

Tobacco Tax Reform

AT THE CROSSROADS OF HEALTH AND DEVELOPMENT

A Multisectoral Perspective

Executive Summary

*Prepared by a team led by
Patricio V. Marquez and
Blanca Moreno-Dodson*



ACKNOWLEDGMENTS

This report was prepared under the lead of Patricio V. Marquez and Blanca Moreno-Dodson, Co-Coordiators, World Bank Group Global Tobacco Control Program, with the editorial contribution of Alexander Irwin, by an international team comprised of (by chapter order):

Chapter 1: Patricio V. Marquez (Health, Nutrition and Population Global Practice, World Bank Group)

Chapter 2: Prabhat Jha (Center for Global Health Research, St. Michael's Hospital and Dalla Lana School of Public Health, University of Toronto, Toronto, Canada) and Richard Peto (Clinical Trial Service Unit and Epidemiological Studies Unit, Nuffield Department of Population Health, Richard Doll Building, University of Oxford, Oxford, United Kingdom)

Chapter 3: Blanca Moreno-Dodson (Global Tax Team, Governance Global Practice, World Bank Group)

Chapter 4: Mark Goodchild (World Health Organization), Anne-Marie Perucic (World Health Organization), Rose Zheng (University of International Business and Economics, Beijing, China), Evan Blecher (World Health Organization), and Jeremias Paul (World Health Organization)

Chapter 5: Annerie Bouw (European Commission)

Chapter 6: Rouselle F. Lavado (World Bank Group, now at Asian Development Bank), Moritz Meyer (Poverty and Equity Global Practice, World Bank Group), Iryna Postolovska (World Bank Group), and Renzo Efen Sotomayor (World Bank Group)

Chapter 7: Hana Ross (University of Cape Town, South Africa)

Chapter 8: Teh-Wei Hu (Public Health Institute's Center for International Tobacco Control, Oakland, California), Angela Lisulo (Consultant, World Bank Group), and Melissa Brown (Agriculture Global Practice, World Bank Group)

Chapter 9: Enrique Fanta (Trade and Competitiveness Global Practice, World Bank Group) and Magaly Garcia (World Bank Group)

Paul Isenman (former World Bank Group Director and Principal Economist) reviewed and commented upon drafts of all portions of the report, providing extensive technical inputs and suggestions, and enhancing the volume's robustness and quality. Additional comments, and technical inputs provided by Alan Fuchs (World Bank Group), Francisco Meneses (Duke University, United States, and *Universidad Adolfo Ibáñez*, Chile), and Alberto Gonima (Consultant, World Bank Group). Vito Tanzi, former Director of the Fiscal Affairs Department at the International Monetary Fund (IMF), provided comments and guidance on an initial version of different chapters in the report.

Sheila Dutta (World Bank Group) contributed to the Conclusions chapter, distilling the main messages of the report.

Overall technical guidance and oversight provided by Enis Baris (Program Manager, Health, Nutrition, and Population Global Practice, World Bank Group), and Tim Evans (Senior Director, Health, Nutrition, and Population Global Practice, World Bank Group), James Brumby (Director, Governance Global Practice, World Bank Group), Alma Kanani (Program Manager, Governance Global Practice), and Marijn Verhoeven (Lead Economist, and Cluster Lead of the Global Tax Team, Governance Global Practice, World Bank Group).

Akosua Dakwa (World Bank Group) provided administrative support.

The preparation of this report was carried out under the World Bank Global Tobacco Control Program, supported by the Bill & Melinda Gates Foundation and the Bloomberg Foundation.

The authors alone are responsible for the views expressed herein and they do not necessarily represent the views, decisions or policies of the institutions with which they are affiliated.

Washington, D.C.

September 26, 2017

Cover photos (clockwise from left): City view of Beirut, Lebanon. Photo by Dominic Chavez/World Bank. Flags by Simone D. McCourtie/World Bank. Terraced rice paddies in northern Vietnam. Photo by Tran Thi Hoa/World Bank. School children attending parade. South Africa. Photo by Trevor Samson/World Bank.

EXECUTIVE SUMMARY

There is a policy measure that can simultaneously save millions of lives, reduce poverty, and increase countries' domestic resources for financing development.

The policy measure consists of increasing excise tax rates on tobacco in order to reduce its affordability and, as evidence shows, lower its consumption.

