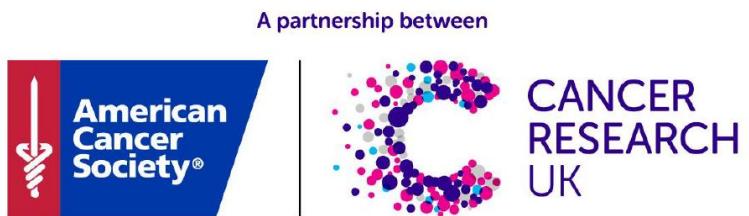
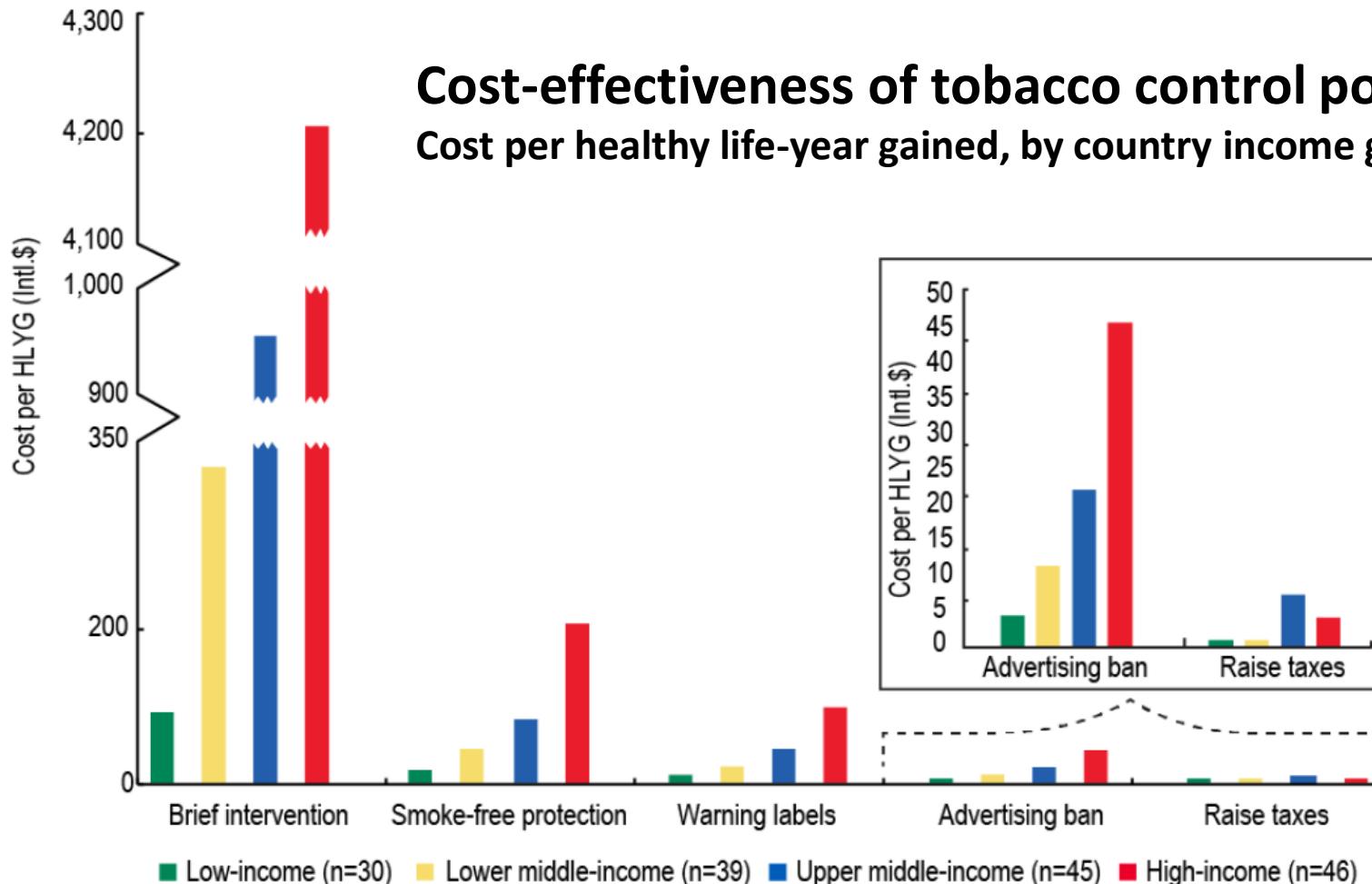


# The Global State of Economic Research on Tobacco Taxation

Jeffrey Droe, Vice President, Economic & Health Policy Research, American Cancer Society  
Michal Stoklosa, Senior Economist, Taxation & Health, American Cancer Society



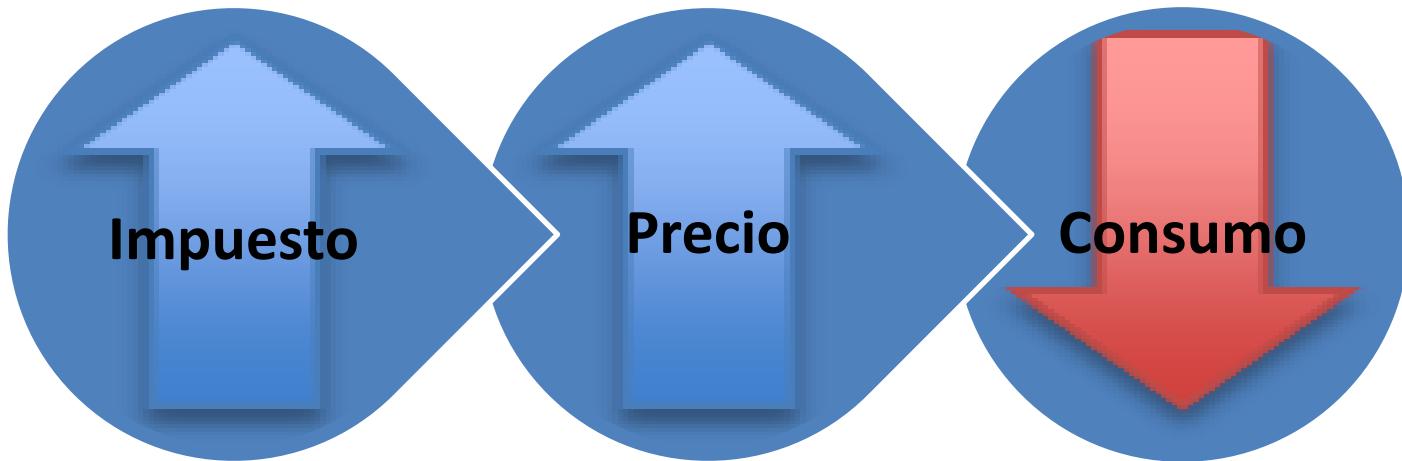
# Cost-effectiveness of tobacco control policies: Cost per healthy life-year gained, by country income group



Notes: HLYG = healthy life-year gained. Country income group classification based on World Bank Analytical Classifications for 2014.

Source: Based on calculations from World Health Organization CHOICE model, 2016.

