

Adult and Youth Smoking Rates, a measure of the effectiveness of tobacco product regulation?

STEVE J. STOTESBURY (1); CASSIE McCORMICK(1); THOMAS VERRON (2);
HENRIETTA S. HUNTER (1)

1. Imperial Tobacco Limited, Winterstoke Road, Bristol BS3 2LL, U.K.
2. SEITA, Imperial Tobacco Group, 48 rue Danton, 45404 Fleury-les-Aubrais, France

Recap: Why are smoking rates important?

The relationship between adult smoking rates and regulation

To consider adult and youth smoking rates...

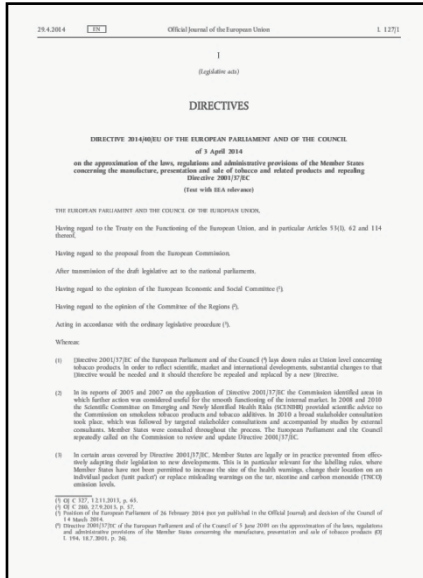


- Also referred to as 'prevalence' – percentage of smokers in the population
- Derived from population surveys
- Sources referenced – ESPAD* and EUROMONITOR unless stated
- Data available for Regular and Occasional smokers. Youth definition varies
- This presentation will focus throughout on REGULAR ADULT and DAILY 15 - 16 Year old smokers
- Cultural/historical differences (especially women smokers)
- No differentiation between domestic, cross-border or illicit
- **The primary goal of tobacco control policy is to reduce smoking prevalence**

*ESPAD = The European School Survey Project on Alcohol and Other Drugs Reports 1995 to 2011

Public Policy - Success criteria

EU-TPD Review

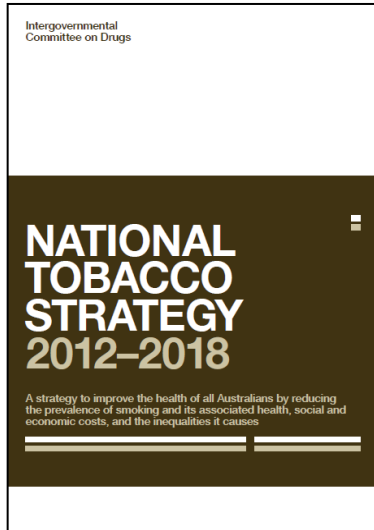


“...a high level of health protection should be taken as a base for legislative proposals ... in particular, **to reduce smoking prevalence among young people**”

European Tobacco Product Directive – 2014/40/EU Recital 8

Public Policy - Success criteria

Australian National Tobacco Strategy 2012-2018



“...the Council of Australian Governments committed to the following performance benchmark: 'By 2018, reduce the national smoking rate to 10 per cent of the population...’.”

“Progress against this performance benchmark will be measured by reference to the adult daily smoking rate. This ... forms the basis for the targets adopted in this strategy.”

Public Policy - Success criteria

‘Tobacco-free’ by 2025

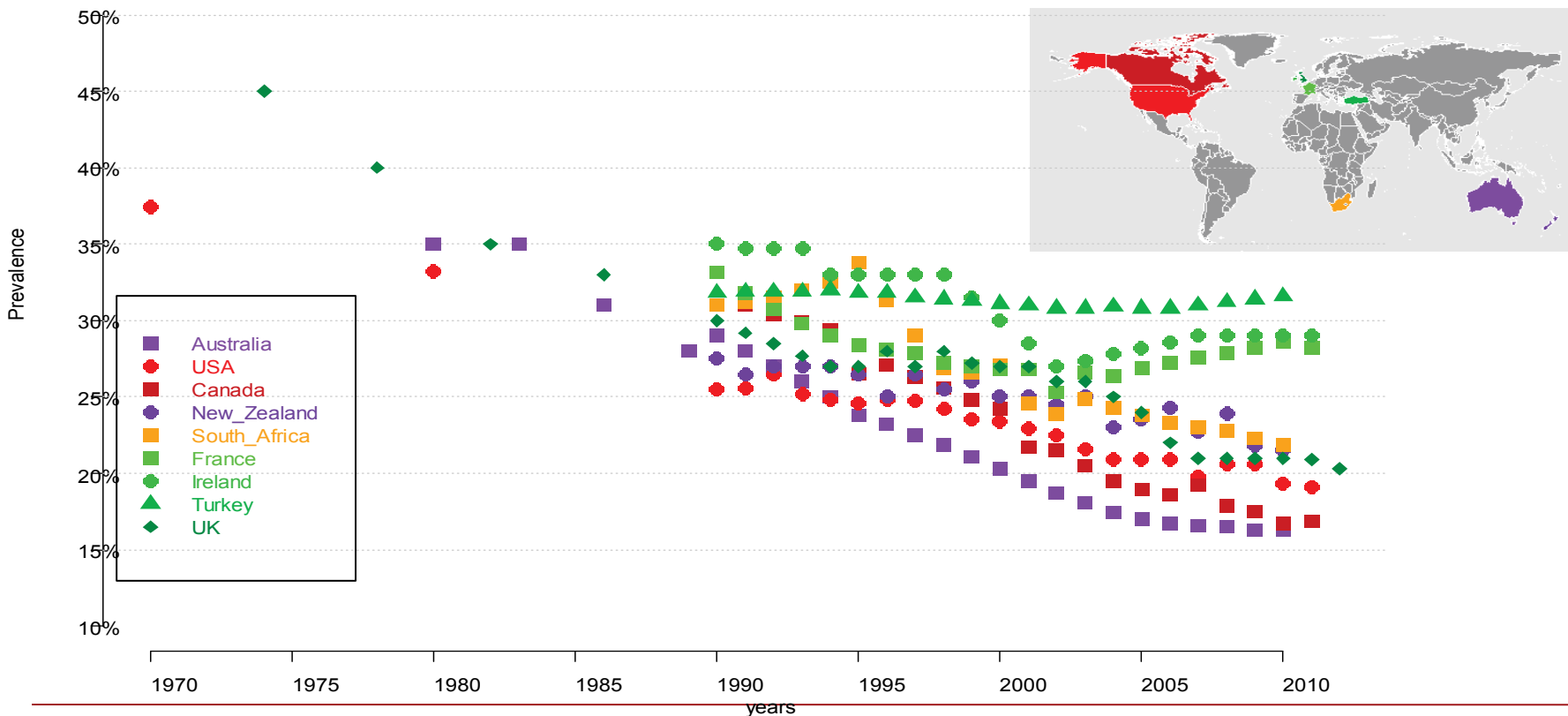


New Zealand - March 2011: Adopts the Smokefree 2025 goal (<5% incidence) for New Zealand. To achieve this goal, by 2018, daily smoking prevalence must fall to 10%



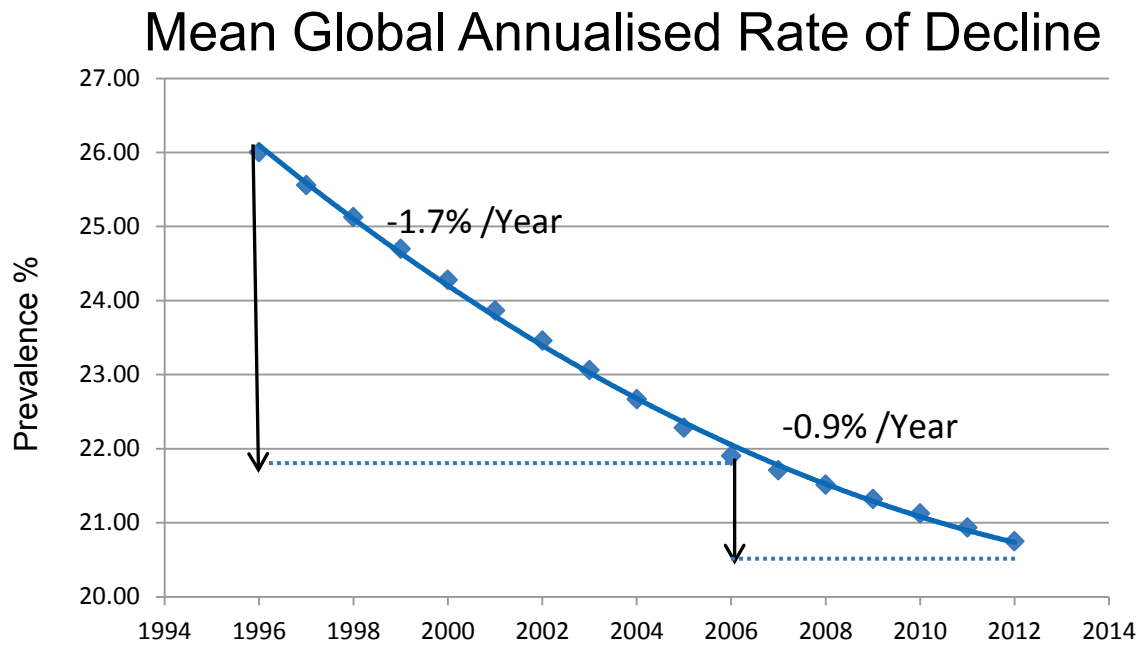
Ireland – October 2013: James Reilly, The Irish health minister publishes a plan to make the state "tobacco-free" by 2025. "Tobacco-free" defined as when less than 5% of the population smoke

Trends in Smoking Prevalence



Smoking Prevalence and Cigarette Consumption in 187 Countries, 1980-2012

- Between 1980 to 2012 smoking prevalence* in +15 year-olds decreased:
 - 41.2% to 31.1% for men
 - 10.6% to 6.2% for women
- Mean annualised rate of decline:
 - 1996 to 2006 -1.7% /year
 - 2006 to 2012 -0.9% /year



Smoking Prevalence and Cigarette Consumption in 187 Countries, 1980-2012

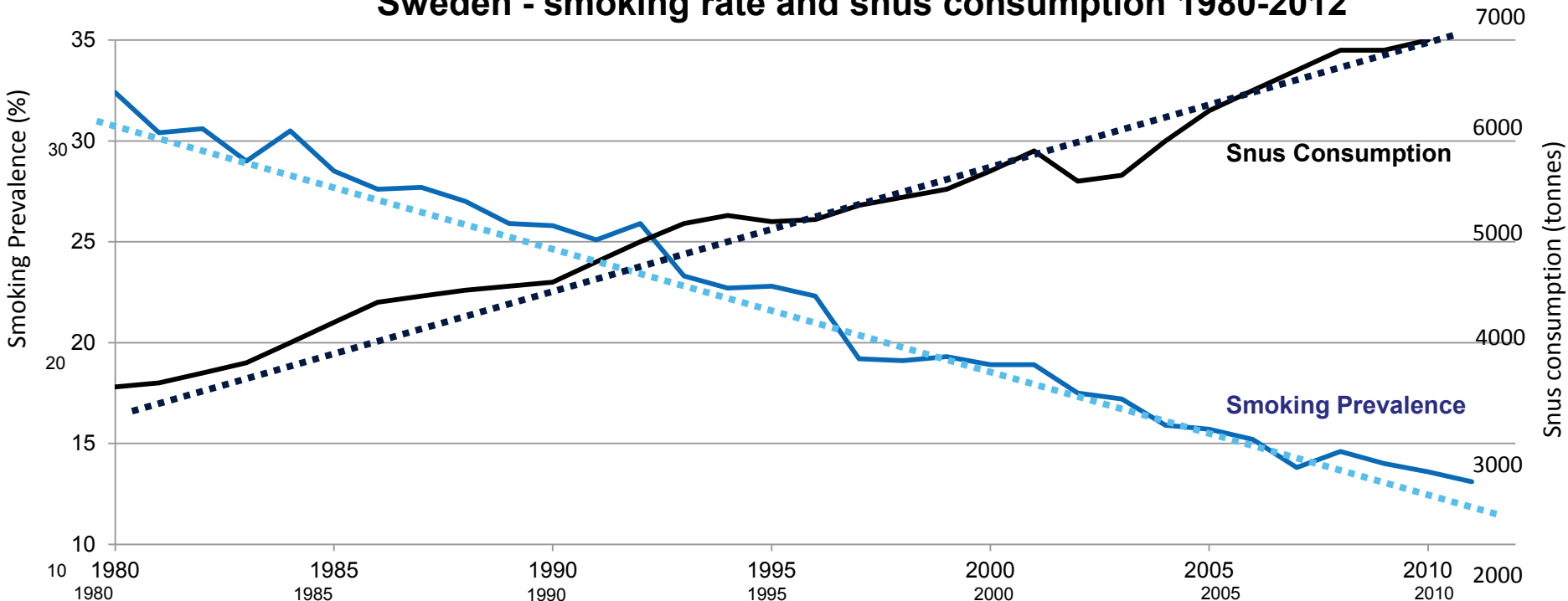


Authors' Conclusions:

- Global modelled prevalence declined at a faster rate from 1996 to 2006 compared with the subsequent period from 2006 to 2012.
- Despite the decline in modelled prevalence, the number of daily smokers increased from 721 million in 1980 to 967 million in 2012
- Implementation of FCTC policies is not enough; the global health community needs timely, reliable, and detailed information **on the effect of those policies**
- The **monitoring of changes in tobacco prevalence** as new policies are adopted and implemented is of critical importance
- **As tobacco remains a threat to the health of the world's population, intensified efforts to control its use are needed**

