

Chapter 1

Overview of Handbook Volume 14

The scientific evaluation of the effectiveness of cancer prevention interventions is part of the mission of the International Agency for Research on Cancer (IARC). This commitment is reflected in the IARC Handbooks of Cancer Prevention that focus on the evaluation of tobacco control policies. Handbook Volume 12 was the first in the Tobacco Control series providing a framework for evaluating tobacco control policies (IARC, 2008). Handbook Volume 13 was the first of the series to focus on a specific policy, with a comprehensive evaluation of the effectiveness of smoke-free legislations in reducing exposure to secondhand tobacco smoke (SHS), tobacco use among youth and adults, and other outcomes (IARC, 2009).

This Handbook, Volume 14, extends the discussion on the impact of public policies on a major cause of cancer—tobacco use—by presenting, summarizing and evaluating the research evidence on the effectiveness of tax and price policies for tobacco control. Tax and price policies are central to the World Health Organization’s Framework Convention on Tobacco Control (WHO FCTC). Article 6 of the treaty, the first to address a specific tobacco control policy, states (WHO, 2005):

1. 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.

2. 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:

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

3. The Parties shall provide rates of taxation for tobacco products and trends in tobacco consumption in their periodic reports to the Conference of the Parties in accordance with Article 21.

Given the potential role of tax and price differentials in contributing to tax avoidance and evasion, tax and price policies are further addressed in Article 15 of the WHO FCTC, which calls on countries to eliminate

“all forms of illicit trade in tobacco products, including smuggling, illicit manufacturing and counterfeiting” (WHO, 2005).

Maximizing the effectiveness of tax and price policies in achieving reductions in tobacco use and its health consequences requires a clear understanding of the impact of these policies on initiation and escalation of tobacco use, cessation and relapse, tobacco product consumption, substitutability of tobacco products, tax avoidance and evasion, and related outcomes. At the same time, those making or advocating tobacco tax and price policies must understand the impact of these policies on other outcomes, including their impact on government revenues, employment and inflation. This Handbook provides a thorough review of this evidence.

Price of tobacco and tobacco use

One of the most fundamental laws of economics is that of the downward-sloping demand curve, which states that increases in the price of a given product will lead to reductions in the quantity demanded of that product, while reductions in price will lead to increases in quantity demanded. The extensive empirical research on the demand for tobacco products confirms that the law of the

downward-sloping demand curve applies to tobacco products. Much of this research comes from the United States and other high-income countries, but over the past decade, numerous studies of the demand for tobacco products have been done in low- and middle-income countries.

Higher prices influence the demand for tobacco products in two ways. First, they reduce the prevalence of tobacco use by discouraging non-users from taking up tobacco use, by encouraging existing users to quit, and by helping former users stay quit. Second, higher tobacco prices reduce the consumption of tobacco products among those who continue to use tobacco after a price increase. The strength of these responses is measured by the price elasticity of the demand for tobacco products, which is defined as the percentage change in consumption that results from a 1% price increase. The seminal World Bank publication *Curbing the Epidemic* concluded that the price elasticity of cigarette demand is around -0.4 for developed countries and between -0.4 and -0.8 for developing countries (Jha and Chaloupka, 1999).

There are numerous methodological challenges in estimating the impact of tobacco prices on tobacco use. Given the wide range of tobacco products, selecting and/or developing an appropriate price measure can be difficult. Some studies have used tobacco product excise tax rates as proxies for tobacco product prices, because tax in most countries represents a larger share of retail price and is also the primary policy tool for manipulating tobacco product prices. However, a tax increase may not always result in a corresponding change in tobacco retail prices. The degree of pass-through depends on the

structure of the market (monopolistic, oligopolistic or competitive) as well as the business and political agenda of tobacco companies.

The availability and quality of data present another challenge, particularly for low- and middle-income countries. Aggregate time-series data on cigarette sales are most readily available, even in low-resource countries. However, since they represent tax-paid cigarette sales rather than actual consumption, the presence of cross-border shopping, cigarette smuggling, illicit production and other forms of tax avoidance and evasion can bias upward the estimates of the effects of taxes and prices on cigarette demand.

