

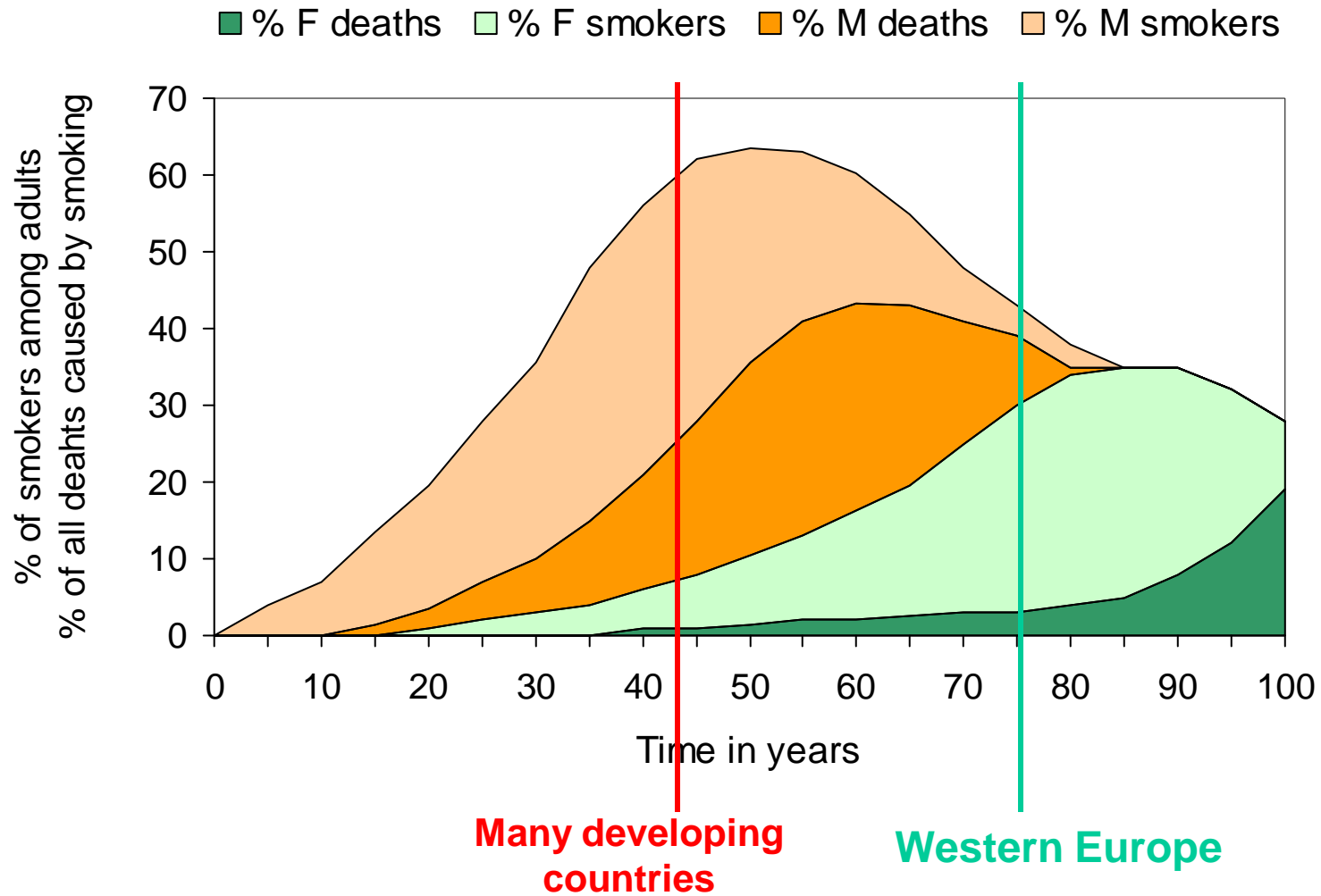
Epidemiology of tobacco use and tobacco control

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Ministry of Health, Seychelles

- **Epidemiology of tobacco use**
- Health, social, economic and environmental impact
- Why is tobacco given low priority
- Why should government regulate tobacco
- Strategies for tobacco control
- Framework Convention on Tobacco Control (FCTC)
- Conclusions

The tobacco epidemic: A model

Long lag time between exposure and disease



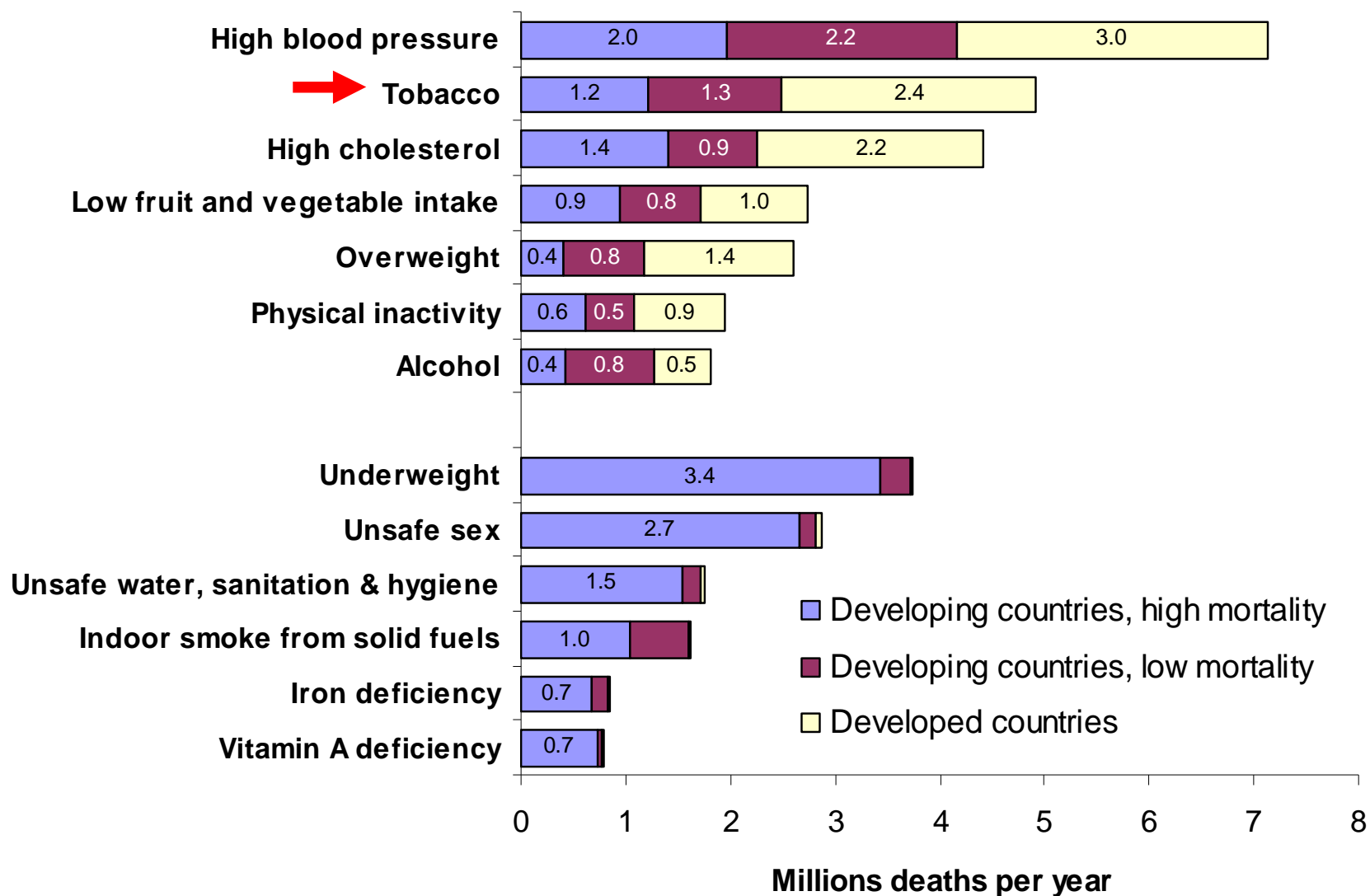
Large and growing number of tobacco deaths, especially in developing countries

Annual tobacco deaths (in millions)