Sweden – smoking and snus

Sweden - smoking rate and snus consumption 1980-2012



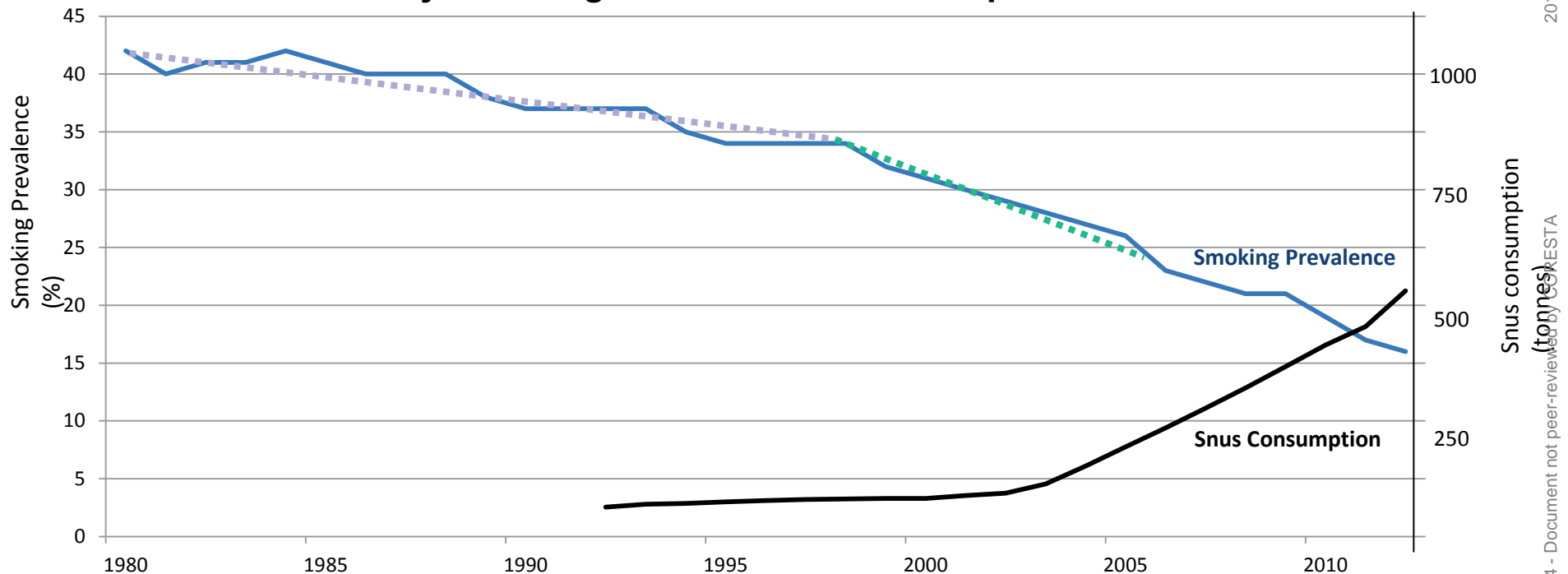
Source: Snus Consumption - Swedish Match; Smoking Data - Swedish Central Bureau of Statistics

From: S J. Stotesbury, T. Verron, H.S. Hunter, CORESTA SSPT Meeting, 2013;

http://www.imperialtobaccoscience.com/files/pdf/smokeanalysis/denormalisation_smoking_rates_and_the_way_ahead_for_tobacco_product_regulation.pdf

Norway – smoking and snus

Norway: smoking rate and snus consumption - 1980 - 2013



Source: Statistics Norway

From: S J. Stotesbury, T. Verron, H.S. Hunter, CORESTA SSPT Meeting, 2013;

http://www.imperialtobaccoscience.com/files/pdf/smokeanalysis/denormalisation_smoking_rates_and_the_way_ahead_for_tobacco_product_regulation.pdf

