Module 5: Tobacco Control

Interventions: Part I

Taxation

Introduction

Mr. Jeremias Paul, Coordinator of the Tobacco Control Economics Unit in the Department of the Prevention of Noncommunicable Diseases at the World Health Organization (WHO), introduces the Taxation Lecture.

Raising the price of tobacco products is the most effective way to reduce their demand. This is why much attention is paid to tobacco excise taxes.

The Framework Convention on Tobacco Control calls on countries to employ tobacco tax policies to reduce tobacco use.

Learning Objectives

- Understand excise taxes and differentiate between specific and ad valorem taxes.
- Describe tobacco taxation around the world.
- Be familiar with best practices in tobacco taxation.
- Explain illicit trade in tobacco products and incentives driving illicit trade.
- Outline policy initiatives to combat illicit trade.

WHO FCTC Article 6: Price and Tax Measures to Reduce the Demand for Tobacco

Learn about the price and tax measures of Article 6.
The Parties recognize that price and tax measures are an effective and important means of reducing tobacco consumption by various segments of the population, in particular young persons.

Without prejudice to the sovereign right of the Parties to determine and establish their taxation policies, each Party should take account of its national health objectives concerning tobacco control and adopt or maintain, as appropriate, measures which may include:

- Implementing tax policies and, where appropriate, price policies, on tobacco products so as to contribute to the health objectives aimed at reducing tobacco consumption.
- Prohibiting or restricting, as appropriate, sales to and/or importations by international travelers of tax- and duty-free tobacco products.

**Types of Taxes: Direct and Indirect**

Mr. Paul discusses direct and indirect taxes.

Tobacco taxes are examples of excise taxes, which, in turn are a type of indirect tax. The taxes that governments levy can be divided into two broad types—direct and indirect.

Learn more about direct and indirect taxes.

**Direct taxes: imposed on the income and wealth of people and business entities.**

Income taxes and taxes on profits are all examples of direct taxes.

- Every year, tobacco companies declare profits that are typically subject to some form of corporate tax, just as profits declared by any other company.
- If you own stock in a tobacco company and the company pays out dividends to its shareholders, the dividends are taxable personal income.
- If you have held stock in a tobacco company and the price of that stock goes up and you sell the stock, you benefit from selling stock at a higher price and are liable for capital gains tax.
Indirect taxes: imposed on transactions—on the exchange of goods and services.

- When the price of tobacco products increases *relative* to other things that people buy, demand reduces. Larger price increases reduce consumption more.
- This is why, from a policy perspective, we focus on taxes that raise the *relative* price of tobacco products *substantially*. Well-designed tobacco taxes do exactly that.

Types of indirect taxes on tobacco include:

- Excise taxes
- Taxes on the value of tobacco crop
- Customs duties on the import of tobacco leaf and raw materials
- Customs duties on the import of manufactured tobacco products

**Excise Taxes**

Excise duties/taxes are taxes that are applied to a particular product or a narrow set of products in the jurisdiction in which they are sold.

Tobacco, alcohol, gasoline (petrol), and other products often have excise taxes applied to them, typically at the point of manufacture. In well administered tax systems, each time a pack of cigarettes is manufactured, the manufacturer owes the revenue authority a tax.
Tax stamps on cigarette packs indicate that excise tax was charged and paid.

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**Tobacco Excise Taxes: The View from 1789**

Besides being vital to public health, tobacco taxes have historically been an efficient way to generate tax revenues for the government.

“Sugar, rum, and tobacco, are commodities which are nowhere necessaries of life, [but] which are ... objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.”


Question: What rationale does Adam Smith’s quote give for taxing tobacco?

**Answer**

Tobacco, like sugar and alcohol, is widely sold, but is certainly not “necessary” to our lives. The idea of taxing goods that are socially undesirable habits or not necessary is known as the “sumptuary” motive for taxation. This motive is still a basis for taxation.

Governments try not to tax items that are important for daily living, or to tax them at a lower rate. Smith’s quote from almost two-and-a-half centuries ago shows that tobacco taxes are not new. In fact, in the United States, tobacco excise taxes amounted to one-third of internal revenue collected up until the early 1880s.

**Tobacco Excise Taxes Are a “Win-Win” Strategy**

Mr. Paul discusses tobacco excise taxes as a "win-win" strategy.

Higher tobacco taxes raise prices and thereby reduce consumption. But if fewer cigarettes are bought when taxes rise, shouldn’t the government earn less revenue?
No. The reason is that tobacco demand tends to be inelastic. When the price of cigarettes rises, demand falls, but by a smaller fraction than the price increase. When this happens, even though fewer cigarettes are sold, the government collects more revenues per unit of cigarette sold, and revenue tends to rise rather than fall.

The demand for tobacco products tends to be inelastic because of their addictive nature and the fact that there are not many close substitutes. Tobacco tax increases generate more tax revenues and reduce consumption, an example of a “win-win” tax policy. You can refer to Module 4 for a refresher on price elasticity/inelasticity.

**Health and Revenue “Win-Wins” from Around the World**

Select the links from the Campaign for Tobacco-Free Kids website for examples of how raising taxes reduced consumption and raised revenues around the world.

- [The Philippines](#)
- [Brazil](#)
- [Ukraine](#)
- [United Kingdom](#)

**Other Taxes on Tobacco and Tobacco Products**

Excise taxes are the most important taxes on tobacco products because they tend to be the largest in value, but they are not the only taxes on tobacco products.

Learn about these other taxes on tobacco and tobacco products.

**Tobacco Leaf Crop**

In China, such taxes go to local jurisdictions. Since they are a part of the cost of cigarettes, they raise the final price of cigarettes but by only a small amount.

**Tobacco Leaf and Other Inputs**

Customs duties (or import duties or tariffs) are collected when one country imports products from another country. As we saw in Module 4, international trade in tobacco leaf has grown in the last decades.
• Countries can levy customs duties on raw materials like tobacco leaf that product manufacturers import (this especially happens if they want to protect their domestic tobacco agriculture).
  - Nigeria imposes an import duty of 5% of the value of imported manufactured leaf (including the cost of shipment, insurance, and their handling expenses).

• Countries may also impose duties on items like the filters that tobacco companies use in their cigarettes.
  - Nigeria imposes an import duty of 10% on the value of imported cigarette paper and cigarette tubes (which are filled with tobacco to make cigarettes).

**Tobacco Product Import/Export**

Imported tobacco products themselves are also often taxed.

• Nigeria imposes an import duty of 20% on the value of imported cigarettes.

**Custom Duties**

Mr. Paul discusses customs duties.

Most countries impose some form of duties on imported tobacco leaf, on imported raw materials such as cigarette paper, and on imported tobacco products themselves.

Egypt, for example, imposes a tariff of 6.1 Egyptian pound per net kilogram of unmanufactured tobacco and 150 per net kilogram on manufactured tobacco and tobacco product imports.

Many countries allow duty free imports of cigarettes by travelers. But this is not unrestricted.

Sweden, for example, allows someone returning to the country to bring back 200 cigarettes. But if they wish to bring back more than 200 cigarettes, they have to pay both a customs duty on every cigarette imported above this limit (0.34 Swedish krona per cigarette) and an excise duty (1.96 Swedish krona per cigarette).
Policy Options When Customs Duties Are Lowered

Mr. Paul discusses policy options when customs duties are lowered.

Over time, under large international efforts to eliminate barriers to trade (the World Trade Organization formed in 1994, and its predecessor the General Agreement on Trade and Tariffs), countries have reduced and harmonized their customs duties. This encourages companies to decide where to produce based on economic factors rather than based on where the tariff is low. To raise tobacco prices, countries do better by relying on excise taxes rather than on customs duties.

Learn more about challenges when customs duties are lowered.

- Reduced cost of cigarettes: One challenge with reducing a tariff is that if other taxes are not raised when a tariff is reduced, the price of cigarettes might fall (and governments would lose revenue).

- Minimal customs duties: Another challenge is that customs duties are often a small share of price—taxes have to be considerably high to affect final prices.

- Reduced/replaced customs duties: Until 2017, Saudi Arabia had only an import duty on cigarettes. The Gulf Cooperation Council, a group of five countries that Saudi Arabia belongs to, decided to reduce the import duty. Countries are replacing customs duties with an excise tax.

In June of 2017, the Kingdom of Saudi Arabia imposed a “sin tax” on unhealthy products that can cause health problems. Prices of cigarettes doubled as a result. With the tax, the expectation is to lower the consumption of cigarettes by consumers with limited income.

Select the link to read the full article.

Saudi Arabia: 2017 Cigarette Tax
Sales Tax and Value-added Taxes

Mr. Paul discusses sales taxes and value-added taxes.

Sales taxes and value-added taxes are collected on the price that people pay for the products they buy.

Many countries impose a value-added tax. Mexico has a value-added tax (IVA) of 16% of the value of purchases like cigarettes.

Sales and value-added taxes are typically imposed at the same rate on many products. Value-added taxes are also consciously designed to not be too high. This means that value-added taxes are not as effective as excise taxes in raising tobacco product prices relative to other products.

Tax Exercise

Inspect the coupon and receipt of a cigarette pack purchased in the US state of Illinois in June 2017.
Questions:

a. How much did the smoker pay for the pack of cigarettes?
b. What can you say about the excise tax?
c. What is the sales tax rate on this purchase?
d. Do you notice anything that reduces the effectiveness of tobacco taxes?