Today, this powerful human development and poverty reduction measure remains largely underutilized, especially in low- and middle-income countries (LMICs). This report provides decision support for policy makers on tobacco tax reform, as well as analytical and empirical tools for using tobacco excise taxes to save lives and increase government revenues. The report sets forth the public health, economic, and anti-poverty case for higher tobacco taxes; shows how some countries have already delivered ambitious reforms; and documents measurable results. It shows that, by implementing tobacco tax reforms now, policy makers can choose a fast road to healthier, more prosperous societies.

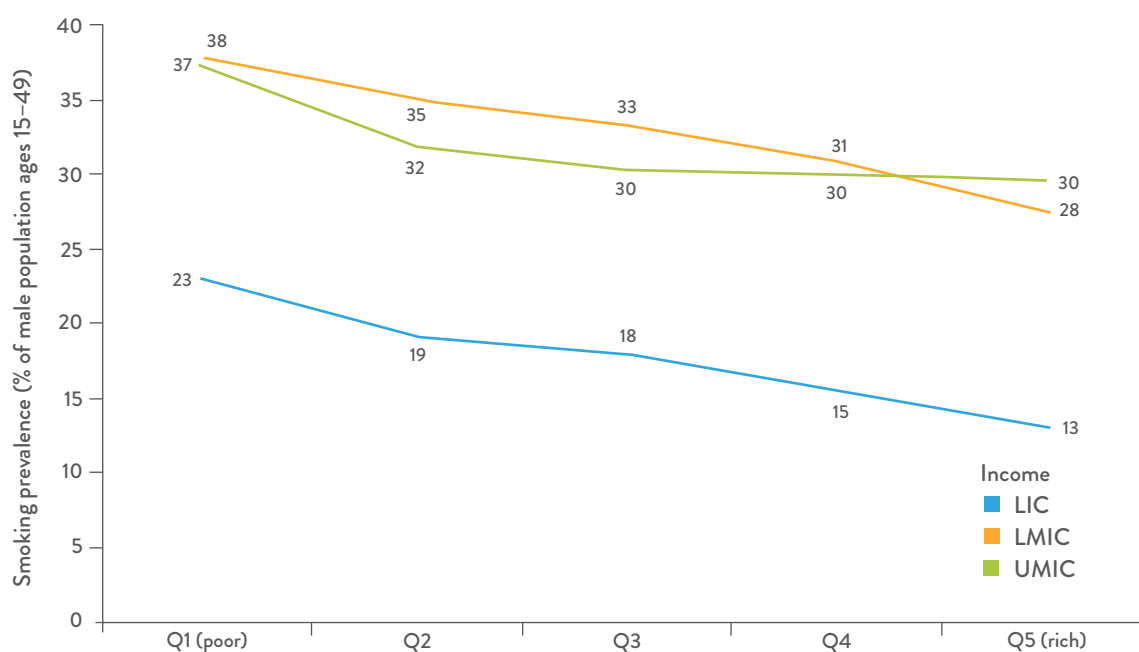
THE TOBACCO USE CHALLENGE

Few people today doubt that smoking is bad. But many, including seasoned policy makers, do not realize just *how* bad it is. Bad for people, bad for economies, and bad for poverty reduction. In fact, tobacco use not only kills millions of people each year but places a staggering poverty and economic burden on low-income families and less-developed countries that is deepening inequalities between and within countries.

Health Damage

Tobacco kills at least half of long-term smokers, accounting for more deaths each year than HIV/AIDS, tuberculosis, and malaria combined. And the burden of sickness and death from tobacco is becoming heavier. There were about 100 million deaths from tobacco in the 20th century. If current patterns persist, tobacco will kill some 1 billion people in this century, most in LMICs (Jha 2009; Peto and Lopez, 2001). Health systems suffer along with individuals. Treatment of the numerous chronic diseases caused or exacerbated by smoking swells countries' annual health care costs and diverts resources that could be used to solve other health challenges or address development priorities.

Figure ES1: Adult Male Smoking Prevalence by Country Income Classification and Quintile of the Welfare Distribution



Data Source: Demographic and Health Surveys (DHS) latest year since 2007; World Bank income classification.

Economic Damage

Tobacco-related deaths are not only preventable tragedies but have an important economic cost. Worldwide, the total economic damage of smoking (including productivity losses from death and disability) has been estimated at more than US\$ 1.4 trillion per year, equivalent to 1.8 percent of the world's annual Gross Domestic Product (GDP) (Goodchild, Nargis, and Tursan d'Espaignet 2017).