Relationship between Adult and Youth smoking prevalence rates and regulation

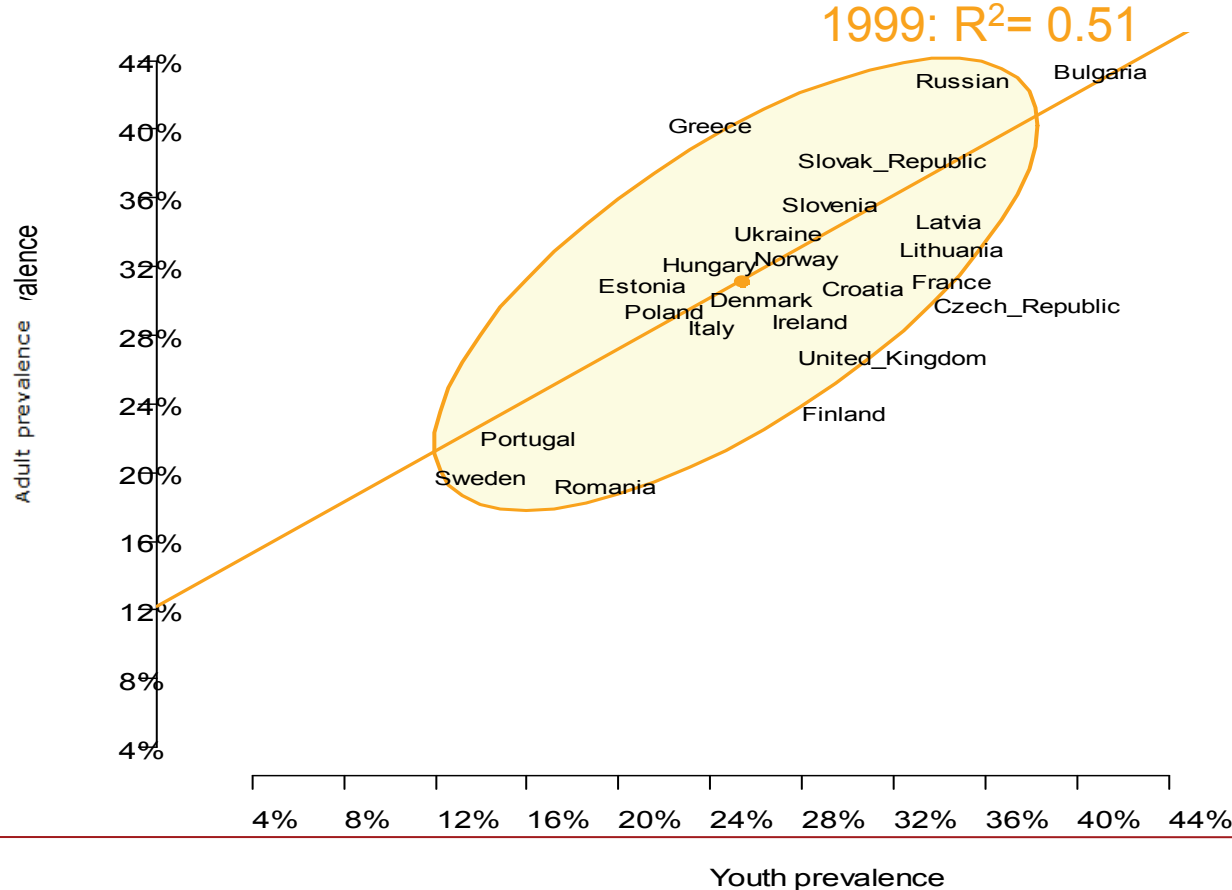
Adult vs Youth Prevalence 1999

1999

2003

2007

2011



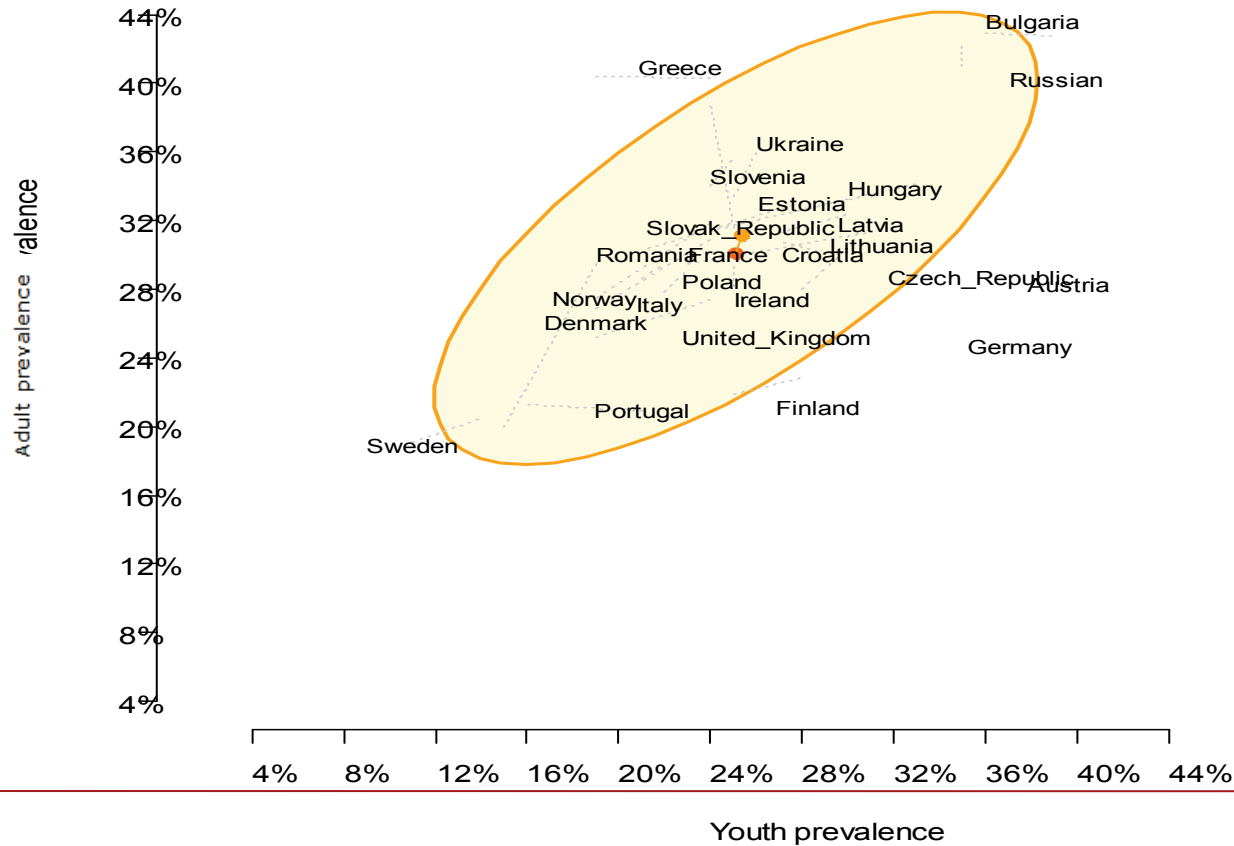
Adult vs Youth Prevalence 2003

1999

2003

2007

2011



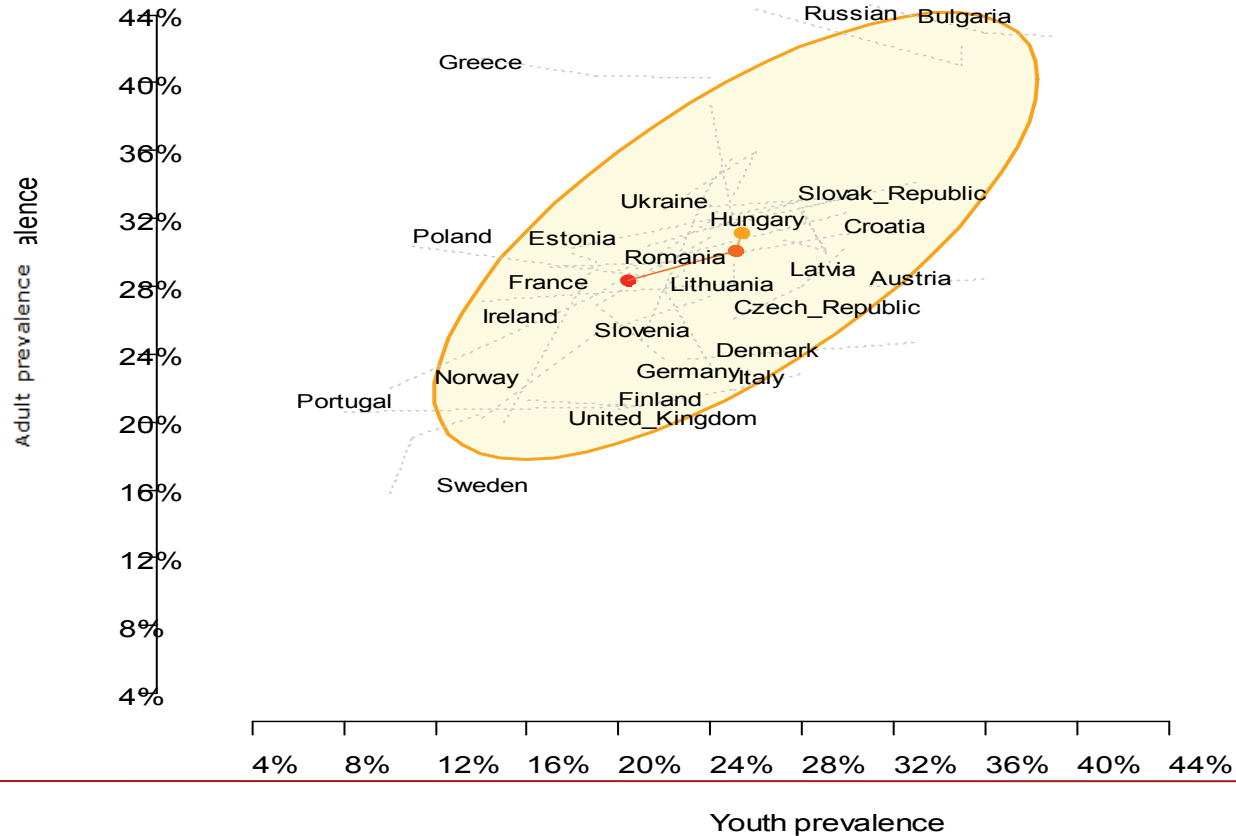
Adult vs Youth Prevalence 2007

1999

2003

2007

2011



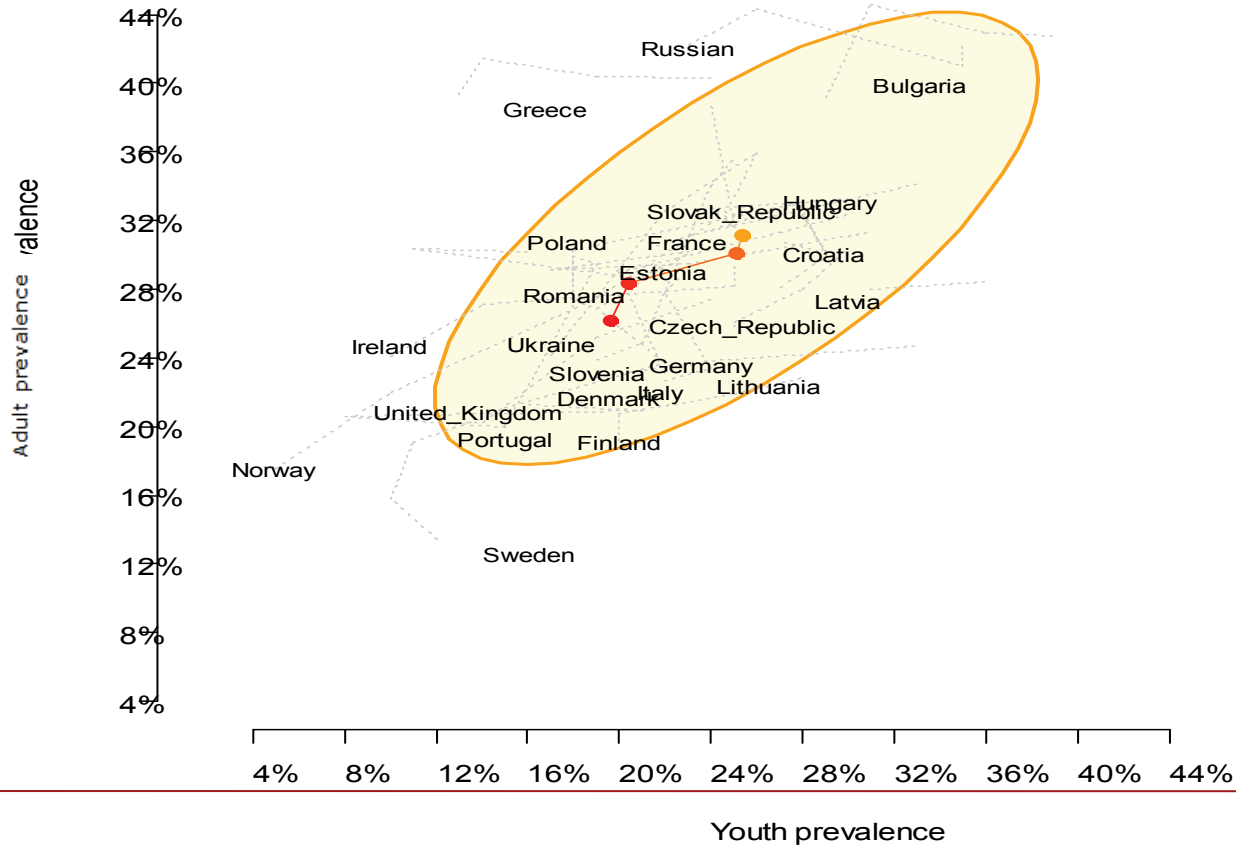
Adult vs Youth Prevalence 2011

1999

2003

2007

2011



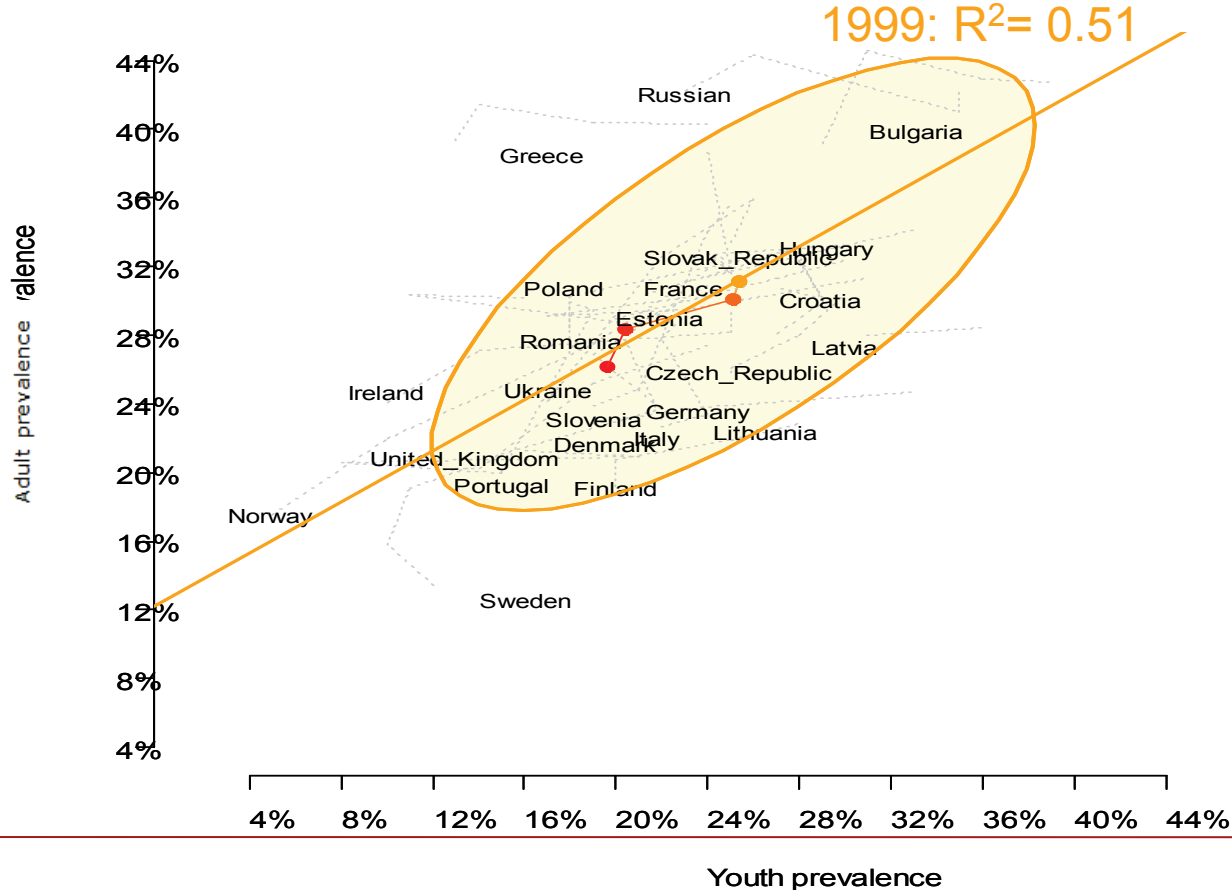
Adult vs Youth Prevalence 2011

1999

2003

2007

2011



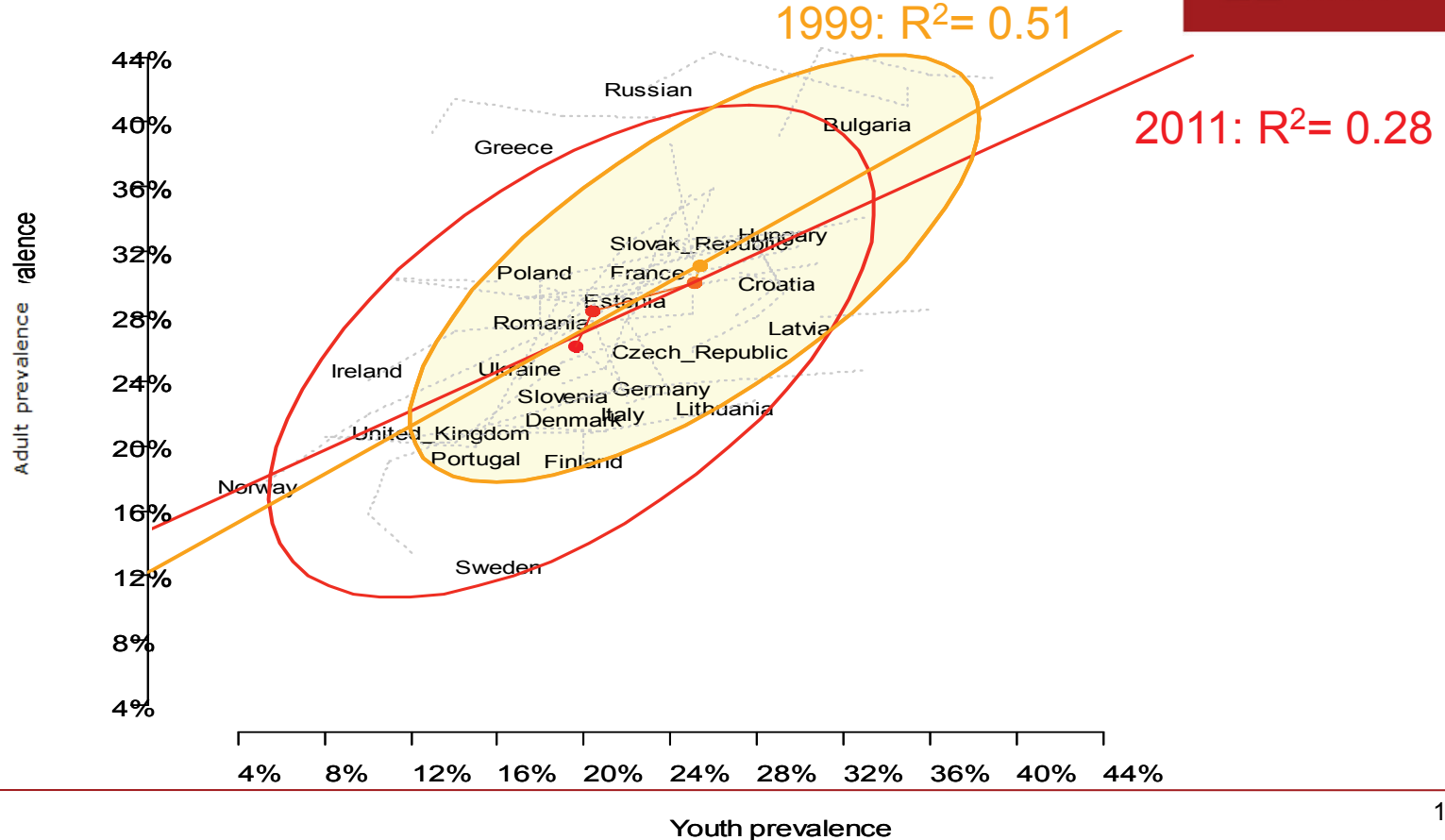
Adult vs Youth Prevalence 2011

1999

2003

2007

2011



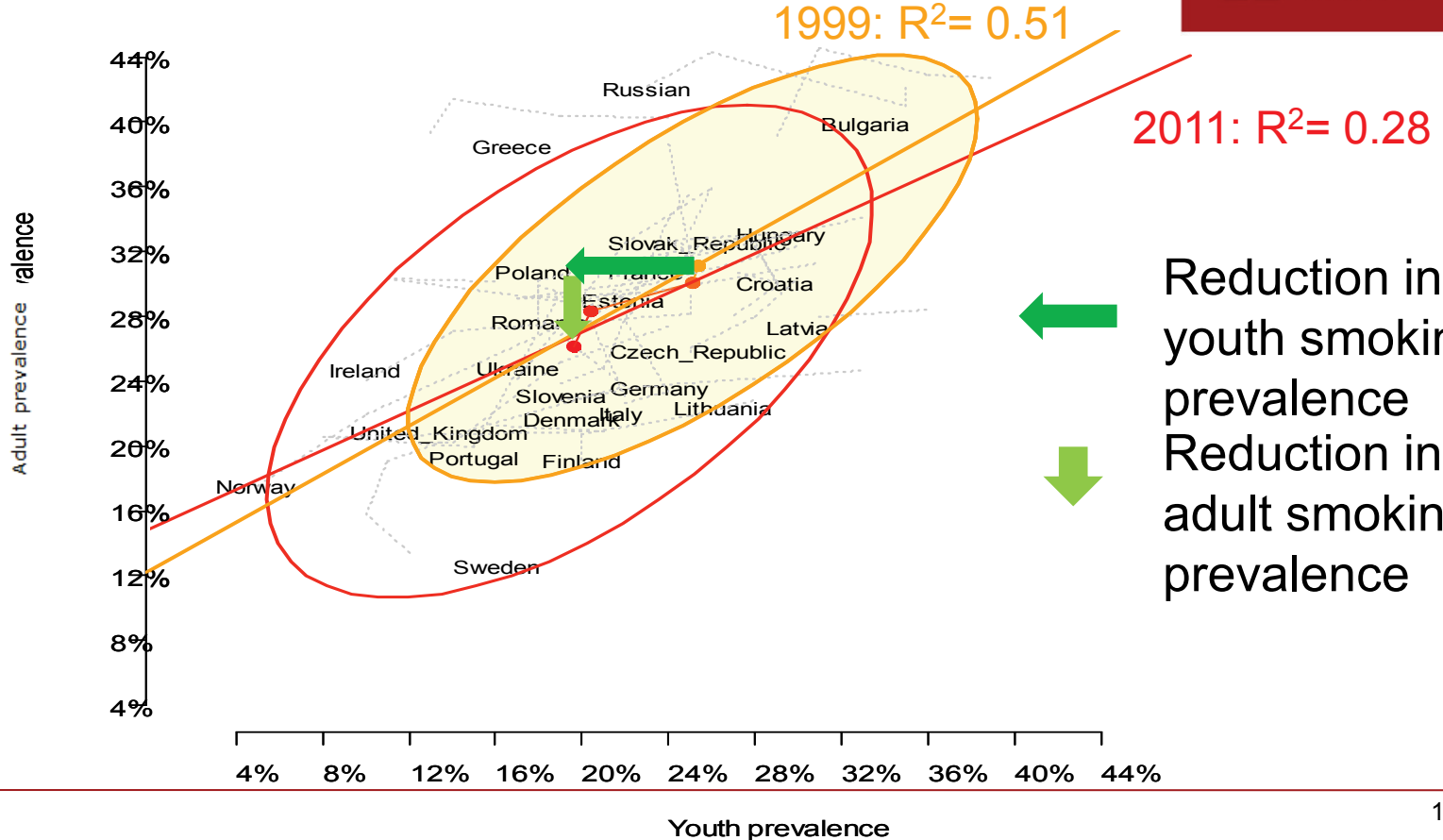
Adult vs Youth Prevalence 2011

1999

2003

2007

2011



Tobacco Control Scorecard



2013 Rank	(2010)		Country	Score
1	(1)	–	UK	74
2	(2)	–	Ireland	70
3	(4)	▲	Iceland	66
4	(3)	▼	Norway	61
5	(4)	▼	Turkey	57
5	(6)	▲	France	57
7	(13)	▲	Spain	56
7	(7)	–	Malta	56
9	(7)	▼	Finland	55
10	(new)	–	Ukraine	53
11	(9)	▼	Sweden	48
11	(27)	▲	Hungary	48
13	(13)	–	Netherlands	47
13	(10)	▼	Belgium	47
15	(12)	▼	Italy	46
15	(13)	▼	Denmark	46
15	(24)	▲	Bulgaria	46
18	(11)	▼	Switzerland	45
19	(16)	▼	Romania	44
20	(17)	▼	Slovenia	43
20	(19)	▼	Estonia	43
20	(19)	▼	Poland	43
23	(new)	–	Serbia	42
24	(17)	▼	Latvia	41
24	(19)	▼	Portugal	41
26	(new)	–	Croatia	40
27	(22)	▼	Slovakia	39