Answer

a. USD $4.06
b. The excise tax is already included in the price, so it does not show up in the bill that this smoker bought. As it happens, a pack of 20 cigarettes bought in Illinois in June 2017 would have included a federal (national) excise of USD $1.01 and an Illinois state excise tax of USD $1.98. In addition, if this buyer had bought his pack in the city of Chicago, which is in Cook County, it would have had an addition local excise tax of USD $1.18 for Chicago and a county
excise of USD $3.00 for Cook Country, for a combined state-local tax of USD $6.16 and a total excise tax (state, local and federal) of $7.17 per pack.

(c) The sales tax rate as a share of price can be calculated as 30 cents/3.76 dollars = 8%. Notice that this rate is much smaller than the share of excise taxes in price.

d. This smoker has been able to use a coupon to get USD $2.50 off the price of his pack. This is a nearly 40% discount off the listed price of $6.26. And since the sales tax is charged on a smaller amount (that is, 8% of $3.76 rather than 8% of $6.26), this makes the final price considerably lower than if there was no discount.

**Tobacco Taxes Globally**

In the graph, the average price of the most sold brand of cigarettes in high-, middle- and low-income countries in 2016 is depicted. Price and taxation per pack or a PPP dollar is a standardized dollar, which accounts for differences in what a USD dollar can buy in different countries.
A bar graph titled "Weighted Average Retail Price and Taxation (Excise and Total) of Most Sold Brand of Cigarettes, 2016" is shown. The x-axis is labeled with categories: High-income, Middle-income, Low-income, and Global. The y-axis is labeled Price and taxation per pack (PPP dollars). Each bar is divided into three sections. The top section of each bar represents Price minus taxes. The middle section of each bar represents Other taxes. The bottom section of each bar represents Excise taxes per pack.

The price and taxation per pack is listed for each x-axis category. All prices in US dollars. PPP stands for price per pack:

- High-income: Price: PPP = $7.19; price minus taxes = $2.51, other taxes = $0.86, excise tax per pack = $3.82. Total taxes = PPP $4.68 (65.1% of pack price)
- Middle-income: Price: PPP = $4.30; price minus taxes = $1.95, other taxes = $0.53, excise tax per pack = $1.82. Total taxes = PPP $2.35 (54.6% of pack price)
- Low-income: Price: PPP = $3.09; price minus taxes = $1.94, other taxes = $0.42, excise tax per pack = $0.73. Total taxes = PPP $1.15 (37.2% of pack price)
- Global: Price: PPP = $4.87; price minus taxes = $2.13, other taxes = $0.53, excise tax per pack = $2.21. Total taxes = PPP $2.74 (56.2% of pack price)

Note: Averages are weighted by WHO estimates of the number of current cigarette smokers aged over 15 years in each country in 2016. Prices are expressed in Purchasing Power Parity (PPP) adjusted dollars or international dollars to account for differences in purchasing power across countries. Based on 53 high-income, 100 middle-income and 26 low-income countries with data on prices of the most sold brand, excise and other taxes, and PPP conversion factors. Numbers may not add up due to rounding.

Questions

1. How do prices in high- and low-income countries compare on average?
2. Globally, how much of a cigarette pack is tax?
3. Which type of tax is the largest component of taxes on cigarettes in high-income countries? What about in low-income countries?
4. Can we infer anything about prices before taxes around the world?

Answer

1. Prices in high-income countries are over twice the price in low-income countries, even when we account for the fact that many things are cheaper in low-income settings.
2. Observe the last column from the left. Globally, on average, 56.2% of the price of a cigarette pack is tax. Put another way, without tobacco taxes, cigarettes would be much cheaper than they are today.
3. Tobacco excise taxes are a much larger share of price than other taxes. If you think of your own country—taxes like sales taxes and value-added taxes tend to be at most 20% of the price of anything we buy and typically even less.
4. The height of the blue shaded regions in the columns—that is, the price of cigarettes without taxes—are much more similar across countries than the taxes themselves. Taxes in low- and middle-income countries can be raised much higher than their current levels.

Are taxes Rising Fast Enough? Measuring the Share of taxes and the Affordability of Tobacco Products: Share of Total Taxes

How does a country know if it is making progress in tobacco taxation? As with other aspects of tobacco control—the best way to track progress is to set standards, and to measure.

1. Share of Total Taxes in the Price of Tobacco Products is an important measure of a country's progress on taxation.

Review the graph and then answer some questions.
A bar graph titled “Total Taxes on Cigarettes” is shown. The x-axis is labeled with categories: High-income, Middle-income, and Low-income. The y-axis is labeled Proportion of countries (number of countries inside bars).

Each bar is divided into five sections. The top section of each bar represents Data not reported. The second section from the top of each bar represents less than or equal to 25% of retail price is tax. The third section from the top of each bar represents 26 to 50% of retail price is tax. The fourth section from the top of each bar represents 51 to 75% of retail price is tax. The bottom section of each bar represents greater than 75% of retail price is tax. The y-axis begins at 0% and goes to 100% in increments of 10.

The proportions of countries are listed (percentages for each section is an estimate; also, percentages are based on number of data points in each bar, which varies for each bar):
• High-income: 1 = data not reported (2%); 6 = less than 25% of retail price is tax (12%); 6 = 26 to 50% of retail price is tax (12%); 22 = 51 to 75% of retail price is tax (38%); and 21 = greater than 75% of retail price is tax (34%).
• Middle-income: 2 = data not reported (2%); 14 = less than 25% of retail price is tax (14%); 36 = 26 to 50% of retail price is tax (36%); 44 = 51 to 75% of retail price is tax (44%); and 10 = greater than 75% of retail price is tax (10%).
• Low-income: Price: 2 = data not reported (6%); 10 = less than 25% of retail price is tax (32%); 14 = 26 to 50% of retail price is tax (47%); 4 = 51 to 75% of retail price is tax (12%); and 1 = greater than 75% of retail price is tax (3%).


a. In how many countries in 2016 are total taxes (excise taxes plus other taxes including customs and value-added taxes) over 75% of the price of cigarettes?

b. Look at the grey section of the bar chart—would it be TRUE or FALSE to say that most of the countries with total taxes less than or equal to 25% of price are low-income countries?

Answer

a. There were 21 + 10 + 1 = 32 countries with total taxes over 75% of retail price in 2017.

b. False. Though the grey bar is largest for the group of low-income countries, the numbers of low-income countries is smaller as well. Ten low-income countries, 14 middle-income countries, and 6 high-income countries had really low taxes.
Mr. Paul discusses if taxes are rising fast enough, measuring the share of taxes and the affordability of tobacco products.

Higher taxes typically lead to higher tobacco product prices. But an important fact of economic growth is that average incomes are rising all over the world. This is a good thing—reductions in poverty and increases in the standard of living are a fundamental aim of economic development. But when people have more money in their hands to buy the things they want, this also means that the average citizen—including young people—are able to afford more cigarettes (and other tobacco products) with their incomes. Unless, that is, the price of cigarettes is rising faster than the average income.

2. Affordability has emerged as a useful measure.

With prices and incomes, it is easy to compute several measures to understand if cigarettes are getting cheaper or costlier relative to incomes over time. One measure is the share of per capita GDP (gross domestic product) needed to buy 2,000 cigarettes (which is 100 packs of 20 cigarettes) of the brand that is most widely sold in a country.

Refer to the graph in the Answer box. In the graph: can you conclude whether cigarettes are becoming costlier or cheaper relative to income?

Answer

The graph paints a mixed picture around the world. Cigarettes became less affordable (the bottom shaded areas) in 70% of high-income countries, but less than 35% of middle-income countries. In high-income countries, per capita income growth tends to be lower and prices increase faster relative to income. On balance, low- and middle-income countries have not seen affordability change very much. A big concern, is the places where price increases fell short of income increases: 4 low- and 19 middle-income countries.
Note that we are not saying the price fell in these countries. If prices rise (say from USD $10 to $11, a 10% increase) but incomes rise faster (say from USD $10,000 to $11,200), it means that cigarettes have become more affordable.


A bar graph titled “Trends in Affordability of Cigarettes, 2008–2016” is shown. The x-axis is labeled with categories: High-income, Middle-income, and Low-income. The y-axis is labeled Proportion of countries (number of countries inside bars).

Each bar is divided into four sections. The top section of each bar represents Could not be calculated due to insufficient data. The second section from the top of each bar represents Cigarettes became more affordable. The third section from the top of each bar represents Affordability did not change. The bottom section of each bar represents Cigarettes became less affordable. The y-axis begins at 0% and goes to 100% in increments of 10.
The proportions of countries are listed (percentages for each section is an estimate; also, percentages are based on number of data points in each bar, which varies for each bar):

- **High-income:** 4 = insufficient data (6%); 0 = cigarettes became more affordable (0%); 13 = affordability did not change (20%); 40 = cigarettes became less affordable (74%).
- **Middle-income:** 8 = insufficient data (6%); 19 = cigarettes became more affordable (18%); 45 = affordability did not change (42%); 35 = cigarettes became less affordable (34%).
- **Low-income:** 7 = insufficient data (22%); 4 = cigarettes became more affordable (12%); 15 = affordability did not change (48%); 5 = cigarettes became less affordable (18%).