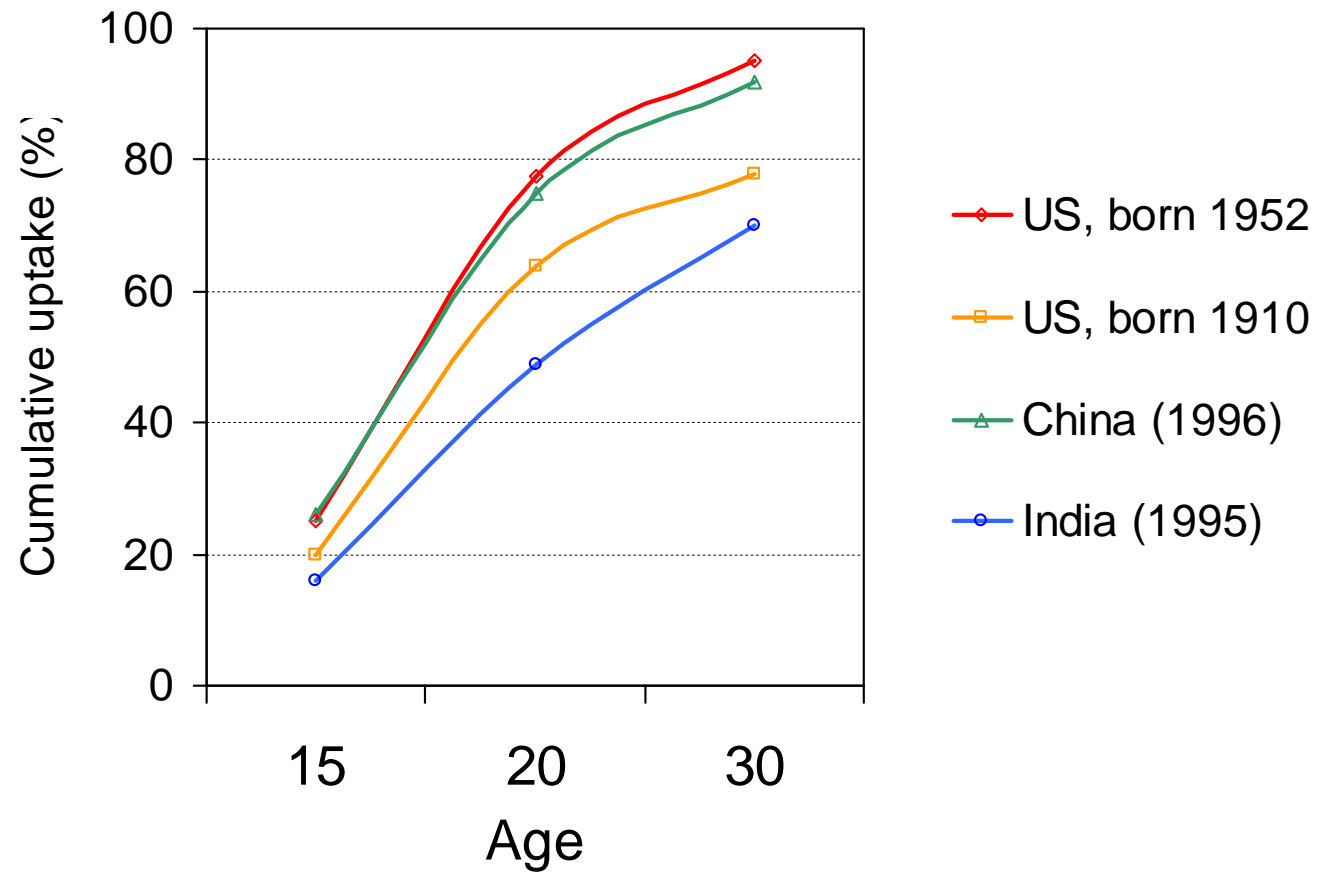
	2005	2030
Developed	2	~3
Developing	~3	~7
<i>World total</i>	5	~10

- ◆ 1 in 2 of long-term smokers killed by their addiction
- ◆ 1/2 of deaths in middle age (35-69)

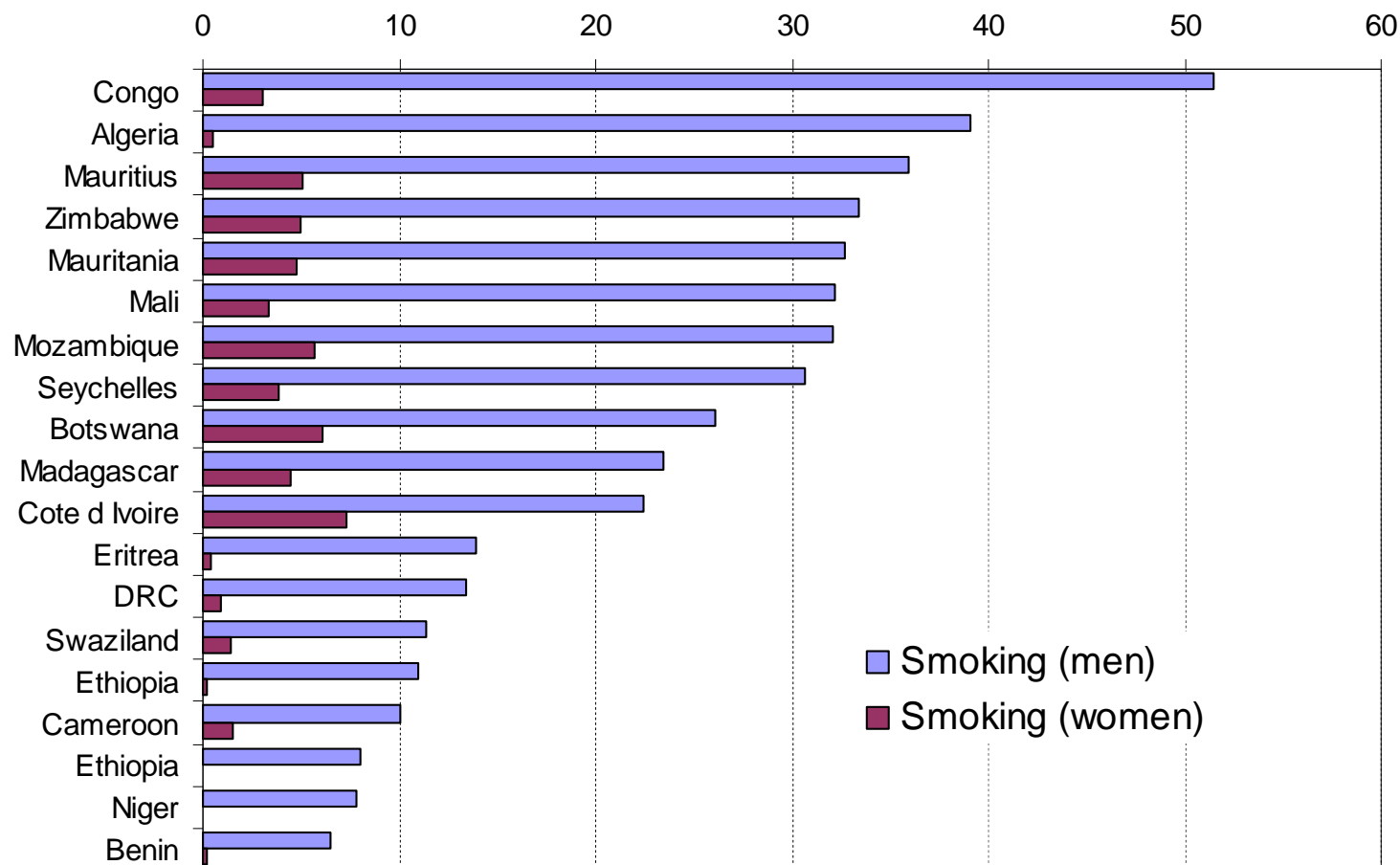
Large mortality avoidable with lifestyle and diet: WHR 2002



