

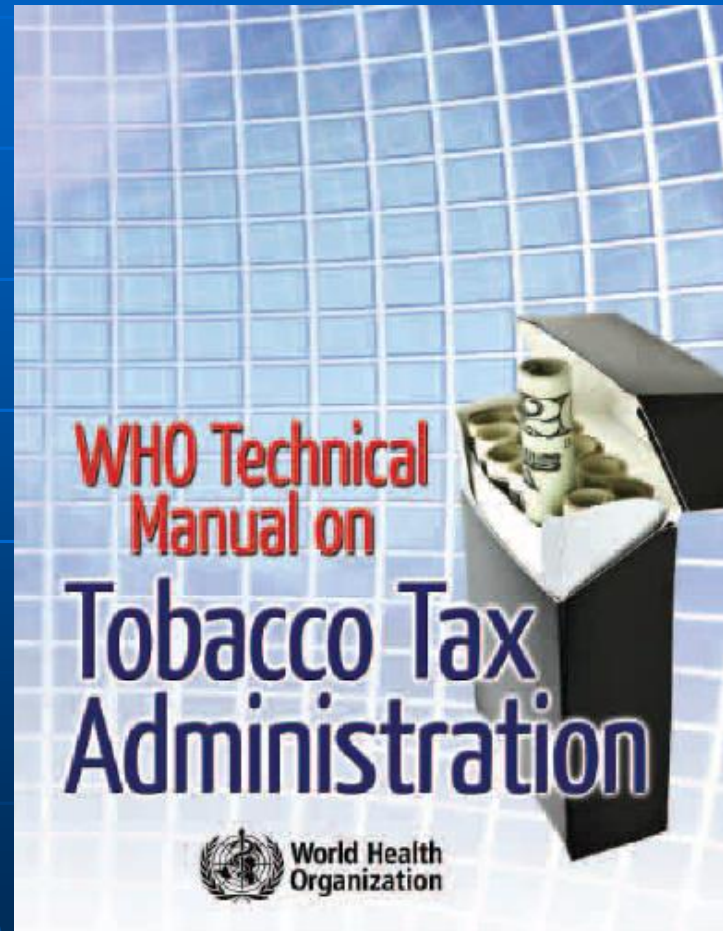
Tobacco Tax Structure and Tobacco Use

Frank J. Chaloupka

Chair, WHO Collaborating Centre on the
Economics of Tobacco & Tobacco Control
Distinguished Professor, UIC

The Economics of Tobacco Control in Africa:
Linking Research and Advocacy
Singapore, March 20, 2012

Best Practices in Tobacco Taxation



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

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
 - Harm reduction?

Types of Tobacco Taxes

■ Tobacco 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 tobacco products (e.g. a specific percentage of manufacturer's prices for tobacco products)
 - Some countries use a mix of specific and *ad valorem* tobacco excises, differential taxes for different products of given type, minimum taxes, etc.
 - Many countries apply different types of taxes and/or tax rates on different types of tobacco products (e.g. manufactured cigarettes vs. bidis)

Cigarette Taxation Globally

Income Group	Excise System on Cigarettes			No Excise	Total countries *
	Only specific	Only ad valorem	Both specific and ad valorem		
High	11	2	25	7	45
Upper Middle	16	11	9	6	42
Lower Middle	18	19	12	3	52
Low	10	28	2	3	43
By Region					
AFRO	14	29	1	2	46
AMRO	13	16	2	3	34
EMRO	1	7	5	7	20
EURO	10	3	36	0	49
SEARO	3	2	2	1	8
WPRO	14	3	2	6	25
All Countries	55	60	48	19	182