Note: Change in affordability computed as the least squares rate of change in the per capita GDP required to purchase 2000 cigarettes of the most sold brand in local currency in any given year. Please refer to Technical Note III for details of computation.


**Types of Excise Tax: Specific, Ad Valorem, and Mixed**

Excise taxes are not all identical. The main difference is whether taxes are imposed on the following:

- Units of cigarettes (specific taxes, typically a fixed amount for a given number of cigarettes)
- The value of cigarettes (ad valorem taxes, *ad valorem* meaning on the value of)
- On both units and the value (termed mixed excise taxes)
**Example: Types of Excise Tax—Specific, Ad Valorem, and Mixed**

Think of a country with no cigarette taxes, where cigarettes sell for $5 a pack. An example of a specific tax is a $2 tax per pack. If the government imposes such a tax, pack prices might rise to $7 ($5 + $2 dollars of tax).

The government could instead decide to tax the price (or value) of cigarettes, say at 20%. In this case, 20% of the price of a pack of cigarettes is $1, and prices would rise to $6. The government would need an ad valorem tax of 40% for the tax amount to be $2.

**Choosing Between Types of Excise Taxes**

Specific taxes tend to raise the price of cigarettes by more than similar ad valorem taxes and tend to reduce the gap in price between more expensive and cheaper cigarettes. Let us revisit our example of a $2 specific tax and a 40% ad valorem tax.

For the case of a $5 cigarette pack, both of these taxes were equivalent: they both raise price by $2. Suppose there is a cheap brand that sells for $2 a pack—that is—$3 cheaper than the $5 pack.

Imposing a specific tax of $2 would raise the price of the cheaper cigarette from $2 to $4. A 40% ad valorem tax would raise the price by 40% of $2, or by 80 cents. The new, after-tax price would be $2.80. The ad valorem tax raised the price of the cheaper brand by less (80 cents versus $2).

Additionally, the ad valorem tax ended up increasing the difference in price between the costlier and cheaper cigarette brands ($7 - $2.80 = $4.20, whereas the price difference remained at $3 for the specific tax). When price differences widen the way they did with the ad valorem tax, smokers might be tempted to switch to the cheaper brand rather than quit altogether.

**Choosing Between Types of Excise Taxes (continued)**

Mr. Paul discusses choosing between types of excise taxes.

One challenge with a specific tax like $2 for every pack is that general inflation or price increase reduces the value of a tax unless the tax is also raised.
This is what happened in the US where the federal tax on cigarettes was not raised for many years until a tripling of the tax rate from 39 cents to $1.01 in 2009. The real value of the tax was below its 1951 level for over 50 years.

A line graph titled “Federal Cigarette Excise Tax in the USA (Adjusted to 2017 Dollars)” is shown. The x-axis is labeled with years. The years start at 1980 and go to 2016 in increments of 2 years. The y-axis is labeled in US dollars. The y-axis begins at 0 and goes to 1.4 in increments of .2 (two-tenths or 20 cents).

The federal cigarette excise tax estimate for each year is:

The line starts at lower left (0.22 in 1980), descends slightly to right in 1982, rises sharply in 1984, descends slowly to 1992, rises slightly in 1994, descends slowly through 1999, rises sharply through 2003, descends slowly through 2008, rises severely to 2010, then descends slowly through 2017.

The fix for this sort of problem is to raise specific taxes regularly, and at rates exceeding inflation.

- In our example, if annual inflation is 5%, the specific tax of $2 would have to be at least $2.10 next year (2.10 = 105% of $2.00) to maintain its real value.
- Some countries have an automatic mechanism to raise taxes to keep pace with inflation. Australia raises its federal cigarette taxes twice a year (March and September) in line with the increase in wages.

**Do Excise Taxes Hurt Some People Unfairly?**

Mr. Paul discusses if excise taxes hurt some people unfairly.

The price increase from an excise tax may not seem much, but a valid concern for policymakers is who bears the brunt of the tax. Concerns about the fairness of taxes are important since the welfare of everyone in society depends on it.

When the price of a cigarette pack rises from $5 to $7, it pinches more from the pockets of a poor smoker than from a rich smoker.

Taxes that result in a poorer person giving up a larger portion of their income than a rich person are what economists traditionally call “regressive” taxes. But as we will see, tobacco tax increases can actually be pro-poor.

Many income tax systems are consciously designed to be progressive—low-income citizens may pay low or no income taxes—and as income increases, the fraction of income that is taxed also increases.

**Excise Taxes: Exercise**

Consider two smokers, one with a $10,000 annual income and one with a $50,000 income. Both smokers smoke a pack each of the same brand of cigarettes each day. Taxes now rise by $2. How much more of their income would each smoker have to spend to maintain their habit?

**Answer**
Each smoker now has to spend an additional $2 each day, or $365 \times 2 = \$730$ a year, to smoke the same number of cigarettes.

This would be an additional spending of 7.3% for the person with $10,000 income, and just 1.4% more for the richer smoker.

Indirect taxes like tobacco excises tend to be regressive. Tobacco control advocates are sometimes asked to justify why they push for tobacco taxes if they hurt the poor.

**Addressing Concerns About Tobacco Tax Regressivity**

Mr. Paul discusses concerns about tobacco tax regressivity.

Concerns of the fairness of excise taxes are certainly valid. But regressivity is a broader concept than what smokers pay out of their pockets.

Let me quote Jason Furman, Chairman, Council of Economic Advisers, in 2016:

"Tobacco taxes are sometimes criticized for being regressive, but this criticism is backward. The health benefits of tobacco taxes far exceed the increase in tax liability, and these health benefits accrue disproportionately to lower-income households. Moreover, it is important to also evaluate what the revenue raised by the tobacco tax is used for. The most recent increases (in the United States), enacted in 1997 and 2009, were used to create and expand a very progressive children's health insurance program."

Indeed, for a number of years now the World Bank, the World Health Organization (WHO), and others have promoted the use of tobacco taxes as the most effective means of reducing tobacco smoking prevalence on a global scale (WHO 2015). If anything, the use of taxation as a means of reducing the prevalence of smoking may be even more effective in developing countries going forward.

Learn about ways to address concerns about the impact of tobacco taxes on fairness.

**Unequal burden of disease**
In most countries, the burden of tobacco illnesses and mortality falls unfairly on the poorest smokers who also stand to benefit the most from quitting.

**Increased quit rate**

Tobacco product price increases are effective—and tobacco taxes are the best way to raise product prices. Poorer smokers tend to quit more for a given tax increase (i.e., their demand is more price sensitive), and therefore the benefits of a tax increase—namely, the number of people who quit—tend to be more in the lower-income groups.

**Improved health services**

Fiscal policy is much more than just the collecting of excise taxes. When the revenues raised from cigarette taxes are used to help improve the health of lower-income individuals, the taxes not only help smokers quit, they can also address health inequalities.

**Availability of cheap cigarettes**

Taxing similar products at similar rates is important. In many countries, cheap forms of tobacco (bidis, cheaper cigarette brands, etc.) are actually taxed at lower rates. This means that the products that the poorest can afford to buy stay undertaxed.

**Best Practices in Raising Tobacco Taxes**

Tobacco control is served best by excise taxes that are simple, easy to administer, and that have a large impact on encouraging users to quit.

Learn about some best practice scenarios.

**Raise excise taxes to a large share of cigarette price**

The WHO recommends that excise taxes account for at least 70% of the price of tobacco products. Additionally, for the purpose of monitoring, WHO tracks which countries have total taxes (that is, excise taxes plus other indirect taxes like value-
added taxes) of at least 75% of price. Recall the graph of countries’ cigarette tax shares—most countries have a long way to go to reach 70%.

**Rely more on specific taxes**

Specific taxes should be raised frequently and raised at rates that exceed annual inflation.

**Be simple and avoid complex tax systems**

In many countries, cigarettes are taxed differently based on their length or other characteristics (shorter cigarettes have a smaller tax). When taxes vary by characteristic, the system is known as a “tiered” excise system.

**Example:** Indonesia has 12 different tax rates for cigarettes depending on whether they are made by hand or by machine, whether they are kretks or white cigarettes, and whether they are made in large or small factories. For two cigarettes, both equally toxic, one may have taxes that is less than one-fifth of the tax on the other cigarette.

Complex tax systems encourage smokers to switch to cheap cigarettes instead of quitting. Complex tax systems are also used by the tobacco industry to minimize its tax share. To address its problem of complex taxes, Indonesia, over a period of four years from 2017, will reduce the number of tax tiers from 12 to 5.

**Better enforcement**

Investing in technology and cost-effective enforcement helps governments reduce the loss of tobacco tax revenues by giving revenue authorities better information of the entire supply chain of tobacco products. Knowing where cigarettes are coming from and going to is the first step to preventing tax evasion.

**Example:** A new tax stamp and better control over the supply chain of alcohol and tobacco products reduced costs to comply and helped Kenya’s Revenue Authority to seize over 300,000 illegal products between Feb and June 2014.

In the image, the Kenya Revenue Authority and police destroy smuggled cigarettes.
Tobacco taxes as part of a tobacco control package

Tobacco taxes have an even greater effect as part of a tobacco control package. Tobacco taxes complement the other tobacco control policies in the MPOWER package.

Causes of Illicit Trade: The Demand Side

Mr. Paul discusses causes of illicit trade: the demand side.

Why would smokers buy cigarettes illegally rather than on the legal market? Why would people undertake the risk of being caught supplying an illegal product? We know the economic factors that drive the demand and supply for tobacco products in the market.