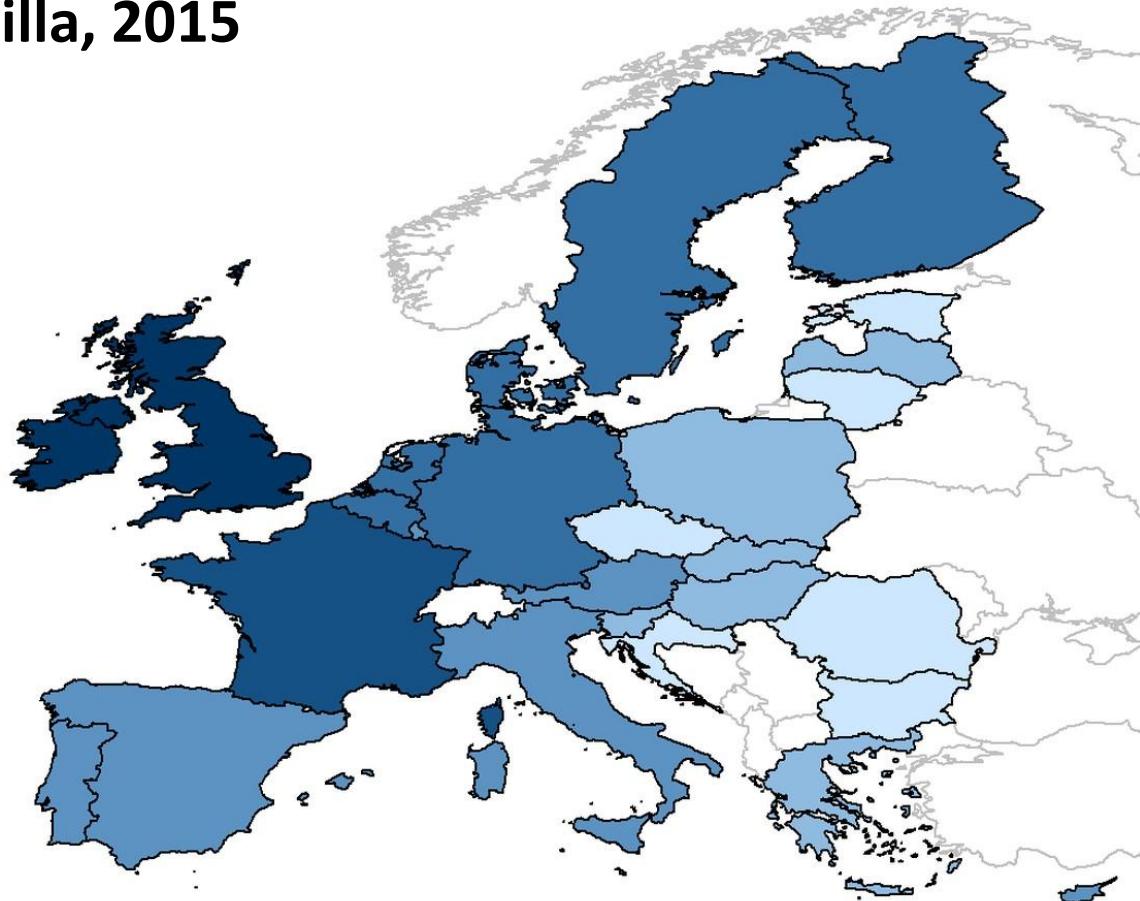
# Impuestos



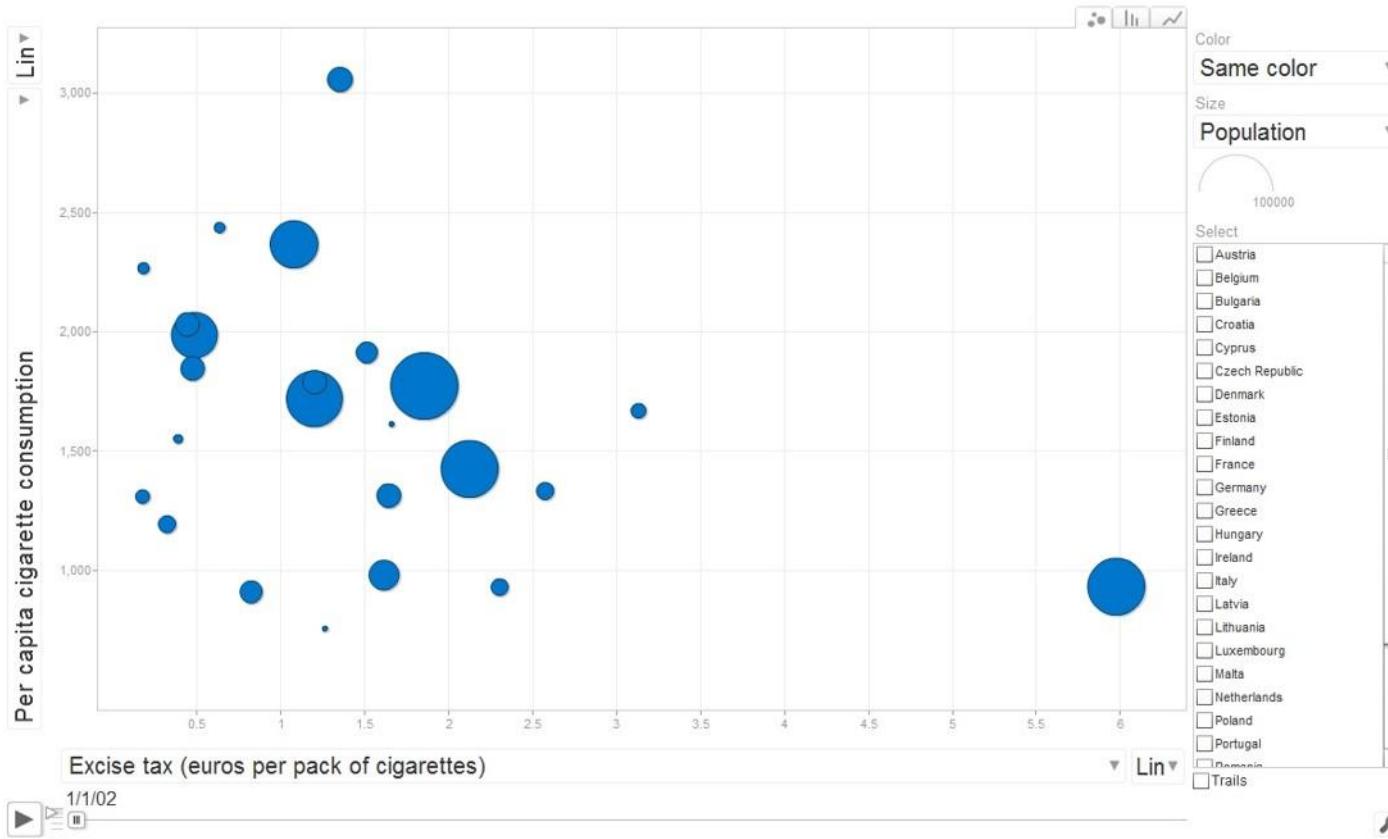
Más efectivos cuando se implementan como parte de un  
programa para el control del tabaco integral



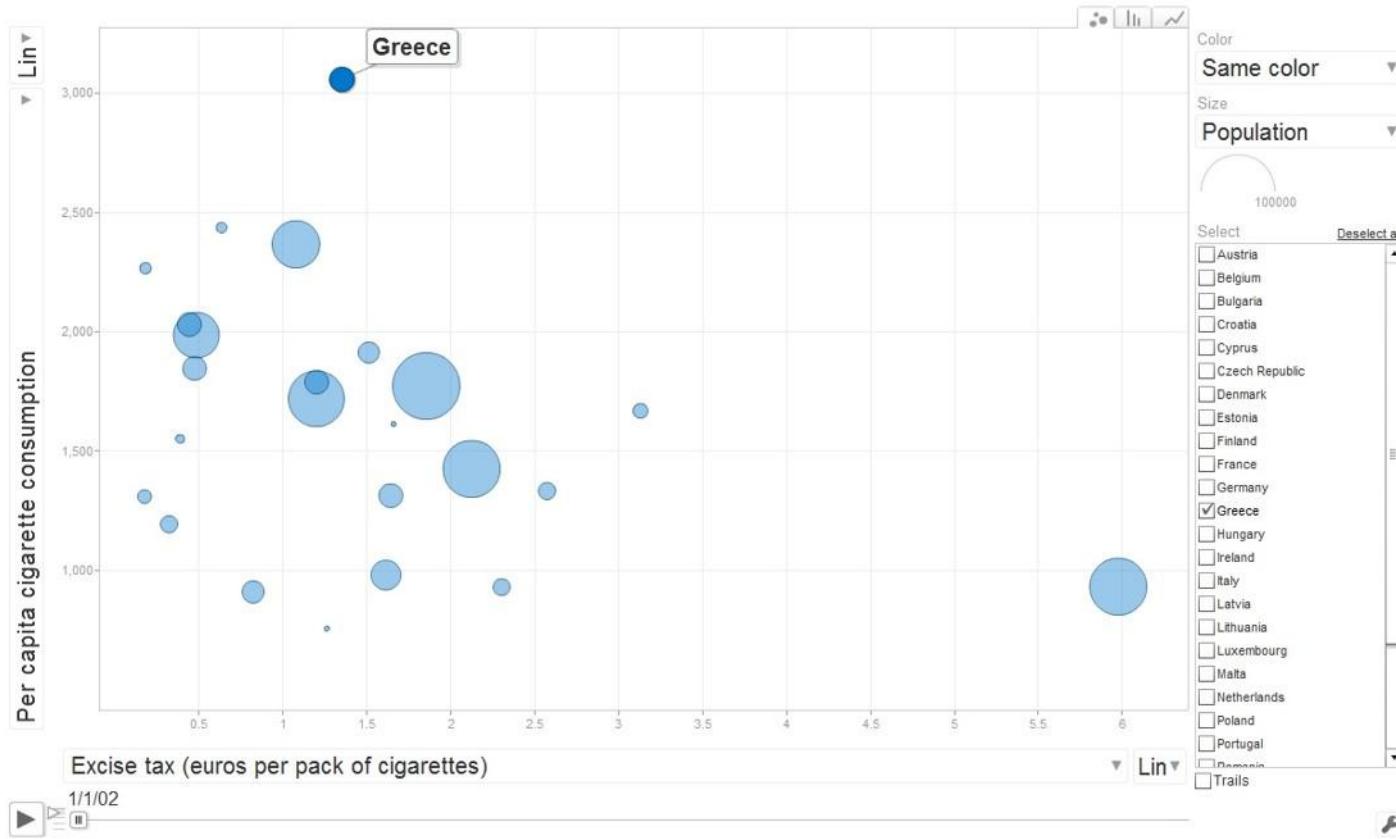
# Precio promedio de los cigarros en la Unión Europea, euros por cajetilla, 2015