* Countries for which data are available

Source: WHO calculations using WHO GTCR 2009 data

Cigarette Taxation Globally

Type of tax (Total number of countries 155)					
Specific (51)		Ad Valorem (47)		Mix (47)	
Tiers (21)	Uniform (30)	Tiers (6)	Uniform (41)	Tiers (6)	Uniform (41)
Bosnia, Brazil, Belarus, Croatia, Egypt, Fiji, Ghana, India, Indonesia, Kazakhstan, Kenya, Kyrgyzstan, Nepal, New Zealand, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka, Tajikistan, Tanzania, Uzbekistan	Albania, Algeria, Andorra, Armenia, Australia, Azerbaijan, Barbados, Belize, Botswana, Brunei, Canada, Colombia, Cuba, Georgia, Haiti, Jamaica, Japan, Lesotho, Malawi, Mauritius, Namibia, Norway, Singapore, South Africa, Suriname, Swaziland, Trinidad & Tobago, Uganda, Uruguay, USA	Angola, Bangladesh, Burkina Faso, Côte d'Ivoire, Myanmar, Senegal	Bolivia, Burundi, Cambodia, Cameroon, Chile, Costa Rica, Congo, Ecuador, El Salvador, Ethiopia, Gabon, Guatemala, Guinea, Guyana, Honduras, Iran, Laos, Lebanon, Liberia, Lybia, Mali, Mauritania, Mexico, Mozambique, Nicaragua, Niger, Nigeria, Panama, Paraguay, Peru, Rwanda, Sierra Leone, Sudan, Togo, Turkey, Turkmenistan, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe	China, Madagascar, Moldova, Pakistan, Russia, Ukraine	Argentina, Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Dominican Republic, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Jordan, Latvia, Lithuania, Luxembourg, Macedonia, Malta, Montenegro, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Syria, Thailand, Tunisia, UK

Note:

1- Out of the 155 countries for which there are data in TMA, 10 countries had no excise

2- The following countries imposed a minimum tax in addition to their statutory rates: the 27 EU countries, Israel, Russia, Switzerland, Turkey, Turkmenistan and Ukraine.

Source: TMA 2009

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

*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

Source: TMA 2009

Cigarette & Bidi Taxes, India, 2009

		BED	NCCD	AED	Total
Unfiltered Cigarette (Rs. Per 1000)	length ≤ 60 mm	659	90	70	819
	length 60-70mm	1068	145	110	1323
Filtered Cigarette (Rs. Per 1000)	length ≤ 70 mm	659	90	70	819
	length 70-75 mm	1068	145	110	1323
	length 75 -85mm	1424	190	145	1759
	length >85 mm	1748	235	180	2163
Bidis from producer making <2million sticks/year					0
Bidis other than paper rolled, manufactured without machines (Rs per 1000)		12			12
All Other Bidis (Rs per 1000)		30			30

Types of Tobacco Taxes

- Specific taxes:
 - Easier to administer
 - No valuation issues
 - Real value falls with inflation
 - Smaller price gap between high/low priced brands
 - Generally produce more stable stream of revenue
 - Promote higher “quality” products
 - Producers keeps all of additional price from higher quality products