In Module 3, illicit trade was touched upon from the perspective of tobacco industry interference. The next few slides will dive deeper into the economic factors surrounding this illicit trade. The same tools that we use to understand the demand and supply of tobacco can help put illicit trade in perspective.

Learn how similar factors drive the demand for illegal tobacco products.

Relative Price

Smuggled tobacco products are typically cheaper than legal tobacco products because they are produced and sold without paying taxes.

In many countries, it is illegal to open cigarette packs and sell individual cigarette sticks or loosies. But a market certainly exists for single cigarettes, particularly in
low-income neighborhoods. For a poorer smoker or a teenager, buying a single stick is a cheaper option to buying a whole pack.

Preferences

Curiously enough, there is also a market for cigarettes that are priced higher than what is legally sold in the market. Brands and products that are not sold legally in a country can sometimes be smuggled in illegally.

The legal Dunhill cigarette pack (with a graphic health warning) from Pakistan is priced at 95 PKR (USD 0.88 cents). The illicit Dunhill cigarette pack (without a graphic health warning) from Pakistan is priced at 125 PKR (USD $1.16).

Illicit Trade Is Not a Reason to Avoid Raising Taxes

Mr. Paul discusses how illicit trade is not a reason to avoid raising taxes.

Illicit trade in tobacco products can take many forms, some small and some serious, but nearly all illegal activities.

While illicit trade is a problem by itself, the success of tobacco taxation often depends on being able to convince policymakers that the fear of increased smuggling or other forms of illicit trade should not stop governments from raising their tobacco excise taxes. This fear is often fostered by false information shared by the tobacco industry.
Many governments fear that raising taxes on tobacco products will lead to a large market for illicit tobacco products—whether locally produced or smuggled into the country. But evidence has shown that illicit trade is an enforcement and governance issue and NOT a reason to avoid tax increases.

Learn more about why illicit trade is not a reason to avoid raising taxes.

**Tax evasion factors**

In many countries, factors such as high levels of corruption, lack of commitment to addressing illicit trade and ineffective customs and tax administration, play an equal or greater role in explaining tax evasion than do product tax and price differentials.

**Tobacco company involvement**

Illicit trade has sometimes included the involvement of the tobacco companies themselves.

**Success against illicit trade**

Experience from many countries demonstrate that illicit trade can be successfully addressed, even when tobacco taxes and prices are raised, resulting in increased tax revenues and reduced tobacco use.

**The Supply of Illegal Tobacco Products**

Criminal activities often happen within a cost-benefit calculation. Suppliers of illicit tobacco products find that the benefits (profits) from selling tobacco products exceed the costs.

Learn more about the costs and risks of illegal tobacco products.

**The cost of producing illicit products**

Cigarettes can be produced cheaply and, when sold without paying taxes, they are cheaper than legal cigarettes.

**The cost of transporting products illegally**

Cigarettes and other tobacco products are lightweight and easy to hide.
The cost of counterfeiting cigarettes

Even experts sometimes find it difficult to identify if a cigarette pack or a tax stamp is illegal.

The risks and the costs of being caught

The risks of engaging in illegal activities are low.

- Enforcement is weak; police and customs authorities are not trained or equipped to combat smuggling and identify criminals; authorities are susceptible to bribes and inducements.
- Punishment is not strong enough to deter crime.

Quiz

True or False? Illicit trade is a reason to avoid tax increases on tobacco products.

Answer

False: Many governments fear that raising taxes on tobacco products will lead to a large market for illicit tobacco products—whether locally produced or smuggled into the country. But evidence has shown that illicit trade is an enforcement and governance issue and NOT a reason to avoid tax increases.

Illicit Trade in Tobacco Products: Consequences

Details of illegal activities grab our attention and make for great headlines. Read about several such stories. The paragraphs from the articles are provided verbatim.

Budget 2018: Disincentivise cigarette smuggling through tax policy

The Federation of All India Farmer Associations (FAIFA), claiming to represent farmers of commercial crops across Andhra Pradesh, Telangana, Karnataka and Gujarat among others, said a steep increase in tobacco taxation in the recent past led to growth of smuggling of cigarettes in the country.

Access the full cigarette smuggling article.

Cigarette Smuggling

Ice packs: Cigarette smugglers find frozen route to Lithuania

VILNIUS (Reuters) - Tobacco smugglers are using river iceflows and GPS technology to transport their goods into Lithuania, where an estimated one in every six cigarettes smoked in 2016 was illegally imported.


Access the full cigarette smuggling on ice article.

Cigarette Smuggling on Ice

Type of Illicit Trade in Cigarettes

Mr. Paul discusses types of illicit trade in cigarettes.

According to the WHO FCTC, illicit trade means “Any practice or conduct prohibited by law and which relates to [the] production, shipment, receipt, possession, distribution, sale or purchase including any practice or conduct intended to facilitate such activity.”

Illicit trade in tobacco products can take many forms, from small, localized incidents of illegal tobacco to large scale crime operations.
Smuggling involves moving a quantity of cigarettes across a border in excess of the allowable limits, generally avoiding taxes in the destination.

Types of Illicit Trade in Cigarettes (continued)

Mr. Paul discusses types of illicit trade in cigarettes in the United States.

Cigarettes in the US state of North Carolina can be bought legally at wholesale prices for (USD) $5.50 a pack. In New York City, the same cigarettes would sell for $13 per pack in a store. Smugglers transport North Carolina cigarettes to NYC to make a large profit.

Learn more about types of illicit trade in cigarettes.

- Counterfeiting is a form of illicit manufacturing that involves using a trademark without the approval of the trademark owner.
- Illicit whites (also called “cheap whites”) are cigarettes manufactured by legitimate business enterprises, but a large share of the production is sold illegally.

Identifying Legally Produced Cigarettes

Manufacturers and governments often have several ways of identifying legally produced cigarettes. Tax stamps are stamps placed on packs and cartons to show that excise taxes were paid. Many of these stamps have specific features to prove they are legal and not fake.

Learn about the components of a Canadian tobacco tax stamp.
An image of a Canadian tobacco duty tax stamp is shown. This stamp is for 250 cigarettes. Seven buttons are spaced around the tax stamp. The image of a maple leaf appears on the stamp.

Users can select each button to learn about different components of the tax stamp.

The components of the tax stamp include:

- Stamp type (text reads: 250 Tobacco, Tabac).
- Color shift ink - an anti-counterfeiting measure, colors shift in the ink as the stamp is held at different angles.
- Jurisdiction (text reads: Canada, Duty Paid, Droit Acquitté) – designates the area that the tax stamp covers. This stamp covers the country of Canada.
- Unique identifier – an identification number is given to each stamp.
- Federal duty – this area designates that the duty is paid.
- Intaglio latent image – a pattern of maple leaves is shown with a printing technique intended to serve as a means of differentiating between genuine documents printed from engraved plates and photo-reproductions of counterfeiters.
- Anti-copy line work – a large image of a maple leaf with an intricate line pattern protects the stamp from being copied.


With more and more countries mandating graphic health warning labels on their packs, these labels can also serve to identify packs produced legally.

Other markings and identifiers like numbers, codes and special materials, including on individual sticks, can help identify legally produced cigarettes.

For instance, in Singapore, since January 2009, cigarette sticks are required to bear the Singapore duty-paid cigarette (SDPC) mark. The mark is a series of vertical bars between 2 to 10 millimeters in height, with a spacing of less than or equal to 1
millimeter between vertical lines. The SDPC mark appears below the filter on the cigarette paper and goes around the cigarette.

**Combating Illicit Trade**

Mr. Paul discusses combating illicit trade.

A big factor driving illicit trade is differences in prices in cigarettes between different locations. This leads many commentators—especially those who support the tobacco industry—to say that taxes on cigarettes should be lowered, or should not be raised.

The problem with lowering taxes to combat illicit trade is that higher taxes are the most effective economic tool to reduce tobacco consumption. Illicit trade occurs in low-tax jurisdictions as well as high-tax ones and there is no direct correlation between rates of tobacco taxation and tobacco smuggling.

Further, illicit trade is driven by many factors—not just tobacco taxes; these factors include enforcement as well as corruption.
Adopting and Refining Policy Measures Against Illicit Trade

All of this suggests that, rather than focus on reducing taxes, countries can respond by adopting and refining policy measures.

Learn more about these measures.

Improve independent monitoring and enforcement to reduce illicit trade.

- Invest in technology for tracking (monitoring tobacco products from manufacture, through distribution and retail) and tracing any single tobacco product found in the market item back to its origin.
- Make these enforcement efforts independent of interference from the tobacco industry. While the tobacco industry might be well equipped to explain the supply chain and risks of illicit trade to tax authorities, its advocacy of lower tobacco taxes is contrary to public health needs.

Enhance international cooperation.

The Protocol to Eliminate Illicit Trade in Tobacco Products, the first Protocol to the Convention, was adopted on 12 November 2012 at the fifth session of the Conference of the Parties in Seoul, Republic of Korea, and entered into force on 28 June 2018.

Select the link to access the Protocol to Eliminate Illicit Trade in Tobacco Products.

[Protocol to Eliminate Illicit Trade in Tobacco Products](#)

Model or calculate the losses from illicit trade to advocate for higher taxes.