Another complication when analysing aggregate data results from the fact that tobacco product prices are determined by the interaction of supply and demand. If this is not accounted for, the resulting estimates of the price elasticity of demand can be biased. In addition, macro-level studies cannot distinguish between several behavioural changes that lead to change in tobacco demand, such as initiation, cessation or change in quantity of tobacco product consumed. Neither can these studies examine differences in responsiveness to changes in price among different population subgroups defined by age, gender, race/ethnicity, socioeconomic status and other characteristics of the population.

Individual-level data collected in surveys overcome some of the challenges associated with the use of aggregate data, but they are more expensive to gather, so their availability (and, if available, their quality) can be limited in lower-resource countries. The most common problem with using individual-level data from a single

cross-sectional collection is the lack of price variation within most countries, resulting in an inability to estimate the price elasticity of demand. Employing self-reported cigarette prices collected as part of the survey and which usually exhibit some degree of variation is not an ideal option, as the price an individual pays is likely to be related to their smoking behaviour, potentially biasing the resulting estimate of price elasticity. Individual-level data thus should be augmented with externally collected data on price, tobacco control public policies and other important determinants of demand. In addition, individual-level data can also suffer from reporting biases such as underreporting of tobacco consumption.

These and other challenges in estimating the impact of taxes and prices on tobacco use are described in more detail in the following chapters. Many of the methodological challenges in estimating the impact of tobacco prices on tobacco use have been overcome by employing diverse and sophisticated econometric and other statistical methods. In addition, some recent data (such as the CDC/WHO Global Adult Tobacco Surveys and the International Tobacco Control Policy Evaluation Project surveys) have been collected specifically for studying tobacco use and the impact of tobacco control policies, which helps to overcome the typical challenges of modeling the demand for tobacco products.

Tobacco tax as a public policy

Nearly every country in the world taxes tobacco products. Almost all countries levy excise or other taxes that are specific to tobacco products, many apply duties on imported tobacco products, and many apply value-added or sales taxes on these

products. In 1776, Adam Smith, the father of modern economics, discussed the appropriateness of taxing tobacco products in his classic volume *An Inquiry into the Nature and Causes of the Wealth of Nations*:

“Sugar, rum and tobacco are commodities which are nowhere necessities of life, which have become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation. [...] In the mean time the people might be relieved from some of the most burdensome taxes; from those which are imposed either upon the necessities of life, or upon the materials of manufacture. The labouring poor would thus be enabled to live better, to work cheaper, and to send their goods cheaper to market. The cheapness of their goods would increase the demand for them, and consequently for the labour of those who produced them. This increase in the demand for labour, would both increase the numbers and improve the circumstances of the labouring poor. Their consumption would increase, and together with it the revenue arising from all those articles of their consumption upon which the taxes might be allowed to remain.”

Historically, and still the case in many countries, the primary aim of tobacco taxation was to generate government revenue. Tobacco products are generally good candidates for taxation, given that they are typically produced by a small number of manufacturers, have relatively few substitutes, and exhibit relatively inelastic demand.

Over time, as the research evidence demonstrating that higher tobacco product taxes and prices reduce tobacco use has accumulated, the role of tobacco taxes has changed and increasingly these taxes are used as a policy tool to improve public health by reducing tobacco consumption and accounting for the external cost of smoking. A significant increase in tobacco product taxes and prices has been demonstrated to be the single most effective and cost-effective intervention for reducing tobacco use, particularly among the young and the poor; thus the central role of tobacco tax and price policies in the WHO FCTC.

Challenges of using tax and price to control tobacco use

Despite the public health rationale for increasing tobacco taxes to reduce tobacco use and its health and economic consequences, some dispute the social benefits of this intervention. Opponents of higher tobacco taxes question their revenue-generating potential and the sustainability of these revenues. They point out to the possible negative economic impact of higher tobacco taxes, particularly when it comes to tobacco-related employment, the prosperity of sectors indirectly associated with tobacco business, upward pressure on inflation, the negative distributional impact of higher tobacco taxes on the poor, and the danger of tax avoidance and tax evasion in response to higher taxes. Government interference in the decision whether or not to consume tobacco is portrayed as an infringement on individuals' freedom to choose.