28	(29)	▲	Luxembourg	37
29	(22)	▼	Lithuania	35
29	(30)	▲	Greece	35
31	(27)	▼	Czech Republic	34
32	(24)	▼	Cyprus	33
33	(26)	▼	Germany	32
34	(30)	▼	Austria	31

Tobacco



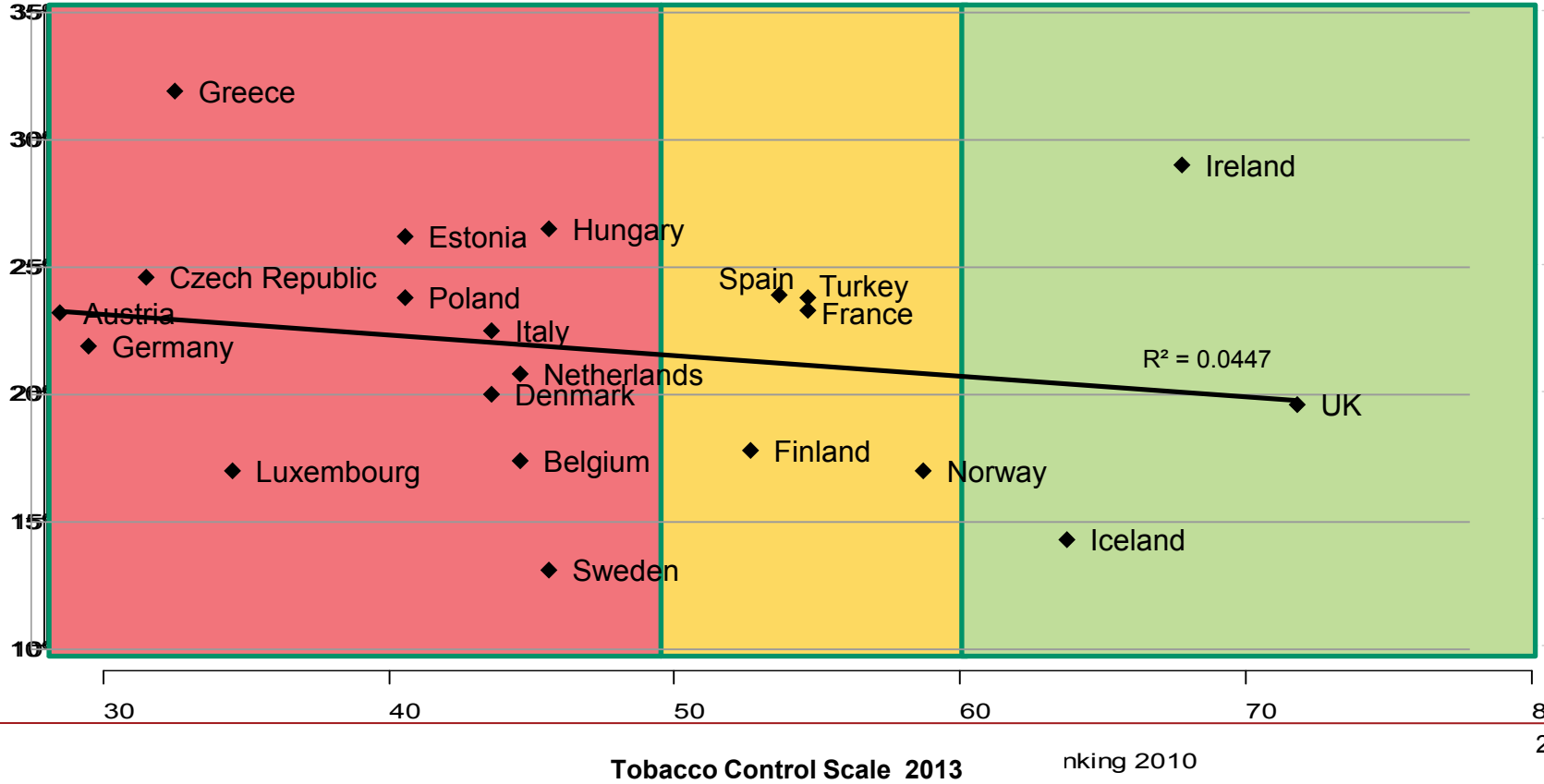
2013 Rank	(2010)		Country	Score
1	(1)	–	UK	74
2	(2)	–	Ireland	70
3	(4)	▲	Iceland	66
4	(3)	▼	Norway	61
5	(4)	▼	Turkey	57
5	(6)	▲	France	57
7	(13)	▲	Spain	56
7	(7)	–	Malta	56
9	(7)	▼	Finland	55
10	(new)		Ukraine	53
11	(9)	▼	Sweden	48
11	(27)	▲	Hungary	48
13	(13)	–	Netherlands	47
13	(10)	▼	Belgium	47
15	(12)	▼	Italy	46
15	(13)	▼	Denmark	46
15	(24)	▲	Bulgaria	46
18	(11)	▼	Switzerland	45
19	(16)	▼	Romania	44
20	(17)	▼	Slovenia	43
20	(19)	▼	Estonia	43
20	(19)	▼	Poland	43
23	(new)		Serbia	42
24	(17)	▼	Latvia	41
24	(19)	▼	Portugal	41
26	(new)		Croatia	40
27	(22)	▼	Slovakia	39
28	(29)	▲	Luxembourg	37
29	(22)	▼	Lithuania	35
29	(30)	▲	Greece	35
31	(27)	▼	Czech Republic	34
32	(24)	▼	Cyprus	33
33	(26)	▼	Germany	32
34	(30)	▼	Austria	31



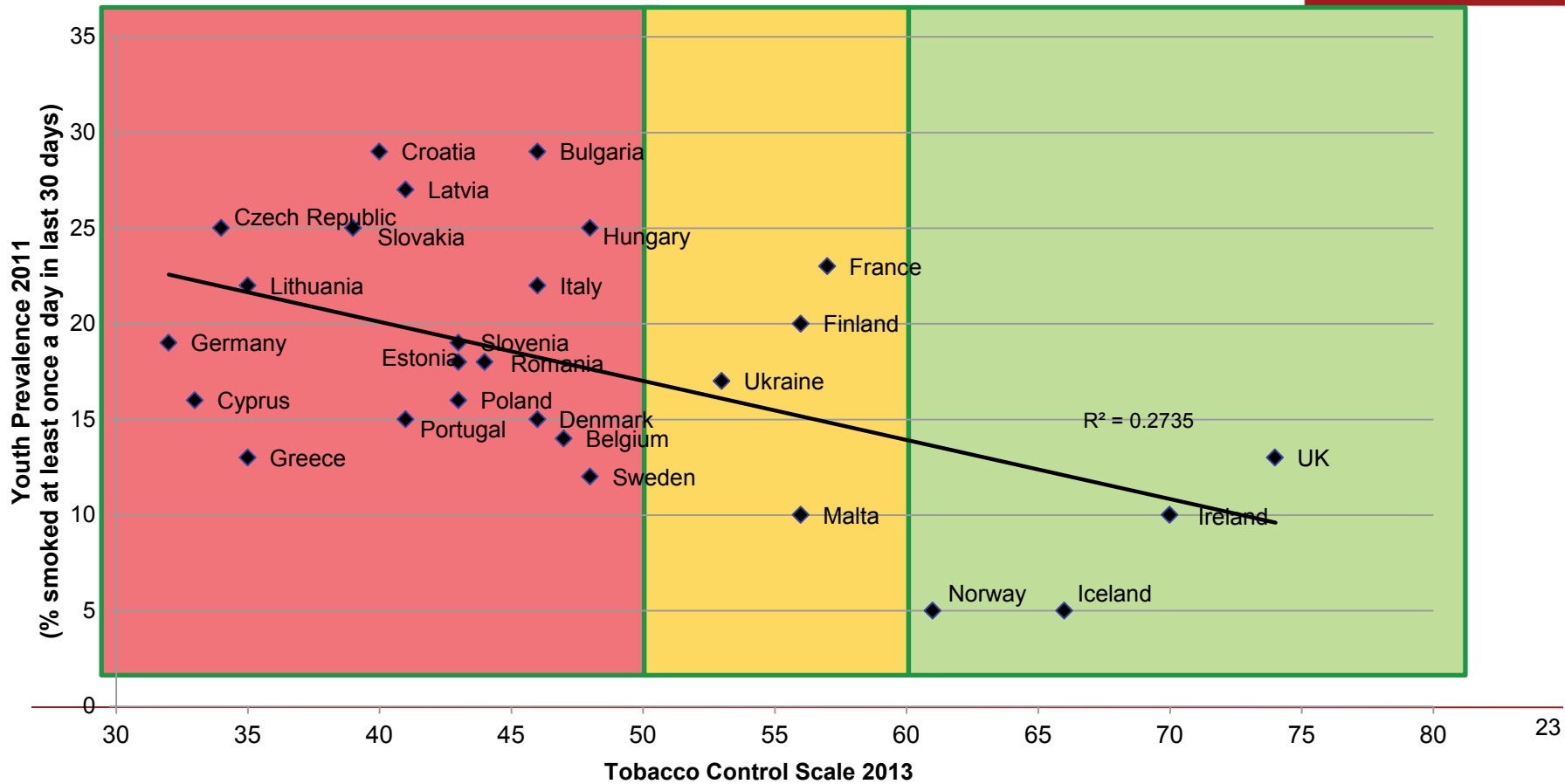
The Tobacco Control Scale 2
<http://www.europeancancerleagues.org>

TC Score vs Adult Smoking Prevalence

Smoking Prevalence (%) Source OECD Factbook 2014



TC Score vs Youth Prevalence 2011



Preliminary Conclusions

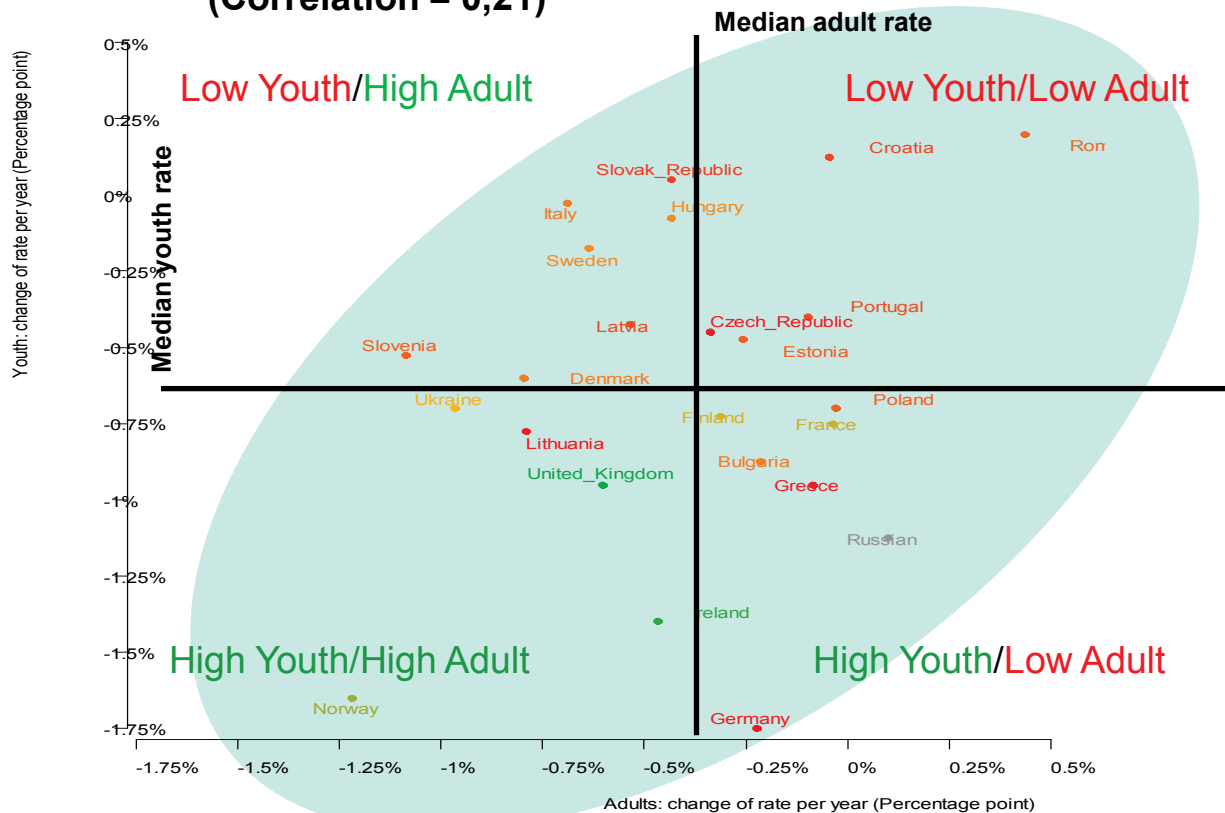
- Correlation between youth smoking and adult smoking decreased between 1999 and 2011
- Youth smoking decreasing faster compared to adult smoking