A government thinking of raising taxes can expect to lose some tax revenue if illicit trade goes up. But policymakers can argue that they will reinvest some of the new revenues to improve enforcement and reduce losses.

Exercise: Protecting a Tax Increase from Doubts About Illicit Trade

Mr. Paul discusses protecting a tax increase from doubts about illicit trade.

A major tobacco tax reform in the Philippines more than doubled tax revenues (that is from 32 billion pesos in 2012 to 74 billion pesos in 2014), and was found to
reduce tobacco use prevalence. At the same time, it was found out that there was a surge in efforts to produce counterfeit cigarettes and tax stamps—a raid uncovered an illegal factory that could produce 3.6 billion cigarettes a year, which means a loss of tax revenues. The tobacco industry has argued that the tax reform is a failure due to its resulting in this illegal activity.

If you were a legislator in the Philippines, what arguments and numbers could you use to advocate for raising taxes even higher?

**Answer**

- Focus on the past and future revenue gain. The higher revenue did not stop at 75 billion pesos—they rose **to over 115 billion in 2017**.
- Emphasize the benefits of reduced tobacco use. The tax reform was cited as the reason for prevalence falling in the Philippines.
- Compare potential losses from illicit trade relative to the gains from higher taxes rather than what could have been. Suppose revenues were 10% lower in 2017 than they might have been because of illicit trade. That means the Philippines could have done better than the 115 billion pesos it raised in tax revenue—that is, it could have raised 126 billion pesos instead of 115 billion pesos from taxes. If we focus on the loss of potential revenue, 11 billion pesos is not a small amount. Another way to think of this “loss” is as the cost of raising taxes—instead of 32 billion pesos (2012), the country now raises 115 billion pesos, and even if it lost some revenue to illicit trade, there is a huge gain to both revenue and health.
- Plan to invest some portion of additional tax revenues in efforts to reduce illicit trade, including good tax stamps, track and trace systems, and enforcement.

**Summary**

Mr. Paul summarizes the Taxation Lecture.
Tobacco excise [taxes] are the most effective government policy tool to reduce demand for tobacco products. Taxes are an underutilized tool—most countries can raise their tobacco taxes much higher to secure a “win-win”—that is, raising both revenues and saving lives by reducing consumption. Higher taxes are especially good at stopping young people from starting to smoke. Best practices in tobacco taxation, like designing simple taxes and adjusting taxes to inflation have the overall aim of giving tobacco users enough of an incentive to reduce their smoking and quit.

Arguments raised against tobacco taxation as a policy intervention, include the effects on the poor (the “regressivity” argument), job losses for those engaged in tobacco-dependent businesses, the fear that revenues will decline, or that illicit trade will rise. These concerns are either misconceptions or can be addressed systematically by appealing to data on the benefits of higher tobacco taxes.

**Cessation**

**Introduction**

Dr. Dan Xiao from the Tobacco Medicine and Tobacco Cessation Center of the China-Japan Friendship Hospital and the WHO’s Collaborating Center for Tobacco Cessation and Respiratory Diseases Prevention, introduces the Tobacco Cessation Lecture.

Cessation support is a critical element of a comprehensive tobacco control approach, and comprises the “O” in MPOWER – Offer help to quit tobacco use. Article 14 of the WHO Framework Convention on Tobacco Control states: “Each party shall...take effective measures to promote cessation of tobacco use and adequate treatment for tobacco dependence.”

This section will familiarize you with the rationale for and the principles of tobacco cessation.
Learning Objectives

- Recognize tobacco cessation as a vital component of a comprehensive tobacco control program.
- Explain why tobacco dependence exists.
- Identify essential elements of a cessation strategy to help tobacco users to quit.

Rationale for Cessation

Dr. Xiao discusses the rationale for cessation.

Preventing young people from taking up tobacco use is not sufficient to maximize the numbers of lives saved from tobacco-caused deaths. In this chart, if the proportion of young adults taking up smoking halves by 2020, the projected number of lives saved from tobacco-caused mortality globally is 20 million.

But if current adult smoking prevalence is cut in half by 2020, 180 million tobacco-caused deaths could be avoided. Helping tobacco users to quit ensures the fastest decline in tobacco-caused deaths. The benefit in terms of the numbers of deaths that can be prevented becomes evident fairly early, less than five years after the intervention is started, compared to after approximately 30 years of prevention.
A graph titled: The Rationale for Cessation, is shown. A subtitle reads: Estimated cumulative deaths from tobacco, 1950-2050, with different intervention strategies.

The x-axis is labeled with years. The years start at 1950 and go to 2050. The y-axis is labeled with tobacco deaths (millions). The y-axis starts at 0 and goes to 500 in increments of 100.

There are three populations being measured: a baseline, young adults, and adults. The young adults’ data represents if a proportion of young adults taking up smoking halves by 2020 and beyond. The adults’ data represents if adult consumption halves by 2020 and beyond.

Data points for the three categories (baseline, young adults, and adults) are:

- 1950: baseline: 0, young adults: 0, adults: 0
- 2000: baseline: 70, young adults: 70, adults: 70
- 2020: baseline: 220, young adults: 220, adults: 190
- 2050: baseline: 520, young adults: 500, adults: 340

The lines for the graph start in the lower left and rise to upper right. The baseline line rises highest (520 in 2050). The young adults line rises to the next highest point (500 in 2050). The adults line rises to the lowest point (340 in 2050).


**Quitting Tobacco Use**

Dr. Xiao discusses quitting tobacco use.

Many tobacco users want to quit, especially if they are fully aware of the adverse impact of tobacco on their health and the health of their family. The Global Adult Tobacco Survey (GATS) in 14 countries revealed that anywhere from 41%–76% of smokers are planning or thinking about quitting. Most tobacco users who quit do so by themselves, but these smokers desiring to quit are more likely to be successful giving up tobacco use with the help of cessation interventions (as measured by being tobacco-free at 6 months after their quit date).
Dr. Xiao discusses cessation implementation.

Despite a lot of demand for help with quitting tobacco use, cessation remains the least implemented of the MPOWER measures. In many countries, health professionals do not receive training to offer cessation services.

**Increasing the Demand for Cessation**

As more countries implement tobacco control strategies and policies covered by the WHO FCTC, we can expect more tobacco users to become motivated to quit. Thus, we can anticipate that the demand for cessation will continue to rise as countries comply with their commitments under the Treaty. This makes it imperative to address the need to build cessation capacity in a systematic and strategic manner.

As an example of how we can anticipate demand for cessation will rise as countries implement tobacco control strategies, the introduction of graphic warning labels in Canada increased smokers’ intention to quit by almost 70%.
A bar graph titled: Introduction of Graphic Health Warning Labels in Canada Increases Smokers’ Intention to Quit, is shown.

The x-axis is labeled with two categories: Smokers’ intention to quit before introduction of pack warnings; and, Smokers’ intention to quit after implementation of pack warnings. The y-axis is labeled with the proportion of smokers that intended to quit. The y-axis starts at 10% and goes to 100% in increments of 10.

Data points for the two categories are:

- Smokers’ intention to quit before introduction of pack warnings: 20%
- Smokers’ intention to quit after implementation of pack warnings: 87%


**Tobacco Dependence: Exercise**

If many tobacco users say they want to quit, why don’t they?

Think of all the reasons why you think people use tobacco, and all the reasons why they do not quit, even when they claim to want to stop. Can you identify common themes across these reasons?

**Tobacco Dependence**

For tobacco users, their dependence on tobacco products is reinforced through a 3-link chain of addiction. Broadly speaking, the three elements that sustain tobacco use in an individual are physical/physiologic, psychological/emotional, and behavioral/sociocultural.
Physical/Physiologic Addiction

Tobacco use results in true drug dependence, which is comparable to the dependence caused by heroin and cocaine. As you learned in Module 2, nicotine promotes physiologic addiction to tobacco.

Tobacco Dependence: Withdrawal

Can you identify the symptoms of withdrawal to nicotine?

Nicotine withdrawal symptoms arise with both abrupt cessation and reduction in tobacco use. Withdrawal symptoms appear within hours of the last use. Withdrawal can be a significant barrier to successful cessation.

Learn about some common withdrawal symptoms.

Withdrawal symptoms

- Weight gain
- Decreased heart rate
- Coughing
- Influenza-like symptoms
- Insomnia
- Cravings
• Restlessness
• Decreased mental alertness
• Mood changes
• Irritability
• Difficulty concentrating
• Headaches

Psychological/Emotional Dependence

Dr. Xiao discusses psychological/emotional dependence on tobacco.

The psychological and emotional dependence on tobacco can be considerable. Tobacco use is often associated with feelings of calm and pleasure, while stopping tobacco use is often associated with the unpleasant experience of withdrawal symptoms. Over time, the user forms an emotional attachment to tobacco use as a way to cope with stress, anger, or unhappiness.

Some smokers believe they cannot live without tobacco, and that the product is an essential part of their life.

Studies have shown that nicotine may also be used to “self-medicate” underlying problems such as depression, anxiety, Attention Deficit Disorder, or stress (Orrick & Ferguson, 1998).

Behavioral Dependence

Dr. Xiao discusses behavioral dependence on tobacco.