Worsening Poverty

This economic burden mainly falls on the people and countries that can least afford it. More than 80 percent of the world's smokers live in LMICs. Within countries, tobacco addiction is concentrated among people with lower incomes and education (Figure ES 1). Poor smokers spend a larger portion of their income on tobacco products than wealthier smokers, and the poor also suffer most from smoking-related illnesses. The medical expenses and loss of earnings associated with these illnesses contribute to pushing millions of households into financial crisis and deeper poverty every year. Meanwhile, tobacco use reduces future earning potential, especially among young adults, and reduces adult workers' economic productivity.

THE TOBACCO TAX IMPERATIVE

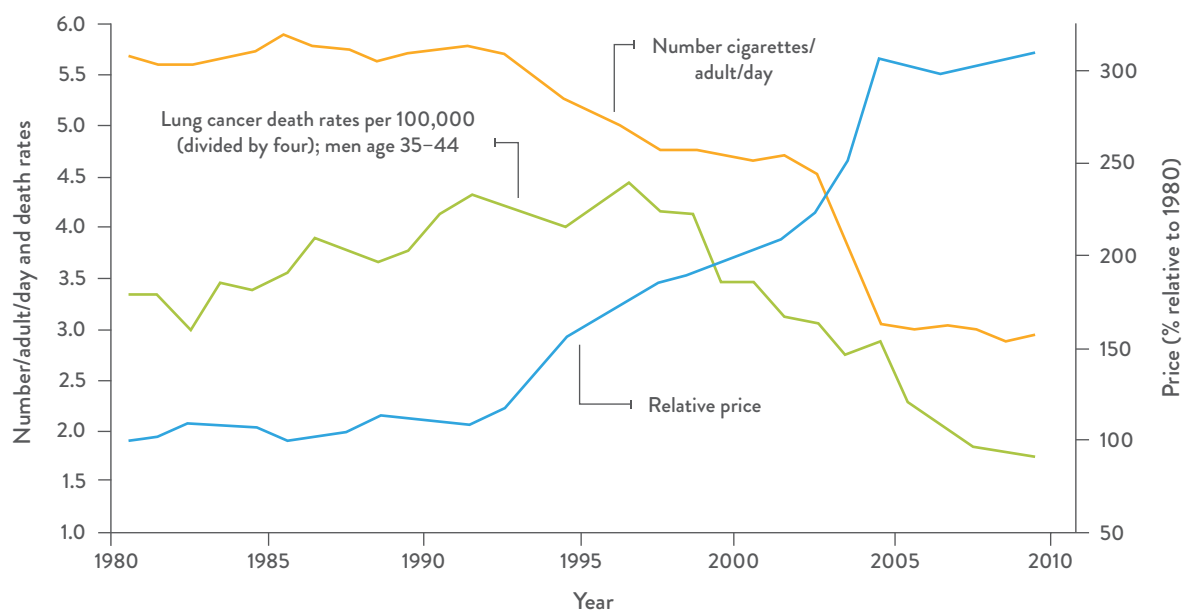
There is an extraordinary divergence between high-income countries, which are increasingly using price and non-price tools to lower their death rates from tobacco, and LMICs, where the absolute number of tobacco deaths continues to grow. About half of the difference in mortality rates between rich and poor smokers is due to smoking. Equality of opportunity between countries worldwide demands action on tobacco.

By adopting the United Nations Sustainable Development Goals (SDGs), all countries have committed to achieving a 30 percent reduction in death rates from non-communicable diseases like cancer, stroke, and heart disease by 2030. Reducing tobacco use is critical for countries to reach this goal (Jha, Marquez, and Dutta 2017). How can LMICs cut smoking rates on the scale required and achieve faster progress than even that achieved by high-income countries? Bold increases in tobacco excise tax rates are by far the most powerful tool.

Leaders who raise tobacco excise tax rates can expect the following:

Longer lives and better health for the people: The main reason to implement tobacco excise tax rate increases is that they save lives and reduce serious illnesses like cancer and heart disease. Evidence across a wide range of countries shows that a 50 percent increase in cigarette price typically leads to a 20 percent decline in cigarette consumption (Figure ES2). Reduced consumption has a powerful impact on subsequent tobacco-related sickness and

Figure ES2: Smoking, Male Lung Cancer, and Cigarette Price: France 1980–2010



Source: Jha (2012). The lung cancer death rates per 100,000 are divided by 4, so as to enable these to be on the same scale as smoking amount per day.

death within several years. About half of this effect comes from getting current smokers to quit. Higher tobacco prices also reduce smoking initiation among young people and so help stop them from becoming addicted to tobacco in the first place (IARC 2011).

