

Supplementary Questions

Firstly, I request that the committee correct the attribution of my testimony in these supplementary questions and other references. It is incorrect to refer to my submission or testimony as being from “NHMRC”. I am representing the “NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame”, with the “NHMRC” indicating that we were established with funding from a National Health and Medical Research Council (NHMRC) Centres of Research Excellence grant. This is a category 1 investigator-initiated competitive grant. We do not imply or suggest that our views represent those of the NHMRC, who have no role in our research program (other than the funding which was awarded through a peer-reviewed competitive process administered by the NHMRC). If the committee would like to use an acronym to refer to our research centre instead of the full name, they may use “CREATE” (Centre of Research Excellence on Achieving the Tobacco Endgame).

I appeared at this inquiry representing the largest research centre in Australia that is dedicated to tobacco policy research and our Australian team includes two research fellows who hold prestigious research fellowships from the Australian Research Council (ARC) that have a strong focus on illicitly traded tobacco (Gartner and Puljević). We are unaware of any other ARC fellowships that have been awarded to researchers on this topic. Our funding is primarily from Category 1 competitive research grants (ARC and NHMRC). The fact that we have been awarded multiple successive Category 1 grants is evidence that our research is considered by our peers in the Australian research community as being among the top of our fields in Australia. Our centre also includes international experts in illicit tobacco trade control and tax policy, who have also contributed to the responses to these supplementary questions. These include Professor Jeffrey Drope and Dr Kevin Welding from Economics for Health and Johns Hopkins University.

I would like to express my deep disappointment in this parliamentary inquiry. I submitted to the inquiry and appeared as an expert witness in good faith on the assumption that the Committee was genuinely interested in identifying action that the New South Wales Government could take to reduce illicit tobacco trade in NSW. Instead, the questioning from the Committee, exemplified by these supplementary questions, focused on tobacco excise, a federal policy, rather than practical measures that the NSW Government can implement. Furthermore, no reputable authority in illicit tobacco trade supports reducing tobacco tax as a way to reduce illicit trade. Rather, international authorities specifically recommend against governments taking such action because it is ineffective and counterproductive. Reducing tobacco excise is the favoured policy of the tobacco industry and associated commercial actors who profit from tobacco sales because it allows them to both increase their profits and grow their customer base. It is not a policy that is endorsed as an appropriate or effective response to illicit tobacco trade by any reputable authority, including the World Bank, Organization for Economic Co-operation and Development (OECD), World Health Organization (WHO), and the International Monetary Fund (IMF). Our recommendations are consistent with these organisations’ recommendations to focus on supply reduction measures.

Tobacco control policy in Australia is a shared responsibility between the federal government and the states and territories, with all parties committing to implementing policies outlined in the National Tobacco Strategy 2023-2030, which includes “**Priority Area 3: Continue to reduce the affordability of tobacco products**”. The proposition repeatedly advanced by the Committee that the federal government should reduce the current tobacco excise is inconsistent and counter to the National Tobacco Strategy 2023-2030. This raises serious questions as to why the NSW Government appears to be walking away from its commitment to tobacco control policy that was agreed with all other states and territories and the federal government. Furthermore, Australia is a Party to the WHO Framework Convention on Tobacco Control and as such is obliged to implement tax and price policies on tobacco products under Article 6 of this international treaty. Importantly, the Article 6 implementation guidelines include:

“1.6 Tobacco tax policies should be protected from vested interests

The development, implementation and enforcement of tobacco tax and price policies as part of public health policies should be protected from commercial and other vested interests of the tobacco industry, including tactics of using the issue of smuggling in hindering implementation of tax and price policies, as required under Article 5.3 of the WHO FCTC and consistent with the guidelines for its implementation as well as from any other actual and potential conflicts of interests.”

In the interests of transparency, it would be good for the Committee to outline what processes the Committee has implemented to ensure that this inquiry is protected from the influence of commercial interests as required by the WHO FCTC, including communications that occur between stakeholders and Committee members outside of the hearings, and how the Committee has weighed the authoritativeness of the evidence supplied to the Committee via formal and informal channels.