Questions:

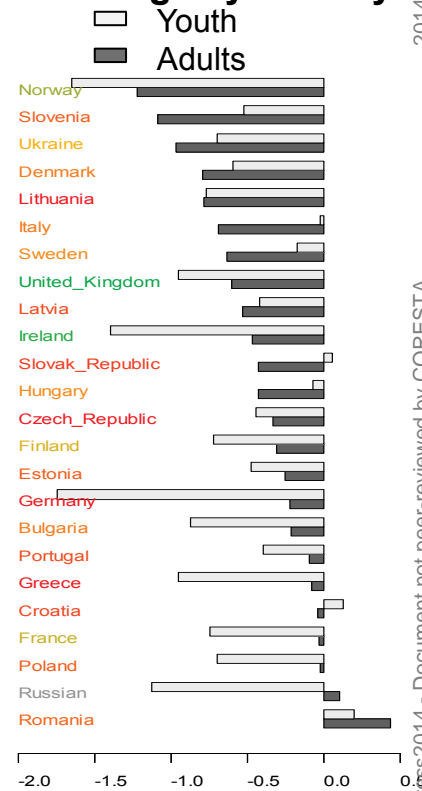
- Is youth smoking therefore becoming less important in determining adult smoking rates?
- Is intervention having a greater impact on youth smoking?

Relationship between rates of change in smoking prevalence of adults and youth

No relationship between rate of change in Adults and Youth
(Correlation = 0,21)

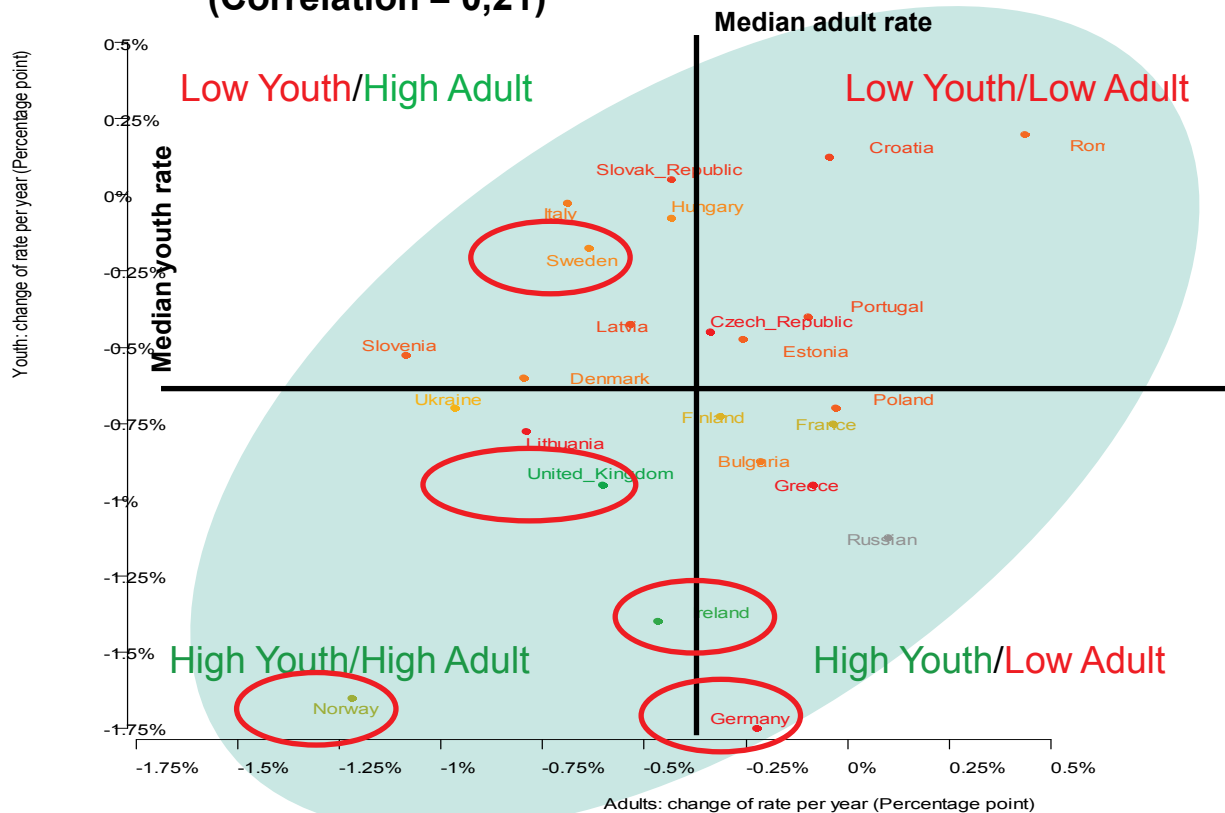


Rate of Change by country

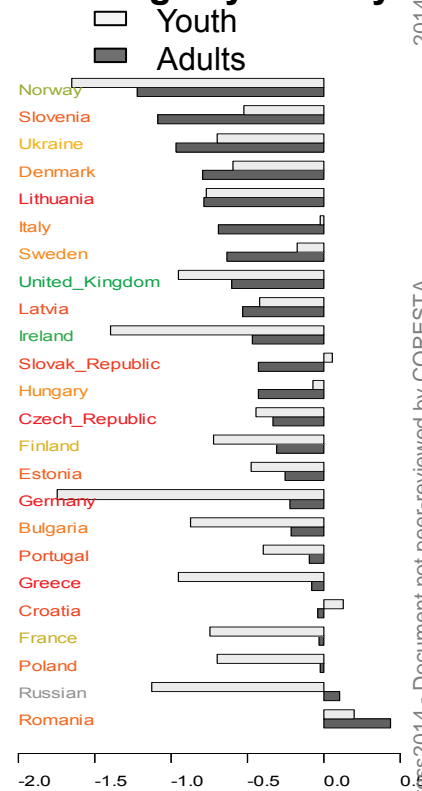


Relationship between rates of change in smoking prevalence of adults and youth

No relationship between rate of change in Adults and Youth
(Correlation = 0,21)