More resources for development: Even as they lower cigarette use and improve population health, higher tobacco taxes can substantially boost government tax revenues. Economic modeling carried out for this report shows that raising cigarette excise tax rates in all developing countries by the equivalent of US\$ 0.25 per pack would generate an extra US\$ 41 billion in government tobacco excise revenue for LMICs: raising these countries' tobacco excise revenue intake by 29 percent from the 2014 level. This additional revenue could fund development investments (see also Goodchild, Perucic, and Nargis 2016).

EARLY WINS IN SOME COUNTRIES

The links between tobacco taxes, public health, and government revenues are not just theoretical. Between 2012 and 2014, over a hundred governments used tobacco tax hikes to save lives and increase government revenues. In most cases these tax hikes were still too small to yield substantial declines in cigarette consumption. But this report shows that some countries are taking bolder steps and reaping significant public health and fiscal revenue benefits. It also shows that much more can be achieved. As of 2015, WHO reported that only 28 LMICs had adopted comprehensive tobacco control policies covering retail-counter cigarette advertising, restrictions on public smoking, and appropriately high excise tax rates. As leaders in more countries weigh the public-health and economic arguments for tobacco taxation, there are opportunities for exceptional progress now.

MAKING IT HAPPEN

If leaders want to move forward on tobacco excise taxation, what are the critical steps? What are the common pitfalls they should avoid? This report distills a large body of evidence on successful practice in tobacco taxation and the decision-making process. Key lessons include:

- **Go big, go fast.** Tax strategies should focus on health gains first, then on fiscal benefits. This means going for big tobacco excise tax rate increases starting early in the process. Adopting a slow, cautious timeline might sound prudent. But it means condemning large numbers of people to avoidable illness and premature death. In tobacco taxation, the rewards go to those who act boldly.
- **Attack affordability.** Tobacco taxes only reduce tobacco consumption if they reduce cigarette affordability. In most LMICs, wages are rising. Thus, cigarettes will become

de facto more affordable for consumers, increasing consumption, unless tobacco taxes rise even faster. Effective strategies will generally involve combining big initial tax increases with recurrent hikes over time, to keep cigarette prices climbing more steeply than per capita real income growth (including inflation).

- **Change expectations.** Communication with the public is also critical. Governments must make sure consumers know that a tax-rate hike is not just a one-off, but that cigarette prices will keep going up. This is a motivator for current smokers to quit and young people not to start.
- **Tax by quantity.** Tobacco tax rates should be simplified and based on the quantity of cigarettes, not their price. This is done in two ways, both of which preempt smokers' switching to cheaper cigarette brands after a tax-rate hike on the brands they previously smoked (a response called "downward substitution"). The first key move is to use *specific* excises, as opposed to *ad valorem* (value-based) excises or other taxes. A key factor that needs to be taken into account is that specific rates require to be adjusted over time to at least keep pace with inflation and, preferably, at a faster rate so that affordability is reduced over time. Any strategy for adopting them should be therefore accompanied by a framework/instrument to allow for annual increases over time (such as the United Kingdom's tobacco duty escalator). The second is to merge the multiple tobacco tax "tiers" used by most developing countries. This way, tax hikes raise prices by the same large amount on all brands at once, pushing smokers to quit completely, rather than switch.
- **"Soft earmarks" can win support.** Earmarking tax revenues through legislation is criticized by fiscal experts as contributing to rigidities, fragmentation, and eventual distortions in public expenditures. However, "soft" earmarking of funds — for example, linking increased taxes to increased health spending — has helped generate grass-roots support for the tax hikes. This has been shown by experience in other sectors, and it has worked for tobacco taxes in countries like Australia, Philippines, and the United States.
- **Regional collaboration can boost results.** Momentum for ambitious tobacco tax reform can be enhanced, and cross-border threats like cigarette smuggling minimized, when countries work together in a regional structure. The European Union (EU) provides an example. The EU experience shows that regional cooperation can help countries achieve the dual goals of reducing tobacco consumption while increasing government revenues. Lessons also concern the pace of reforms. EU lawmakers faced early political pressure to "go slow," by setting a low initial minimum tobacco excise rate to apply to all Member States. However, the EU accelerated progress by convincing Member States to agree up front to relatively high minimum tobacco excise rates, with longer transition periods authorized for some countries facing special challenges.