Professor Coral Gartner
Director
Centre of Research Excellence on Achieving the Tobacco Endgame
ARC Future Fellow
School of Public Health
The University of Queensland

Supplementary Question 1

What empirical evidence underpins the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame's position that maintaining or increasing tobacco excise remains effective in reducing smoking prevalence in contexts where illicit tobacco availability is significant?

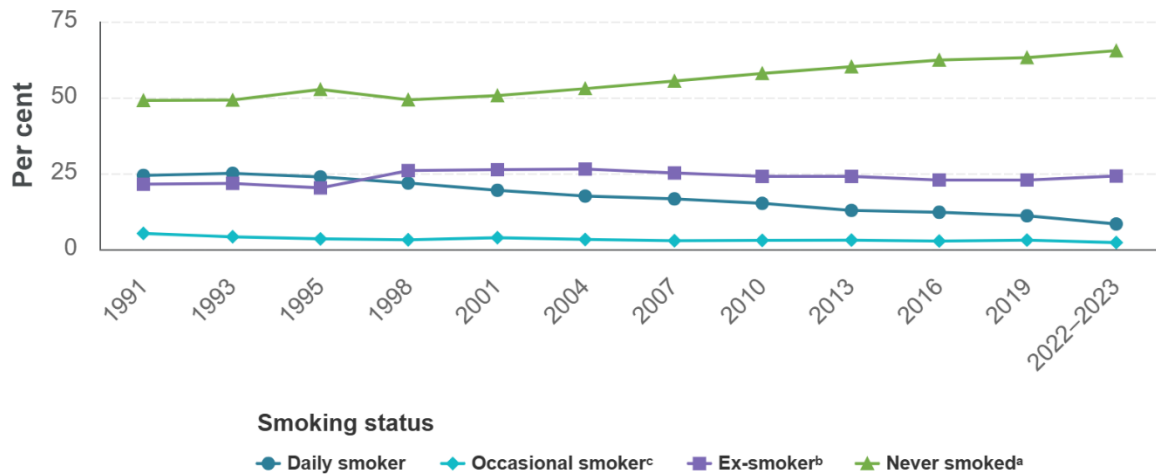
Response: The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame does not have "a position", as such. As research leaders in the tobacco control policy field, we provide expert advice based on the best available evidence from reputable sources such as survey data, wastewater analysis, consensus and major reports and published research from quality sources.

Australian data sources include state-based population health surveys, the National Drug Strategy Household Survey, which is considered the most authoritative national data source on tobacco use in Australia, the International Tobacco Control Policy Evaluation Project surveys, other bespoke surveys we conduct and also wastewater analysis.

In Australia, tobacco use has continued to decline during a period of increasing illicit tobacco use and high taxation rates. This is evident in survey data in which participants report their tobacco use (i.e., tobacco from both legal and illegal sources) and analysis of wastewater samples for nicotine and tobacco metabolites.

For example, the proportion of the population who report they have quit smoking increased from 22.8% in 2019 to 24.1% in 2022-2023 and the proportion who had never smoked increased from 63.1% in 2019 to 65.4% in 2022-2023 (National Drug Strategy Household Survey Data). This is shown in the following graph from Australian Institute of Health and Welfare.

Figure 2: Tobacco smoking status, people aged 14 and over, 1991 to 2022–2023



2. Never smoked 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco.
3. Smoked at least 100 cigarettes (manufactured and/or roll-your-own) or the equivalent amount of tobacco in their life, and reported no longer smoking.
4. Includes weekly and less than weekly smoking.

Statistically significant change between 2019 and 2022–2023

Notes:

1. In 1991, daily smoking included people who reported smoking daily, or most days.
2. In 1993, smoking status was only asked to people aged 20 years or over.

Source: available from <https://www.aihw.gov.au/reports/alcohol/alcohol-tobacco-other-drugs-australia/contents/drug-types/tobacco#use>.