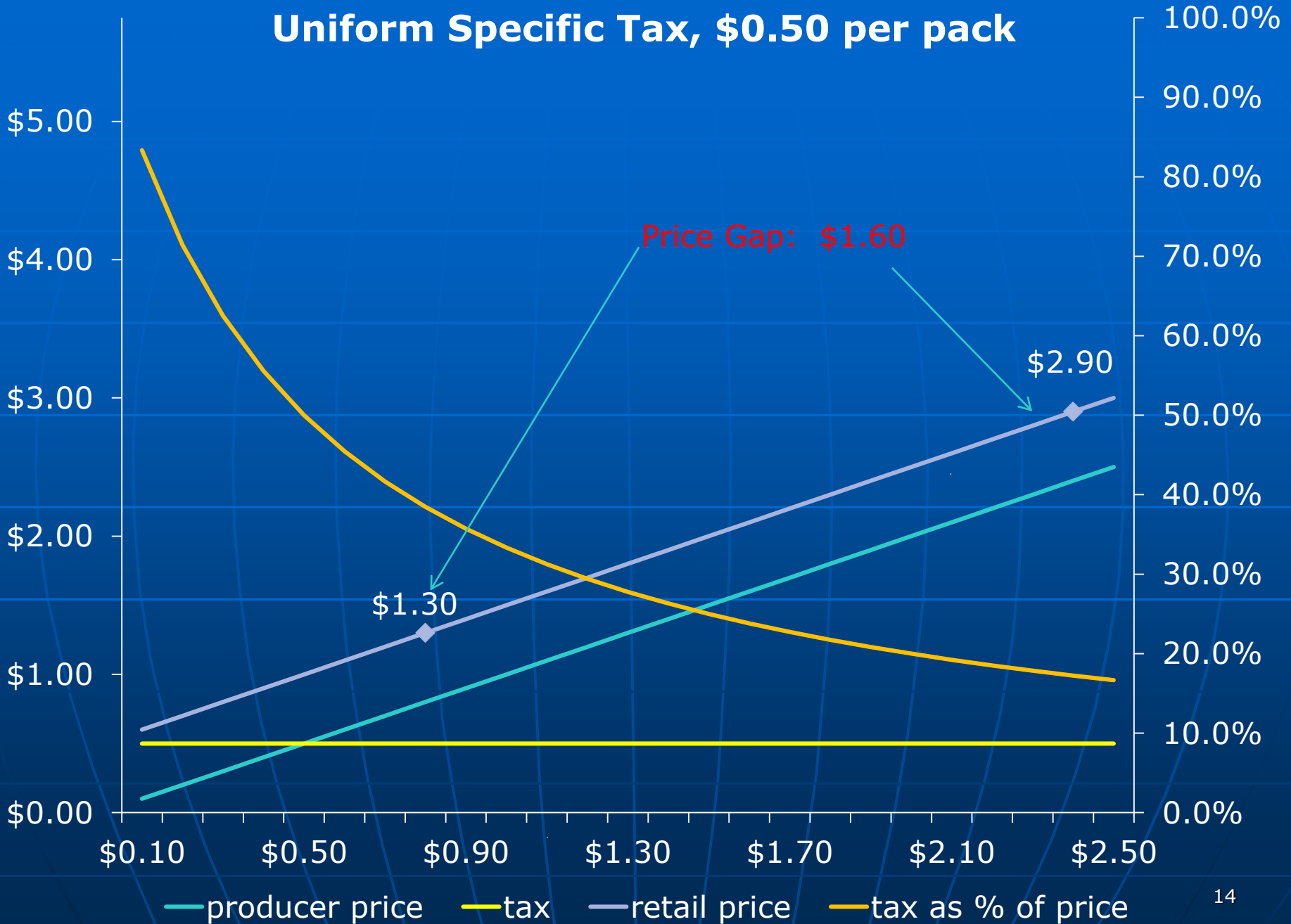
Types of Tobacco Taxes

- *Ad valorem* taxes:
 - More difficult to administer given variety of different prices
 - Valuation problems, abusive “transfer” pricing
 - May require minimum price policies
 - More likely to keep pace with inflation
 - More unstable revenues
 - Government subsidizes industry price cuts but benefits from industry price increases
 - Larger price gap
 - Greater potential for “switching down” in response to tax increase
 - Favor low “quality” products
 - Less incentive to invest in quality given price rises by more
 - May be protective for domestic industry
 - if imports or foreign-owned brands tend to be higher quality/price
 - More “equitable”
 - Absolute amount of tax higher on higher priced brands¹²