Smoking starts early in life

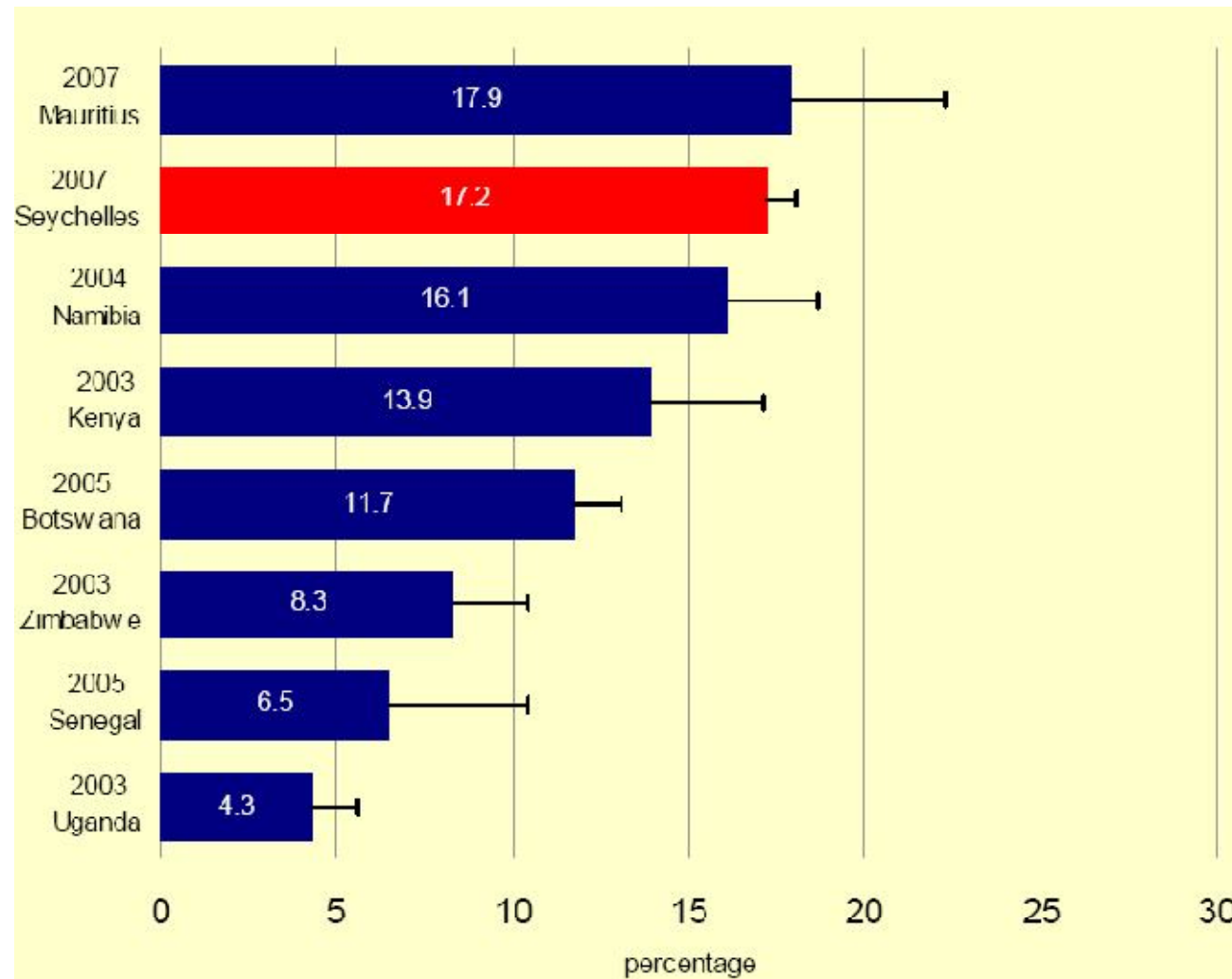


Smoking in Africa, STEPS (non final results)



- Use of other tobacco products i.e., pipe, snuff and rolled tobacco leaves
- Smokers smoke mean 5-10 cig per day

Smoking among youth aged 13-15 in Africa, GYTS



Tanzania (Ilala): Six out of 101 primary schools. Prevalence boys= 9%; girls= 2.4%. Tanzania Journal of Health Research

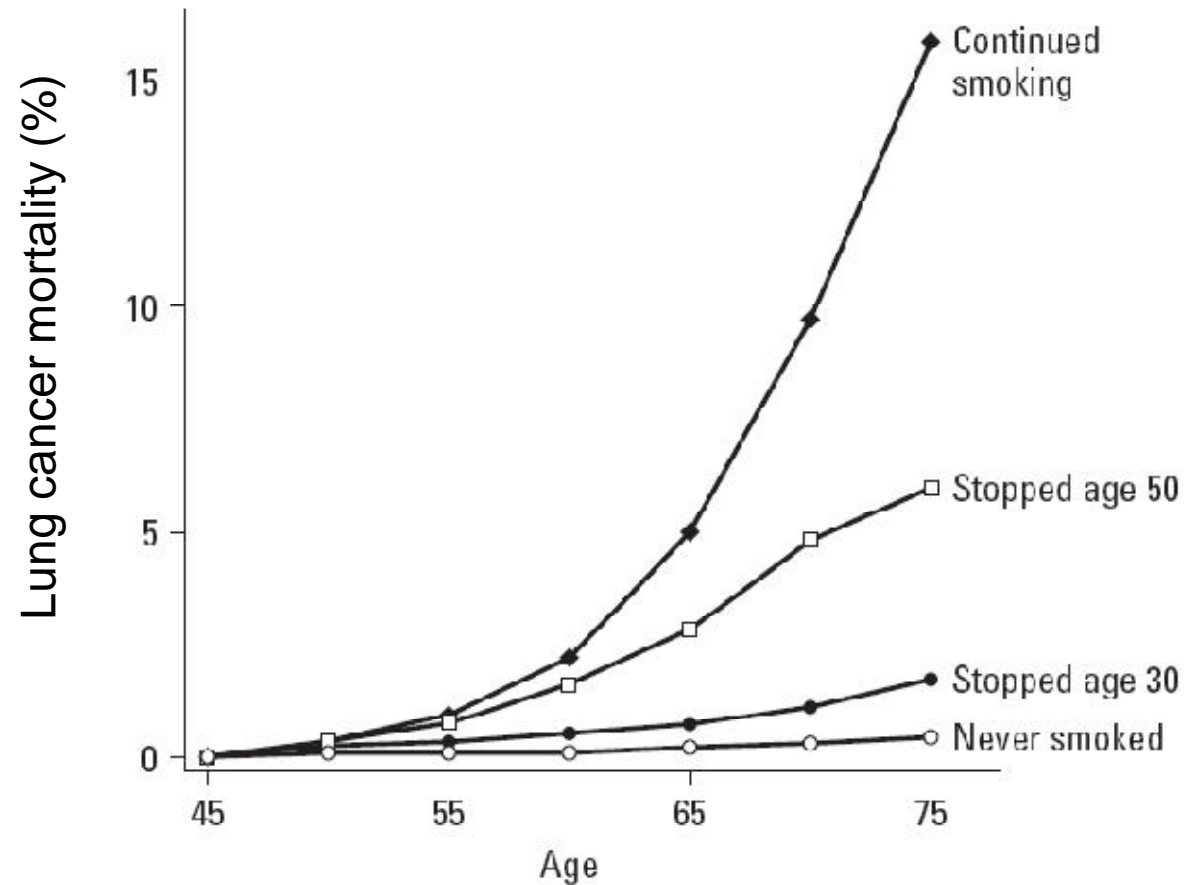
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Smoking-attributable mortality : cancer, CVD and other

	Men			Women		
	Total	SAM	YPLL	Total	SAM	YPLL
CVD	441,600	91,000	1,294,000	499,000	57,700	778,000
Cancer lung & UGT	136,000	103,000	1,430,000	95,000	53,000	905,000
Respiratory diseases	92,000	54,000	547,000	97,000	44,000	558,000
Perinatal conditions	6,000	599	44,000	4,000	408	32,000
Second hand smoke	-	15,000	-	-	21,000	-
Total		264,000	3,332,000		178,000	2,284,000

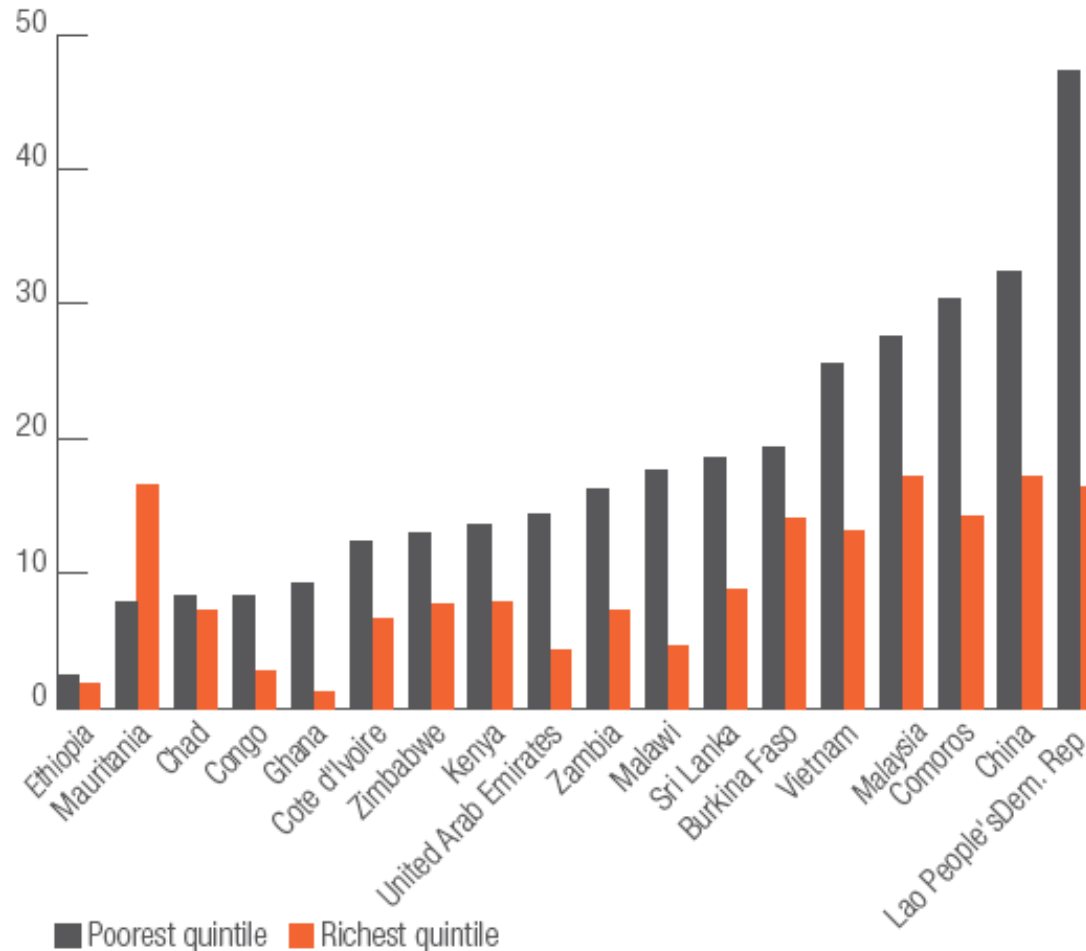
SAM: smoking attributable mortality

Cumulative risk of lung cancer (men UK): quit smoking works



Peto 2000, in "Disease Control Priorities in Developing Countries", 2006, editors: World Bank and others.