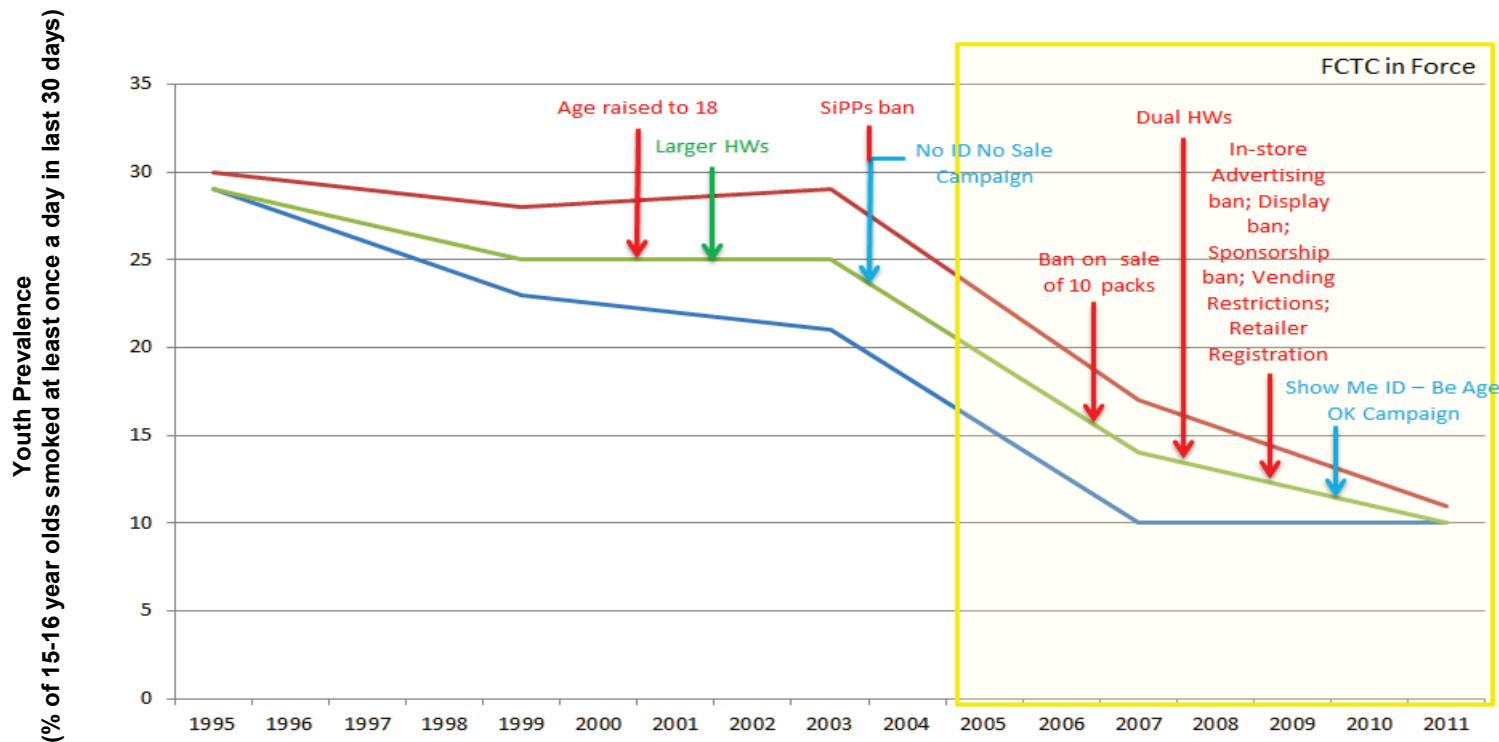


Rate of Change by country



Ireland

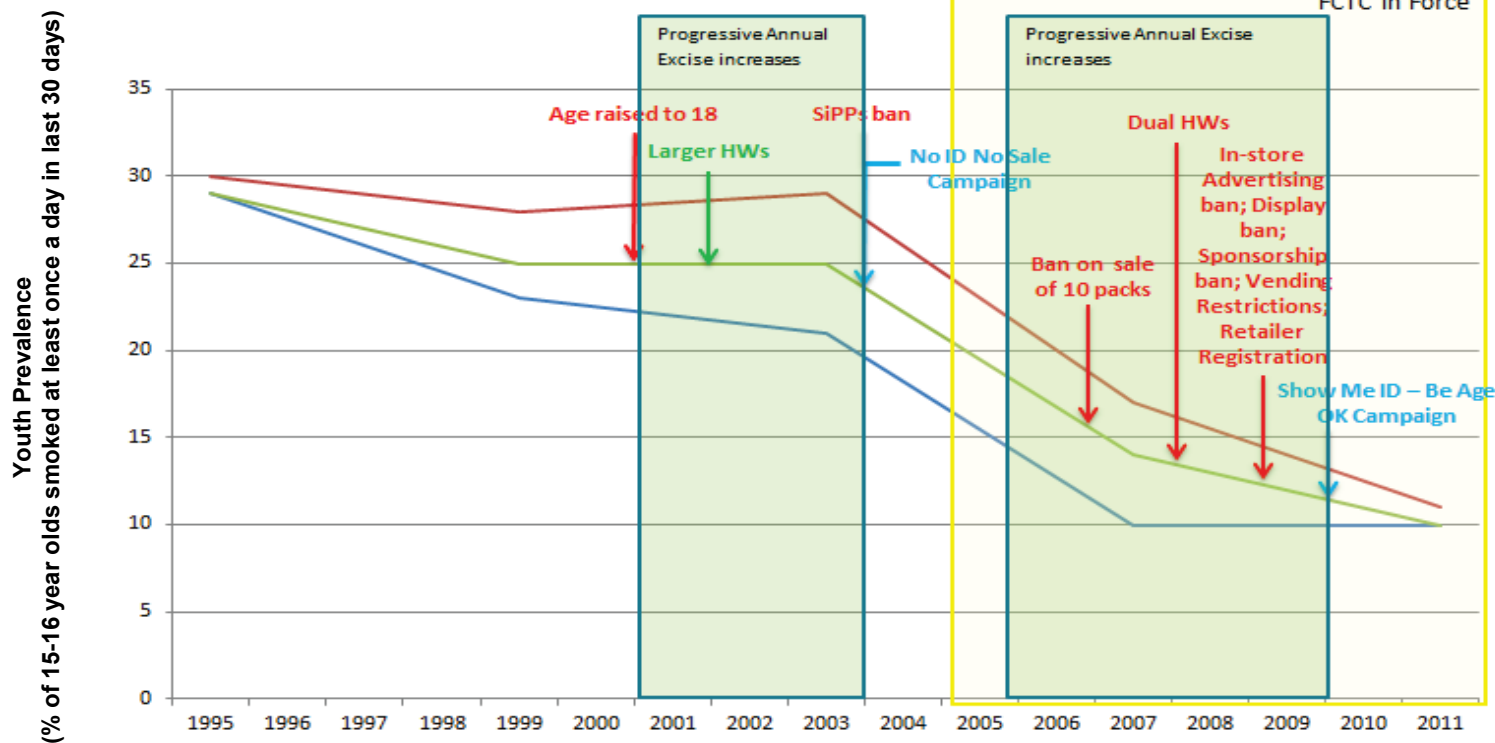
High Tobacco Control Score



Data from ESPAD Surveys 1995, 1999, 2003, 2007 and 2011

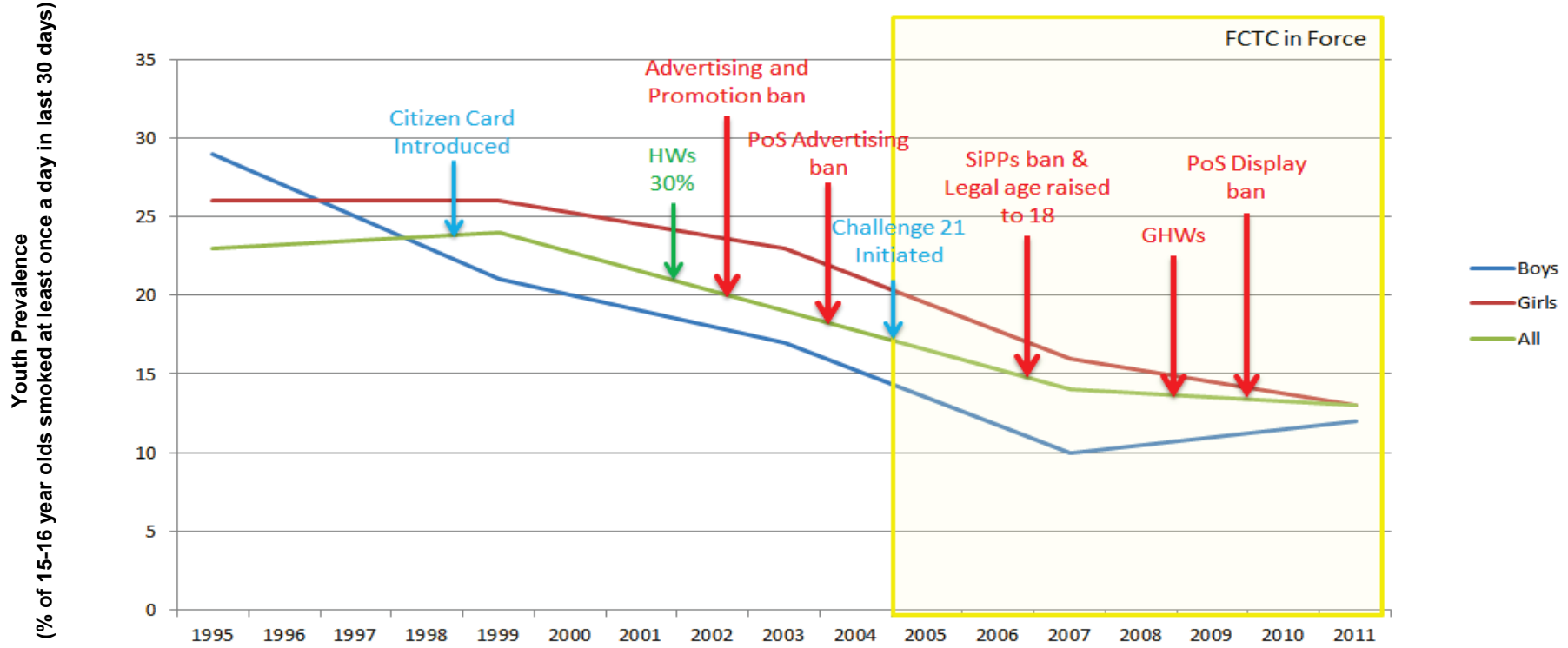
Ireland

High Tobacco Control Score

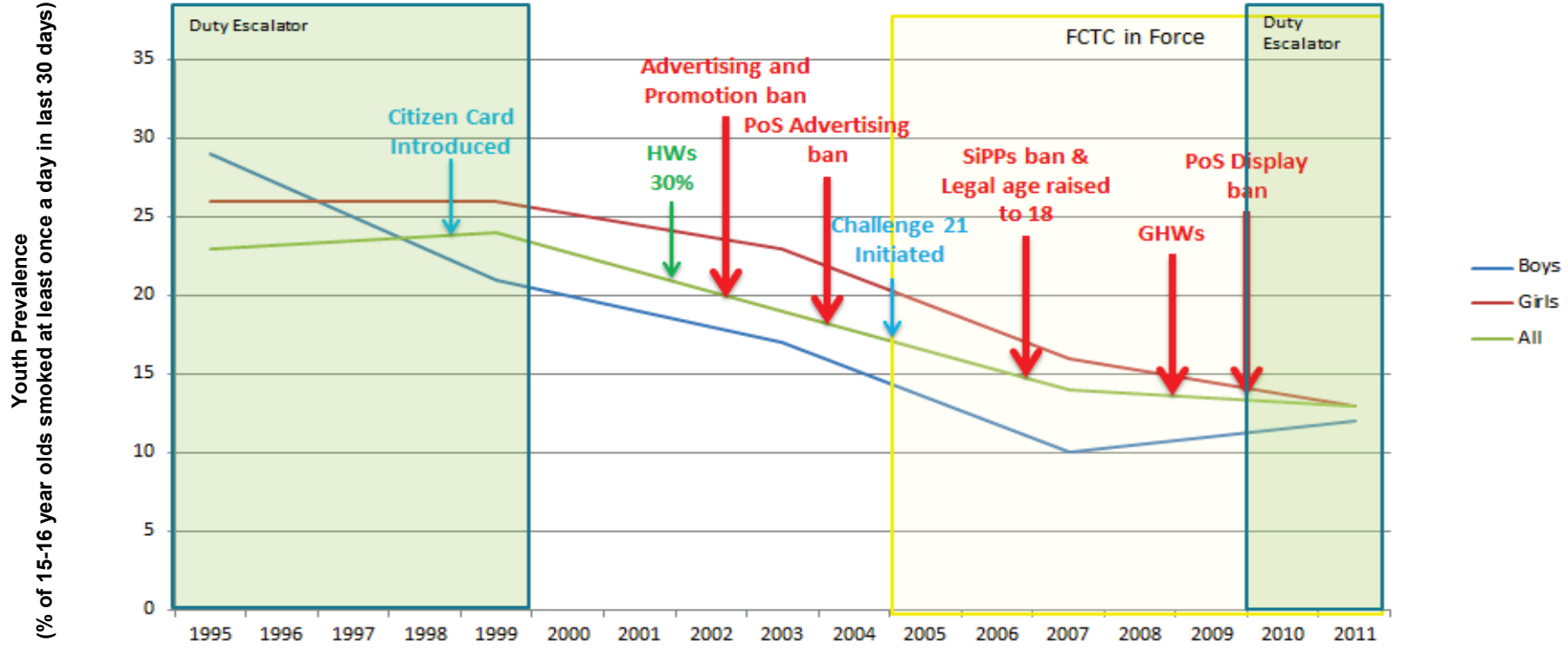


Data from ESPAD Surveys 1995, 1999, 2003, 2007 and 2011

High Tobacco Control Score



High Tobacco Control Score

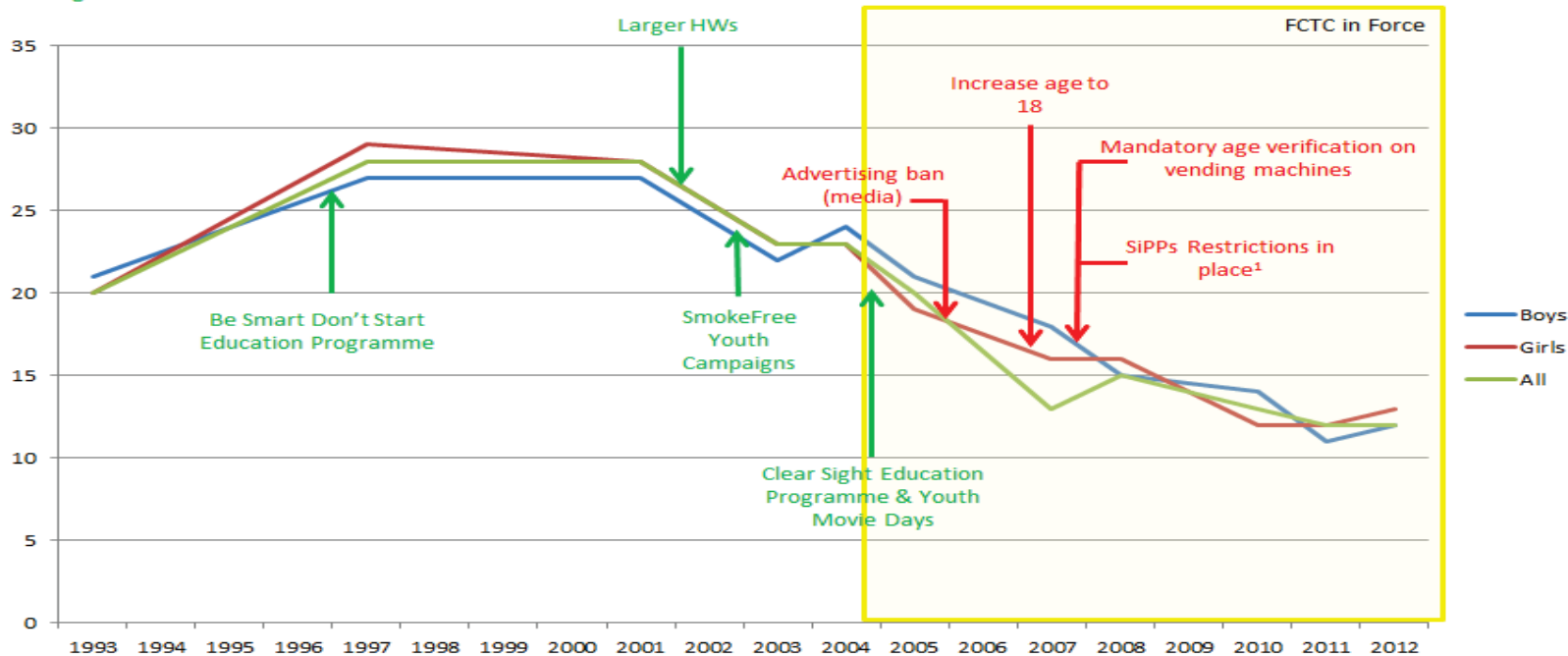


Germany

High Youth/Low Adult

1991 - Klasse 2000
Education Programme

Youth Prevalence (% 12-17 years olds who smoke)



¹ SiPPs restrictions vary due to Federal State system

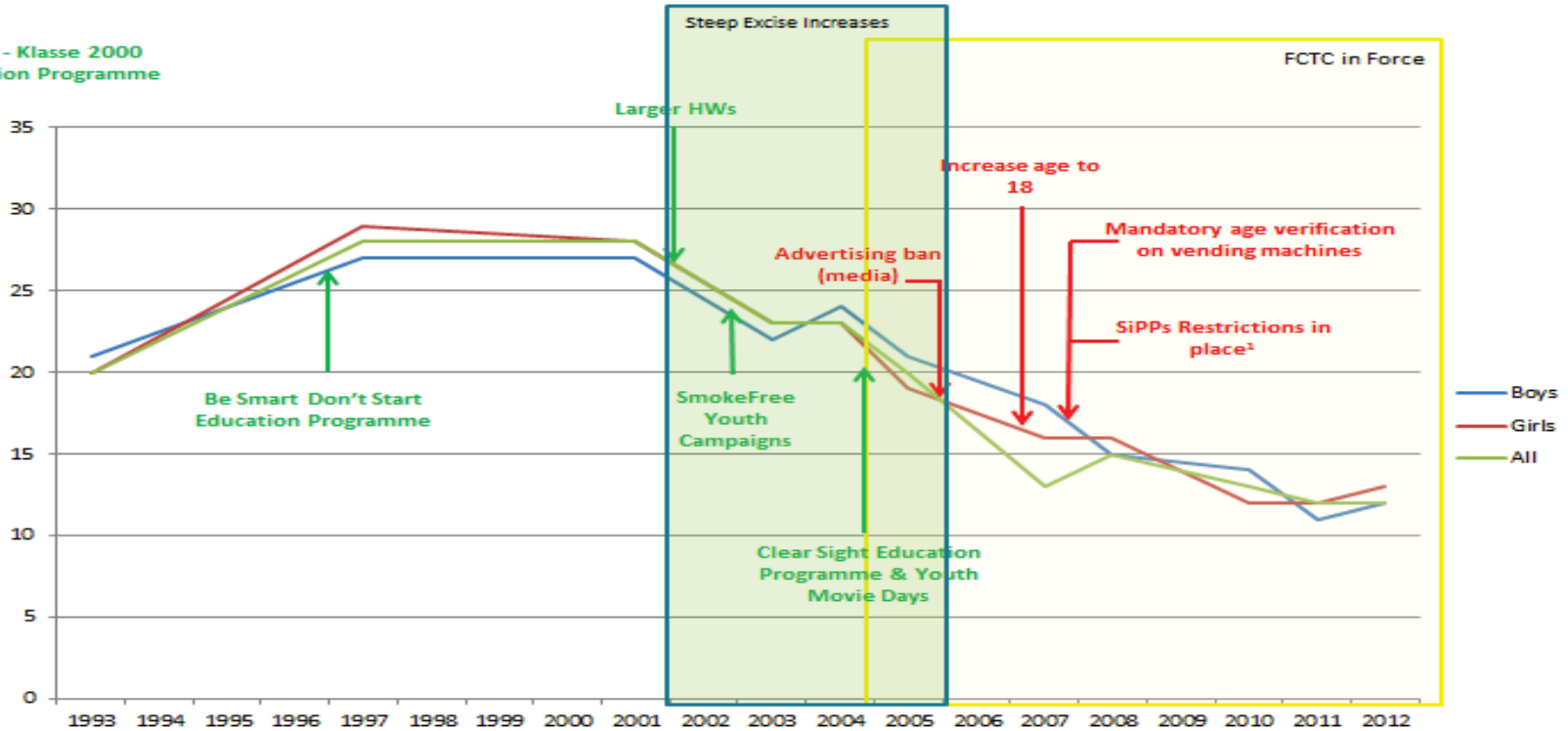
² National Statistics from BZgA (The Federal Centre for Health Education) from a number of surveys of 12-17 year olds (BZgA Repräsentativerhebungen adolescent drug affinity 1993-2011; BZgA Repräsentativerhebungen "smoke-free trial" 2003, 2005 and 2007 and; BZgA Repräsentativerhebungen 2012).