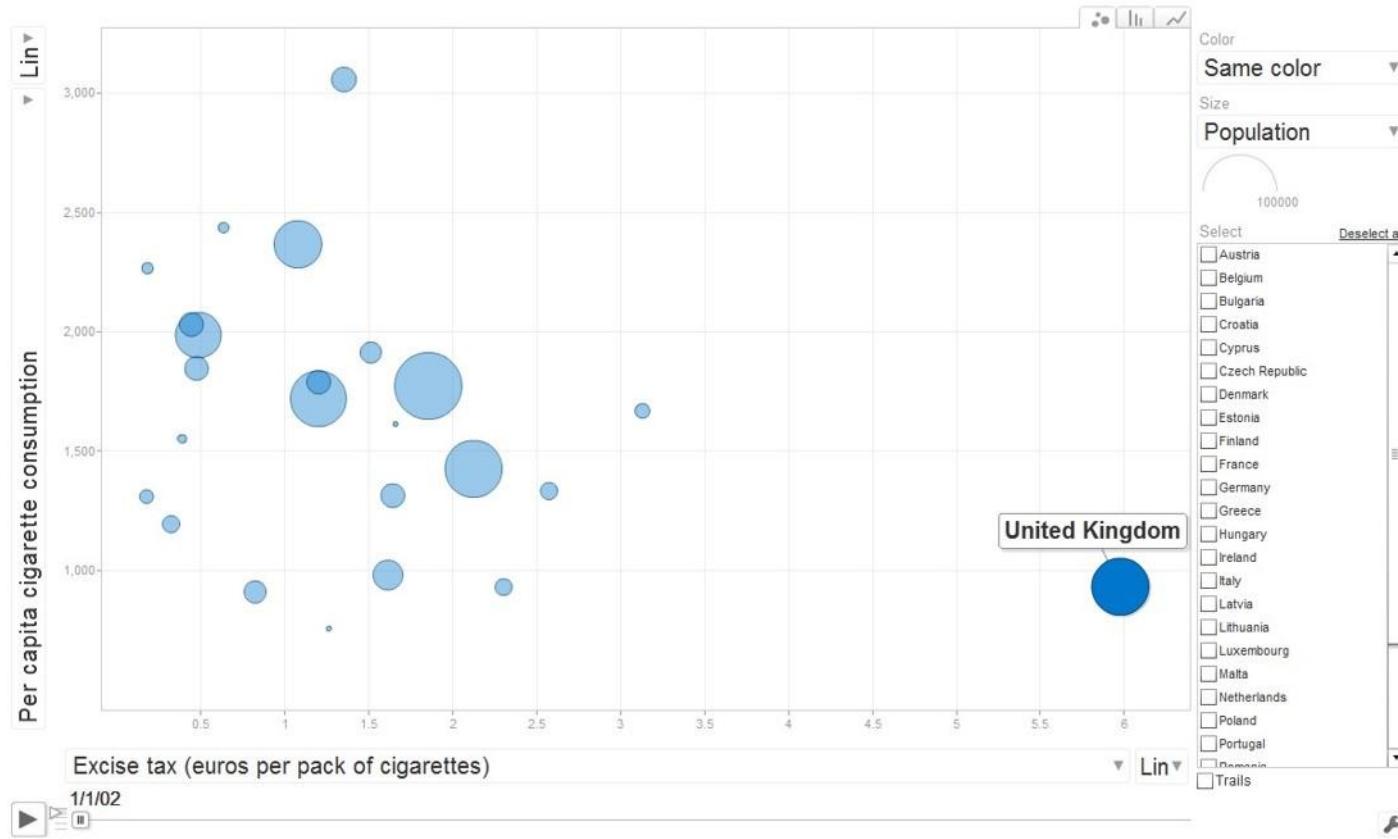
# Impuestos y consumo de cigarros en la Unión Europea



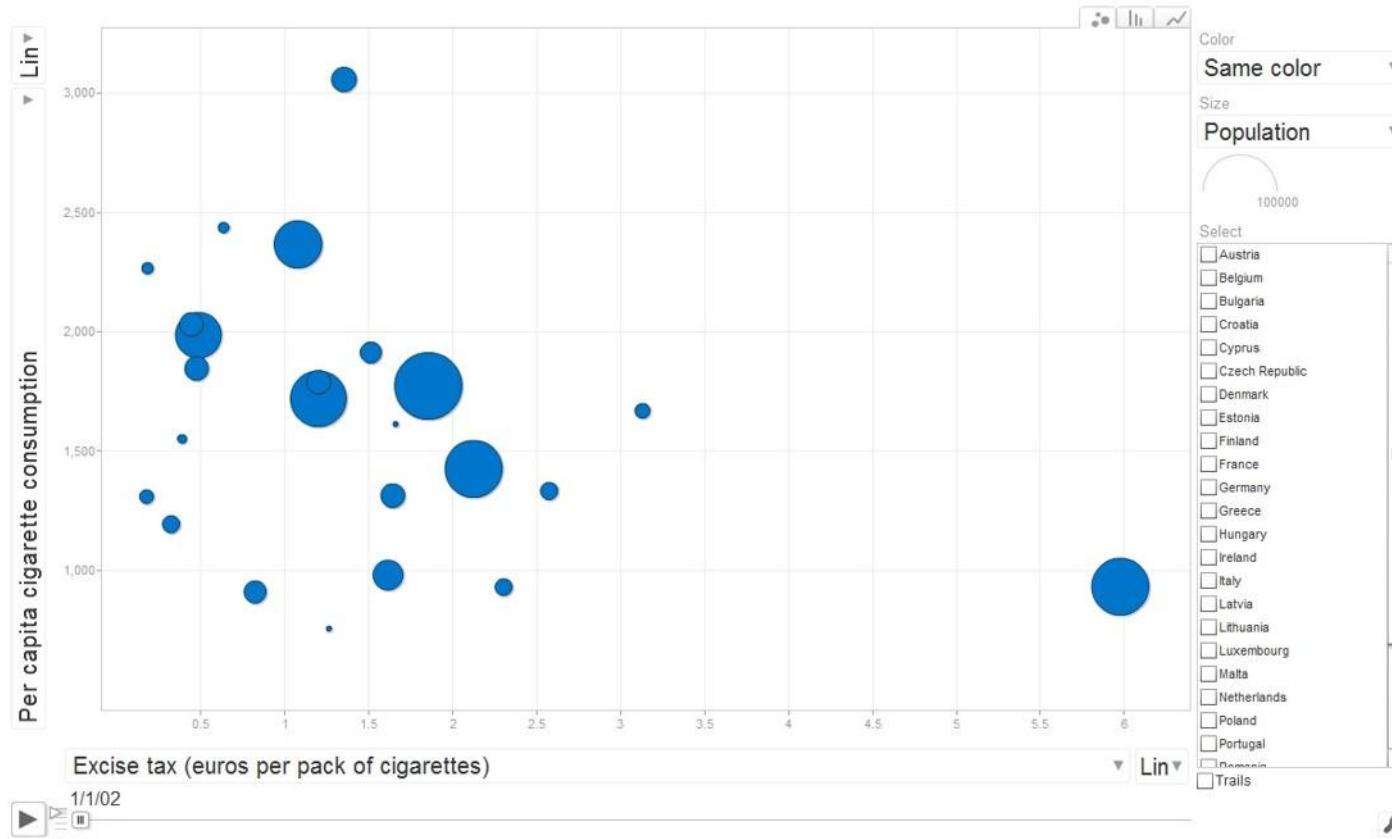
# Impuestos y consumo de cigarros en la Unión Europea