The following text is from Wang et al (2026), which reported estimates of total tobacco and illicit tobacco use in Australia using wastewater analysis.

“When calculating the percentage of the market that is illicit based on the wastewater estimates, the proportion increased from approximately 9% in 2017 to 33% in 2023. This coincides with the increasing proportion of the smoking population using illicit tobacco in the survey data and an increase in media reporting of police seizures of illicit tobacco during this period.⁴⁴ **It is notable that the overall amount of illicit tobacco that was smoked declined between 2020 and 2023 according to our estimates, which may be associated with the overall decrease in the number of people in Australia who smoked tobacco from 2.3 million in 2019 to 1.8 million in 2022 to 2023.⁴ However, the proportion of the illicit tobacco market share has remained relatively stable at approximately 30% since 2020.** While the expansion of the illicit tobacco market share could slow Australia’s progress toward its goal of reducing smoking prevalence to 5.0% or less by 2030, **it is reassuring that smoking prevalence continued to decline during a time of rapid growth in the illicit**

market. Nevertheless, additional efforts are necessary to control the expansion of the illicit tobacco market.”

Reference: Wang Z, Zheng Q, Thai PK, Gartner C, O’Brien JW, Bade R, Verhagen R, Hall W, Stjepanović D, Simpson BS, Keller EL. National Wastewater Surveillance of Illicit Tobacco and Vaping Use Trends in Australia. *JAMA Network Open*. 2026 Feb 9;9(2):e2557319.

In terms of international examples, Brazil provides a relevant example of a country with a widespread illicit tobacco market. A sizeable illicit market developed in Brazil in the 1990s due to the failure of the Government to implement and enforce effective policies to curtail smuggling. However, despite this substantial illicit market, an increase in tobacco tax was still effective in reducing smoking overall. The following text is from an analysis of tax reform in Brazil. The Brazilian Government initially reduced tobacco excise as a “market-based strategy to reduce illicit trade”. However, this proved to be ineffective, and the Government subsequently reversed this policy approach and increased tobacco excise from 2012 despite continuation of widespread illicit tobacco trade as described by Iglesias (2016).

“The Brazilian cigarette excise tax reform of 2011 increased tax rates significantly in the presence of a high proportion of illegal and cheap cigarettes contributing to total consumption. Prior to 2011, tobacco tax policy in Brazil had reduced excise tax share on consumer prices, for fear of smuggling. This report examines two hypotheses explaining why tax authorities changed direction. The first is related to lack of concern regarding smuggling in tobacco industry pricing behavior before 2011 (rather than reducing prices following tax reduction, legal companies increased net of tax prices above inflation and key costs). The second hypothesis regards inconsistent industry assessments of the size of the illicit market, which ultimately undermined the credibility of the industry with tax authorities. The author concludes that the 2011 reform was designed to revert the weakness of previous policies, and did indeed succeed. The post-2011 experience in Brazil indicates that increased cigarette excise taxes can increase government revenues and reduce smoking prevalence and consumption despite widespread smuggling of tobacco products.”

Reference: Iglesias RM. Increasing excise taxes in the presence of an illegal cigarette market: the 2011 Brazil tobacco tax reform. *Rev Panam Salud Publica*. 2016;40(4):243–9.

The following quote from Iglesias (2016) provides a caution against the Australian Government reducing tobacco excise as an illicit trade measure and demonstrates that when tax was increased in Brazil in 2011 smoking prevalence started declining despite the substantial illicit market.

“Smoking prevalence dropped from over 13% in 2011 to 10.8% in 2014. Among other factors favoring quitting decisions, real cigarette prices were affecting smoking behavior, as was the widespread implementation of smokefree environments at the state level. The reduction of smoking prevalence in this context means that tax and price increases reduced total cigarette consumption, an important public health objective, irrespective of the market share of legal versus illegal cigarettes.

