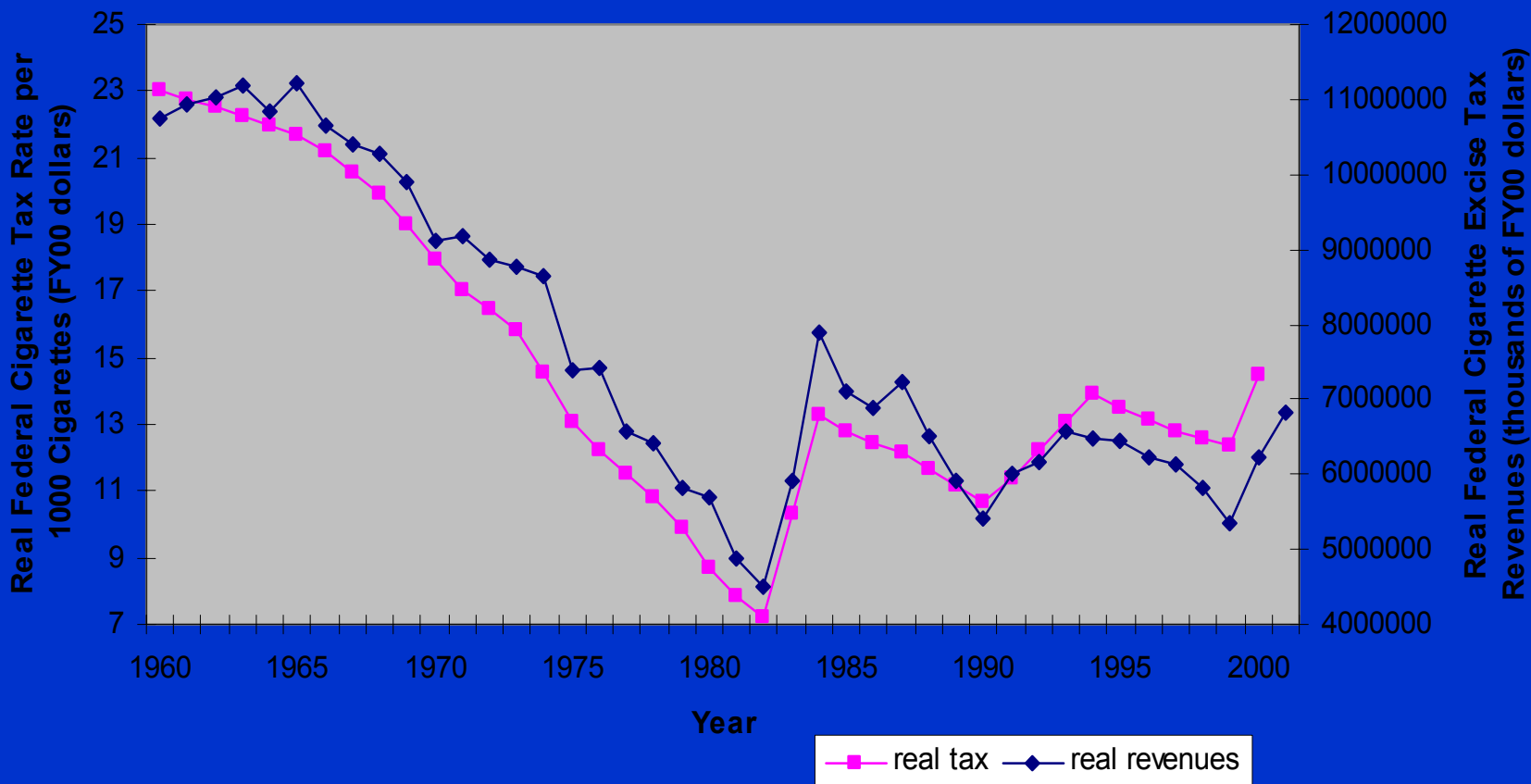
Fact:

- Higher taxes both reduce consumption and increase revenues
 - tax is only a fraction of price
 - percentage decline in consumption smaller than percentage increase in price

Cigarette tax increases result in higher tax revenues (1)