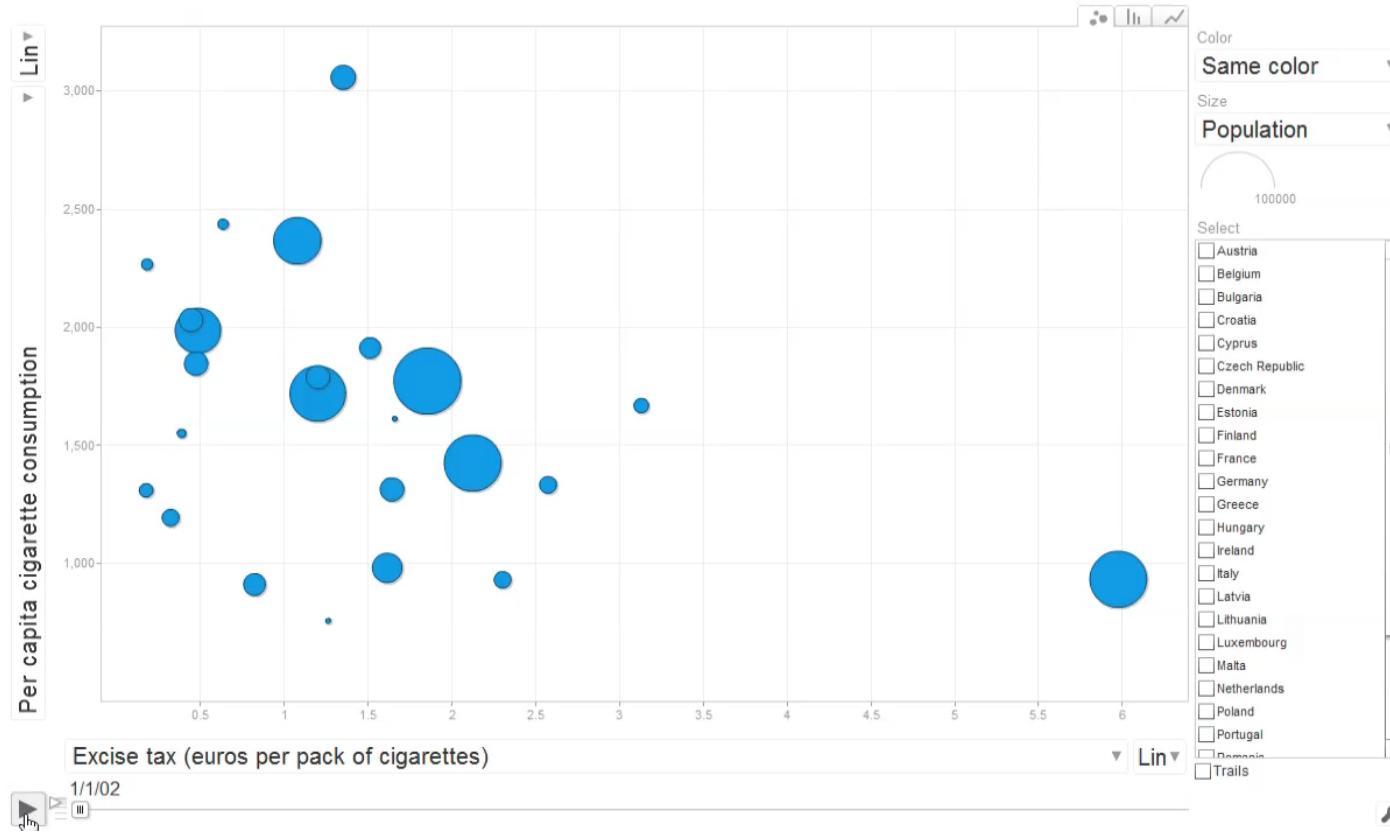
# Impuestos y consumo de cigarros en la Unión Europea



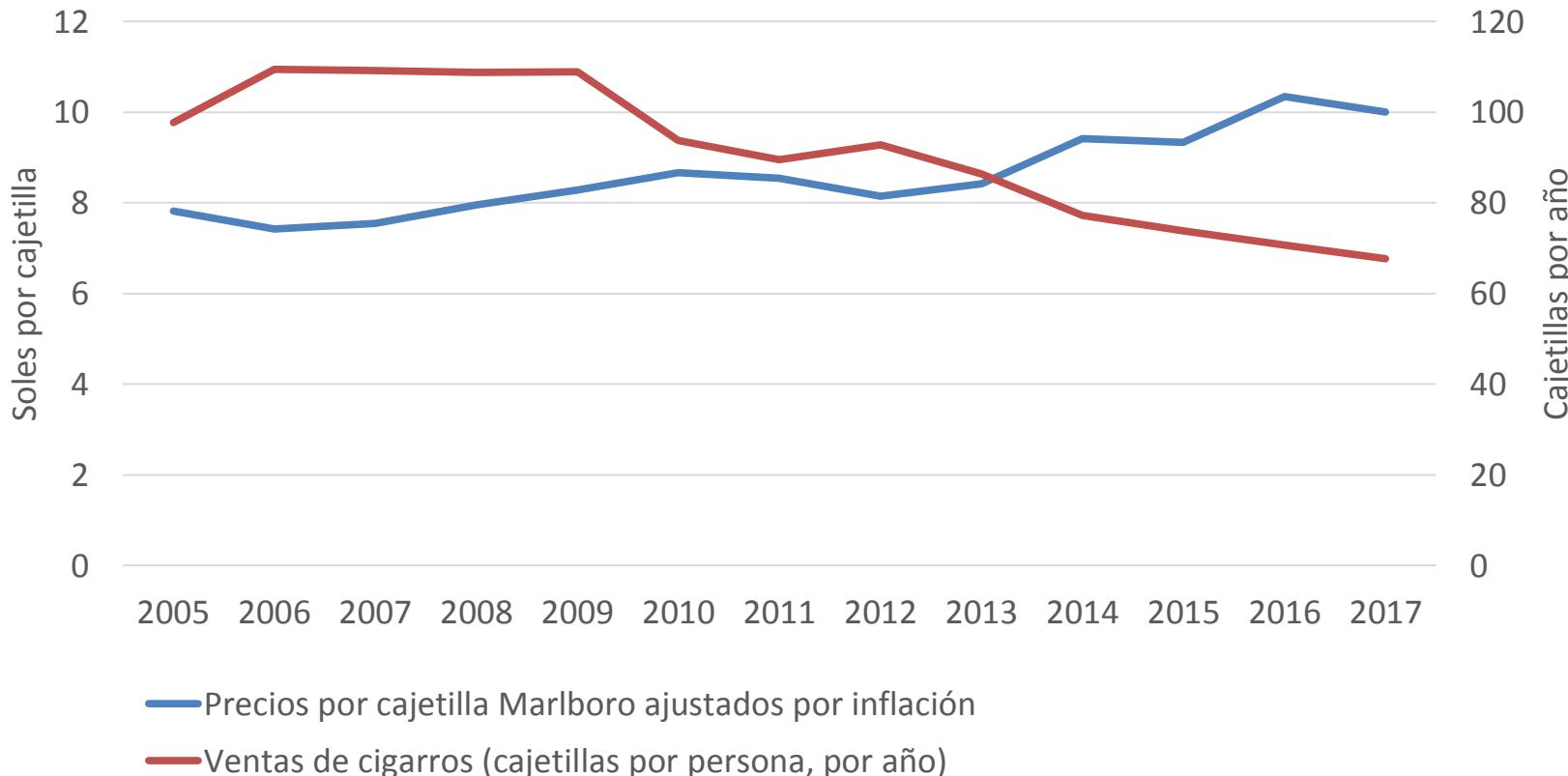
# Impuestos y consumo de cigarros en la Unión Europea



# Impuestos y consumo de cigarros en la Unión Europea

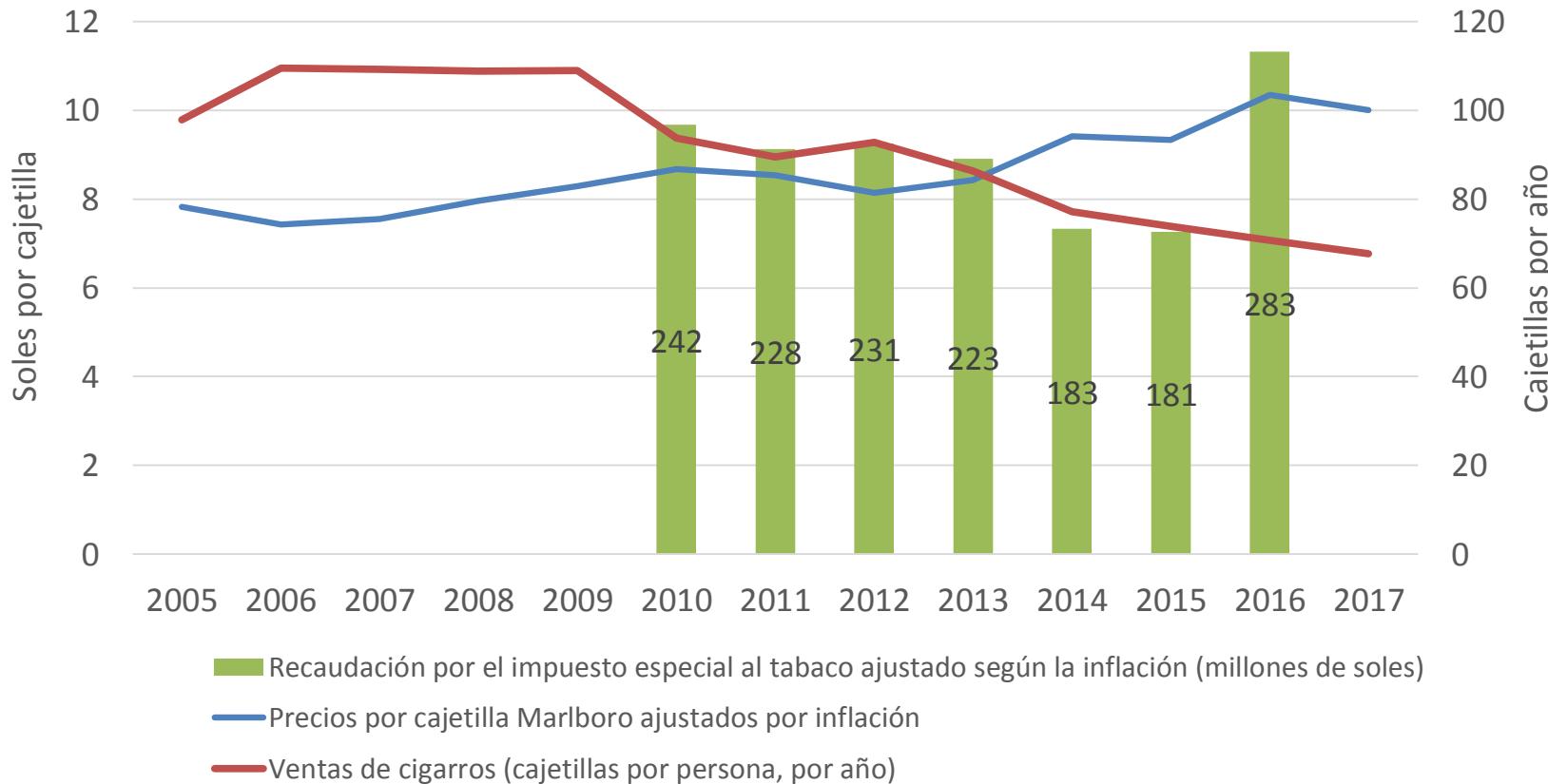


# Precios y ventas de cigarros en Perú



\* las ventas de cigarrillos para 2017 se pronostican. 2017 es el base para ajustados por inflación