The behavioral dependence on tobacco comes from the association of tobacco use with day-to-day activities. Tobacco use becomes habitual because it is linked to activities of daily living such as driving, having coffee, or ending a meal. Smokers link certain behaviors with cigarettes—getting into their car or the smell of coffee in the morning promote them to light up and smoke.
When there is easy access to tobacco products, and when they are available, affordable, acceptable, and attractive, tobacco users are more likely to consider tobacco use as normal, and are less likely to consider quitting.

Having many of the MPOWER measures implemented helps to slow the uptake of tobacco use, and increases the likelihood that tobacco users will want to quit.

**The Three Elements Addressed**

Dr. Xiao discusses the three elements of tobacco dependence.

The three elements of tobacco dependence are interdependent and act together to influence a tobacco user’s readiness and likelihood to quit. Nicotine replacement therapy (NRT) and pharmacotherapy address the physiologic dependence, behavioral counseling helps address the psychological, emotional and behavioral dependence, and having comprehensive tobacco control policies that are enforced counters the sociocultural dependence.

The likelihood of successfully quitting tobacco and staying tobacco free is enhanced when all three elements in the three-link chain of tobacco dependence are simultaneously addressed.
Treating Tobacco Dependence: Part 1

The World Health Organization (WHO) recommends at least three types of cessation interventions be included in any tobacco control program.

Learn more about these three types of cessation interventions.

Cessation Advice: Primary Care

Brief advice from doctors and other health care workers increases quit rates by about 3%.

Quitlines

Free telephone help lines, known as quitlines, make cessation advice and counseling available to a large number of people, even outside of the health care system. Quitlines are estimated to increase quit rates by about 4%.

Pharmacologic Therapy

Clinical cessation treatment, at a minimum, should include nicotine replacement therapy (NRT). In many countries, NRT is available over the counter and does not require a doctor's prescription. NRT by itself, or in combination with other prescription cessation medications, can increase quit rates by 7%.

Treating Tobacco Dependence: Part 2

Dr. Xiao discusses treating tobacco dependence.

Tobacco cessation is among the most cost-effective disease treatment interventions, and combining both changes in behavior/counseling with use of medicine increases the cost-effectiveness.

At the individual level: helping smokers quit at age 60, 50, 40, or 30 years gains, respectively, about 3, 6, 9, or 10 years of life expectancy.

Governments concerned with improving health in their countries should consider encouraging adults to quit and making treatment of tobacco dependence a top priority for the health care system.
Intensity in Tobacco Cessation Counseling

Cessation counseling can occur with varying degrees of intensity. Tobacco users can benefit from several types of interventions. These can range from very simple encounters to multi-session treatment programs.

Learn more about various types of cessation interventions.

Minimal Intervention

This intervention occurs when information is provided without any significant personal interaction, such as when a person picks up a brochure at a health fair. Minimal interventions have only a limited effect on any given person, but are worthwhile because they reach many people and are inexpensive.

Brief Intervention

Brief interventions require personal interaction at a clinical setting. Brief interventions are based on the “5 As” (Ask, Advise, Assess, Assist, and Arrange). Brief interventions last about 3–10 minutes.

Intensive Intervention

“Best Practice” standards identified for intensive services require that:

- The intervention provider must have a level of training that is documented and appropriate to the type of service being provided.
- Four or more therapeutic sessions whose contents have been scientifically proven effective must take place. Each session must be longer than 10 minutes.
- Total contact time must be longer than 30 minutes. This excludes the time necessary to complete sign-in, assessments, and any other necessary paperwork.
- The sessions must take place over at least two weeks (and preferably over eight weeks or more).
Brief Interventions

Dr. Xiao discusses brief interventions.

Intensive or longer-lasting treatments are more likely to help tobacco users quit successfully.

Health-care providers can help patients quit tobacco successfully by offering brief interventions as short as three minutes.

The WHO FCTC recommends that brief tobacco cessation advice is incorporated systematically into primary care to strengthen the cessation infrastructure in member countries.

Integrating brief cessation advice into primary care services can help tobacco users quit successfully in several ways:

- Reach more than 80% of all tobacco users per year.
- Encourage 40% of those receiving advice to make a quit attempt.
- Help 2%−3% of those receiving brief advice quit successfully.
- Through referrals, creates demand for more intensive tobacco cessation services such as quitlines and specialized tobacco dependence treatments.

Primary Care Providers and Tobacco Interventions

Despite the benefits of brief tobacco interventions, in general, less than 50% of primary care providers routinely ask and advise tobacco users to quit.

Learn more about primary care providers and tobacco interventions.

In High-Income Countries

A multi-center study across 12 European countries found that, overall, only 36% of health professionals reported always advising patients to quit smoking.

In Low-Income Countries

The use of brief tobacco interventions is even lower in low-income countries. For example, a study in South African primary care settings documented that only
12.9% of the patients were asked about tobacco use, and 11.9% of tobacco users reported being advised against tobacco use by their physicians during clinic visits.

The success rate for brief interventions can be enhanced by:

- Provide education and training on the treatment of tobacco dependence to all health care providers.
- Integrate tobacco dependence treatment into health care systems so that health-care providers routinely ask all patients about their tobacco use and provide brief advice to all tobacco users.

**Ask, Advise, Assess, Assist, and Arrange**

Dr. Xiao discusses the 5 As of brief cessation interventions—ask, advise, assess, assist, and arrange.

Brief cessation interventions are based on the 5 As: Ask, Advise, Assess, Assist, and Arrange. The 5 As model is most useful when there are limited cessation resources outside of the primary care provider’s clinic. When alternate cessation treatment options do exist, such as through a quitline or through specialized cessation programs, shorter protocols such as the “AAR”, “AAA” or New Zealand’s “ABC” models (see below) can be employed. These reduce the demand on the clinician, who often has limited time while seeing patients, by allowing him or her to go through the steps to “Assist” and “Arrange” to other cessation service providers and community resources.

The 5 As (Ask, Advise, Assess, Assist, Arrange) summarize all the activities that a primary care provider can do to help a tobacco user within 3–5 minutes in a primary care setting. It does not mean the physicians have to do all of these five activities/steps every time. It is important for physicians to take a few minutes to support tobacco users to quit by using the 5As model at every clinic visit.

Brief cessation interventions are easy to learn, and relatively easy to carry out. They do not have to be limited to the clinical setting, but can be adapted for various settings, such as in schools, community centers, and workplaces. You do not have to
be a physician to perform a brief tobacco intervention; various studies have demonstrated that these can be conducted by allied health workers, such as nurses, pharmacists, midwives, and by non-medical personnel.

**Treating Tobacco Dependence**

The five As include:

- **Ask** – Systematically identify all tobacco users at every visit.
- **Advise** – Advise all tobacco users that they need to quit.
- **Assess** – Determine readiness to make a quit attempt.
- **Assist** – Assist the patient with a quit plan or provide information on specialist support.
- **Arrange** – Schedule follow-up contacts or a referral to specialist support.

**Alternative protocols when other cessation resources exist include:**

<table>
<thead>
<tr>
<th>AAR</th>
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<th>ABC</th>
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<tr>
<td><strong>Ask</strong> about tobacco use. <strong>Advise</strong> all tobacco users to quit. <strong>Refer</strong> to a quitline or other cessation service.</td>
<td><strong>Ask</strong> about tobacco use. <strong>Advise</strong> all tobacco users to quit. <strong>Act</strong> on patient’s response, <strong>assist</strong> the tobacco user in developing a quit plan and give advice on successful quitting.</td>
<td><strong>Ask</strong> about tobacco use. Give <strong>Brief</strong> advice to all tobacco users to stop using tobacco. <strong>Cessation</strong> support for those who express a desire to stop.</td>
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**Quitlines**

Dr. Xiao discusses quitlines.

Quitlines are phone-based tobacco cessation services that help tobacco users to quit. Services offered by quitlines include coaching and counseling, referrals, mailed
materials, training to health-care providers, Web-based services and, in some instances, free medications such as NRT.

Research shows that quitlines are highly effective in helping tobacco users quit, due to their ability to reach and serve tobacco users, regardless of location, and for 24-hour quitlines, time of day. The US Public Health Service’s guideline, Treating Tobacco Use and Dependence: 2008 Update, found that quitline counseling can more than double a smoker’s chance of quitting, and quitline counseling combined with medication (such as NRT) can more than triple the chances of quitting. Studies indicate that for every smoker who quits in response to tobacco control measures, such as through a quitline, their total health care costs over the next five years would drop, on average, by approximately USD $2,500.

Learn more about what quitlines can do.

Reach
Reach a large number of tobacco users, including racial and ethnic communities.

Reduce
Reduce access-related barriers to treatment by providing a free telephone number that is flexible to the caller’s schedule.

Serve/Link
Serve as an entry point to other cessation resources (e.g., medications), and in some cases link tobacco users to broader health-related information and resources (e.g., care for diabetes or maternal care services for smoking pregnant women).

Provide
Provide local health providers with a place to refer a smoker for help with quitting, through fax, electronic, or other means.

Offer
Offer a treatment service that is appealing to a broad spectrum of people regardless of race/ethnicity, education level, or area of residence (urban vs. rural).
Other Cessation Counseling Modalities

Dr. Xiao discusses other cessation counseling modalities.

In addition to face-to-face cessation interventions and quitlines, there are emerging models for delivering cessation interventions that take advantage of technology and the Internet. Web-based programs, mobile text-based programs and phone apps are currently being tested in several countries. The use of mobile technology to provide personalized cessation advice is known as mCessation.