- **Build broad alliances.** Country leaders face sharp resistance to tax rate increases and other tobacco control measures from the tobacco industry. The industry is both financially powerful and politically astute. Tobacco industry advice to governments promotes the most ineffective interventions and in particular seeks to undercut and weaken tax measures. To counter these pressures requires robust scientific and economic analysis, as well as multi-sectoral policy development. It also demands the mobilization of civil society and opinion leaders. Support from international partners is also required, particularly in low-income countries, to strengthen country capacity for lining up and coordinating all parts of government, while engaging a wide set of stakeholders outside of government.

KEY POLICY CHALLENGES

As countries plan and implement tobacco tax rate increases, they should anticipate challenges in specific areas. Several issues are important, both intrinsically and because the tobacco industry exploits them to influence public opinion and policy debates. The three most salient of these issues are: (1) how higher tobacco tax rates affect poor people; (2) how tobacco taxes affect employment; and (3) connections between tobacco tax rate hikes and the illicit tobacco trade.

TOBACCO AND EQUITY: PUTTING POOR PEOPLE AT THE CENTER

As noted above, accumulated evidence from across the globe shows how tobacco taxes help reduce poverty. Yet one of the industry's most insidious arguments against raising tobacco taxes is that these taxes hurt poor people disproportionately. This is based on the claim that tobacco taxes are regressive: meaning that they take a greater share of disposable income from the poor than from the rich. Almost by definition, poor smokers do generally spend a greater proportion of their incomes on tobacco than wealthier smokers. However, poorer smokers respond more to a unit change in price than do richer smokers. Thus, tobacco tax hikes more effectively reduce cigarette affordability among poor people than among the rich. Reducing cigarette affordability does not hurt poor smokers. On the contrary, it will increase their disposable income for other goods and services, and can save many of their lives.

Faced with tobacco tax rate increases, relatively poorer households adjust their behavior relatively more than richer households. A 50 percent increase in cigarette prices will lead to a 30-40 percent decline in tobacco consumption for the poor, a much larger relative decline than among the rich. This also means that poor people get the largest share of

health and economic benefits from smoking cessation following a tax rate hike. Evidence from Thailand, for example, shows that the poor paid only 6 percent of increased tobacco taxes but got 58 percent of the health benefits (Jha, Joseph, Moser, et al. 2012).

The health benefits poor people obtain by quitting smoking also translate into long-term economic gains. Households in which someone smokes earn less over time than otherwise similar households where there are no smokers. So by favoring smoking cessation among people at the lower end of the welfare scale, tobacco taxes boost incomes among the poor relative to the better-off, directly advancing equity.

The bottom line is this: when we look at all the facts, tobacco taxes are not regressive, but highly progressive, as the full health and economic benefits of this measure far outweigh its relative cost.

TOBACCO TAXATION AND EMPLOYMENT: BRIDGING TO BETTER LIVELIHOODS

The tobacco industry warns of potential job losses in agriculture, manufacturing, and distribution as an argument against higher tobacco taxes. However, governments can help facilitate the adjustment of the relatively small numbers of vulnerable workers whose jobs will be affected by tobacco tax rate increases.

On tobacco taxes and employment, the following points merit attention:

- **Job losses in tobacco worldwide have come mostly from manufacturers' own policies, not from tax hikes.** Analysis has shown that observed reductions in tobacco-related employment have come largely from automation and consolidation by the industry itself (NCI and WHO 2016).
- **Today, few jobs in LMICs are completely dependent on tobacco, even in large producer countries.** With few exceptions, the share of total employment involved with tobacco is already very small. Even China, the world's largest producer and consumer of tobacco products, has only about 2 percent of its farmers growing tobacco (Hu, Mao, Shi et al. 2008).
- **Following a tobacco tax rate hike, consumer spending shifts to non-tobacco sectors, creating alternative jobs.** When cigarette consumption drops after a tax rate hike, money not spent on tobacco products will mostly flow to other economic sectors, stimulating their production and so creating jobs there, while contributing to economic diversification. Studies show that over time there is likely to be a net gain rather than a loss in employment in nearly all countries that raise tobacco excise rates (IARC 2011; NCI and WHO 2016).