Germany

High Youth/Low Adult

Youth Prevalence (% 12-17 years olds who smoke)

1991 - Klasse 2000
Education Programme



¹ SiPPs restrictions vary due to Federal State system

² National Statistics from BZgA (The Federal Centre for Health Education) from a number of surveys of 12-17 year olds (BZgA Repräsentativerhebungen adolescent drug affinity 1993-2011; BZgA Repräsentativerhebungen "smoke-free trial" 2003, 2005 and 2007 and; BZgA Repräsentativerhebungen 2012).

Germany

Education Programmes

- **Klasse 2000** – largest national education programme to promote health, addiction and violence prevention in elementary schools
- **Clear Sight** – education on risks associated with smoking, focused on ages 12-18
- **Be Smart, Don't Start** – competition in school classes to encourage young people aged 12-15 to remain smoke-free
- **Smoke- Free Campaigns** – provides online resources and information to increase the number of non-smokers
- **Youth Movie Days** – events in cinemas focussing on nicotine and alcohol

Since 1991, over **930,000** children reached.

Reached **16,089** people at their events in 2012, alone.

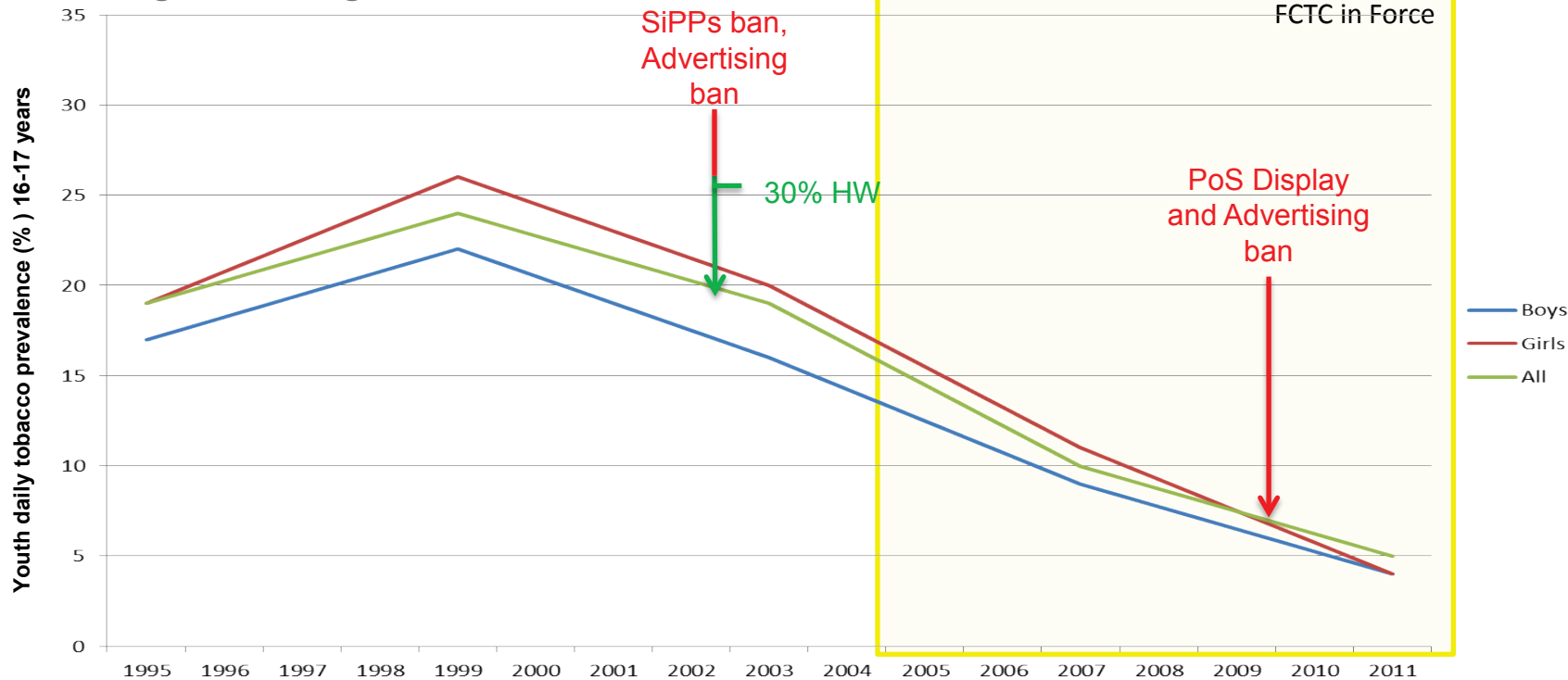
130,000 school classes have participated since 1997-1998.

62,000 visits to its online platform in 2012 recorded.