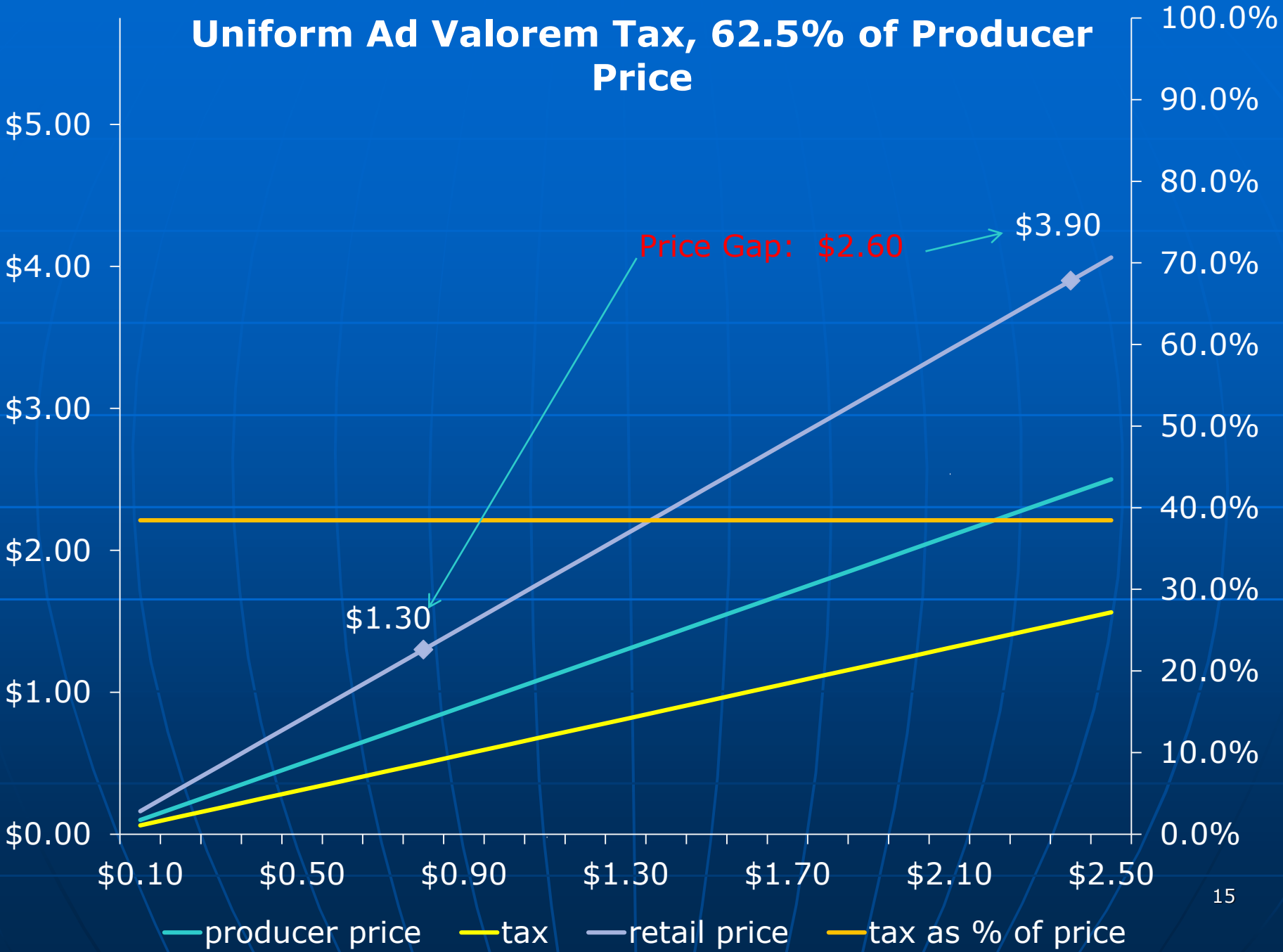
Types of Tobacco Taxes

- Mixed systems
 - More difficult to administer given variety of different prices
 - Valuation problems, abusive “transfer” pricing
 - Better able to keep pace with inflation
 - Somewhat less stable revenues
 - Government still subsidizes industry price cuts and benefits from industry price increases, just not as much
 - Reduced price gap
 - Relative to pure ad valorem
 - More protective for domestic industry
 - Relative to pure specific
 - Somewhat more “equitable”