- **Tobacco tax plans must nonetheless incorporate support for affected workers, especially those with low skills.** Though the numbers are small, some tobacco workers who lack skills to adapt will lose employment and income, as demand for tobacco falls. Governments must anticipate this challenge and be ready with solutions. Successful transitions can be achieved, helping workers access equal or better livelihoods outside tobacco. Policy makers should tackle this issue head-on: on equity grounds, to assist vulnerable workers and their families; and for strategic reasons, to prevent the tobacco industry from appropriating employment as a political weapon against tax rate increases.

Helping Tobacco Farmers Switch to Other Crops

In the very few countries that are net tobacco producers, an important share of employment in the tobacco industry comes from farming. Governments and their partners can coordinate tobacco tax rate hikes with programs to encourage and help tobacco farmers' transition to other crops. In virtually all settings, alternative crops exist that are both more profitable for farmers than tobacco and without the health risks of tobacco farming, which include green tobacco sickness, a systemic poisoning due to nicotine exposure through contact with tobacco plants.

Today, only a minimum percentage of farmers rely exclusively on tobacco for their livelihoods. In most settings, tobacco is part of multi-cropping schemes, and where demand is decreasing farmers are diversifying away from dependence on tobacco. Tobacco cultivation is a small and shrinking contributor to economies worldwide. However, targeted support, for example through input credits, agricultural extension, and irrigation, will be needed for some small tobacco farmers, particularly those who are trapped in dependency on the tobacco industry. Industry practices foster such dependency, for example by providing farmers with free inputs and guaranteed purchase of their entire tobacco crop, though often at such low rates that farmers fail to break even and end up in chronic debt to the firms (Kagaruki 2010).

CURBING THE ILLICIT TOBACCO TRADE

The tobacco industry counsels policy makers that raising tobacco tax rates will spur increases in the illicit tobacco trade, while lowering tobacco tax rates might reduce such criminal activity. The key message for governments on this point is clear: even in the presence of substantial levels of smuggling, higher tobacco tax rates cut cigarette consumption and raise fiscal revenues. Evidence from Canada, which has 3000 miles of open border with the United States, shows that large-scale smuggling occurred only when

the cigarette industry colluded with criminal networks (Kelton and Givel 2008). The main driver of the illicit tobacco trade is not higher tax rates but lax enforcement and organized criminal networks. The core strategy for governments remains to go after the criminals and improve tax administration and enforcement of control measures, not to lower tobacco taxes. Turkey, for example, substantially reduced illegal sales by tackling evasion, and simultaneously raised taxes.

A robust repertoire of proven control and enforcement measures exist to curb illicit tobacco. Measures have been successfully implemented by LMICs, as well as rich countries. Many are captured in the WHO Protocol to Eliminate Illicit Trade in Tobacco Products. Effective tools include track-and-trace systems to follow tobacco products through the supply chain; detection equipment at customs posts; and tougher sanctions. Today, it is imperative that the international community advocate and encourage national lawmakers in all countries to ratify and implement the WHO Protocol, securing its status as binding international law (Marquez 2015). Many countries that have adopted broad control and enforcement programs have achieved impressive results. For example, since the “Tackling Tobacco Smuggling” strategy was introduced in the U.K. in 2000, the size of the illicit cigarette market has been cut by almost half, to about 9 percent of national sales, with more than 20 billion cigarettes and over 2,700 tons of hand-rolling tobacco seized (Figure ES3). Additionally, the U.K. has seen more than 3,300 criminal prosecutions for tobacco offenses following action by law enforcement officers. In Chile, a country that has one of the highest tax rates on cigarettes in the world, with taxes accounting for 78 percent of the price of each pack, the government has also achieved success in increasing seizures of smuggled tobacco products. This has affected the country’s tobacco supply and is helping curtail the slight growth in illicit trade observed after a 2013 increase in tobacco prices.

THE ROAD AHEAD

As we move into the third decade of the 21st century, the achievement of smoke-free societies should be a critical marker of sustainable development. Advancing tobacco taxation today requires intensified efforts in the following areas:

Demand-driven technical assistance to countries. Effective technical assistance requires sharing good practice experiences and engaging high-level government officials from Ministries of Finance and Health, together with multilateral and bilateral organizations and civil society. Higher and better-structured tobacco taxes should be increasingly a default part of broader tax-system and fiscal reforms.