POLICY LESSONS

There are two main policy lessons to be learned from the tobacco excise policy experience in Brazil from 1999–2015. First, reducing excise tax amounts per pack may not substantially reduce the illicit trade in a country with extensive smuggling networks and a cheaper illegal producer just across the border. And, second, it is possible to increase tax rates, obtaining higher revenues and decreasing total consumption, even in the context of smuggling.

Lower tax does not reduce illicit trade

Smuggling networks are sunken investment made by past and current smugglers and illicit cigarette producers. When the network exists and the investment has been made, it can operate with different level of profits; **therefore, legal price reductions in large intervals do not affect illicit activities.**⁶ **To counteract illicit trade, it is necessary to do more than reduce price incentives.** The smuggling network must be countered and rendered inoperative with law enforcement actions.”

Reference: Iglesias RM. Increasing excise taxes in the presence of an illegal cigarette market: the 2011 Brazil tobacco tax reform. *Rev Panam Salud Publica*. 2016;40(4):243–9.

The above reference is consistent with the conclusion of one advocate of reducing tobacco tax in Australia, James Martin, who is cited in a media interview admitting that tobacco excise may need to be eliminated completely to have any impact on illicit trade (see The Straits Times <https://www.straitstimes.com/asia/australianz/australia-battles-surg-ing-illegal-tobacco-market-as-organised-crime-takes-over-trade>). It is difficult to understand how such a policy response (completely eliminating tobacco excise) would achieve any of Australia’s public health goals or halt the decline in tobacco excise revenue (which would presumably plummet to zero if the policy was adopted). It is as bizarre as suggesting the federal government should just eliminate income tax as a policy response to reducing income tax fraud. It completely ignores the purpose of why the tax is there. This suggestion of significantly lowering or completely eliminating tobacco excise does not consider the adverse outcomes on public health such as youth smoking uptake that would likely result if that advice was followed.

In addition to the examples cited above, there is a very large body of evidence that supports tobacco taxation as an effective policy to reduce smoking. Examples include:

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

Irwin, Alexander; Marquez, Patricio Vicente; Jha, Prabhat K.; Peto, Richard; Moreno-Dodson, Blanca; Goodchild, Mark; Perucic, Anne-Marie; Zheng, Rose; Blecher, Evan; Bouw, Annerie; Lavado, Rouselle F.; Meyer, Moritz; Postolovska, Iryna; Sotomayor Noel, Renzo Efren; Ross, Hana; Hu, Teh-Wei; Lisulo, Angela S.; Brown, Melissa; Fanta Ivanovic, Enrique Guillermo; Garcia, Magaly Annabel Clavijo. *Tobacco tax reform at the crossroads of health and development: technical report of the World Bank Group global tobacco control program (Vol. 2 of 2): Main report (English)*. Washington, D.C.: World Bank Group.

<http://documents.worldbank.org/curated/en/491661505803109617>

The consensus of the evidence from reputable and trustworthy sources is that reducing tobacco excise is not an appropriate or effective method to reduce illicit tobacco trade. It is simply not a policy that is endorsed by authoritative organisations, including the World Bank, Organization for Economic Co-operation and Development (OECD), World Health Organization (WHO), the International Monetary Fund (IMF) and Economics for Health. Our recommendations are consistent with these organizations' recommendations to focus on supply reduction.

Indeed, there is evidence that reducing excise could make matters worse, as illicit market prices can be influenced by the legal market price – so reducing prices in the legal market through reduction of excise, is likely to just make the illicit prices even cheaper. The following is a quote provides an example from Hong Kong that explains how the price of legally traded cigarettes influences the price of illicitly traded cigarettes. Analyses conducted in Brazil also suggest that the price of taxed (legally sold) tobacco products influences the price of untaxed (illegally sold) tobacco products.