Real Federal cigarette tax rate and real cigarette tax

revenue in the US 1960-2001

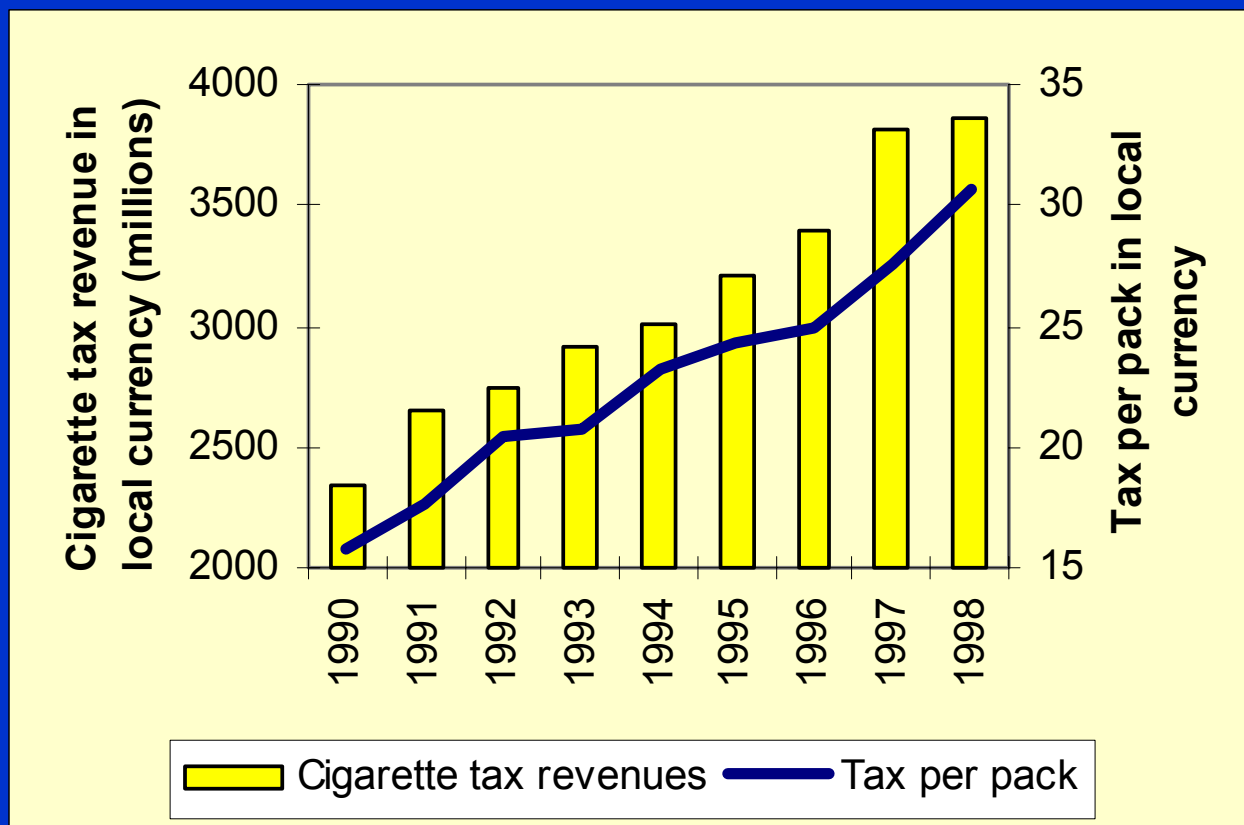


Source: ImpacTeen, 2002

As cigarette tax rises, revenues increase (2)