Capacity development and knowledge sharing. Countries that have successfully raised tobacco taxes have gained valuable expertise and can share evidence and good practices with others. The global community must also be ready to respond to country-level demand for further capacity development. This should include capacity building on the use of simulation models, which can assess fiscal and health implications of alternative tax levels and structures.

Further strengthening the global evidence base. In addition to fostering knowledge exchange between countries, the global tobacco-taxation evidence base should be deliberately reinforced in the following areas:

- **Progressivity, employment, and poverty:** Current evidence indicates that tobacco taxes are highly progressive on a net basis, given that the poor are more price responsive and so gain greater health benefits than the rich. To complete this picture, we need additional country-specific examples of the impacts of tobacco taxation on poverty, health, and employment.
- **Better economic surveillance:** There is a need for global efforts to create rapidly accessible data on tobacco prices, illicit sales, and demand for tobacco products, along with better tracking of industry practices. This includes a much stronger information base concerning the response to non-price strategies, most specifically industry efforts to subvert bans on tobacco and advertising and efforts to lobby Ministries of Finance.
- **Illicit trade:** Research as well as technical assistance is needed to strengthen countries' institutional capacity to curtail illicit tobacco trade through customs and related instruments. This should be incorporated within a broader package of public-sector modernization efforts.

Driving policy change nationally and globally. This report has identified national policy entry points and shown how regional collaboration can also strengthen results. Global treaties can provide additional leverage for change. One such treaty is the WHO Protocol to Eliminate Illicit Trade in Tobacco Products, a supplementary agreement to the WHO Framework Convention on Tobacco Control. Forty formal country ratifications are needed to make the Protocol binding international law, but the total has not yet been reached. It is imperative that the international community encourage lawmakers from all countries and across the political spectrum to ratify and implement the Protocol. Lives and the social well-being of nations depend on it. This is just one example of how global collaboration can support national policy action, while country-level choices (e.g., treaty ratification) can empower global policy instruments for the common good. National and global policy action reinforce each other.

CONCLUSION: EXPANDING THE GLOBAL COALITION

Higher tobacco tax rates could save millions of lives each decade, reduce poverty, and boost public resources for development investment. Yet, today, tobacco taxation remains one of the world's least-used tobacco control measures (Marquez 2017).

The power to change this situation exists. Not in the hands of any single leader or institution, but in a global coalition uniting governments, multilateral agencies, civil society, researchers, the private sector, and communities: a coalition dedicated to ensuring that the life-saving impact of tobacco tax reform reaches the largest possible number of people in the shortest possible time.

Since 2015, the World Bank Group, WHO, the Bill & Melinda Gates Foundation, the Bloomberg Foundation, and others have worked with countries to reinforce the global coalition for tobacco tax reform. In April 2017, the conference "Tobacco Taxation: Win-Win for Public Health and Domestic Resource Mobilization" provided an opportunity to measure progress. Convened at World Bank Headquarters in Washington, D.C., this tobacco tax policy summit drew high-level delegations from the Health and Finance Ministries of 35 countries, who reported on progress and committed to further accelerate reforms. Participants noted that, as countries reframe their development finance plans around domestic resource mobilization, the case for tobacco taxation increasingly resonates.

Measured against the distance to be traveled, these are still early steps. Countries acting boldly remain outnumbered by those that hesitate. The World Bank will leverage its access to Ministries of Finance to further expand country-level policy dialog; ramp up technical support and capacity building; nurture peer-to-peer collaboration among countries; and advance a learning agenda to further improve tobacco tax policy designs, hone advocacy, and increase impact.

Many countries stand at the crossroads on tobacco tax reform: a critical crossroads for health and development. The good news is that countries and partners can come together, not just around a problem, but around a proven solution. A stronger, united effort is required to advance the global tobacco taxation agenda toward better health, less poverty, and greater development opportunity for all.