140,000 participants in 2012

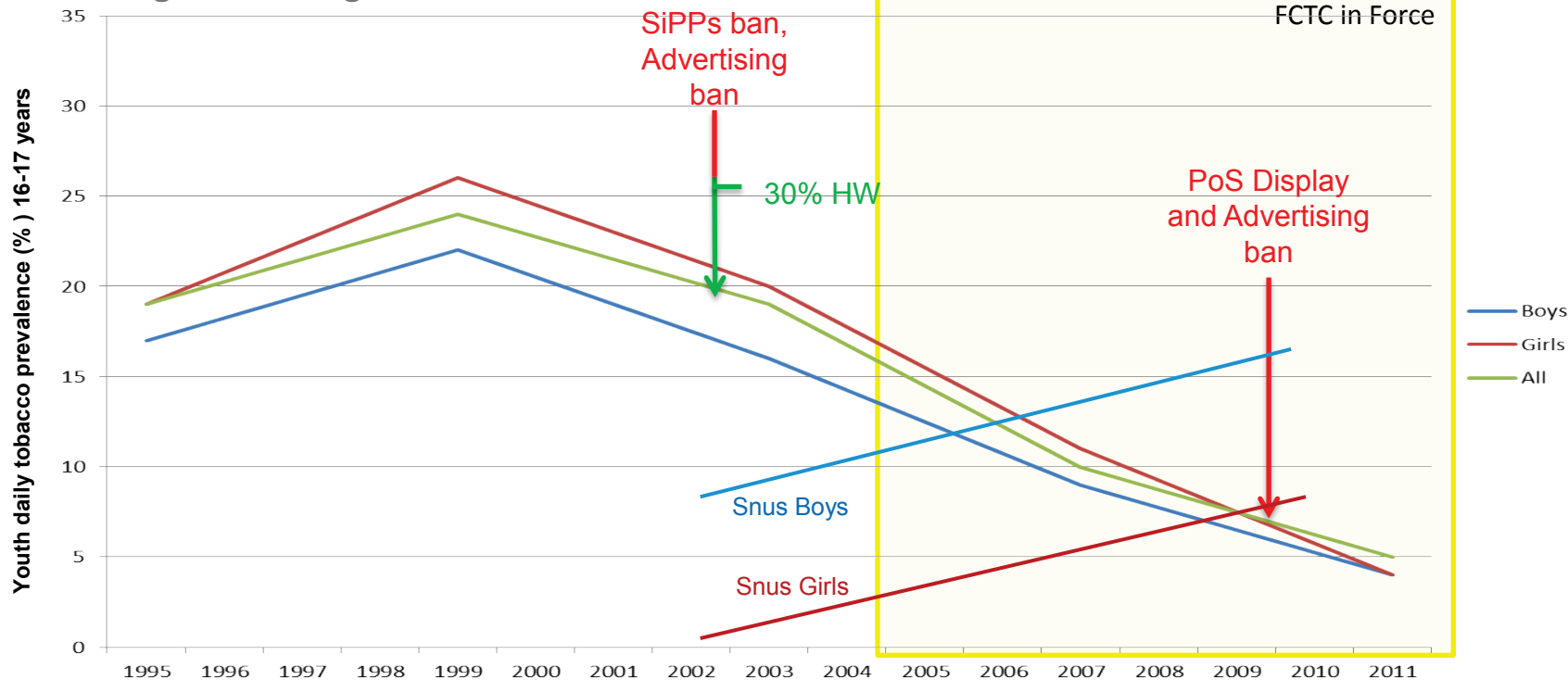
Norway

High Youth/High Adult



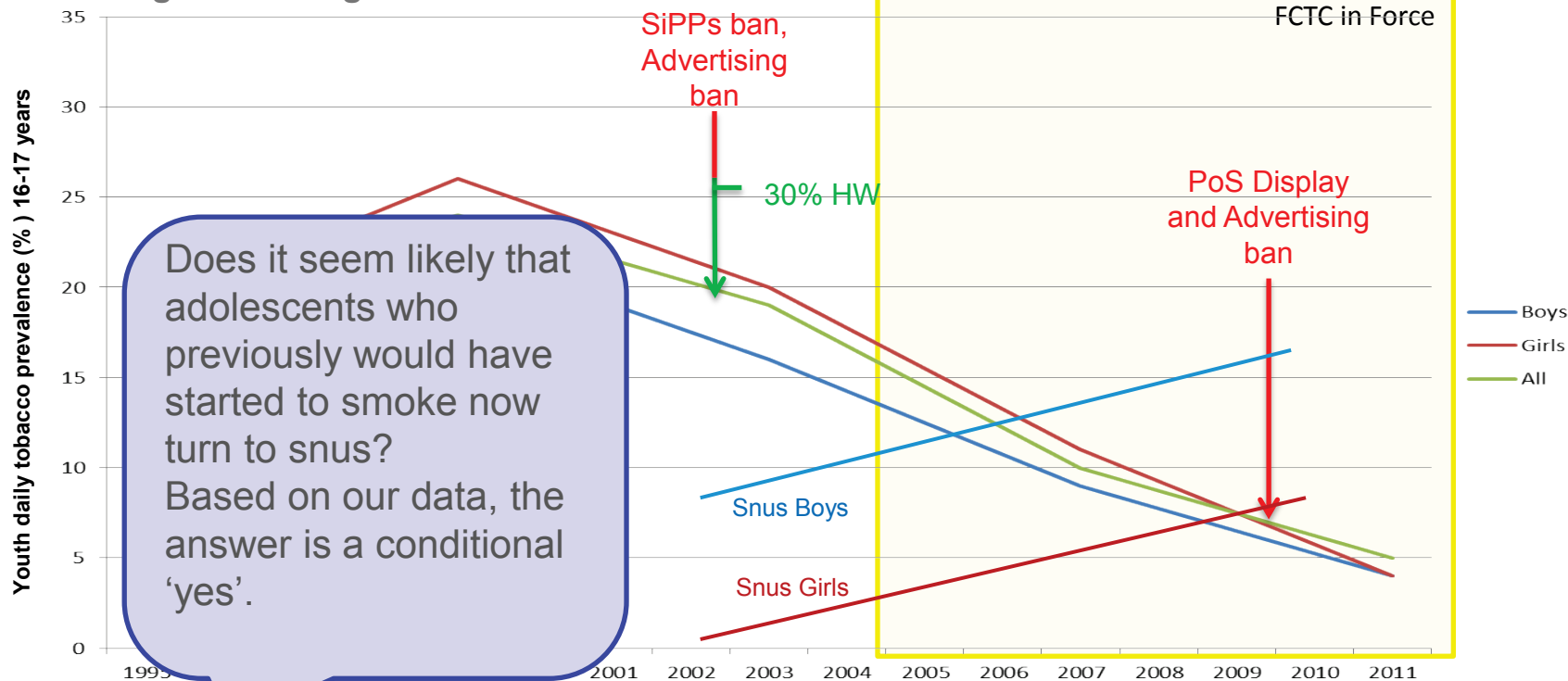
Norway

High Youth/High Adult



Norway

High Youth/High Adult

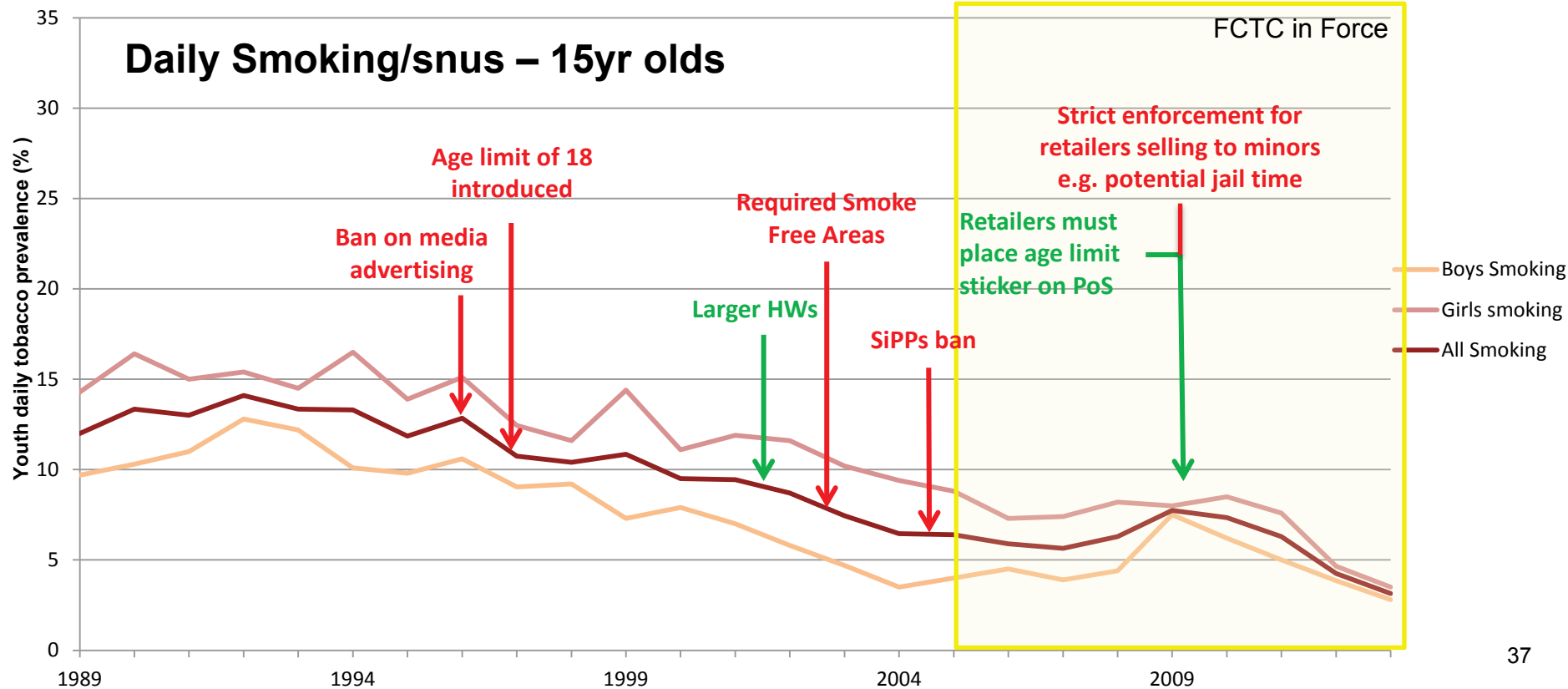


Sweden National Data

Low Youth/High Adult



Daily Smoking/snus – 15yr olds

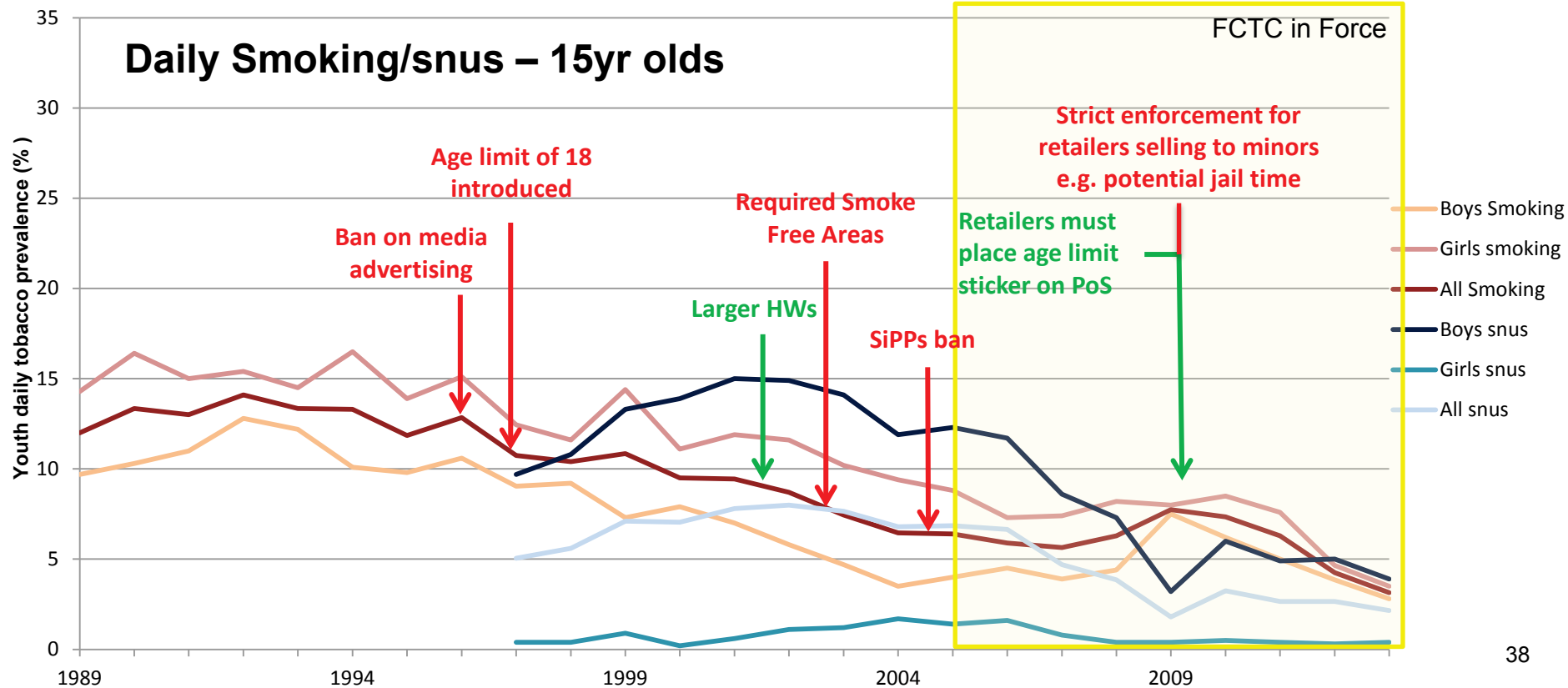


Sweden National Data

Low Youth/High Adult



Daily Smoking/snus – 15yr olds

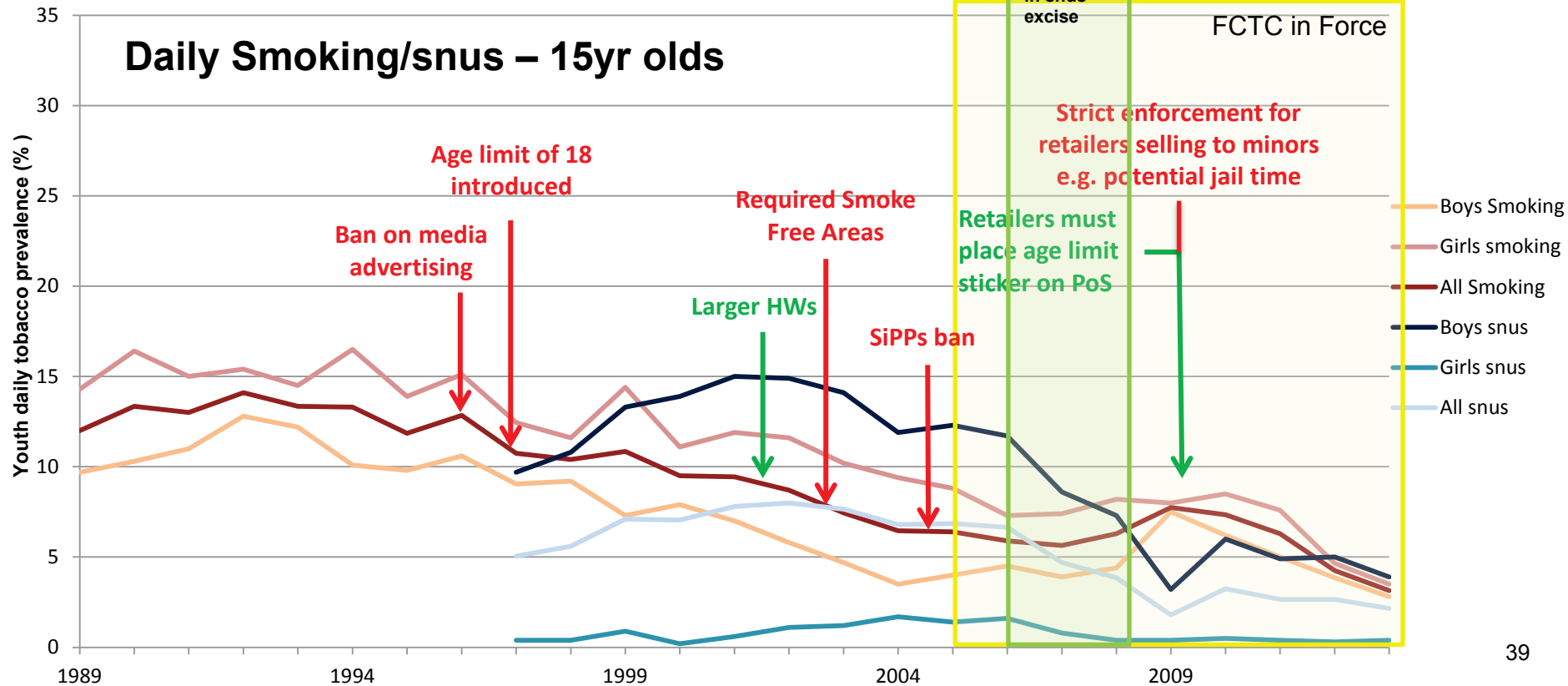


Sweden National Data

Low Youth/High Adult

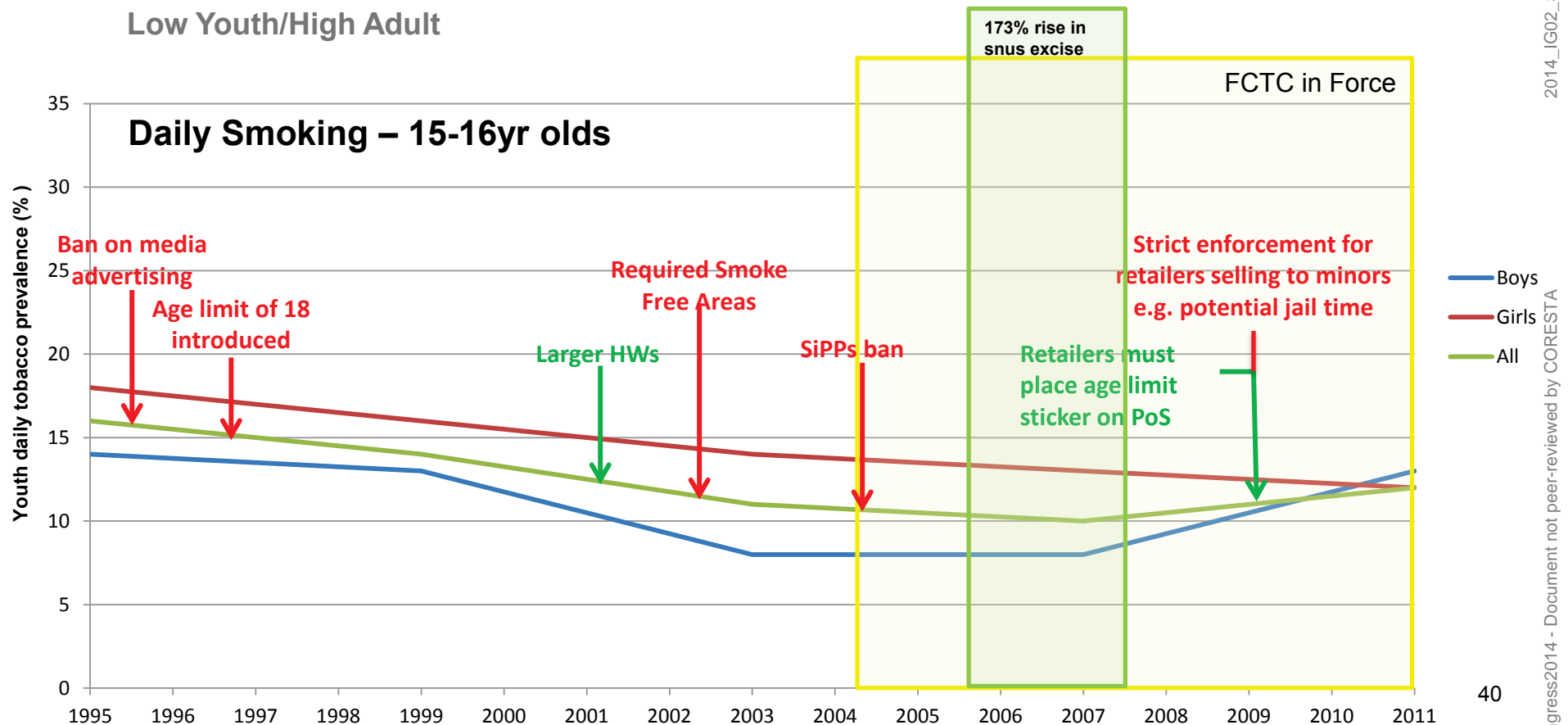


Daily Smoking/snus – 15yr olds



Sweden ESPAD Data

Low Youth/High Adult



Final Conclusions

- Adult and youth smoking rates are diverging
 - Intervention has more impact on youth smoking
- Certain interventions have had a consistent impact on youth smoking
 - Information on risks of smoking
 - Education
 - Industry/retailer led initiatives at point of sale
- Fiscal policy appears to reinforce youth smoking reduction
- Intense regulation has a limited effect on youth smoking rates:
 - Smoking bans
 - Display bans
 - Advertising Bans
 - Graphic health warnings
- Excise/regulatory strategies must support alternatives to smoking
 - Impact of snus decline on youth smoking rates in Swedish males
 - Alternatives to smoking: Regulators need to consider implications for strategy towards under 18s.