Prevalence of smoking highest in low vs high SES in LIC



- World Health Survey (<http://www.who.int/healthinfo/survey/en/>; accessed 20 July 2006). Note Countries are ordered by the size of smoking prevalence in the poorest quintile.
- Chronic Diseases: An Economic Perspective, Oxford Health Alliance (2006)

Tobacco contributes to poverty and hinders development

Individual, family level

- Expenditure on tobacco can be a high percentage of household income of smokers (>20% in developing countries)
- Loss of family income due to ill health & premature death of smoking earners
- Increased health care costs on smokers

National level

- Economic costs due to health care costs
- Lost productivity due to tobacco-related illnesses & premature deaths
- Revenue of tobacco growth goes largely to multinationals
- Tobacco's revenue (tax, production of tobacco) outweighed by its costs to households and to health care

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Why is tobacco control valued so little despite huge smoking-attributable hazards ?

- Full scale health hazards known only recently (1990s)
- Long time lag (decades) between exposure and disease
- Long-standing social acceptance, but changing
- Wrong perception that tobacco is beneficial for the economy
- Extremely skillful marketing by tobacco industry (e.g. PM: 5 b \$/yr)
- Little efforts to implement effective control measures (in part due to influence from the tobacco industry)

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Why must government intervene?

- To deter children from smoking (addiction, hazard)
- To protect non-smokers from others' smoke
- To provide adults with information needed to make an informed choice (vs. advertising)
- To help smokers who wish to quit smoking (addiction)
- To limit externalities

Examples of information deficit ...

(i.e. biased information providing message in support to tobacco without information on detrimental effects)

Targeting children...

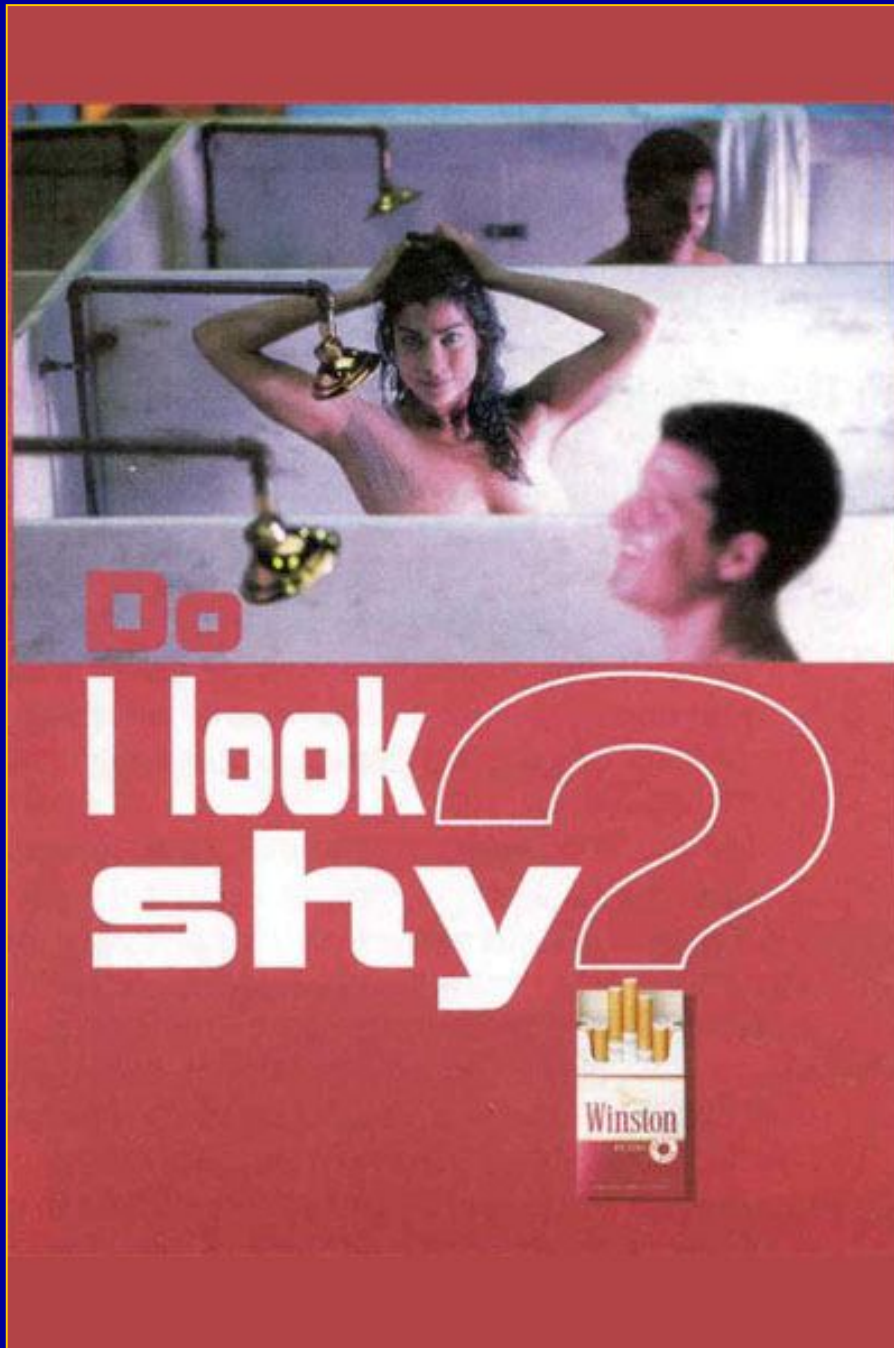
Budapest, Hungary





Targeting the poor...

Lagos, 2000



Targeting women...

Magazine, South Africa

Aspen

Miss Tanzania 1999



Beauty Contest

Friday 27th August 1999
at the Slipway, 9:00pm

Tickets available at Best Slipway, Kamupa, Esportel from Samora Rose, and at the Slipway.
Entry fee: TSh. 20,000/-



Aspen ...because you deserve the best



Nicotine is strongly addictive:

Choice to smoke is not rational

- “Nicotine is as addictive as heroine or cocaine” (WHO, CDC)
- Biological mechanisms (e.g. endocannabinoid system, dopamine)
- Less than 40% of adolescent smokers who believe they will quit (‘experimenters’) actually quit
- >70% smokers regret having started & would like to quit
- >95% quitters without assistance start again within 1 year
- Tobacco is categorized as a disease (ICD10)

Source: Curbing the Epidemic, World Bank, 1999

The myth that tobacco contributes to the economy

High costs incurred to society due to tobacco (“externalities”)

For each pack of 20 cigarettes sold (USA) :

- \$3.45 is spent on **medical care** attributable to smoking
- \$3.73 are incurred in **productivity losses**
- Total cost of \$7.18 per pack

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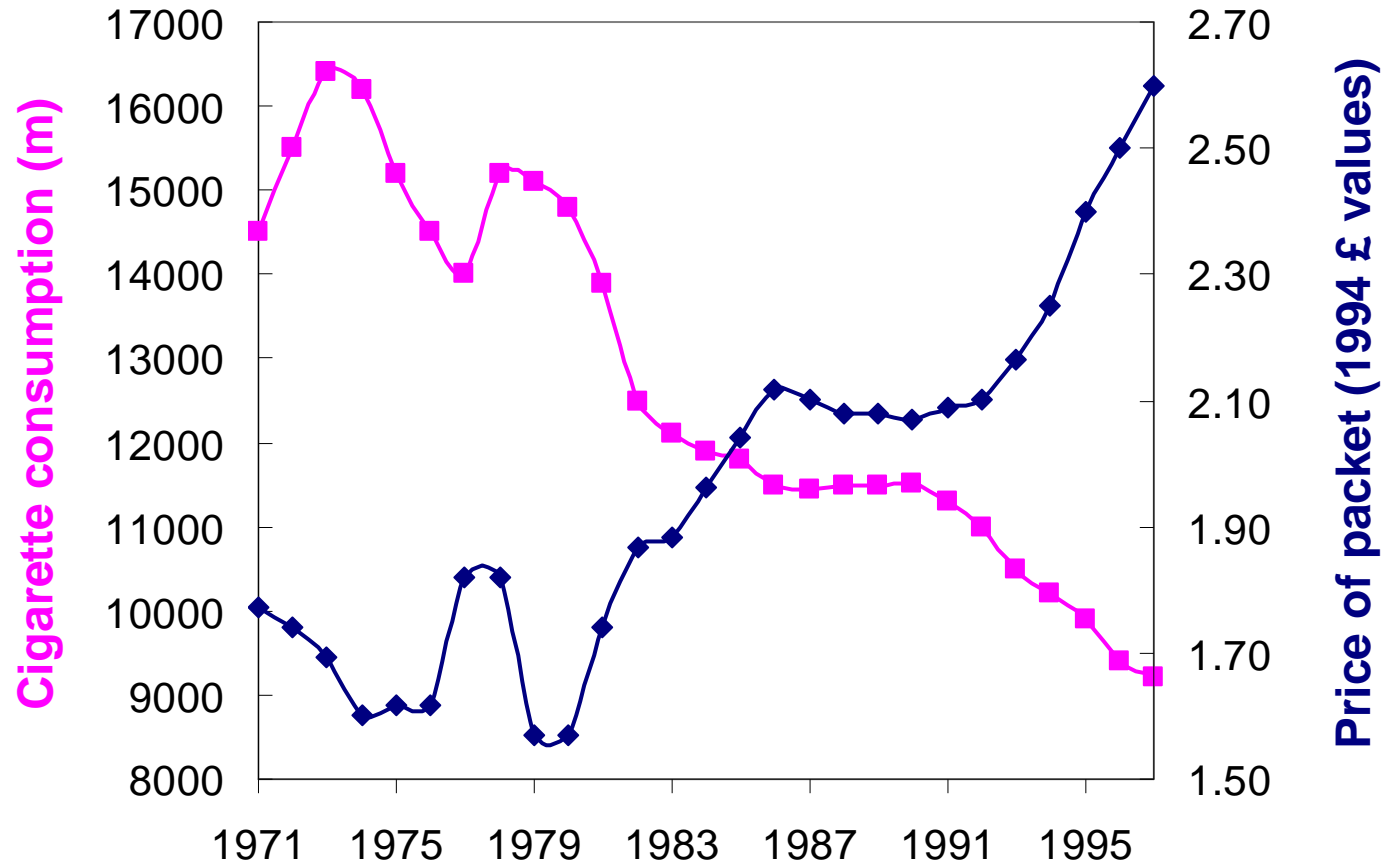
Effective measures