Tax per pack and cigarette tax revenues in Norway, 1990-

1998

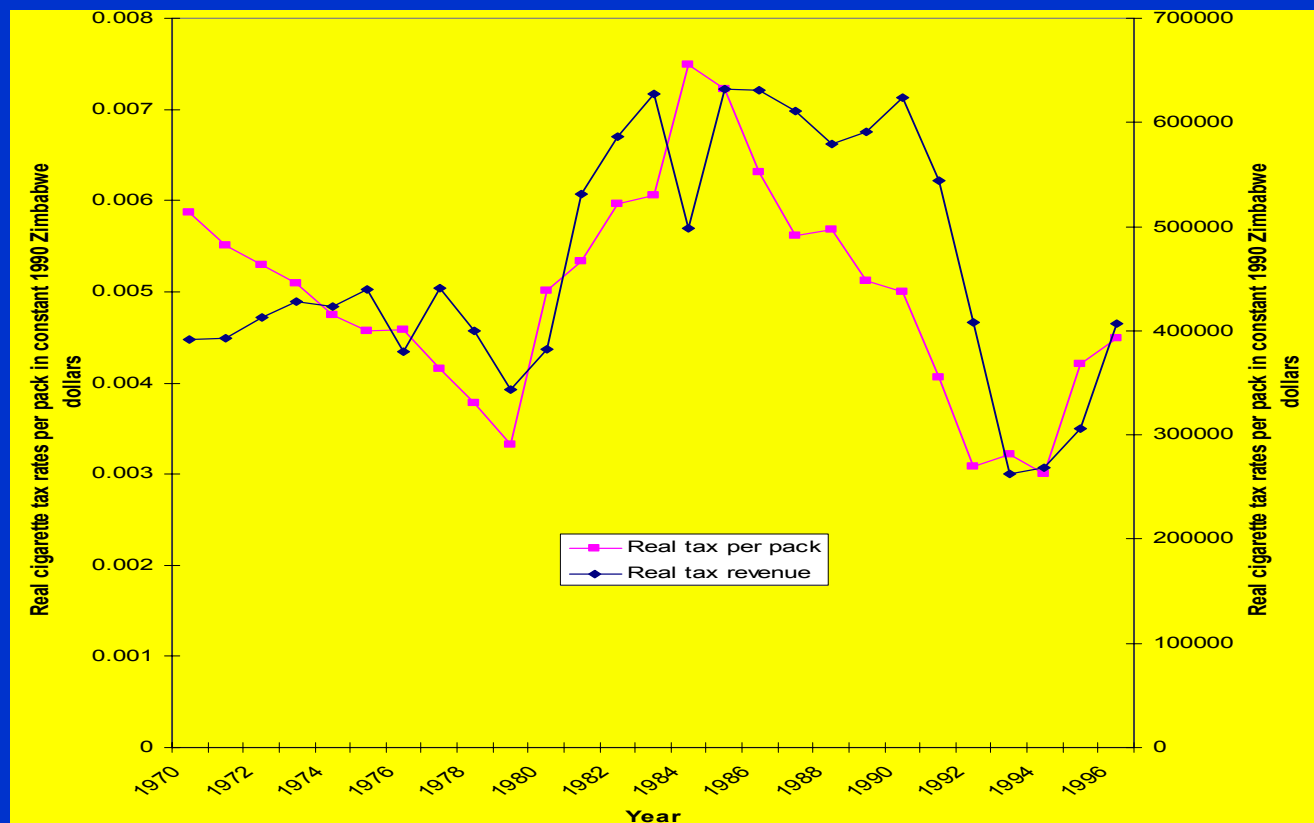


Source: World bank 1999

Cigarette tax increases result in higher tax revenues (3)

Real cigarette tax rate and real cigarette tax revenue in

South Africa 1960-97



Source: Sunley *et al.*, 2000

Myth 7

- Higher tobacco taxes will lead to smuggling

Facts:

- Even in the presence of smuggling, smoking falls and revenues rise
- Other factors as or more important in explaining smuggling
- Effective policies for addressing smuggling

Appropriate response is to crack down on smuggling

Smuggling and Tax Revenue (1)

SOUTH AFRICA, 1990s

- **Increased excise tax from 38 to 50% of retail price**
 - Smuggling rose from 0 to 6%
 - Sales fell 20%
 - Revenue went up 2 fold