# Precios y ventas de cigarros en Perú



\* las ventas de cigarrillos para 2017 se pronostican. 2017 es el año base para los ajustados por inflación

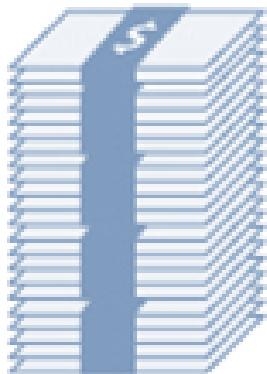
# Demand reduction by tax and price measures

## Price elasticities of prevalence, initiation and cessation of tobacco use

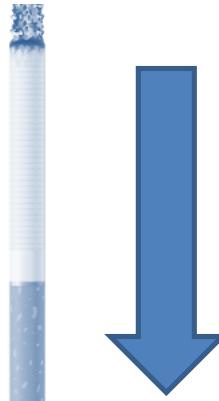


# Price elasticity for tobacco products

- The total price elasticity of demand for cigarettes in Bangladesh is  $-0.49$
- Most of the price effect result in smoking cessation
- The price elasticity of cigarette consumption is higher for people belonging to lower socioeconomic status.



Cigarette prices

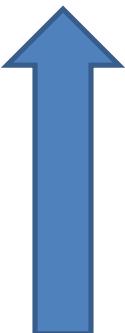


Cigarette sales

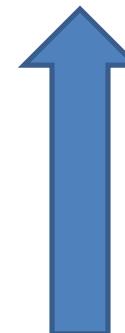
Source: Nargis, Nigar, et. al. "The Price Sensitivity of Cigarette Consumption in Bangladesh: Evidence from the International Tobacco Control (ITC) Bangladesh Wave 1 (2009) and Wave 2 (2010) Surveys." *Tobacco Control* 23, no. suppl 1 (March 1, 2014): i39–47.

# Cross-price elasticities across brands/products

- In Zambia, a method involving a system of equations found substitution of factory-made cigarettes for roll-your-own cigarettes in the event of increase in factory-made cigarette prices.



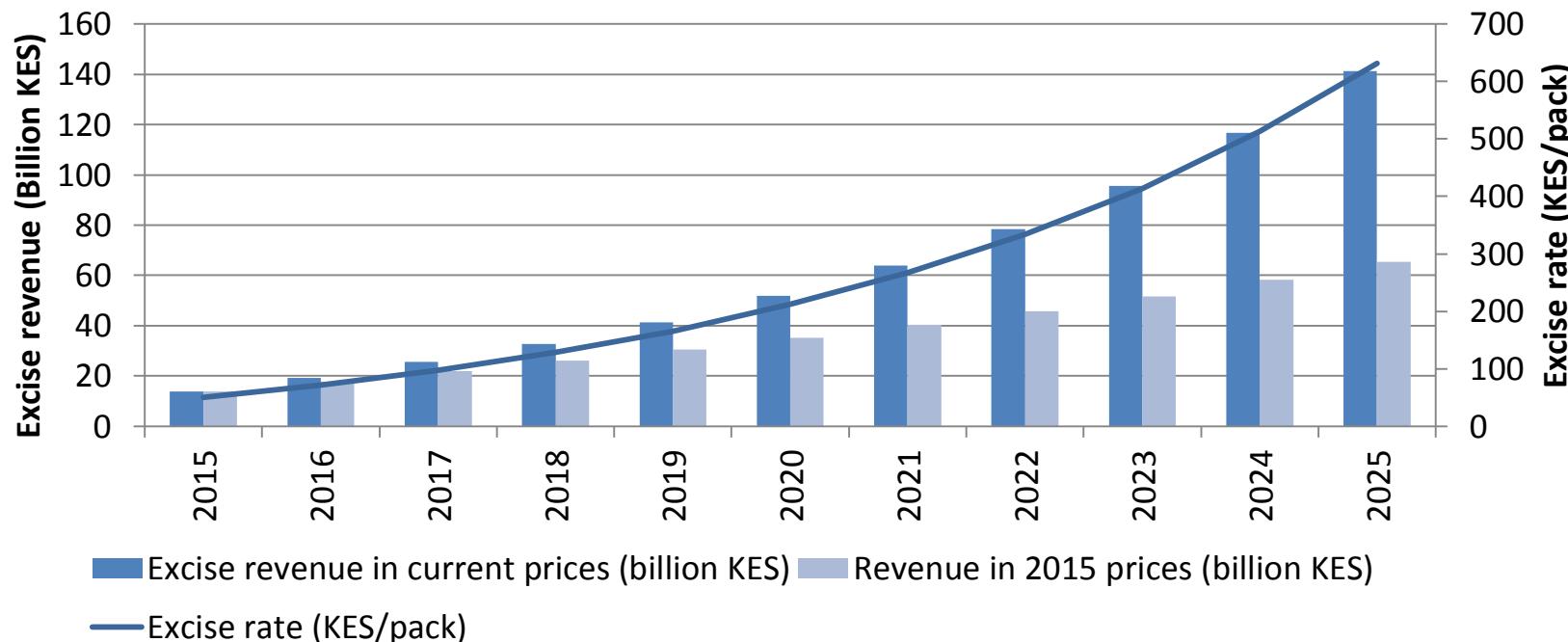
Cigarette prices



Roll-your-own tobacco sales

# Scenario analysis and simulations

Simulated revenue growth from cigarette excise tax increases in Kenya, 2015-2025



Source: Nargis N, Stoklosa M, Ikamari L, Ong'ang'o JR, Fong GT, Drole J, Kimosop V, Chaloupka FJ. Cigarette Taxation in Kenya at the Crossroads: Evidence and Policy Implications. (October 2015) University of Waterloo, Waterloo, Ontario, Canada.

# Supply reduction

Reliable measures to determine the magnitude of illicit trade



# El comercio ilícito de cigarros como argumento en contra de las políticas para el control del tabaco

”

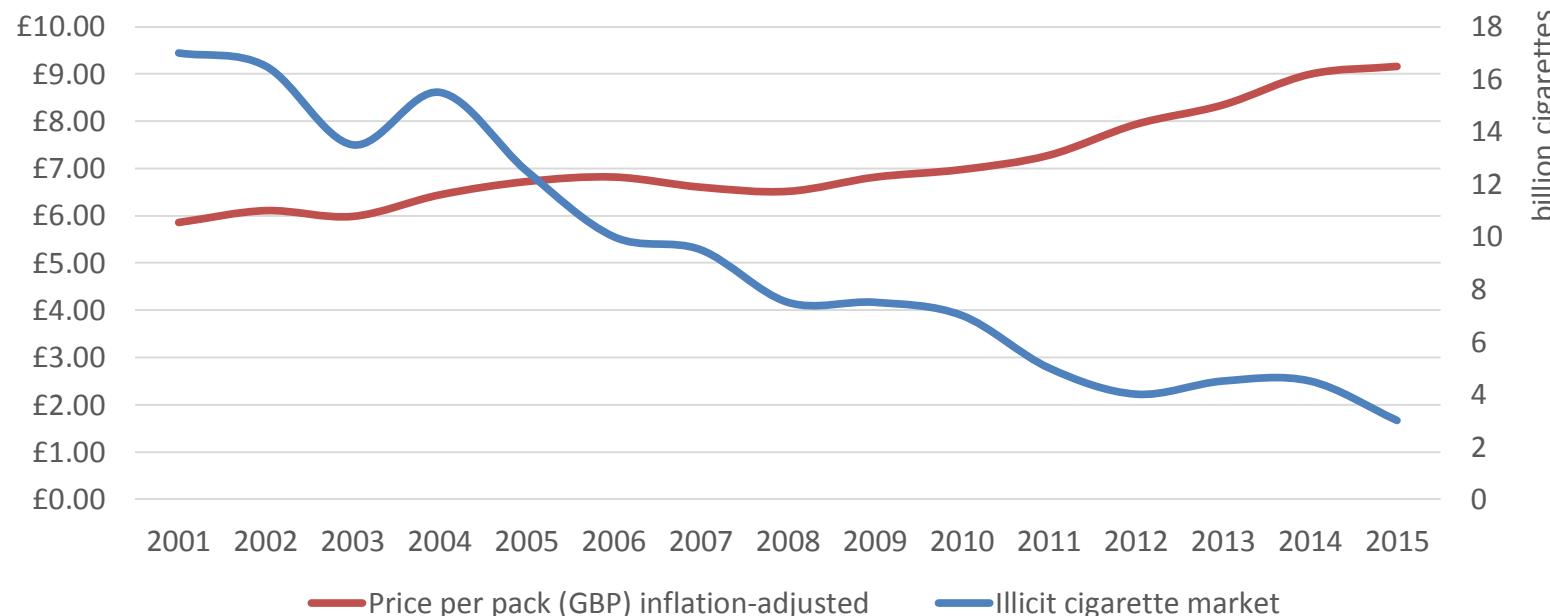
**Este incremento del impuesto es buena noticia para los criminales**, que ya ven al Reino Unido como el paraíso de los contrabandistas y no se preocupan por la edad de sus consumidores ”