- ✓ **Higher cigarette taxes** (to reduce demand)
- ✓ **Non-price policy measures** (to reduce demand)
 - **Comprehensive ban on advertising, sponsorship and promotion**
 - **Protection from second hand smoke**
 - **Ban smoking in (enclosed) public and work places**
 - **Better consumer information:**
 - **Strong warning labels, counter-advertising**
- ✓ **Education programs**
 - **Stimulate voluntary change**
 - **Raise support on accepting restrictions and new norms**
- ✓ **Cessation help (NRT)**
- ✓ **Surveillance**

Taxation is the most effective measure

- **Higher taxes induce quitting, reduce consumption and prevent starting**
- **A 10% price increase reduces demand by (price elasticity):**
 - 4% in high-income countries
 - 8% in low or middle-income countries
 - About half of the effect is on amount and half on initiation
 - Long-run effects may be greater
- **Young people and the poor are the most price responsive (a favorable effect as they tend to smoke more)**

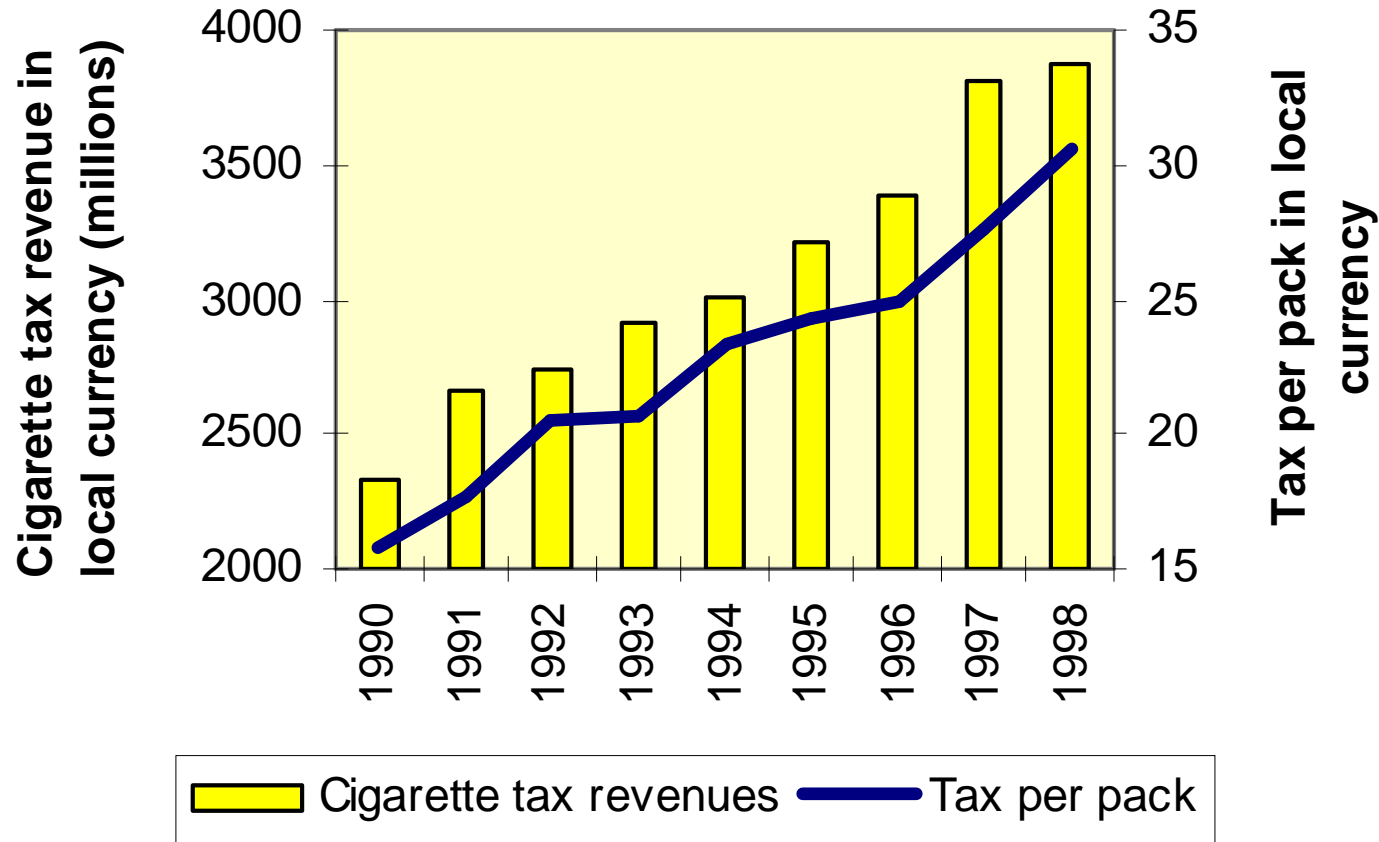
Taxes: Higher price of cigarettes reduces tobacco use UK, 1971-96



Central Statistical Office (UK) (1965-97)

As cigarette tax rises, revenue increases too

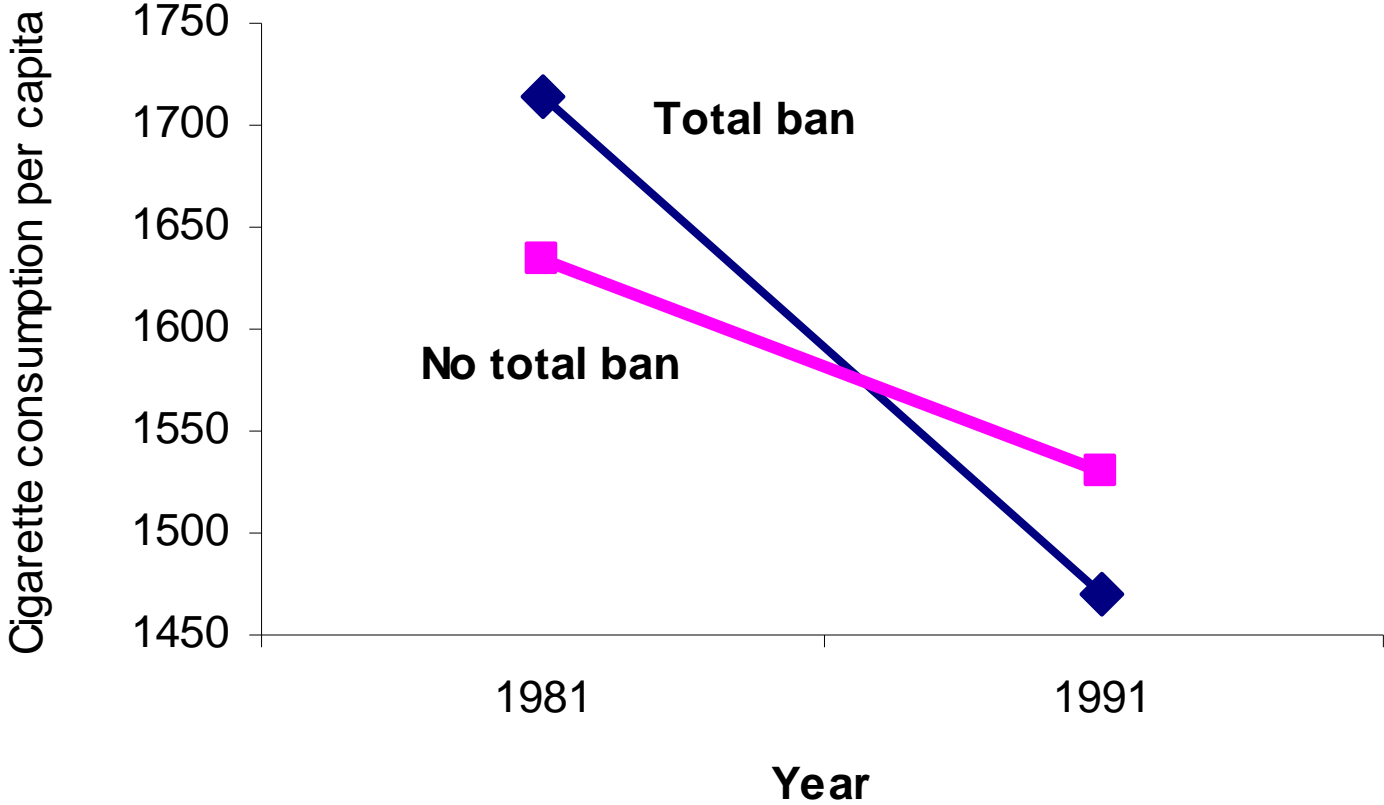
Tax per pack and cigarette tax revenues in Norway, 1990-1998