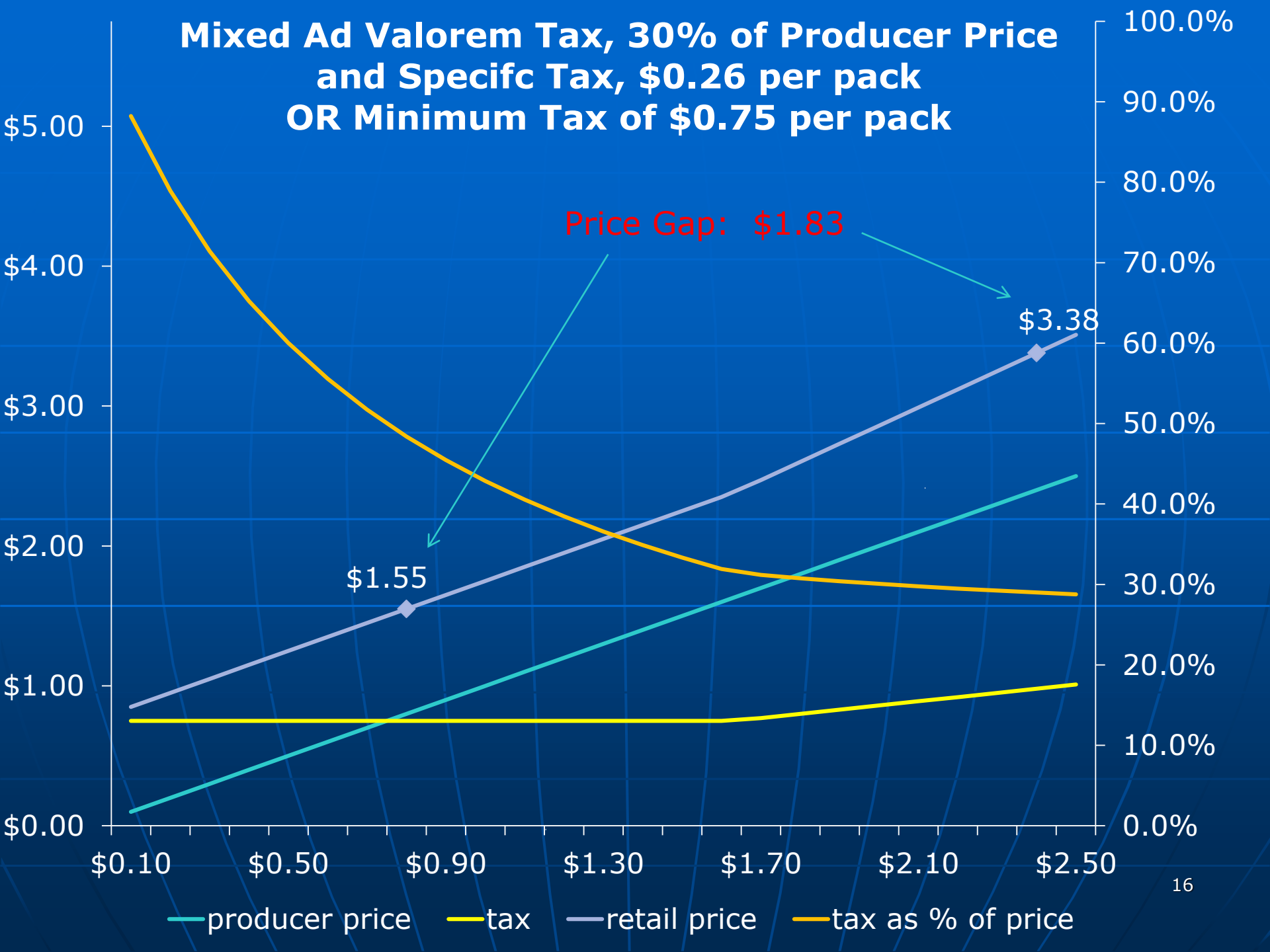
Uniform Specific Tax, \$0.50 per pack