India, which has a high penetration of mobile phones, launched a bilingual mCessation program in 2016. Since its inception, more than 2 million tobacco users have enrolled in the program.

An evaluation at the end of the first year of implementation, covering a sample of over 12,000 registered users, demonstrated a quit rate of 7% among both smokers and smokeless tobacco users 6 months after enrollment.

Case Study: India’s mCessation Program

The situation

Every year, an estimated 1 million people die of tobacco-caused diseases in India. Approximately half of adult men use tobacco, putting them at risk for tobacco-caused illnesses, and their families, for diseases caused by secondhand smoke exposure. A majority of tobacco users who want to quit have limited access to cessation clinics and providers.

The response

While not everyone can readily access a cessation clinic in India, nearly everyone has a mobile phone. To increase population access to cessation programs, the government, in partnership with WHO and the International Telecommunication Union (ITU), launched a bilingual mCessation program in 2016. Tobacco users seeking cessation support enroll into the program using their mobile phones. They receive tailored advice and support through daily and weekly SMS (text) messages.
The text messages aim to help them overcome the behavioral and psychological challenges of stopping tobacco use. At the same time, the program enables the capture of real-time data on those who join the initiative, how they use it, and whether or not they are successful in quitting.

**The result**

Since its inception, more than 2 million tobacco users have enrolled in the program. An evaluation at the end of the first year of implementation, covering a sample of over 12,000 registered users, demonstrated a quit rate of 7% among both smokers and smokeless tobacco users 6 months after enrollment. Other countries that are pioneering the use of mCessation modalities include Costa Rica, the Philippines, and Tunisia.

**Tobacco Cessation Medications**

Tobacco users with a high to very high level of nicotine dependence may have a higher chance of successfully quitting when brief advice and behavioral counseling are given in addition to pharmacotherapy.

Learn more about available effective tobacco cessation medications.

**Nicotine Replacement Therapy**

Nicotine replacement therapy (NRT) can include nicotine gum, nicotine patches, nicotine nasal spray, nicotine inhaler, and nicotine lozenges/sublingual tablets.

**Non-Nicotine Medications**

Non-nicotine medications include bupropion, varenicline, cytisine, clonidine, and triptyline.

NRT, bupropion, and varenicline are first-line medications for treating tobacco dependence.

According to the WHO, NRT has the best balance of effectiveness, cost, and safety. As a result, two forms of NRT—nicotine gum and nicotine patch—are on the WHO Model List of Essential Medicines.
Nicotine Replacement Therapy (NRT)

NRT helps cessation attempts by reducing withdrawal symptoms.

Learn why using NRT is a safe alternative to smoking cigarettes or using other tobacco products.

Dose – The total daily dose in NRT is less than what the user would receive from using tobacco products.

Delivery – Nicotine is delivered without burning tobacco, and the user is not exposed to toxic chemicals in tobacco smoke.

Lower addictive potential – The delivery of nicotine from NRT does not involve a sharp spike in arterial nicotine concentration, followed by a rapid drop in blood levels, which occurs with smoking, and which is associated with cravings and dependence. NRT products have a low addictive potential.

Tobacco users who want to quit should consult their physicians to determine if NRT will benefit them.

Learn more about nicotine-replacement therapy products.

Nicotine-Replacement Therapy Products

Using NRT

Dr. Xiao discusses using NRT.

Using NRT is always safer than continuing to smoke. The patch provides a steady background nicotine level and the oral forms provide relief for cravings as needed. Several clinical trials indicate that combining two forms of NRT (patch plus oral form, such as gum or lozenge) has been shown to be more efficacious than a single form of nicotine replacement.

Non-Nicotine Medications

Dr. Xiao discusses non-nicotine medications.
Bupropion, the first non-nicotine based drug for tobacco cessation, exerts its therapeutic effects by increasing levels of dopamine and norepinephrine, brain chemicals that are boosted by nicotine.

Varenicline is the other first-line non-nicotine medication for tobacco cessation. It acts on the brain’s nicotine receptors, decreasing withdrawal symptoms and reducing the feelings of pleasure derived from tobacco use.

Bupropion has proven efficacy for smoking cessation, helping approximately 1 in 5 smokers to stop smoking.

Varenicline has proven efficacy for smoking cessation, helping approximately 1 in 4 smokers to stop smoking.

Both bupropion and varenicline are prescribed medications that should be used under the supervision of a physician.

**Quiz**

Which of the following combinations of nicotine replacement therapies would help with tobacco cessation the most?

- nicotine patch plus nicotine gum
- nicotine patch plus e-cigarette
- nicotine patch plus gutka

**Answer**

Nicotine patch plus nicotine gum: Using NRT is always safer than continuing to use tobacco products. The patch provides a steady background nicotine level and the oral forms provide relief for cravings as needed. Several clinical trials indicate that combining two forms of NRT (patch plus oral form, such as gum or lozenge) has been shown to be more efficacious than a single form of nicotine replacement. There is no strong and consistent evidence at this time that e-cigarettes are safe and effective for tobacco cessation.
Unassisted Cessation

In their 2009 systematic review of cessation studies, Chapman and Mackenzie found that two-thirds to three-quarters of ex-smokers have quit without assistance. They concluded that by far, unaided cessation is the most common method used by most successful ex-smokers. That being said, most who attempt to quit on their own return to smoking within a month, and each year, only 3% of smokers quit successfully.

While intensive counseling programs and cessation medications increase the chances of cessation success, in low-resource settings, population cessation interventions through brief advice and relevant tobacco control policies and programs encourage many tobacco users to quit.

Summary

Dr. Xiao summarizes the Tobacco Cessation Lecture.

In this section, we have explained why cessation is an integral part of a comprehensive tobacco control approach, discussed the basis for tobacco dependence, and identified the essential components of an effective cessation strategy.

Getting current tobacco users to stop using tobacco ensures the maximum number of lives saved and extensive health gains, including short- and medium-term gains. Most tobacco users state they want to quit, yet cessation remains the least implemented of all the MPOWER measures globally.

Tobacco dependence is perpetuated through a 3-link chain of addiction that encompasses physical/physiologic, emotional/psychologic, and behavioral/sociocultural dependence. Nicotine replacement therapy and pharmacotherapy address the physiologic dependence, behavioral counseling helps address the psychological, emotional and behavioral dependence, and having a policy environment where comprehensive tobacco control policies are enforced counters the sociocultural dependence.
Starting with integrating brief tobacco interventions into primary care is the quickest and most efficient way toward developing a country’s comprehensive tobacco dependence treatment system. As resources and capacities grow, quitlines and pharmacological therapy can be added to improve a country’s cessation services.

**Protection from Secondhand Smoke**

**Introduction**

Dr. Gan Quan, Director of the The Union China Office, introduces the Protection from Secondhand Smoke Lecture.

As we learned in Module 1, tobacco harms not only its users, but also non-users who are exposed to secondhand tobacco smoke (SHS).

In this section, you will learn about how to safeguard people from the health risks of SHS exposure. You will recall, protecting people from SHS comprises the “P” in MPOWER. Current evidence indicates that only 100% smoke-free environments are proven to protect against the risks of tobacco smoke.

**Learning Objectives**

- Identify who is affected by SHS.
- Describe the key components of a comprehensive ban on secondhand smoke exposure.

**Who Is Affected by SHS?**

Dr. Quan discusses who is affected by SHS.

Across the world, it is estimated that about one-third of all non-smoking adults and about 40% of children and youth are exposed to secondhand smoke and its associated health risks. Children’s exposure may be underestimated.

Learn more about children’s exposure to SHS.
2016 Study

A 2016 study that used data from the Global Adult Tobacco Surveys (GATS) from 2009–2013 projected that in the 21 countries where data were collected, close to 508 million children were exposed to SHS at home.

2006–2013 Study

Another study that reviewed 2006–2013 youth data from 68 low- and middle-income countries documented an overall prevalence of SHS exposure among youth aged 12–15 years at 56%, ranging from 16.4% (Tajikistan) to 85.4% (Indonesia). Undoubtedly, the global magnitude of SHS exposure is significant and calls for heightened attention to eliminating secondhand smoke.

What Can Be Done to Protect People from Secondhand Smoke?

Dr. Quan discusses what can be done to protect people from SHS.

The evidence is clear: there is no safe level of secondhand smoke exposure. The only intervention proven to fully protect people from SHS is to eliminate tobacco smoke at the source and create 100% smoke-free environments, without exceptions.

Article 8 of the WHO FCTC states: “[Parties] shall adopt and implement … measures providing for protection from exposure to tobacco smoke in indoor workplaces, public transport, indoor public places and, as appropriate, other public places.” This measure is so critical for public health that it is one of the only two FCTC articles with a mandatory timeline for implementation within five years after entry into force for any given Party.

The growing body of research evidence demonstrates that 100% smoke-free laws are effective in markedly reducing the health risks from secondhand smoke exposure.

Learn more about creating secondhand smoke-free environments.

Principle 1
Every individual has the right to health, which includes the right to breathe clean air. Thus, creating 100% smoke-free environments is grounded in basic human rights.

**Principle 2**

Protection from SHS exposure requires the full backing of law. Therefore, smoke-free environments must be required by law, not just by voluntary measures.

**Principle 3**

Only 100% smoke-free settings can fully protect against the health risks from SHS exposure. Ventilation systems, air filtration, or the use of designated smoking areas are not acceptable.