Source: World Bank, 1999

Comprehensive advertising ban lowers cigarette consumption

Consumption trends in countries with total ban vs. those with no ban (n=102 countries)



Source: Saffer, 2000

Health warnings approved by EC

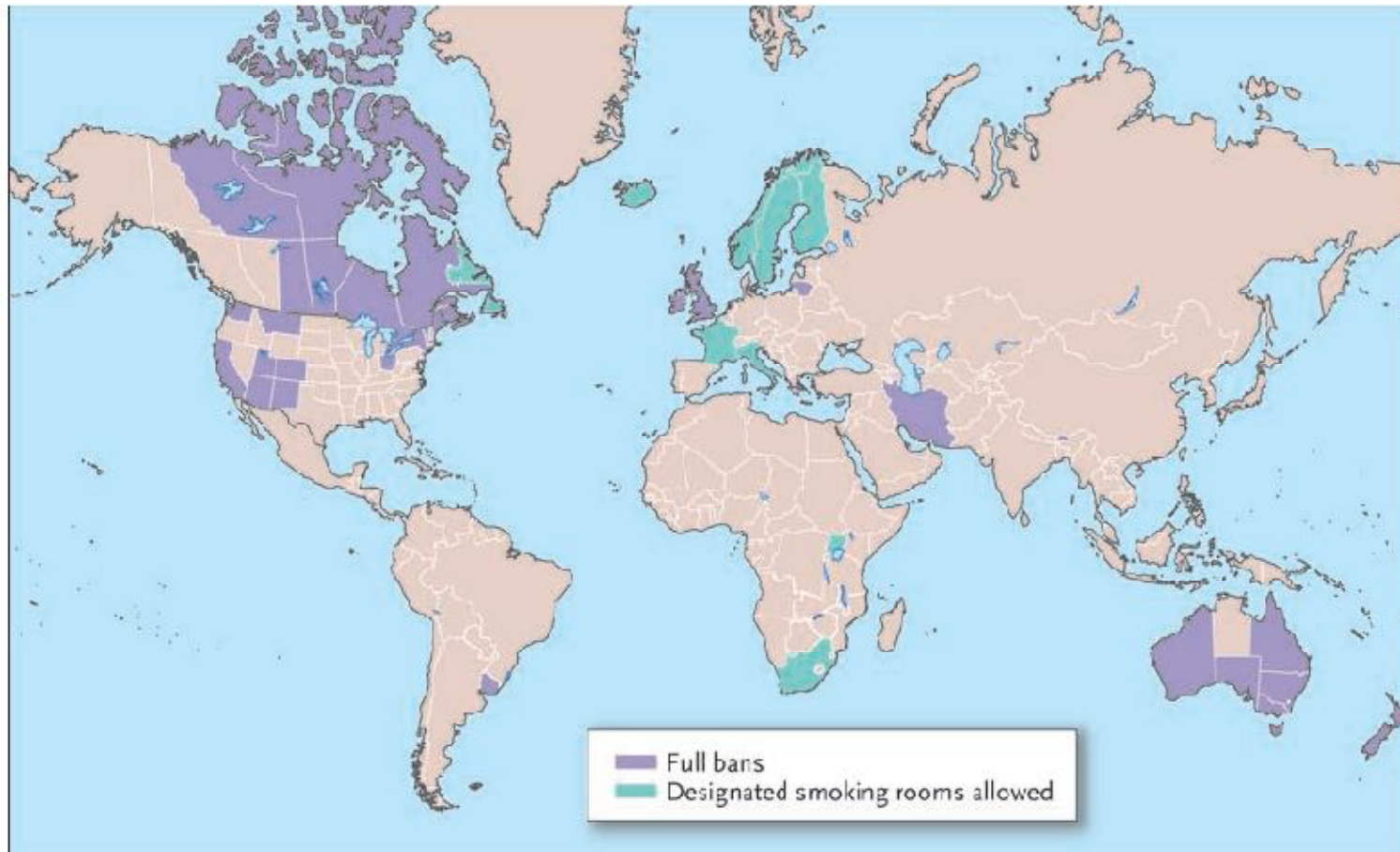
http://europa.eu.int/comm/mediatheque/photo/select/tabac_en.htm



Smoking ban in public places

- Smoking bans in public/work places protect the public & workers and result in less smoking and higher quit rates
- Total ban in: (update by July 2006)
 - Bhutan, Ireland (27 Mar 2004), Norway (1 Jun 2004), New Zealand (10 Dec 2004), Bhutan (Mar 2005), Uruguay (1 Mar 2006), Scotland (26 Mar 2006), Lithuania (1 Jan 2007), Iceland (1 Jul 2007), Bermuda (1 Apr 2006), France (2007-8), United Kingdom (2007), Puerto Rico (2 Mar 2007), Finland (2009)
 - 9/13 Canadian provinces (2004+); 15/51 US states California (**restaurants: 1 Jan 95; bars 1 Jan 98**); 7/8 Australian states (2004+)
 - Chandigarh (2007), (Nairobi, 2007), Hong Kong (2009)
- Almost total ban: Italy, Sweden, Malta

Countries, States, and Provinces That Have Banned Smoking in Indoor Workplaces and Other Indoor Public Places.



Legislation in some countries and regions (shown in green) allows for the possibility of a designated, enclosed, ventilated smoking room. Full bans are also in force in Rhode Island, Hawaii, Puerto Rico, Washington, DC, Bermuda, the British Virgin Islands, Bhutan, and the Australian Capital Territory; legislation allowing for designated smoking rooms is in force in Malta. Full bans will go into effect in Quebec in 2008 and in Montana, Utah, and Hong Kong in 2009; a law allowing for the possibility of designated smoking rooms will go into effect in Finland in 2009.

Preventive Cardiology

Effect of the Italian Smoking Ban on Population Rates of Acute Coronary Events

Giulia Cesaroni, MSc; Francesco Forastiere, MD, PhD; Nera Agabiti, MD; Pasquale Valente, MD; Piergiorgio Zuccaro, PhD; Carlo A. Perucci, MD

Background—Several countries in the world have not yet prohibited smoking in public places. Few studies have been conducted on the effects of smoking bans on cardiac health. We evaluated changes in the frequency of acute coronary events in Rome, Italy, after the introduction of legislation that banned smoking in all indoor public places in January 2005.

Methods and Results—We analyzed acute coronary events (out-of-hospital deaths and hospital admissions) between 2000 and 2005 in city residents 35 to 84 years of age. We computed annual standardized rates and estimated rate ratios by comparing the data from prelegislation (2000–2004) and postlegislation (2005) periods. We took into account several time-related potential confounders, including particulate matter (PM₁₀) air pollution, temperature, influenza epidemics, time trends, and total hospitalization rates. The reduction in acute coronary events was statistically significant in 35- to 64-year-olds (11.2%, 95% CI 6.9% to 15.3%) and in 65- to 74-year-olds (7.9%, 95% CI 3.4% to 12.2%) after the smoking ban. No evidence was found of an effect among the very elderly. The reduction tended to be greater in men and among lower socioeconomic groups.

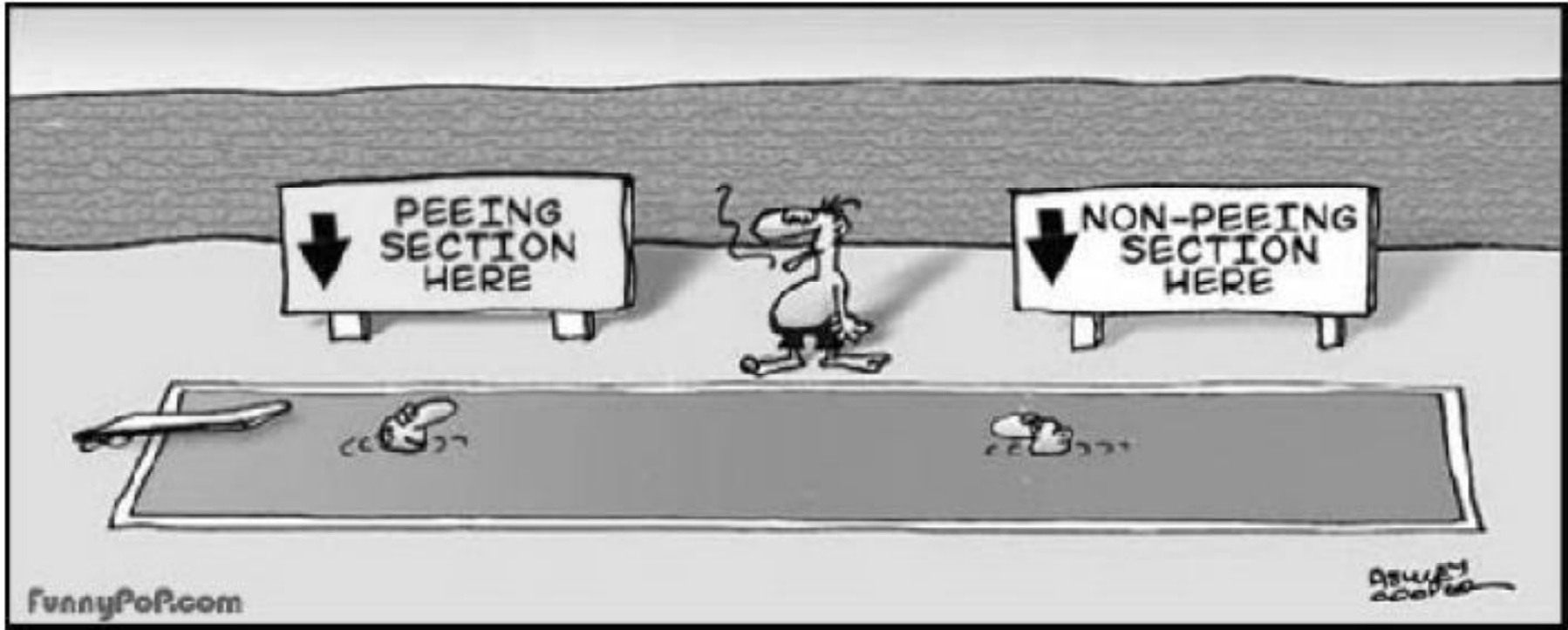
Conclusions—We found a statistically significant reduction in acute coronary events in the adult population after the smoking ban. The size of the effect was consistent with the pollution reduction observed in indoor public places and with the known health effects of passive smoking. The results affirm that public interventions that prohibit smoking can have enormous public health implications. (*Circulation*. 2008;117:1183-1188.)