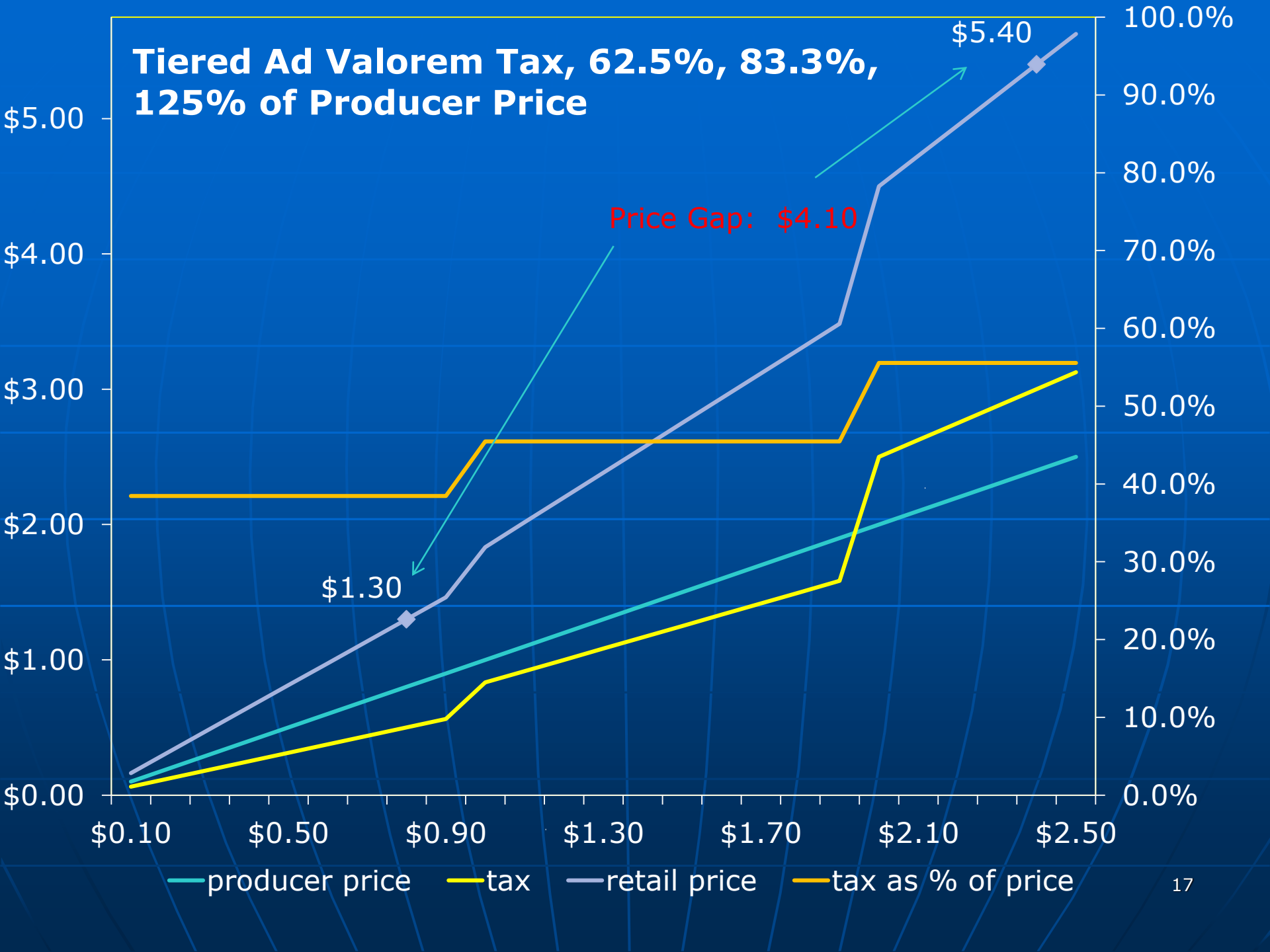
Uniform Ad Valorem Tax, 62.5% of Producer Price