—Japan Tobacco International, 2010



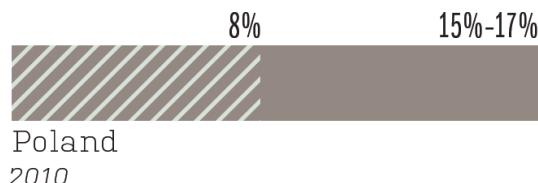
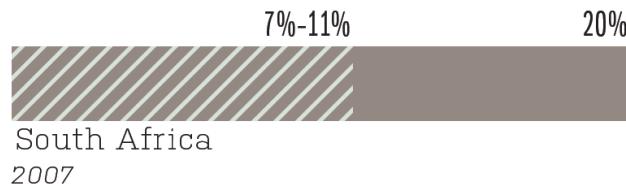
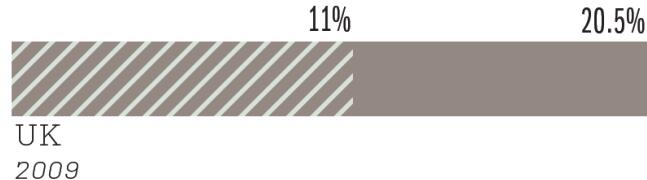
# El comercio ilícito de cigarros como argumento en contra de las políticas para el control del tabaco (cont.)

Cigarette prices vs. illicit market in the UK



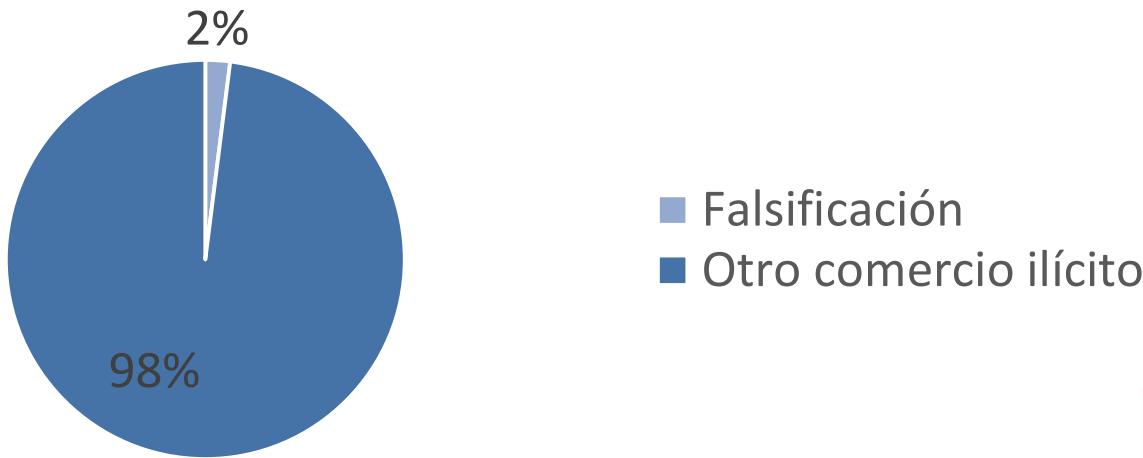
# La industria tiende a exagerar la magnitud del comercio ilícito de tabaco

Estimaciones de comercio ilícito de la industria vs. estimaciones de estudios académicos (comercio ilícito como porcentaje del consumo total)



# Las empresas tabacaleras se benefician del comercio ilícito de cigarros

Composición del comercio ilícito global de acuerdo con  
Philip Morris International, 2013



# Las empresas tabacaleras se benefician del comercio ilícito de cigarros – el caso de Ucrania (cont.)

“Desde el punto de vista de una compañía que operaba en el mercado, la producción de artículos adicionales significaba mayores ganancias”

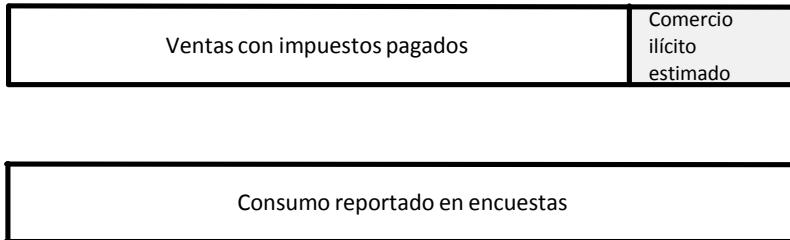
— Dmytro Redko, Director de Asuntos Corporativos para JTI Ucrania



# Reliable measures of illicit cigarette trade



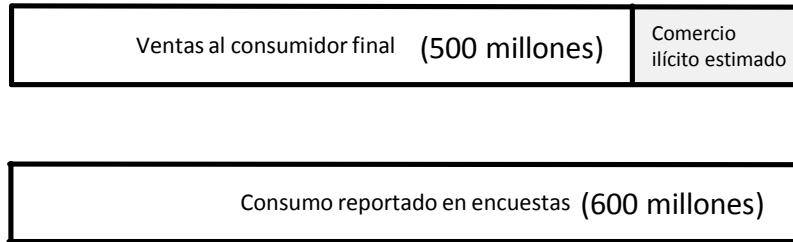
# Comparando las ventas de tabaco con el consumo reportado – Análisis de diferencias



- Los datos de encuestas proveen una estimación del consumo total en el área que cubre la misma, mientras que las ventas proveen una estimación del consumo legal.
- La diferencia entre estas dos medidas indica la extensión de la evasión y la elusión fiscal.



# Comparando las ventas de tabaco con el consumo reportado – Análisis de diferencias (cont.)



- Ejemplo:
  - Las encuestas reportan: prevalencia de fumadores de 20%, cada fumadores con un consumo de 3,000 cigarros por año, en promedio.
  - En un país con 1 millón de personas, significa que hay 200,000 fumadores ( $1\text{ millón} \times 20\%$ ) y que el consumo total reportado en la encuesta es de 600 millones ( $200,000 \times 3,000$ ).
  - Si las ventas fueron de 500 millones, entonces el mercado ilícito es de 100 millones o 17%.

# Revisión de cajetillas

- Sellos fiscales
- Advertencias sanitarias
- Información de precios y/o contenidos faltante (si la ley lo requiere)
- Marcas que señalan ventas libres de impuestos (duty-free)
- Otras características



# Revisión de cajetillas (cont.)

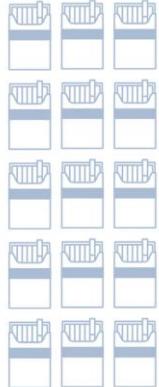
Revisión de  
cajetillas

Revisión de  
cajetillas  
desechadas

Revisión de  
cajetillas de  
fumadores



**14.6%**



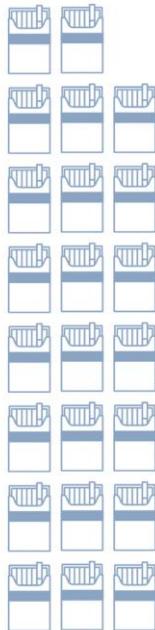
Survey of packs  
presented by smokers

**15.6%**



Survey of littered  
packs

**22.9%**



Survey of littered  
packs

## Our studies

## Tobacco industry study

# Estudio en Varsovia Resultados

# PENETRACIÓN DEL CONTRABANDO EN 5 CIUDADES

3.5%



8,9%

JET

GOLDEN  
DEER

Cartagena

23,7%

D&J

DJARUM

Cúcuta

3,4%

WIN

GOLDEN  
DEER

Medellín

1,5%

MONTRÉAL

JET

Bogotá

Cali

3,9%

JET

MODERN

LAS 5 CIUDADES  
REPRESENTAN  
EL 63% DEL  
CONSUMO URBANO  
DE CIGARRILLOS

Mediana del precio  
cigarrillos sueltos \*

LEGAL: \$300

ILEGAL: \$167

## Estudio en Colombia Resultados

# Estudio en México



# Situation analysis and mapping

## Economic costs of tobacco use



” Health is the obvious starting point for an enquiry into wellbeing. You need a life to have a **good** life...”