However, many obstacles cited as barriers to implementation of higher tobacco-product taxes are misleading. For example, the

inelasticity of demand for tobacco products and the relatively low share of tax in price in most countries mean that significant increases in tobacco taxes will generate significant increases in government revenues. Advances in tobacco farming and tobacco product manufacturing lead to job losses in the tobacco sector during periods of stable tobacco taxes, while tobacco-dependent jobs lost as a result of higher taxes are replaced by jobs in other sectors as those deterred from using tobacco products spend the money that they once spent on tobacco on other goods and services and the government spends new tax revenues, creating jobs in other sectors.

Nevertheless, it is critical to gain the necessary political support to increase tobacco taxes, because the industry opposes higher taxes most severely, as is evident for example from examining documents found in legal discovery during lawsuits against the industry and made publicly available. The strategy for securing that support will vary from country to country. One strategy used successfully in a growing number of countries has been the dedication of revenues from tobacco taxes to other tobacco control or health promotion activities, including some specifically targeting the poor. This Handbook reviews the evidence on the revenue and economic impact of tobacco taxes, their effects on the poor, public support for these taxes, and the effects of taxes dedicated for tobacco control on tobacco use and its consequences.

Outline of the Handbook

The production of this Handbook involved several steps, beginning with the selection of the topic. Given the centrality of tax and price policies to the WHO FCTC, the large and

growing research evidence on the impact of taxes and prices on tobacco use and related outcomes, and IARC's participation in the research project entitled Pricing Policies and the Control of Tobacco in Europe (PPACTE), a grant proposal funded by the European Commission, the topic of tax and price policies was selected. Specifically, the goal of Handbook Volume 14 is to present and assess the scientific evidence on the effectiveness of tax and price policies in tobacco control.

In collaboration with WHO and IARC, a preliminary outline for the Handbook was developed by the Chair of the Working Group (WG) of Volume 14. Twenty-one scientists and policy experts from 12 countries, including high-, middle- and low-income countries from multiple regions, and including several researchers from the PPACTE project, agreed to participate as members of the WG. In the fall of 2009, experts revised and expanded the preliminary outline for the volume and identified relevant literature; in the spring of 2010 draft chapters presenting and critically reviewing this literature were prepared.

From 17 to 22 May 2010, IARC gathered 18 members of the WG in Lyon, France to finalize this Handbook on the evidence for the effectiveness of tax and price policies in tobacco control. Pertinent work published up to the week of the Handbook Meeting was established as eligible for inclusion *a priori*. At the meeting, the WG revised the chapters which are organized into the following domains: overview of tobacco taxation (Chapter 2); tobacco industry pricing strategies and tax-related lobbying (Chapter 3); tax, price and aggregate demand for tobacco (Chapter 4); tax, price and adult tobacco use (Chapter 5); tax, price and tobacco use among young

people (Chapter 6); tax, price and tobacco use among the poor (Chapter 7); tax avoidance and tax evasion (Chapter 8); and the economic and health impact of tobacco taxation (Chapter 9). Each chapter assessed the quality and limitations of the data when conducting its critical review.

A strength of this volume is the involvement of researchers from a large number of countries representing a variety of scientific disciplines, including economists, epidemiologists, public health and public policy experts. This collaborative effort provided an opportunity to bridge the gap in terminology employed by various disciplines and to find a common vocabulary to interpret and discuss the findings in the published scientific literature. Econometric terms can be novel for an epidemiologist. The term "endogeneity," a situation when an explanatory variable is correlated with the error term, for example, is less familiar to an epidemiologist who may describe the same condition as "reversed causality" or as a situation where the exposure will "cause" the intermediate variable. For example, if income is the exposure/or independent variable and health is the outcome/the dependent variable, smoking would be an intermediate variable between income and health, because people with higher income are less likely to smoke. An economist may express the same concept by saying that smoking is endogenous to income. A "confounder," a term commonly used in epidemiology referring to a factor associated with an exposure and the outcome, but not on the causal pathway between the exposure and the outcome, is not used in econometrics. Economists sometime use the term "confounders" to refer to problematic unmeasured "omitted variables" that are not included in the