**Example of counter-advertising
campaign by California Health Services (funded by tobacco tax revenues)**

**YOU THINK SMOKE
KNOWS HOW TO STAY IN
THE SMOKING SECTION?**

SECONDHAND SMOKE KILLS.

CALIFORNIA DEPARTMENT OF HEALTH SERVICES
FUNDING BY THE TOBACCO TAX REVENUE



Tobacco control measures are among most cost-effective measures to improve health (surpassed only by childhood immunizations)

US\$ per DALY saved

	Low-middle income countries	High income countries
Tax increase resulting in 10% increased price	4-17	161-645
Non-price measures with effectiveness of 5%	68-272	276-297
Nicotine replacement therapy	276-297	746-1160
Integrated management of sick child (vaccination)	30-100	

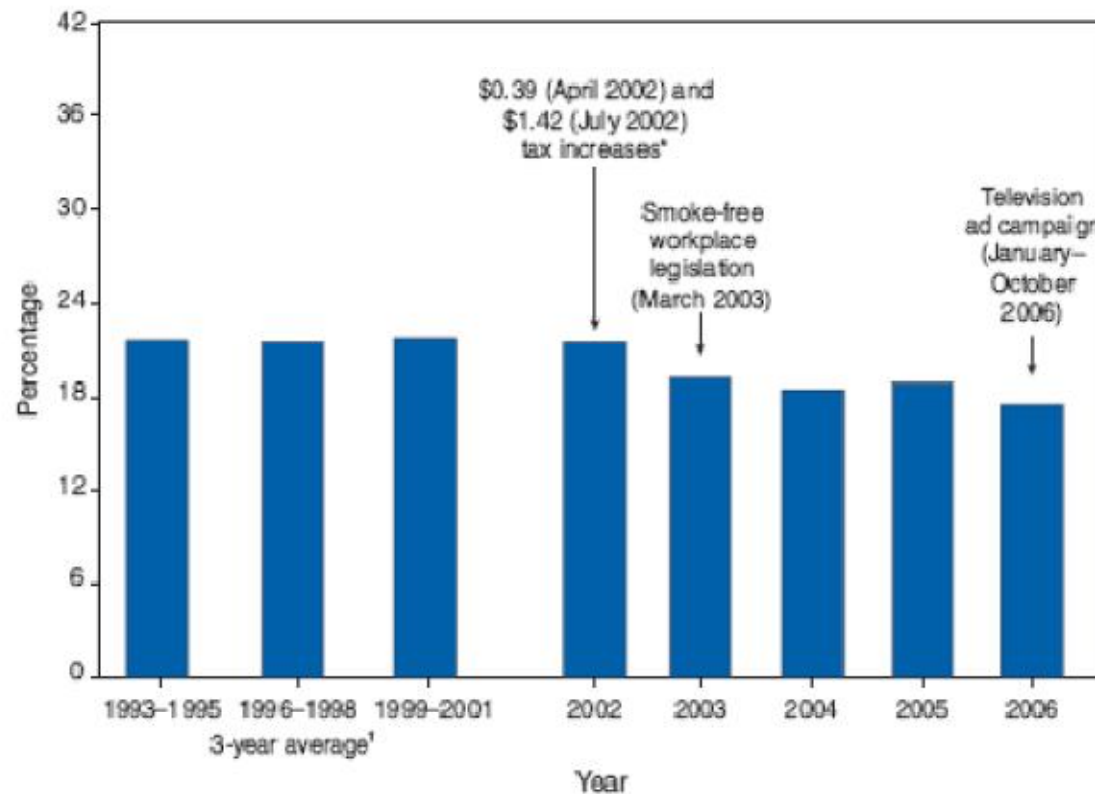
Health education

- **Stimulates voluntary change**
- **Raises support on accepting involuntary restrictions**
- **Spreads policies and spread norms**
- Continuous need to explain real harms of tobacco product
- Awareness campaigns must be subtle so to not backfire (particularly with children)

Effectiveness of tax increase, ban in enclosed places, and media campaign in New York

(19% relative decrease in 4 years)

FIGURE. Estimated adult smoking prevalence, by year — New York City, 1993–2006



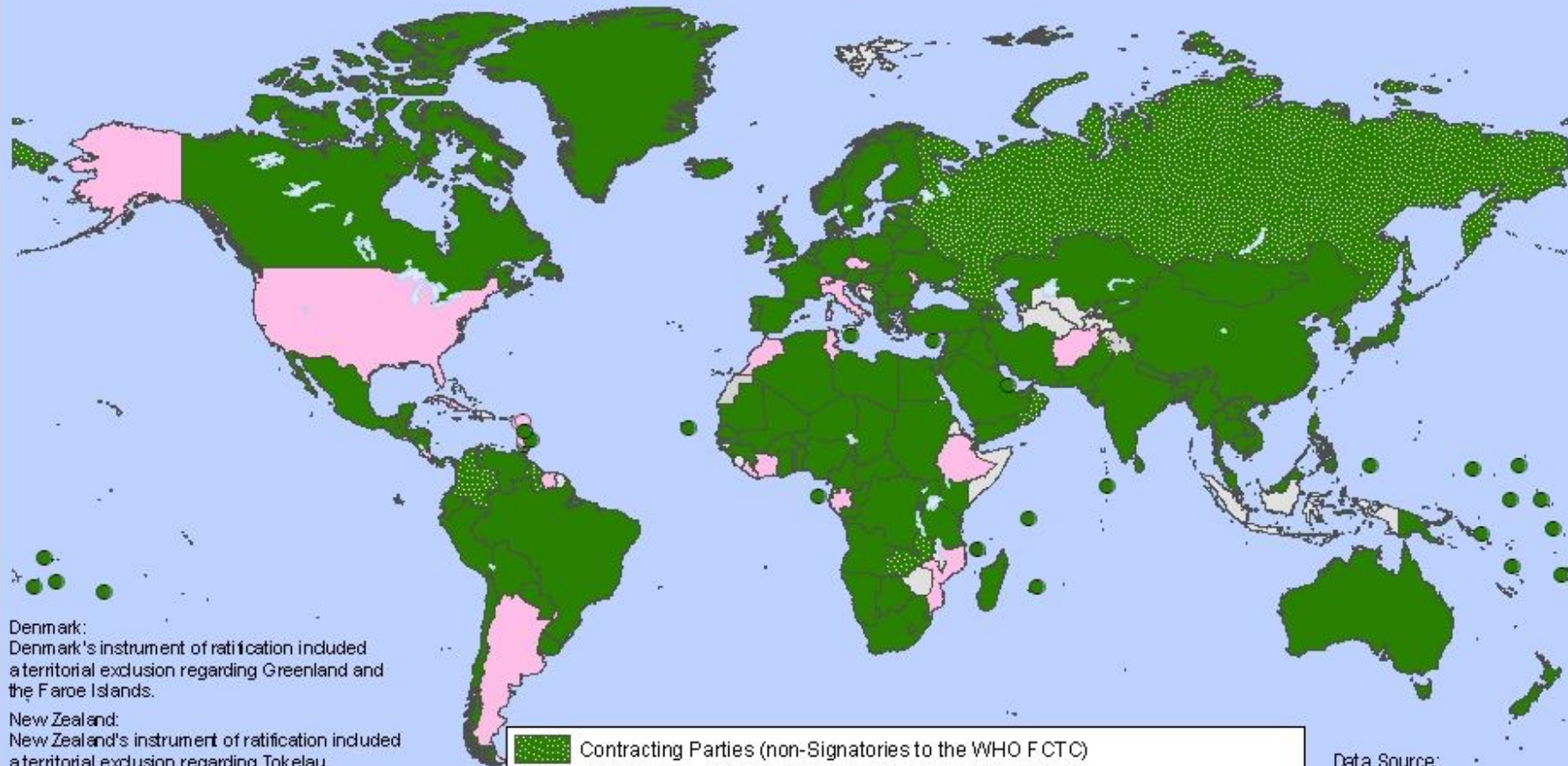
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WHO Framework Convention on Tobacco Control (FCTC)

- Global mechanism to counter the globalisation of the tobacco epidemic fuelled by multinational tobacco industry
- Convention = treaty: provisions are **legally binding to parties**
- To stimulate and harmonize national legislations for tobacco control
 - **Provides a framework to national legislations**
- To create a new international, regional and local momentum for tobacco control (“power of the process”)

- Adopted in May 2004, entry into force on 28 Feb 2005
- ~157 parties by mid 2008 (countries that have ratified)
- Conferences of Parties to monitor implementation (first in 2006)
 - COP2 2007: guidelines for indoor ban on smoking (Art 8), guidelines for trans-boarder advertising and new protocol on smuggling

Status of the WHO Framework Convention on Tobacco Control (WHO FCTC) 157 Contracting Parties*



Denmark:
Denmark's instrument of ratification included a territorial exclusion regarding Greenland and the Faroe Islands.