“It is not surprising that some consumers may switch to smuggled cigarettes following a tobacco tax increase. However, these results show that the conclusion that increasing tax does not decrease smoking is incorrect. The reason for this is that as the price of taxed cigarettes increases, so does the price of smuggled cigarettes since they are substitutes for taxed cigarettes. For example, a reporter found that after the duty rose again in 2011, the price of a pack of 20 cigarettes increased from HK \$40 to HK\$50, while that of smuggled cigarettes also might increase from HK\$24 to HK\$39.⁸ An increase in the illicit cigarette price decreases smoker demand, as does an increase in the price of taxed cigarettes.”

Reference: Tsui TC. Does smuggling negate the impact of a tobacco tax increase? *Tob Control* 2016;25:361–362.

Supplementary Question 2

How does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame's consider evidence of substitution between legal and illicit tobacco when assessing the public health impact of excise settings?

Response: Cross-price elasticity between legal and illicit markets for tobacco has been estimated in a country with a substantial illicit tobacco market (Brazil). The following quote from the conclusion of this study is provided below, which explains how the price of the illicitly traded cigarettes is the key factor determining demand for illicit cigarettes, not the price of legally traded cigarettes. This provides evidence that anything that can reduce the price of illicitly traded cigarettes (such as reducing the excise on legally traded cigarettes) may increase demand for illicitly traded cigarettes without increasing switching back to their legal counterparts.

“This paper used individual-level survey data to estimate own- and cross-price elasticities of legal and illegal cigarette consumption in Brazil. Although the relative size of the illegal market is considerably large in many developed and emerging countries, cross-price elasticities of cigarette consumption have not been estimated thus far, to the best of our knowledge. In other words, this paper explicitly accounts for interrelations between legal and illegal cigarette consumption due to price changes in either market. The findings contribute to the ongoing debate on tobacco tax reform, the shifting demand between legal and illicit cigarettes, and the broader question of the effectiveness of tax increases as a tool for tobacco control policy.

The estimated cross-price elasticities suggest that the **price of illegal cigarettes** may influence smokers' decisions to purchase either from the legal or illegal market, although the corresponding cross-price elasticity is not statistically significant in all estimates. **Regarding the effect of legal cigarette prices, all estimates clearly show no significant demand-switching effect.** In other words, there is no significant evidence that an increase in legal cigarette prices, such as from tax hikes, would lead to an expansion of the illicit market. These results suggest that legal and illegal cigarettes are not close substitutes, as their demand is not directly influenced by their relative prices. **A potential explanation for the lack of an effect from legal prices on the decision to switch to illegal cigarettes is that the average legal price is already twice as high.** Additionally, consumers may have ethical, legal, and health-related concerns that deter them from purchasing illegal products, regardless of the price difference.”

Reference: Jose Angelo Divino, Philipp Ehrl, Osvaldo Candido, Marcos Aurelio Pereira Valadao & German Rodriguez Iglesias (2025) Cross-price elasticity between licit and illicit cigarette consumption in Brazil. *Journal of Applied Economics*, 28:1, 2509236, DOI: 10.1080/15140326.2025.2509236.

The wording of this Supplementary Question is based on an incorrect premise that tobacco excise (the price of the legally sold cigarettes) is the critical parameter that determines

substitution between legally sold and illegally sold tobacco products. However, the **price and availability of illicitly traded tobacco products** (not ‘excise setting’/price of legal tobacco products) is the key variable that is relevant.

This is why we recommend focusing on measures that reduce illicit tobacco supply and availability rather than focusing on trying to increase demand for legally sold tobacco. Reducing availability of illicitly traded tobacco products will increase their price as well as reducing access to them.

Furthermore, increasing demand for legally sold tobacco products (e.g., through excise reduction) is not only an ineffective policy response to illicit tobacco trade (as demonstrated by the study by Divino et al (2025)), it is inconsistent with Australia’s public health goals and obligations under the WHO FCTC and the National Tobacco Strategy 2023-2030, which the NSW Government has committed to implementing as a shared responsibility with the Federal Government. There is a serious risk that any real reduction in the legal price will grow both the tobacco market and the illicit market overall and even if the *proportion* of the market that is illegal decreases, the absolute number of people smoking illicit cigarettes could increase because reducing the legal price can reduce the illegal price and grow the size of both markets and the total number of people smoking. As previously explained, suppliers of illicit tobacco have a large margin within which they can drop their prices to compete with the legal market while still making a profit by dropping their prices.