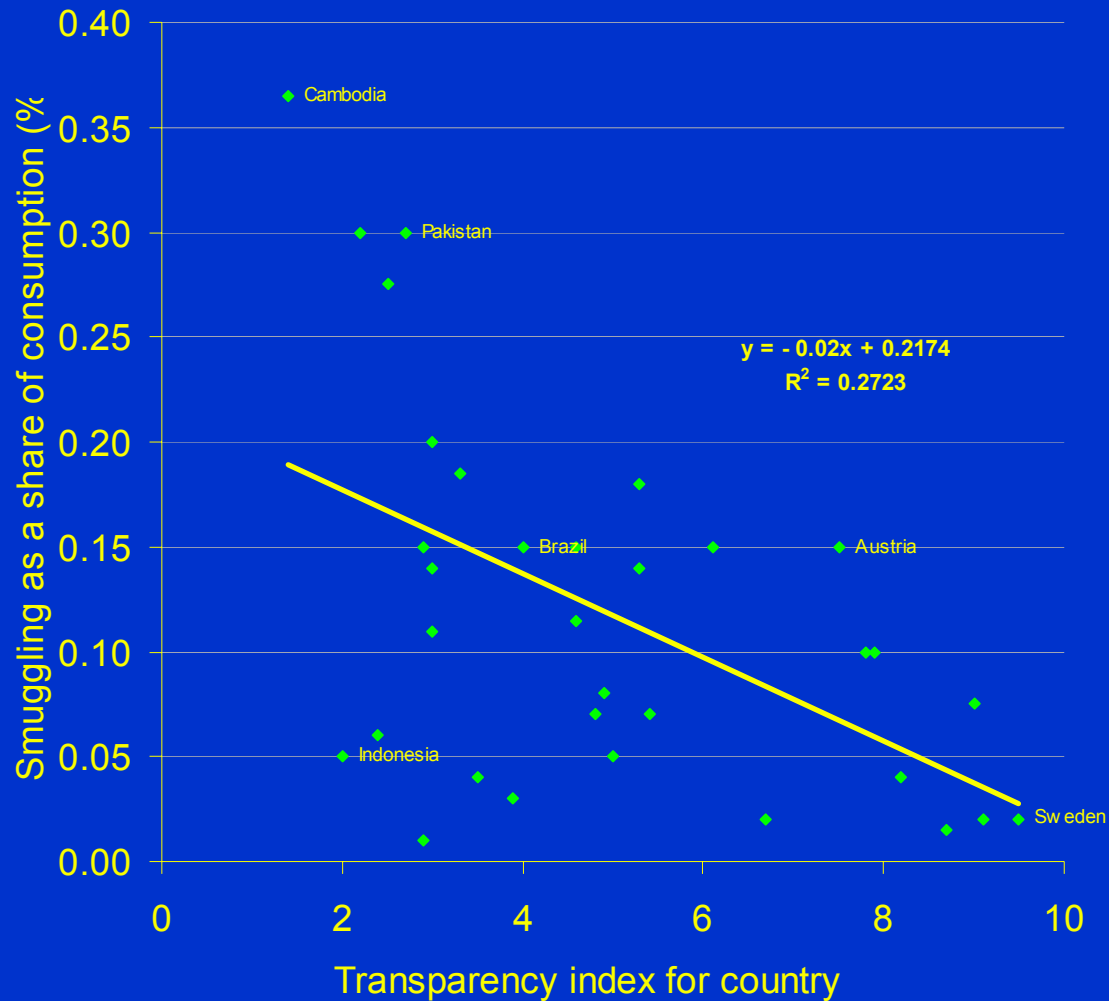
CANADA, 1993-94

- **Lowered tax in response to organized smuggling**
 - Retail price fell by half
 - Total consumption rose 48%, more so in young
 - Average revenue per capita fell by 35%

Source: Abedian, 1998; Sweanor, 1998

Tobacco smuggling tends to rise in line with the degree of corruption

Smuggling as a function of transparency index



Source: Merriman *et al.*, 2000

Control of Smuggling

- **Countries need not make a choice between higher cigarette tax revenues and lower cigarette consumption**
 - Higher tax rates can achieve both
- **Effective control measures of smuggling exist**
 - Focus on large container smuggling
 - Prominent local language warnings and tax stamps
 - Increase penalties
 - Licensing and tracking of containers
 - Increase export duties or bonds
- **Multilateral tax increases help combat smuggling**

Source: Merriman *et al.* 2000; Joosens, 2000; BAT, 1998

Myth 8

- Smoking is a matter of consumers' freedom of choice and smokers bear the costs of their consumption choices