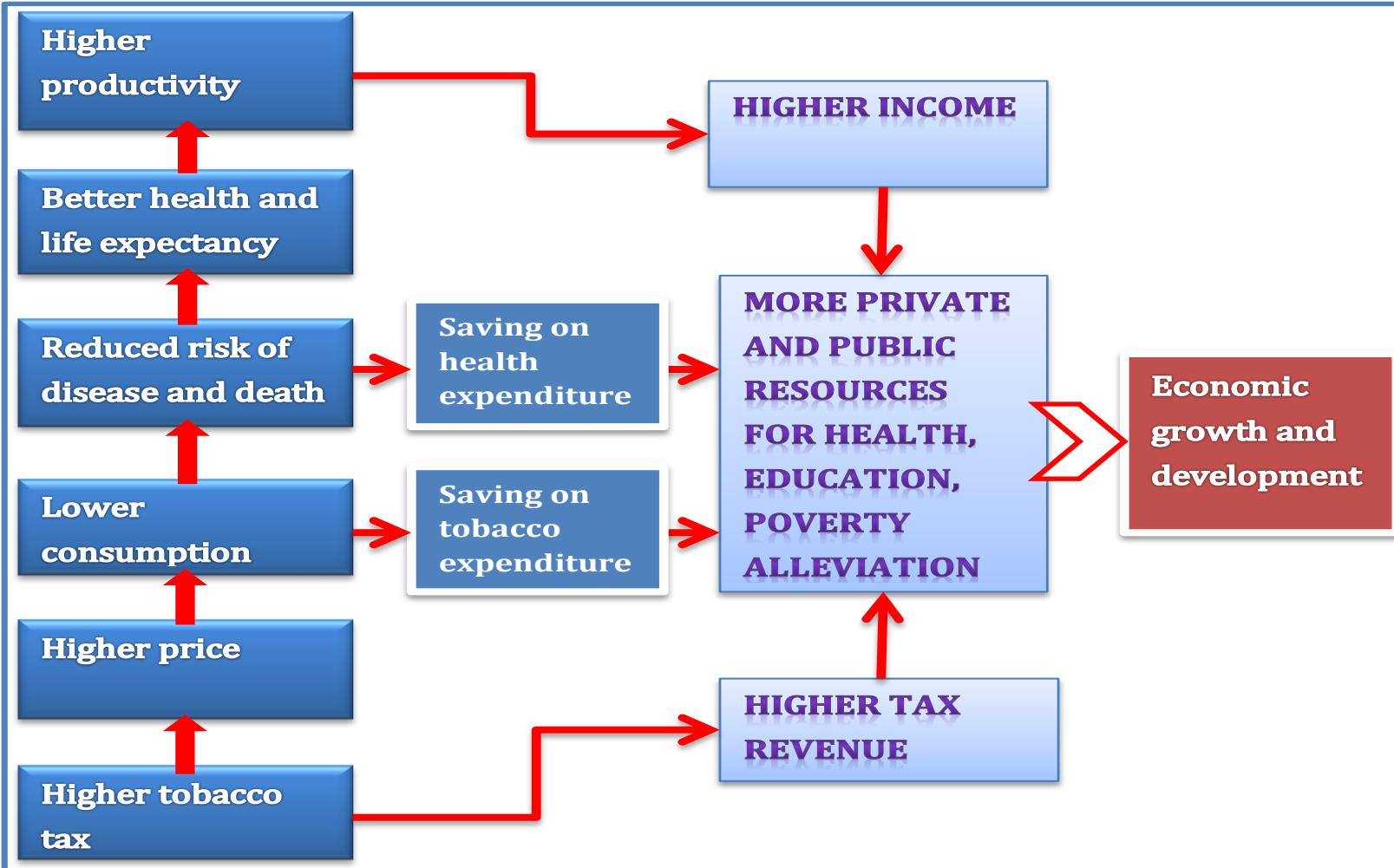
- Angus Deaton, Nobel Memorial Prize in Economic Sciences, 2015



# Health improvements are DEVELOPMENT

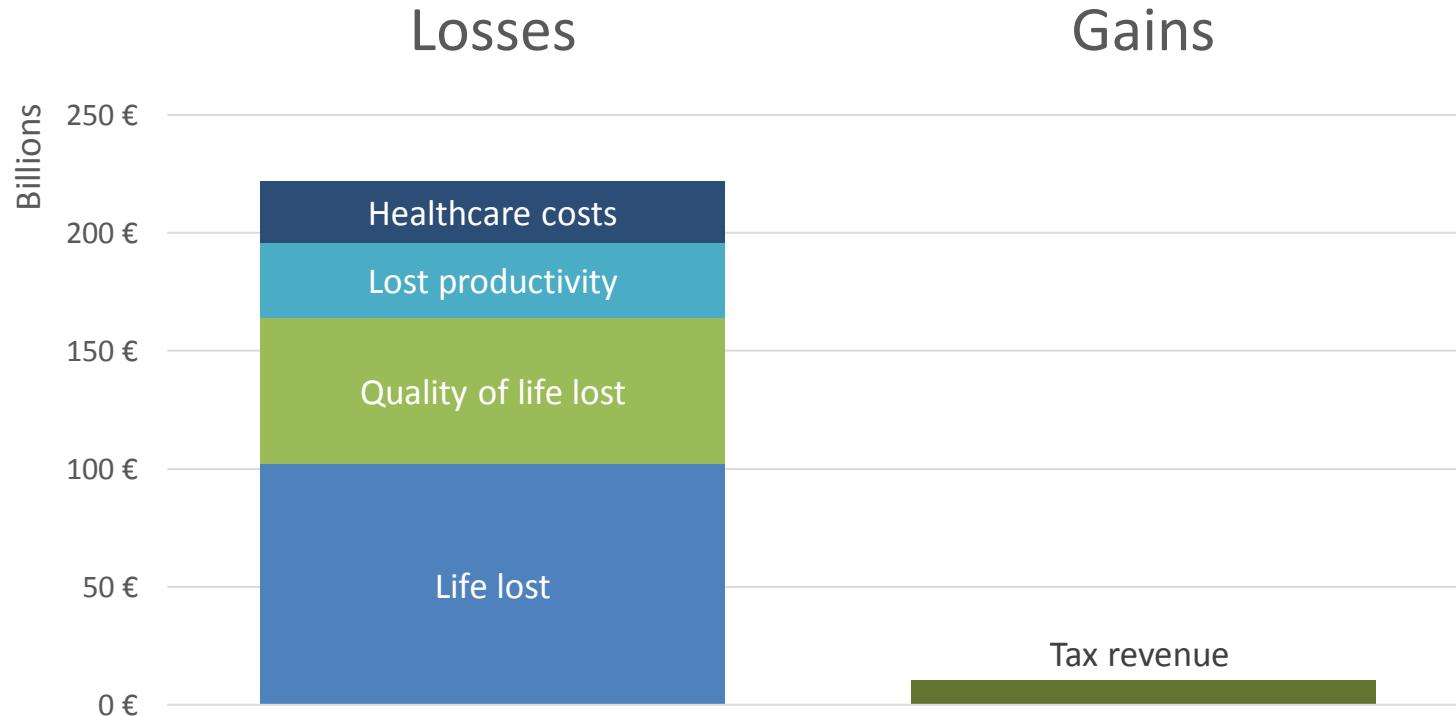


Tobacco control  
interventions  
save money  
in the long term

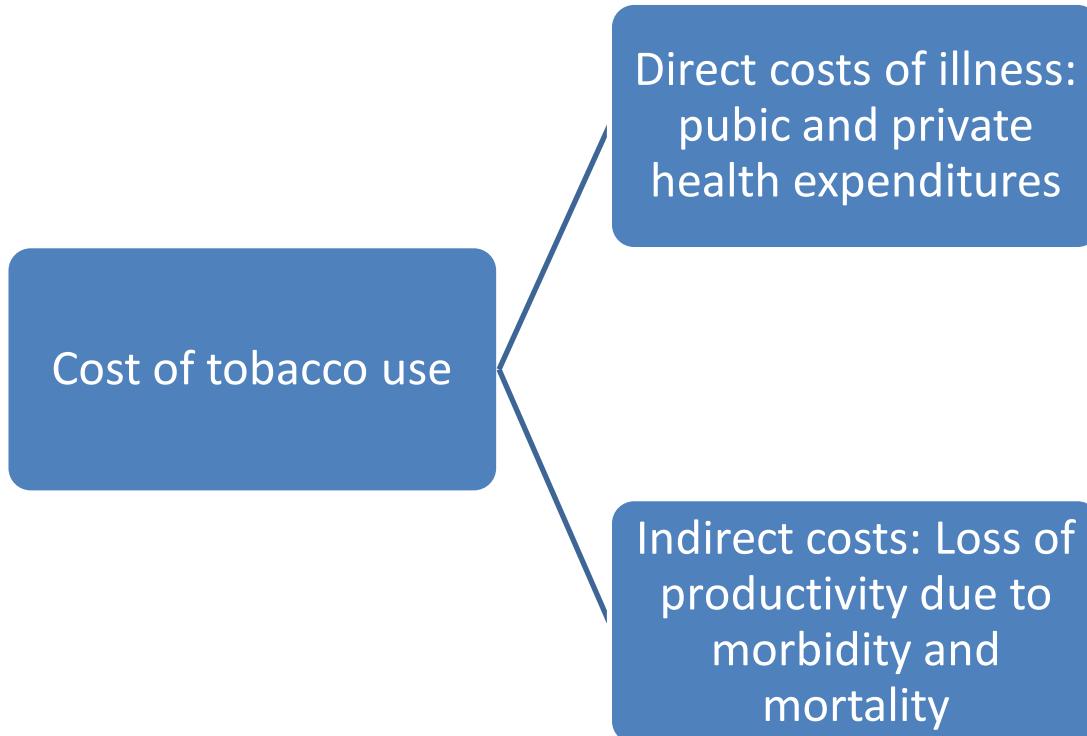


# Tobacco Control Leads to Social Gains

Social Costs of Smoking in France, 2010



# Global economic cost of smoking-attributable diseases



**PPP\$ 499 billion  
globally in 2016**

**PPP\$ 1520 billion  
globally in 2016**

# Economic cost of smoking-attributable diseases in Peru

- A study based on recent Peru-specific data could produce updated estimates of smoking-attributable costs.
- These estimates will almost certainly demonstrate that the costs are increasing.