analysis. They also may use the term "confounder" to signify a generic control variable in the model. An "ecological study," the term used by epidemiologists, can be translated as "macro-level study" for an economist, while the term "ceteris paribus" (other things being equal) would need to be explained to an epidemiologist that is not familiar with this expression. This Handbook clarifies terms used when describing the evidence, and where possible, uses terminology that is common across disciplines. Therefore, it contributes to diminishing communication barriers among the research community.

It is hoped that the research evidence presented in this Handbook will support policymakers, public health professionals, and tobacco control advocates in their effort to champion the use of tobacco taxes as a means to control tobacco use as well as to generate resources for tobacco control programs. The WHO FCTC is entering into force in a progressively increasing number of countries (173 Parties as of June 2011). The conclusions presented in this volume will provide research background for discussions at the Conference of Parties to the WHO-FCTC when it considers the development of guidelines for taxing tobacco products. This Handbook will offer an evidence-based context for the research findings generated by the European Commission-funded project PPACTE. PPACTE addresses European Union policy needs related to the WHO FCTC process and has potential to contribute to tobacco control not only in Europe but also abroad. By embracing a global view, this Handbook builds a bridge between tobacco control policies in Europe and in the rest of the world.

Chapter 2. Overview of tobacco taxation

Tobacco products are subject to different types of taxes and to different tax levels. The types of taxes, the tax structure in place, and the enforcement of tobacco tax policy reflect political, social and economic considerations and can cause significant retail price differentials.

In many cases, tax level is related to income, with low-income countries having low taxes and vice versa. High-income countries tend to favour specific (per-unit) excise tax regimes, while low- and middle-income countries rely more on *ad valorem* (value-based) excise taxes. Specific excise taxes generally result in higher tobacco product prices. Some countries have implemented more complex taxation regimes in an attempt to find a balance between budgetary, health, and free market competition objectives. For example, several countries are using a part or all of tobacco tax revenues for funding health or tobacco control activities.

The tax level and the tax regime have implications for consumer behaviour, the behaviour of the tobacco industry, and the effectiveness of tobacco tax as a public policy measure. Specific excise taxes can increase tobacco companies' pricing power, raise their profits and increase market concentration. Differential rates on different types of tobacco products or even on items within the same product category result in price gaps and opportunities for product substitution to lower-taxed products and brands.

Chapter 2 describes the mechanisms of using tobacco taxes to influence retail prices of tobacco products. It discusses the effectiveness of tax policy in reducing tobacco use under different

tax regimes and stresses the importance of applying similar tax levels for reducing the incentive for product substitution. It demonstrates that sizeable increases in taxes on tobacco products under a properly designed tax system will result in concomitant increases in retail prices. In view of the important revenue-generating potential of tobacco taxes, particularly for low-resource countries, Chapter 2 discusses the strategy of using a share of tobacco tax revenue to strengthen weak health systems in these countries.

Chapter 3. Industry pricing strategies and other pricing policies

Recognizing the powerful impact of taxes and prices on the demand for tobacco products, tobacco companies have demonstrated zeal in influencing tax policies to minimize their impact on tobacco use and on their profits.

Tobacco companies have engaged in aggressive and well-funded lobbying activities all over the world. Their lobbying practices and strategies may vary with the level of government they want to influence.

The impact of tobacco taxes on prices can be modified by the industry's response to the tax increase. Since most tobacco product markets are highly concentrated, recent significant tax increases have led to price increases larger than justified by the tax increase alone, generating higher profit margins for the tobacco industry.

Tobacco companies also use a variety of marketing techniques that reduce prices on selected tobacco products. These tactics can soften the impact of tobacco tax increases specifically targeting youth and the poor. Price-related marketing efforts are also designed to acquire market share from the competition.

Public policies can influence tobacco retail prices by multiple means, such as setting tobacco taxes, regulating prices and limiting price-related marketing. These include, for example, the implementation of minimum pricing policies, the use of specific as opposed to *ad valorem* tax structure, and bans on price-reducing marketing techniques.