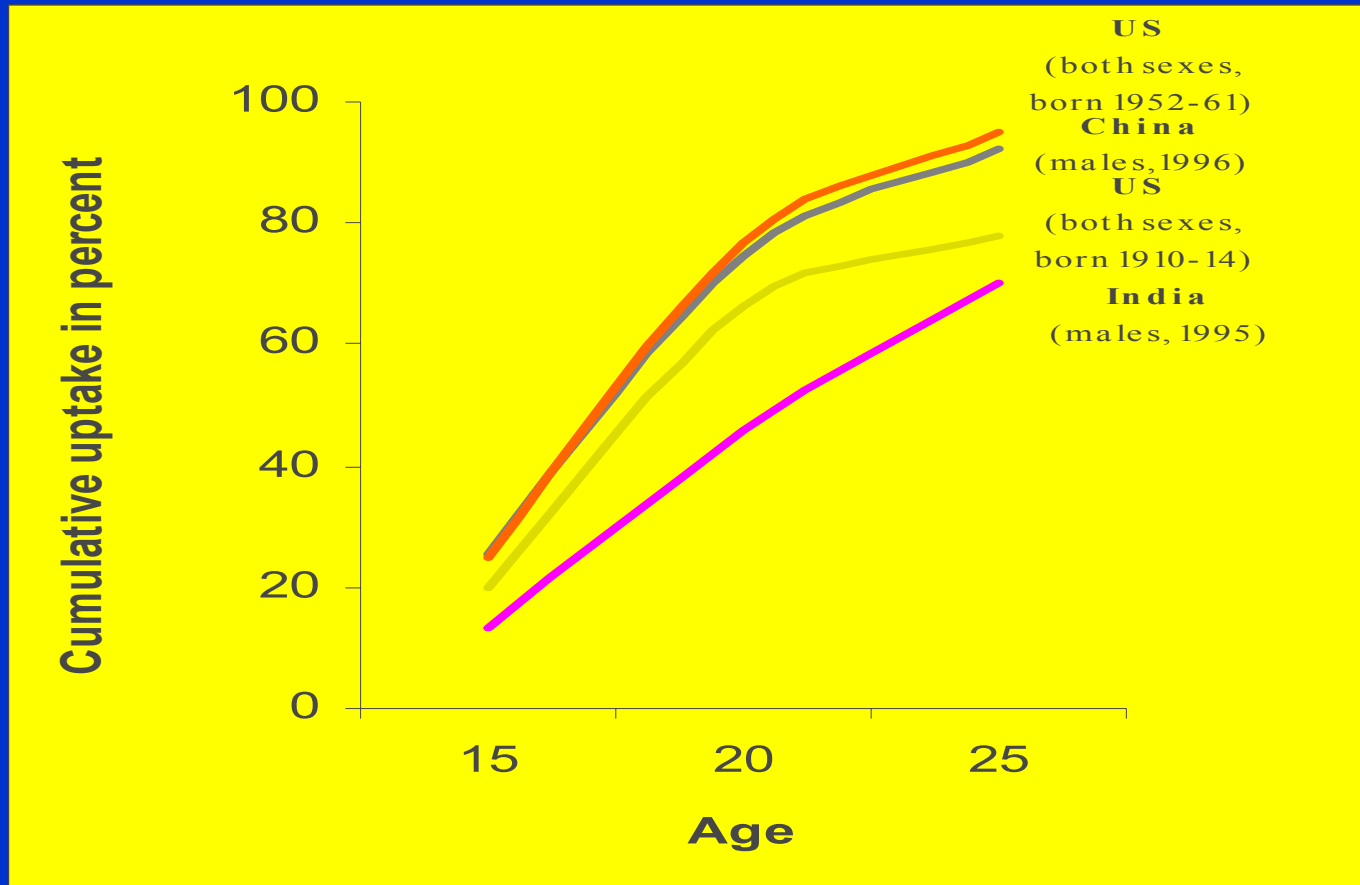
Facts:

- Smokers underestimate the risks of smoking and minimize the personal risks
- Most smokers begin as adolescents
- Second hand smoke imposes health and other costs on non-smokers
- Non-smokers incur financial costs resulting from smoking

Underestimated risks of smoking

- ◆ 7 in 10 of Chinese smokers thought smoking does them “little or no harm”
- ◆ Risks not internalized: personal risks perceived lower than average risks
- ◆ Risks of addiction downplayed: only 2 in 5 of US adolescents intending to quit actually do
 - in high-income countries, 7 in 10 smokers wish they had not started

Tobacco addiction starts early in life



- **Every day 80,000 to 100,000 youths become regular smokers**

Source: Chinese Academy of Preventive Medicine 1997, Gupta 1996, US Surgeon General Reports, 1989

Healthcare costs from smoking

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Government roles in intervening

- To deter children from smoking
 - To protect non-smokers from others' smoke
 - To provide adults with necessary information to make an informed choice
- ◆ *First-best instrument, such as youth restrictions, are usually ineffective. Thus, tax increases are justified, and are effective.*
- ◆ *Tax increases are blunt instruments.*

Myth 9

- Tobacco control interventions are not cost effective

Fact:

- Tobacco control interventions are highly cost-effective and compare favorably to other public health interventions

Potential impact of a price increase of 10% and a package of non-price measures

Region	Change in number of smokers (millions)		Change in number of deaths (millions)	
	Price increases	Non-price measures	Price increases	Non-price measures
Low/Middle Income	-38	-19	-9	-4
High Income	-4	-4	-1	-1
World	-42	-23	-10	-5

Source: Ranson *et al.*, 2000

How cost-effective are tobacco control measures?

US dollars per healthy year life gained

<i>Region</i>	<i>Price increases of 10%</i>	<i>Non-price measures with effectiveness of 5%</i>	<i>NRT (publicly provided) with 25% coverage</i>
Low / middle income	4 to 34	68 to 272	276 to 297
High Income	165 to 1,370	1,347 to 5,388	746 to 1,160

Note: 3% discount rate, costs for non-price measures and all benefits projected over 30 years

Source: *Ranson et al.*, 2000