New Zealand:
New Zealand's instrument of ratification included a territorial exclusion regarding Tokelau.

*Regional economic integration organizations are entitled to become Parties to the WHO FCTC. As such, the European Community is a Contracting Party to the WHO FCTC (with previous signature).

- Contracting Parties (non-Signatories to the WHO FCTC)
- Contracting parties (previous Signatories to the WHO FCTC)
- Countries non-Parties that have signed the WHO FCTC
- Countries that have not signed the WHO FCTC and are not Contracting Parties

Data Source:
WHO Tobacco Free Initiative
Map Production: Public Health
Information and Geographic
Information Systems (GIS)



The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

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Objective of FCTC (Art 3)

To protect present and future generations from the devastating **health, social, environmental and economic consequences** of tobacco consumption and exposure to tobacco smoke

by providing a **framework for tobacco measures** to be implemented by the parties at the national, regional and international levels

in order to **reduce continually and substantially the prevalence of tobacco use and exposure to tobacco smoke.**

Main provisions of FCTC (1/2)

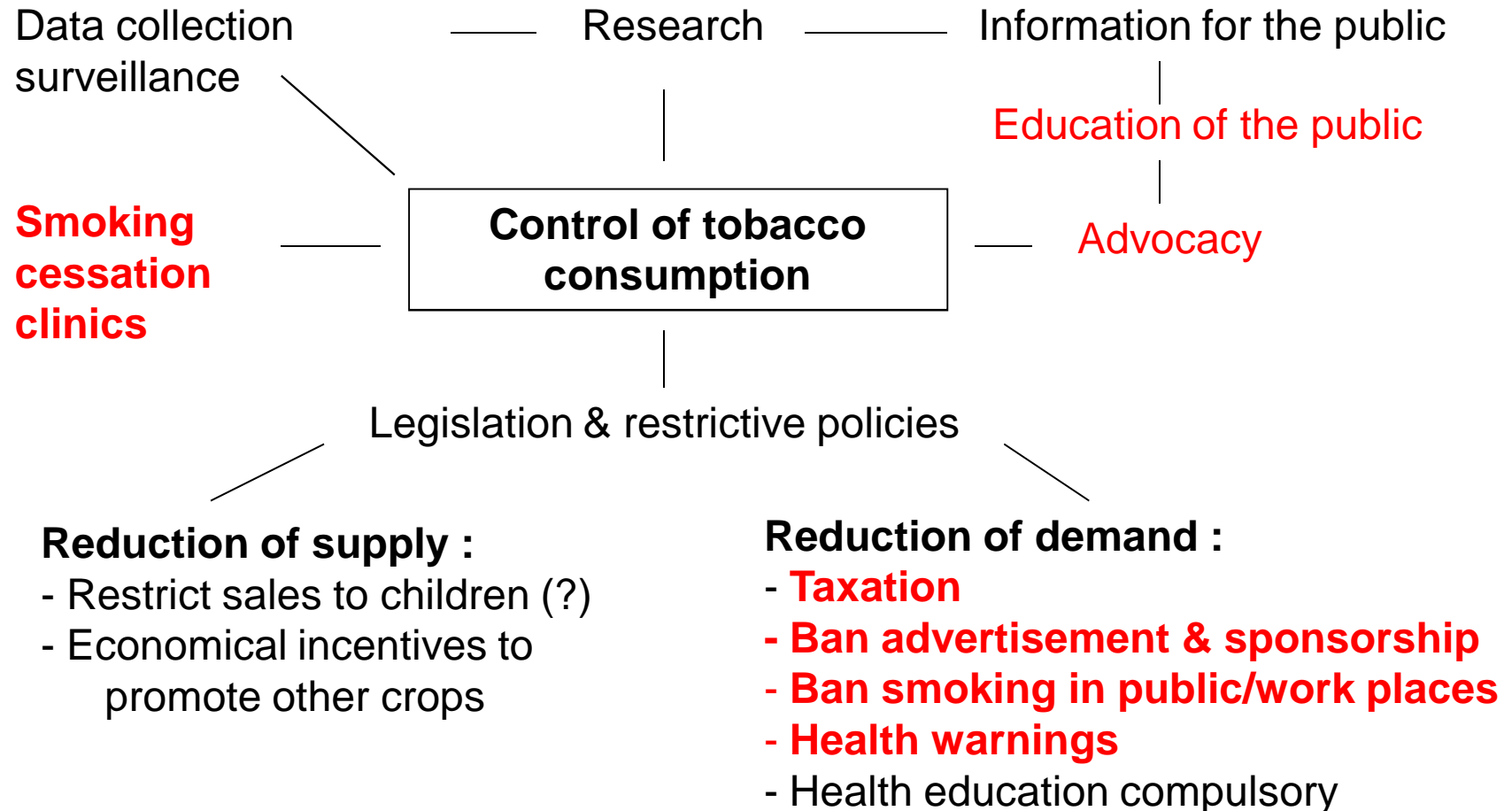
- **Prominence of public health [over trade]** (Preamble)
 - “(Parties) determined to give priority to their right to protect public health”
- **Tax & price policies** (Art 6)
 - Prohibition or restriction of duty-free sales
 - Parties encouraged to adopt high taxes
- **Protection from secondhand smoke** (Art 8)
 - Prohibit smoking in indoor workplaces, indoor public places, and public transports
- **Packaging and labeling** (within 3 years) (Art 11)
 - Ensure that labeling is not "false, misleading, deceptive " (e.g. low tar, light, etc)
 - Health warnings should be $\geq 50\%$ but must be $\geq 30\%$ & rotating
- **Advertising, promotion and sponsorship** (within 5 years) (Art 13)
 - Comprehensive ban of all tobacco advertising, promotion and sponsorship
 - Parties have the right to ban cross-border tobacco APS entering their territory

Main provisions of FCTC (2/2)

- **Education** (Art 12)
 - Promote and strengthen public awareness of tobacco hazards & control issues
- **Treatment of tobacco dependence** (Art 14)
 - Promote cessation of tobacco use and adequate treatment for tobacco dependence
- **Smuggling** (Art 15) (to be completed by a protocol)
 - Packets clearly marked to allow determination of origin and final destination
 - Develop tracking and tracing regime and monitoring to investigate illicit trade
- **Sales to minors** (Art 16)
 - Ban sales to minors
 - Restrict/ban vending machines
- **Liability** (Art 19)
 - Consider legislation to deal with criminal and civil liability, incl. compensation
- **Surveillance of tobacco use and research** (Art 20)
 - Establish programs for the surveillance of tobacco use
- **No reservation** may be made to the Convention (Art 30)

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Components of a tobacco control program



Check list for assessing tobacco control in your country

Policies

- Formal, legislation, regulations
- Informal (schools, transportation, public buildings, etc)

Taxes

- Tax, free sales, tax concessions to tobacco manufacturers

Programs

- National/regional programs
- Tobacco Control Committee (focal point)

Cessation programs for smokers

- Cessation programs (behavioral, pharmaceutical)
- Training for health professionals (5A)

Surveillance, research

- Surveillance (adults: surveys; schools: GYTS, etc)
- Policy, programs, taxes, trade, litigation, manufacturers' practices, etc

Conclusions

- Tobacco is first preventable cause of death worldwide, growing, higher in the poor
- Tobacco epidemic rapidly growing in developing countries while contained in EME
- Tobacco hazard is under-evaluated & control must be strongly advocated
- Specific market failures of tobacco products support government intervention
- Demand measures are the most effective ways to reduce consumption and exposure to smoke, and can be particularly cost-effective
 - Tax increase (cost saving), ban advertisement, information, ban in public places
- Helping adults quit is as important as preventing kids from starting for effectively curbing the epidemic over next 50 years
- Control programs need to be comprehensive and multisectoral
- FCTC provides a global framework for tobacco control at national level
- Implementation: sustained HE & enforcement to detect and correct compliance

“Cigarettes is the only product that kills prematurely 50% of their users if used as indicated by the manufacturers.”

Dr Gro Harlem Brundtland, DG WHO