Chapter 3 examines industry pricing strategies, price-related marketing efforts, price manipulations and market segmentation. It describes industry efforts to reduce the impact of taxation on tobacco use by trying to change tobacco tax policy, including tax structure and tax levels, by opposing tobacco tax earmarking, and by engaging in anti-tax lobbying activities. These activities have some similar characteristics across countries and the targeted level of government, even though most evidence comes from North America.

The tobacco industry's tax lobbying efforts could be curtailed by using the provisions of Article 5.3 of the WHO FCTC, which aims to limit tobacco industry influence on tobacco control policy-making. However, very little is known about the effectiveness of policies that ban industry price-related marketing or introduce minimum pricing.

Chapter 4. Tax, price and aggregated demand for tobacco

A large body of the empirical research employs macro-level data to study the impact of tax and price on demand for tobacco products. There is significant variation in the theoretical models as well as the econometric methods applied to these data. Initial evidence based on data from the USA and the United Kingdom that has demonstrated a negative relationship between the

price and the demand for tobacco products has been augmented by a growing number of studies from low- and middle- income countries.

Chapter 4 summarizes the evidence and contrasts the results based on the older and more recent studies using aggregate-level data. The focus is on the comparison of price and income elasticities of tobacco demand, both over time and across country income groups. Chapter 4 also points to the strengths and limitations of using aggregated and individual-level data to assess the demand for tobacco products, and the impact of price and tax policies on this demand.

The price elasticity of demand measures the response rate (in percentage terms) of an aggregate measure of consumption (e.g. cigarette sales) to a one-percent increase in the price of tobacco. The important issue is whether the demand for tobacco can be classified as price-elastic (the price elasticity is greater than one in absolute value) or as price-inelastic (the price elasticity is less than one in absolute value). The magnitude of the price elasticity has implications for the impact of prices/taxes increases on public health and tax revenue.

Income is another important determinant of the demand for tobacco products. Since tobacco is considered a normal good, economic theory predicts that as aggregate income increases, aggregate demand for tobacco increases as well. Therefore, income elasticity (the percentage change in consumption of a product that results from a one-percent increase in income) is expected to be positive. It is less clear whether there is a difference in the income elasticity observed in countries with different levels of income or whether income elasticity changes over time.

Since the demand for tobacco products responds inversely to tobacco price and positively to disposable income, Chapter 4 introduces the concept of affordability, which captures the effect of price and income on tobacco demand simultaneously. It points out that in a growing economy, the price of tobacco would have to increase at the same rate as income to maintain a given affordability level and to prevent consumption from rising.

Chapter 4 also briefly discusses studies on substitution between tobacco and other harmful substances (e.g. alcohol) and between different types of tobacco products in response to changes in relative tax and price levels.

Chapter 5. Tax, price and adult tobacco use

Household and individual-level data have also been used to study the impact of tobacco taxes and prices on the demand for tobacco products. These data, collected by various survey methods, allow us to examine the differential impact of tobacco control measures, including tobacco taxes/prices, on tobacco use among population subgroups with similar characteristics based on age, gender, socioeconomic status, etc. In addition, these micro-level data can distinguish between the impact of price/tax on prevalence and intensity of use, and allow researchers to study behavioural changes such as tobacco use initiation, uptake, cessation, and switching from everyday to some-day tobacco use.

Chapter 5 focuses on studies that examine the effect of price and tax on adult tobacco use. It describes empirical methods employed to assess the impact of price/tax on individual level demand for tobacco and how these methods have evolved

and improved over time. Of particular interest are the magnitude of impact measured by the price elasticity of demand and the relative impact of price/tax on prevalence versus intensity of cigarette use. Gender differences in price responsiveness to demand for tobacco have also been of interest to researchers using the micro-level data on tobacco use. The chapter summarizes the studies focusing on tobacco products other than cigarettes and assesses the level of substitution (measured by the cross-price elasticity of demand) among tobacco products.