# Economic and other implications of tobacco control

## Impact of tobacco use on poverty



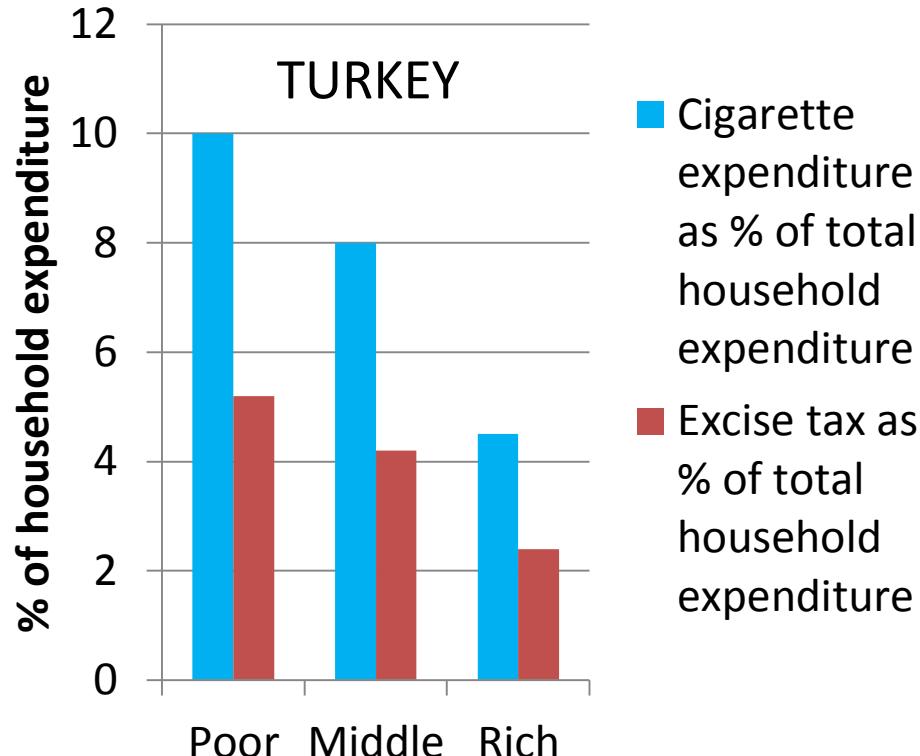
# What is regressivity of tobacco tax?

- The poor pay a higher share of their income in tax than the rich.
- The tax burden is disproportionately larger for the poor.



# What is regressivity of tobacco tax?

When tax is imposed on the goods that form a larger share of household expenditure for the poor than the rich, the tax becomes regressive.



Source: Önder and Yurekli, 2014.

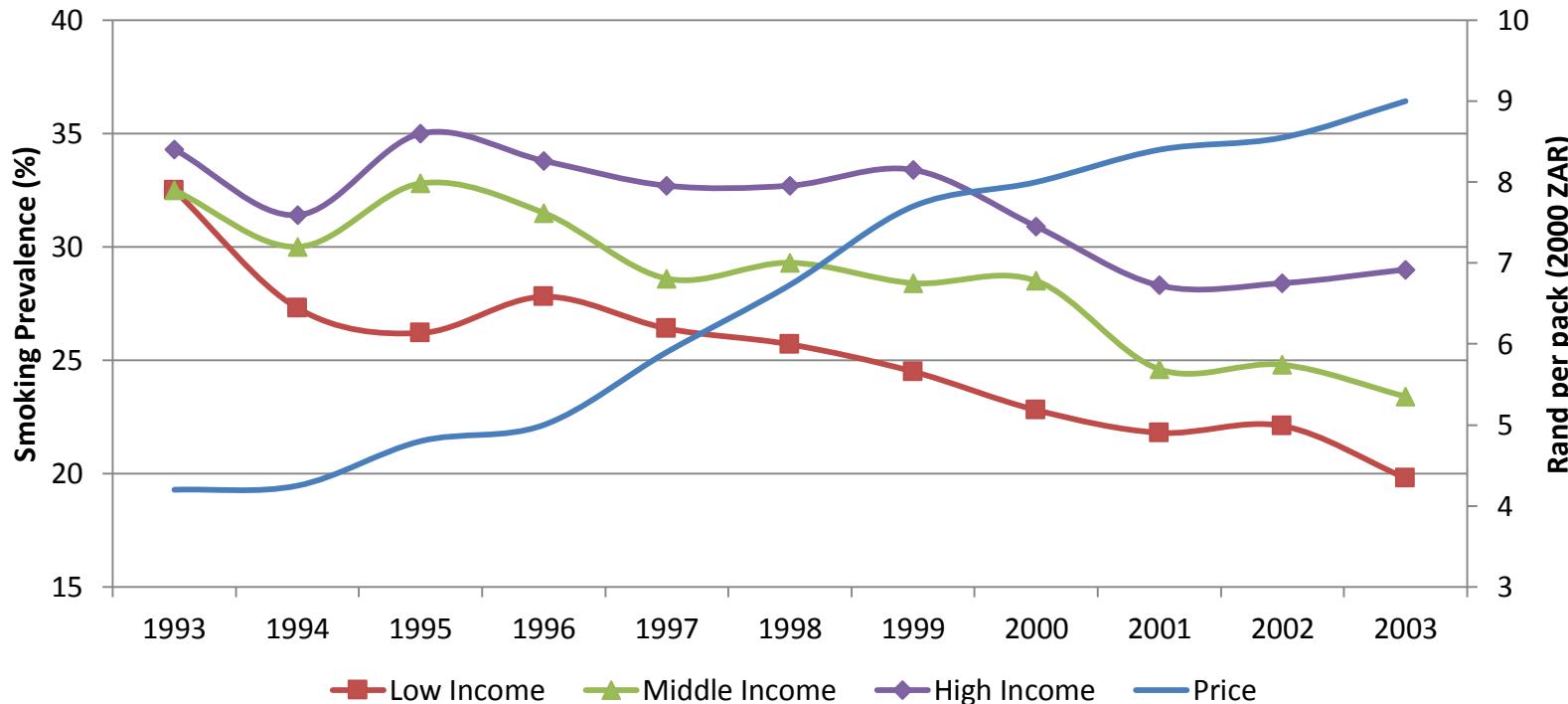
# Are tobacco tax increases regressive?

- Depends on how the poor and the rich will change tobacco consumption in response to tax-induced price increase.
- If poor are more price sensitive,
  - They reduce consumption more.
  - They make greater health benefits.
  - The tax burden is shifted to the rich.
  - Tobacco tax increase may not be regressive.
- The results from studies from low- and middle-income countries are mixed



# Are tobacco tax increases regressive?

- Cigarette prices and smoking by income group in South Africa; 1993–2003



# Why are the poor not always more price sensitive?

- Downward substitution due to
  - Availability of cheaper brands of the same product
  - Availability of cheaper substitutes (e.g. smokeless tobacco for smoked tobacco products)
- Preferential tax treatment of cheaper products
  - Complex tiered tax structure imposing lower or no tax on cheaper tobacco products
  - Does not necessarily alleviate regressivity, but jeopardizes the marginal progressivity of tax increases

# Opportunity cost of continued tobacco use by the poor after tax increase

- The poor can reallocate expenditures from basic necessities to tobacco to maintain the consumption of tobacco
  - China: evidence of reduction in food and non-food items (Wang et al, 2006)
  - Bangladesh: During 1992–1996, the average male smoker spent more than twice as much on cigarettes as he spent on clothing, housing, health, and education combined (Efroymson et al, 2001)
- Outcome: Reduction in quality of life and welfare of the poor

# Conclusions and Policy Implications

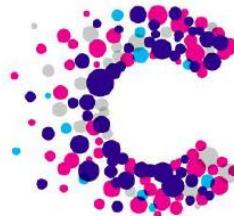
- The tax system needs to be uniform to minimize the variability of price and the probability of downward substitution.
- The burden of the additional revenue collected from tax increases falls mostly on the rich.
- Tobacco tax policy needs to be part of a comprehensive tobacco control program.





Tax tobacco. Save lives.

A partnership between



CANCER  
RESEARCH  
UK