Mixed Ad Valorem Tax, 30% of Producer Price and Specific Tax, \$0.26 per pack OR Minimum Tax of \$0.75 per pack



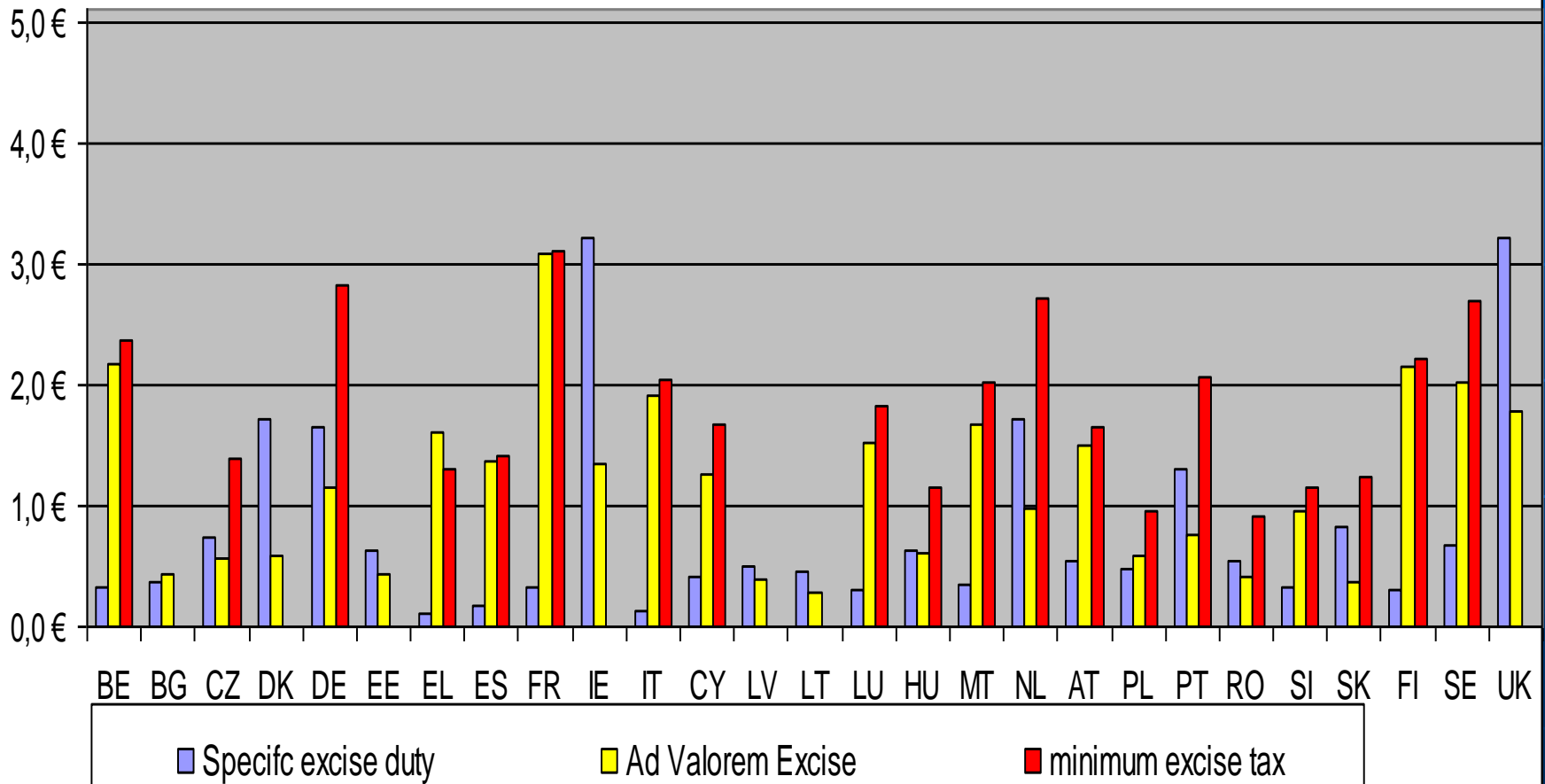
Tiered Ad Valorem Tax, 62.5%, 83.3%, 125% of Producer Price