Studies using US data are of particular importance due to the extensive subnational and temporal variation in taxes and prices. Research evidence from other high-income countries is less common due to limited price variation within a single country.

The evidence from low- and middle-income countries is primarily based on household expenditure data. However, the quality of data and the appropriateness of methods used in these studies vary.

Research on the attitudes and perceptions of adults towards increasing cigarette prices/taxes is also discussed in Chapter 5.

Chapter 6. Tax, price and tobacco use among young people

Economic theory predicts that tobacco use among young people would be more responsive to changes in prices/taxes compared to adults, due to youth's lower disposable income and their lower level of addiction thanks to shorter smoking history. The effect of peer pressure is also expected to increase the responsiveness of youth to tobacco prices/taxes.

Chapter 6 summarizes the literature on the demand for tobacco

products among young people and presents the results by country income groups. It contrasts total price elasticity of demand, price elasticity of smoking prevalence and price elasticity of smoking intensity with results from studies on older population subgroups. The effects of price on youth smoking uptake, smoking initiation, smoking cessation, and on demand of other tobacco products are discussed as well. Of particular interest is the literature on youth smoking initiation, since different types of data seem to lead to different conclusions. The quality of the data and the measurement error inherent in retrospective information lie at the heart of this discussion. The chapter points to the gap in research evidence when it come to stages of youth smoking uptake, peer and family influences on tobacco use among youth people, and the impact of price/tax on youth smoking cessation.

Chapter 7. Tax, price and tobacco use among the poor

There are at least three links between tobacco use and poverty. First, spending on tobacco has an opportunity cost when resources from other goods and services are diverted to obtaining tobacco. Lower-income households are particularly vulnerable to this diversion, as tobacco may replace food and other essential products and services (e.g. health care, education) for the entire family. Second, tobacco use prevalence is higher among the low-income, low-education groups in the majority of countries (with the exception of some upper middle-income countries). This means that tobacco excise taxes could be disproportionately collected from people with lower income, and therefore would be labelled as

regressive. Third, the health impact of consuming tobacco increases medical expenditures and reduces labour productivity. This puts pressure on the budgets of low-income families and reduces their income-generating potential due to morbidity and premature mortality.

Chapter 7 presents the evidence on the demand for tobacco products among the poor and compares it with the demand among more affluent segments of the population. It points to differences in the price elasticity of tobacco demand among high- and low-income populations within a country, compares and contrasts the evidence from low-, middle- and high-income countries, and discusses the factors that influence the extent of differences in price elasticity across different socioeconomic groups.

Lower disposable income among the poor would suggest that they are more sensitive to changes in prices and taxes compared to more affluent populations. In that case, tax increases would be progressive and help the poor to reduce their tobacco tax expenditures. However, the evidence as far as the relative magnitude of the price elasticity is mixed and varies from country to country. For example, in settings where there is ready access to low-taxed or untaxed and inexpensive tobacco products, low-income tobacco users may be less sensitive to changes in prices due to the low cost of substitution. Future data collection efforts may need to provide more information on tobacco tax regressivity to address this important public policy issue.

Chapter 8. Tax avoidance and tax evasion

Chapter 8 starts by defining what is considered tax evasion and what is merely tax avoidance. The literature

review indicated that there is much confusion and improper use of these terms. Tax avoidance refers to legal methods of circumventing tobacco taxes, and tax evasion refers to illegal methods of circumventing tobacco taxes. Illicit trade includes both legally produced products illegally traded across borders (smuggling) and illegally manufactured products. Most tax avoidance activities include the payment of some tobacco taxes. Tax evasion involves both small and large quantities of tobacco products, and usually no taxes are paid. These activities may involve criminal networks or other large-scale operations.

Chapter 8 categorizes tax evasion and tax avoidance activities into various types and discusses their determinants based on the most recent empirical evidence. It focuses in particular on the role of tobacco tax/price differentials, tax administration, enforcement, and degree of punishment in motivating these two types of activities. In addition, Chapter 8 examines the role of tax evasion and tax avoidance in health disparities and the role of these activities in undermining other tobacco control measures.