Demand reduction approaches should not focus on shifting consumers from illegally traded to legally traded tobacco products, but rather toward smoking cessation. The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame does not approach the issue from the perspective of the false binary that consumers only have two options of “buying illegal tobacco” or “buying legal tobacco” that is implied by the phrasing of this supplementary question. Rather, the third option of “not buying any tobacco” is the main outcome that our research is focused on achieving. I hope that encouraging and supporting people to take this third option of “not buying any tobacco” is also the priority of the NSW Government and this Committee and a key consideration in policy responses to illicit tobacco trade.

Evidence used in assessing transitions between use of different products and smoking status includes data from surveys, wastewater analysis, sales data, covert observational data and littered product studies. These can be used to estimate use of legally sold and illegally sold tobacco when assessing the public health impact of illicit tobacco availability.

Supplementary Question 3

What assumptions about consumer behaviour are relied upon in the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame assessment where illicit tobacco products are materially cheaper and readily accessible?

Response: It is unclear what “assessment” the Committee is referring to. The wording of this question presupposes that our expert advice and research is based on ‘assumptions about consumer behaviour’ rather than our own data and a large corpus of evidence from previous research and expert reports. Examples have been cited in responses to previous questions.

The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame draws on a range of data (e.g., see response to Supplementary Question 1) in drawing conclusions and providing advice concerning tobacco control policy. Our own original research includes collecting survey data on consumer purchasing (such as brand, price data, vendor etc) and smoking and other nicotine product use behaviours (smoking intensity, vaping, quit attempts etc). We also collect data on the availability and sales price of illicitly traded tobacco products in ‘bricks and mortar’ and online retail environments, as well as observational data from littered tobacco products.

While we are collecting data on these behaviours under current conditions of “cheaper and readily accessible” illicitly traded tobacco products, which has been enabled through a history of inadequate investment in control measures over the tobacco supply chain. These data and future collections will enable us to evaluate the impact of interventions that are currently being implemented by different jurisdictions. In this regard, the current leaders are Queensland and South Australia. These states are implementing novel and innovative policy responses in addition to investing in their enforcement capability. We are also collecting data in laggard states that will provide useful control data for the evaluation. We believe this research will be of international significance and interest. NSW has the opportunity to join the leading jurisdictions by investing in illicit tobacco supply control measures, or be included among the control group of laggards.

Supplementary Question 4

How does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame assess overall tobacco consumption in circumstances where a proportion of use is illegal and therefore not captured in sales or tax data?

The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE) uses survey data, wastewater analysis, sales data and littered butt/pack studies to estimate overall tobacco consumption and also breakdown of legal/illicit market, as per response to previous questions. Survey data is particularly valuable in this regard, and we have been collecting detailed self-reported purchasing data (price paid, amount smoked, brand purchased, type of vendor, etc) from national samples of people who smoke for many years through the International Tobacco Control Policy Evaluation Surveys. This type of data is not reliant on sales or tax data.

Supplementary Question 5

What evidence does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame rely on to conclude that price-based deterrence remains effective where the legal market may be partially displaced by illicit supply?

Response: I am surprised and perplexed at the Committee's continued focus on price-based policy responses to illicit tobacco trade and an apparent lack of interest in discussing non-price based policies that are implementable by the NSW government to curtail and control illicit tobacco trade. At the hearings I attended there appeared to be an unbalanced focus on a flawed policy proposal of reducing tobacco excise as a way to reduce illicit tobacco purchasing (by increasing the consumer attractiveness of legal tobacco products). This is not a policy that is endorsed as an appropriate or effective response to illicit tobacco trade by authoritative organisations, such as the World Bank, Organization for Economic Co-operation and Development (OECD), World Health Organization (WHO), and the International Monetary Fund (IMF). Our recommendations are consistent with these organizations' recommendations that the most appropriate and effective response to illicit tobacco trade is to focus on policies to reduce the availability of cheap untaxed products. We have outlined evidence that supports focusing on supply reduction measures rather than trying to increase demand for legally traded tobacco products in multiple previous response.