REFERENCES CITED

- Furman J. 2016. "Policy, Politics, and the Tripling of Federal Tobacco Taxes in the United States to Deter People from Smoking, Save Lives, and Mobilize Revenue over the last 30 years. Six Lessons from the U.S. Experience with Tobacco Taxes." Presentation at the World Bank Conference. "Winning the Tax Wars: Global Solutions for Developing Countries," Washington, DC, May 24, 2016. <http://www.worldbank.org/en/topic/health/brief/tobacco>
- Goodchild M, Nargis N, Tursan d'Espaignet E. 2017. "Global economic cost of smoking-attributable diseases." *Tob Control* Online First: 30 January 2017. doi: 10.1136/tobaccocontrol-2016-053305.
- Goodchild M, Perucic AM, Nargis N. 2016. Modelling the impact of raising tobacco taxes on public health and finance. *Bull World Health Organ* 94: 250-257.
- Hu T-w, Mao Z, Shi J, Chen W. 2008. Tobacco Taxation and Its Potential Impact in China. Paris: International Union Against Tuberculosis and Lung Disease.
- IARC (International Agency for Research on Cancer). 2011. Effectiveness of Tax and Price Policies for Tobacco Control. Volume 14, IARC Handbooks.
- Jha P. 2009. "Avoidable global cancer deaths and total deaths from smoking." *Nat Rev Cancer* 9: 655-64.
- Jha P. 2012. "Death and Taxes: Epidemiological and Economic Evidence on Smoking." *Global Heart*: 139-142.
- Jha P, Joseph RC, Moser P, et al., for the Asia Development Bank. 2012. *Tobacco Taxes: A Win-Win Measure for Fiscal Space and Health*. Manila: Asian Development Bank. (Accessed May 8, 2017 at <http://www.adb.org/publications/tobacco-taxes-win-win-measure-fiscal-space-and-health>)
- Jha P, Marquez PV, Dutta S. 2017. "Tripling Tobacco Taxes: Key for Achieving the UN Sustainable Development Goals by 2030." *The World Bank Blogs*, January 24, 2017. Available at: <http://blogs.worldbank.org/health/role-excise-tax-meeting-sdg>
- Junquera-Varela, Raul Felix, Marijn Verhoeven, Gangadhar P. Shukla, Bernard Haven, Rajul Awasthi, and Blanca Moreno-Dodson. 2017. *Strengthening Domestic Resource Mobilization: Moving from Theory to Practice in Low- and Middle-Income Countries*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1073-2.
- Kagaruki LK. 2010. Community-based advocacy opportunities for tobacco control: experience from Tanzania. *Global Health Promotion* 17(2) Suppl: 41-4.
- Kaiser K, Bredenkamp C, Iglesias R. 2016. "Sin Tax Reform in the Philippines: Transforming Public Finance, Health, and Governance for More Inclusive Development. Directions in Development—Countries and Regions." Washington, DC: World Bank. Available at: <https://openknowledge.worldbank.org/handle/10986/24617>
- Kelton MH, Givel MS. 2008. Public policy implications of tobacco industry smuggling through Native American reservations into Canada. *Int J Health Serv* 38(3):471-87.
- Marquez PV. 2015. "World No Tobacco Day 2015: On Illicit Trade and Taxes." *The World Bank Blogs*, May 29, 2015. <http://blogs.worldbank.org/health/world-no-tobacco-day-2015-illicit-trade-and-taxes>
- Marquez PV. 2017. "Taxation: Most effective but still the least-used tobacco control measure." *The World Bank Blogs*, July 19, 2017. <https://blogs.worldbank.org/health/taxation-most-effective-still-least-used-tobacco-control-measure>

NCI (U.S. National Cancer Institute) and WHO (World Health Organization). 2016. *Monograph 21: The Economics of Tobacco and Tobacco Control*. Bethesda, MD, USA: U.S. Department of Health and Human Services, National Institutes of Health. Available at: https://cancercontrol.cancer.gov/brp/tcrb/monographs/21/docs/m21_exec_sum.pdf

Paul J. 2016. "The Impact of the 2013 Sin Tax Reform in the Philippines." Presentation at World Bank Conference: "Winning the Tax Wars: Global Solutions for Developing Countries," Washington, DC, May 24, 2016. <http://www.worldbank.org/en/topic/health/brief/tobacco>

Peto R, Lopez AD. 2001. "Future worldwide health effects of current smoking patterns." In: Koop, C.E., Pearson, C.E., Schwarz, M.R., eds. *Critical issues in global health*. San Francisco: Wiley (Jossey-Bass): 154-61.

Webber L, Andreeva TI, Sotomayor R, Marquez PV, et al. 2017. "Modeling the Long-Term Health and Cost Impacts of Reducing Smoking Prevalence through Tobacco Taxation in Ukraine." Washington, DC: The World Bank Group.

World Bank Group. 2016. Tobacco Tax Modelling in Armenia, Colombia, Moldova, and Ukraine. Internal Working Documents.