Tax Structure and Tobacco Use

- EU Analysis:
 - Cigarette prices
 - Cigarette tax revenues
 - Tax paid cigarette sales
 - Smoking Prevalence
 - Mostly 1997-2008
 - Control for:
 - Economic conditions (real GDP per capita, unemployment rate)
 - Market structure (Herfindahl-Hirschman Index)
 - Country, year fixed effects

Structures of excise on cigarettes *pack 20 pieces MPPC*



Conclusions

- Greater reliance on specific tobacco excises:
 - Reduced gap in prices between high and low priced cigarette brands
 - Produced more stable, predictable stream of cigarette excise tax revenues
 - Had greater impact on cigarette smoking
 - Effects vary with market structure

Global Adult Tobacco Survey

- CDC/WHO Partnership
 - Nationally representative, face-to-face household survey of adult (15+) population
 - 14 BGI countries; most complete and released
 - New countries in field or planning stages
- Data on:
 - tobacco use, cessation, knowledge/attitudes, exposure to tobacco smoke, media influences, economics
- Key measures:
 - Price, brand choice, tobacco use

International Tobacco Control Policy Evaluation Surveys

- Multiple researchers and funders
 - Cohort surveys of smokers/tobacco users
 - 23 countries; varying start dates, waves
 - Mix of high, middle, low income countries; covers all regions; most of the world's tobacco users
- Data on:
 - tobacco use, cessation, knowledge/attitudes, exposure to tobacco smoke, media influences, economics; key policy mediators
- Key measures:
 - Price, brand choice, other purchase behaviors, tobacco use

National Cancer Institute UO1

- Assess impact of differential tobacco product taxes
 - Most states tax other tobacco products below cigarettes
 - Specific cigarette taxes in all states, *ad valorem* taxes on other tobacco products in most
 - In recent years, industry pushing states to move from *ad valorem* to specific, weight based taxes
 - 5 states and Federal smokeless taxes currently weight based
 - Taxation of new generation of tobacco products unclear

Traditional vs. New Non-Combustible Products



Camel Snus
1 tin (15 pouches) =
0.32 oz.



Traditional Moist Snuff Smokeless
1 tin = 1.2 to 1.5 oz.



Skoyal Pouches
1 tin (20 pouches) =
0.82 oz



Stonewall Hard Snuff
1 box of 20 "Pieces" = 0.335
oz.



Marlboro Snus
1 "foil pack" (6 pouches) =
0.1 oz.



Camel Orbs
1 box of 15 "Pieces" =
0.12 oz.

Data

Key data components include:

- *Policy surveillance* – original legal research building on past & ongoing research for BTG/ImpacTeen state tobacco policy database; data for 2002 through 2013
- *Observational data collection* - expand tobacco component of ongoing Bridging the Gap Community Obesity Measures Project in MTF communities; current data for 2010 and 2011; expanded data for 2012
- *Adult tobacco use survey* – adaptation of International Tobacco Control Policy Evaluation Project's adult smoker survey; conducted in BTG-COMP communities in 2012
- *Existing data* - numerous surveys, commercial databases, and archival data sources

For more information:

fjc@uic.edu