Next, the chapter presents estimates of the extent of tax evasion globally, regionally, and in key countries, as well as the impact of this activity on tax revenues and public health. The authors also contrast the scale of tax evasion with the scale of tax avoidance. This is particularly challenging due to the illegal nature of these activities. Various research methodologies trying to overcome these challenges are discussed, as well as their strengths and weaknesses.

Despite the underground nature of these activities, effective strategies and policies to control tax avoidance and tax evasion exist. These address

both the supply side and the demand side of the market. A review of country experiences with these policies and case studies of countries that have successfully implemented an integrated set of actions to curb both tax avoidance and tax evasion conclude this chapter.

Chapter 9. Economics and health impact of tobacco taxation

Higher tobacco taxes/prices can be expected to have a large impact on society's well-being. The most important is their impact on health status, life expectancy, labour productivity and overall economic performance. Additional benefits include lower smoking-related healthcare expenditures. Further health and productivity gains can be expected through reductions in secondhand smoke exposure and reduced maternal smoking.

The extent to which tobacco product taxes and prices contribute to these health economic gains on the population level is summarized in Chapter 9. The chapter starts with a brief discussion of a conceptual framework for describing the impact tobacco taxes have on lives saved and disease incidence (in smokers and secondhand smokers) and on healthcare cost savings. Chapter 9 examines not only the direct impact of lower tobacco use, but also considers the association between tobacco use and alcohol, tobacco use and illicit drug abuse, and between tobacco use and obesity.

The chapter further presents evidence on the effects of higher tobacco taxes on tobacco industry employment (including tobacco farming) as well as on non-tobacco industry employment, on government revenue, on tobacco tax revenue, and on the Consumer Price Index.

The pros and cons of earmarking tobacco tax revenue are also discussed based on the experiences of jurisdictions that have earmarked revenues for tobacco control and/or health promotion programs.

Summary of findings of the Handbook

For each chapter the Working Group examined all the evidence, assessing the quality of the data and appropriateness of the methods employed to generate the results, and then voted on the strength of the evidence presented in the Evaluation chapter.

The scale for the quality of evidence ranged from "sufficient" to "strong" to "limited" to "inadequate or no evidence" and "evidence suggesting a lack of an effect." For 12 of 18 conclusions in this volume, the strength of the evidence was at the highest level, while four concluding statements were supported by "strong evidence" and two remaining statements were supported only by "limited evidence". There is sufficient evidence that higher tobacco excise taxes and prices reduce overall tobacco consumption and prevalence of tobacco use. This is achieved by the impact price/tax has on promoting cessation among current users, preventing initiation and uptake among young people, and lowering consumption among continuing tobacco users.

The consensus among the members of the Working Group on the strength of the evidence resulted in several public health and research recommendations. The most effective tobacco tax public health policy would promote a relatively simple tobacco excise tax structure that emphasizes specific tax and involves regular tax increases that outpace growth in general price

levels and incomes. A portion of tobacco tax revenues should be used to fund comprehensive tobacco control programs and other health promotion activities, given that such programs lead to further reductions in tobacco use and associated improvements in population health. The WG also recommends the implementation of a multinational surveillance and monitoring system so that data on tobacco use, tobacco taxes and prices, price-reducing marketing and lobbying efforts of tobacco companies, tax avoidance and evasion, and tax administration and enforcement activities can be collected regularly. Such targeted tobacco control data collection efforts would improve the quality of the research evidence gathered to date, particularly for low- and middle-income countries. The full recommendations of the Working Group are detailed in the Recommendations chapter.

References

- IARC (2008). IARC Handbooks of Cancer Prevention: Tobacco Control, Vol. 12: Methods for Evaluating Tobacco Control Policies. IARC, Lyon.
- IARC (2009). IARC Handbooks of Cancer Prevention: Tobacco Control, Vol. 13: Evaluating the effectiveness of smoke-free policies. IARC, Lyon.
- Jha P, Chaloupka FJ (1999). *Curbing the epidemic. Governments and the Economics of Tobacco Control*. Washington D.C., World Bank.
- World Health Organization (2005). WHO Framework Convention on Tobacco Control. Geneva, World Health Organization.