**Principle 4**

Everyone should be protected. Thus, all indoor public places, all indoor workplaces (including vehicles used as places of work), all public transport, and outdoor or quasi-outdoor public places where appropriate should be 100% smoke-free.

**Principle 5**

Smoke-free laws should be consistently enforced and compliance monitoring should be conducted periodically.

**Principle 6**

Laws should be revised and expanded as new scientific data and new tobacco products emerge.

**Do Smoke-free Laws Work?**

Learn more about these smoke-free laws.

**Once Implemented**

A hundred percent smoke-free laws result in a dramatic improvement in air quality, with a 71–99% reduction in fine particle air pollution—tiny pieces of solids and liquids that pollute the air, small enough to penetrate into the deep part of the lungs,
and therefore very dangerous to health. Following Ireland’s implementation of smoke-free legislation in 2004, air quality monitoring revealed a drop in fine particle air pollution by 83%.

**Smoke-Free Laws: Health**

Respiratory symptoms and lung function among workers employed at entertainment venues like bars and restaurants, improved within 3–12 months of implementation, while hospitalizations for heart disease dropped significantly in communities where smoke-free laws were implemented. In Argentina, hospitality workers reported a nearly 50% drop in respiratory symptoms after the enactment and enforcement of their smoke-free law.

**Smoke-Free Laws: Smokers Quit**

In Scotland, 44% of people who quit smoking attributed their successful cessation to smoke-free legislation. Workers in smoke-free workplaces are nearly twice as likely to stop smoking as those in worksites without similar policies.

**Smoke-Free Laws: At Home**

Communities with smoke-free public places are more likely to implement voluntary smoke-free home policies, protecting children who are often exposed at home. For example, in the three years following the adoption of smoke-free legislation in New Zealand, the reported exposure to secondhand smoke in the home dropped by nearly 50%.

**How Widespread Are Smoke-free Laws?**

Dr. Quan discusses how widespread smoke-free laws are.

Smoke-free laws are popular. Comprehensive smoke-free legislation can be found in 55 countries, protecting almost 1.5 billion people (or about 1/5 of the world’s population). Public opinion surveys in numerous countries consistently showcase strong support of the majority of these laws. Furthermore, data are accumulating that document growing public support for extending smoke-free legislation beyond indoor public spaces, to encompass open areas immediately adjacent to building
entrances, multi-unit housing, private vehicles, and outdoor venues. Recently, some countries have begun to expand smoke-free laws to include water pipes/hookahs, and electronic devices such as e-cigarettes.

Comprehensive smoke-free legislation is currently in place for almost 1.5 billion people in 55 countries.

**Do Smoke-free Policies Hurt Businesses?**

Dr. Quan discusses if smoke-free policies hurt businesses.

An important finding in the global experience with legislating 100% smoke-free laws is the absence of a negative impact on businesses. The tobacco industry opposes smoke-free legislation aggressively, and often promotes the argument that businesses will suffer with the implementation of smoke-free laws. However, a review of the economic effects of smoke-free environments demonstrates that these laws do not hurt businesses, and in many cases, contribute a slight positive impact.

Multiple approaches can be used to measure secondhand smoke. Some of these—including administering questionnaires and observing smoking behavior—can be conducted by nearly anyone in the community, while measuring components of tobacco smoke in the air and in measuring components of tobacco smoke in the human body can be done in partnership with a university or research institution.

**How Do We Monitor Compliance with Smoke-free laws?**

Learn more about monitoring compliance.

**Self-Report or Observation**

You can collect information on SHS exposure by administering self-report questionnaires or by collecting observational data.

**SHS Levels in the Environment**

SHS levels in the air can be determined by measuring concentrations of tobacco components: toxic, airborne gases such as nicotine, arsenic, carbon monoxide and
cyanide, and particles less than 2.5 microns in diameter (PM2.5), capable of penetrating deep into the lungs.

**SHS Levels in the Human Body**

Biological markers or "biomarkers" are substances measured as indicators of human exposure. Several different components of tobacco smoke have been measured in biological samples, such as blood, saliva, hair, and toenails. Two of the most widely measured tobacco-related compounds are nicotine, the addictive component of tobacco, and cotinine, a metabolite of nicotine.

**Quiz**

Match the answers to complete the protection from secondhand smoke principle as defined in the lesson.

List of secondhand smoke statements:

- Protection from secondhand smoke requires...
- Every individual has the right to...
- Only 100% smoke-free settings protect against...
- Laws should be revised to match...

List of secondhand smoke answers to complete statements:

- ...the full backing of the law.
- ...health, which includes clean air.
- ...the health risks from SHS exposure.
- ...new data and tobacco products.

**Answer**

a. Protection from secondhand smoke requires the full backing of the law.
b. Every individual has the right to health, which includes clean air.
c. Only 100% smoke-free settings protect against the health risks from SHS exposure.
d. Laws should be revised to match new data and tobacco products.
Case Study: Turkey—When National Leadership Drives Smoke-free Legislation

Dr. Quan discusses the Turkey Case Study.

How are countries approaching the enactment and implementation of smoke-free laws?

Turkey's experience demonstrates the power of strong political commitment at the highest levels of government in driving change throughout the country to reduce tobacco consumption and exposure to secondhand smoke.

Turkey—When National Leadership Drives Smoke-free Legislation

The situation

In 2006, one in three adults in Turkey was a daily smoker, and the country was feeling the economic and health burden. Tobacco control advocates estimated that about USD $20 billion a year was spent on the diagnosis and treatment of tobacco-caused diseases.

The response

In December 2007, Turkey's Prime Minister stated: “Struggling against the use of tobacco products has become as important as our counter-terrorism struggle.” Tobacco products, he said, “are literally murdering our future generations.” Three weeks later, he signed a law banning smoking in enclosed public spaces. By January 2008, most enclosed public places in Turkey were required to be smoke-free. In May 2009, shopping malls were added to the list of smoke-free areas, and in June 2009, the law was expanded further to include all indoor hospitality venues. By 2013, hookahs were also banned in public places.

The smoke-free legislation was accompanied by other tobacco control interventions, including a comprehensive advertising ban and price increases through higher taxes.

The result
Compliance monitoring revealed generally high levels of compliance with the law. Public support for the smoke-free policy was markedly positive, even among smokers. Within three years of the smoke-free law’s implementation, smoking prevalence decreased by almost 15%. Exposure to SHS fell by 77% in restaurants, with declines also reported in workplaces, public transport and even within homes.

**Case Study: China—Becoming a Smoke-free nation, One City at a Time**

Dr. Quan discusses the China Case Study.

In China, cities are driving the process of adopting 100% smoke-free policies. This bottom-up approach is helping to circumvent the formidable challenge of enacting national tobacco control legislation while the government retains ownership of the tobacco industry in the country.

**China—Becoming a Smoke-free nation, One City at a Time**

**The situation**

In 2010, China had over 300 million smokers, with more than half of adult men using tobacco regularly. Smoking causes more than one million deaths each year in China, and exposure to SHS causes an additional 100,000 deaths. Close to 740 million people, including 182 million children, are exposed to the harms of tobacco smoke every day. Yet, enacting a national smoke-free law remains challenging, in part because the tobacco industry is owned by the government.

**The response**

From 2004–2014, more than a dozen cities in China implemented smoke-free initiatives, but these were not comprehensive in scope. Fortunately, in 2014, Beijing adopted a 100% smoke-free policy that came into effect in 2015, mandating completely smoke-free indoor public places, public transport, workplaces—even including outdoor areas used for sports and other youth-centered activities. The law also established clear enforcement strategies and set significant fines and penalties for non-compliance. Implementation was accompanied by a widely-publicized information campaign using both traditional and social media.
The result

A survey commissioned by the Beijing municipal government one year after passage of the city smoke-free policy documented a reduction in the prevalence of smoking in public places from 11% to 4%, and an increase in public satisfaction and support for the law from 42% to 81%. Furthermore, 46% of smokers indicated their intention to quit smoking following the law’s implementation.

In 2016, the city of Shanghai followed Beijing’s example by establishing a 100% smoke-free public places law. In 2017, Shenzhen also became 100% smoke-free. The cities of Guangzhou and Xi’an are also working on their smoke-free legislation. It is hoped that other cities in China will follow Beijing and Shanghai in enacting 100% smoke-free laws, and through this bottom-up approach, initiate the adoption of a strong national policy.

Summary

Dr. Quan summarizes the Protection from Secondhand Smoke Lecture.

In this section, we have reviewed who is affected by SHS and discussed why only 100% smoke-free environments protect health. Given the demonstrated health and economic benefits, the widespread public support, comprehensive smoke-free legislation that completely eliminates secondhand smoke exposure by mandating 100% smoke-free environments should be widely adopted. This will protect nonsmokers from secondhand smoke, as well as motivate smokers to reduce or quit tobacco use. Everyone should have the right to breathe clean air; 100% smoke-free laws uphold and safeguard that fundamental right.

Want to Learn More?

US Department of Health & Human Services:
Reports of the U.S. Surgeon General, U.S. Public Health Service

The Health consequences of Involuntary Exposure to Tobacco Smoke: Secondhand Smoke and What It Means to You
International Agency for Research on Cancer:
*IARC Monographs on the Evaluation of Carcinogenic Risks to Human*

The Pan American Health Organization, Tobacco Prevention and Control:
*PAHO*

**Module Complete.**