Illicit trade in tobacco products undermines the effectiveness of taxation as a tobacco control policy. This does not mean that the policy is completely ineffective in the presence of illicit trade. See the example of Brazil discussed in response to Supplementary Question 1 or the evidence of continued decline of smoking in Australia between 2019 and 2022-2023 (a period of rapid growth in illicit trade) also discussed in response to Supplementary Question 1. The most appropriate NSW Government response should be to invest in controlling illicit trade to boost the effectiveness of tobacco taxation policy. Not to erode the public health policy of tobacco taxation.

Tax evasion is a crime that occurs in many different domains, such as 'cash jobs' to avoid GST or not declaring all taxable income on a personal tax return. Most governments wouldn't suggest reducing other major taxes like the GST or income tax in response to people trying to evade paying these taxes. Rather, they would find those who are evading these taxes and obligate them to pay through surveillance and appropriate enforcement. Similarly, the fact that illicit drug markets and illicit trafficking of narcotics is a persistent criminal activity has not led governments to respond by permitting retailers to sell these drugs openly and at low price. While creating a cheap legal market of methamphetamine, cocaine, heroin, ecstasy etc, would reduce the relative size of the illegal market in these substances by creating a legal market, it would create enormous public health harms from the adverse health impacts of a greater number of people overall using these substances that would be expected to result from this policy. It makes this a very bad public policy option that is inconsistent with Government and societal goals of improving health. Similarly, the substantial harms that are caused by tobacco products and the risk of lifelong addiction associated with their use should preclude

consideration of policy actions that have the risk of growing the overall market in tobacco products and put young people at risk of taking up smoking.

Supplementary Question 6

How does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame distinguish between reductions in legal tobacco sales and actual reductions in smoking prevalence or intensity?

Response: As outlined in previous responses, the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE) uses survey data to measure total smoking intensity and smoking prevalence, not sales data, which doesn't provide individual level consumer data. Survey data is critical to measuring changes in tobacco use intensity, and smoking prevalence in addition to overall tobacco use, which is why we analyse data from national and state-based government surveys and also collect our own detailed data on consumer behaviour related to tobacco and other nicotine product use.

Supplementary Question 7

Are there any indicators or outcomes that would lead the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame to review or reconsider its current position on excise policy as a public health tool?

Response: The phrasing of the question is based on flawed assumptions. The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE) does not have a ‘position’ on excise policy. We provide expert advice to the Committee based on the scientific literature. The evidence on tobacco tax as an effective public health tool is well-established, as stated in responses to previous Supplementary Questions. We have seen no convincing evidence from reputable sources that would lead us to conclude that reducing tobacco excise would have any positive impact on public health. However, there is evidence of substantial risk of undesirable impacts regarding both of these. E.g., see responses to other supplementary questions.

The question also demonstrates a lack of understanding of how research works and the role of policy experts who should match their advice based on the evidence available from reputable sources to the policy goal that the government wants to achieve.

Our advice is focused on what action the NSW Government could take to achieve the **policy goal of reducing smoking overall** (which would also reduce the absolute size of the illicit tobacco market), **not** on a narrow policy goal of growing the legal tobacco market. While I could not find a current NSW Tobacco Strategy, the last one I identified (NSW Tobacco Strategy 2012-2021) had the goal: “To improve the health of the people of NSW and to eliminate or reduce their exposure to tobacco in all its forms.” Abandoning this health focused goal and switching to a goal of increasing the legal tobacco market would represent a significant (and alarming) departure from this previous goal.

Reducing the affordability of tobacco products is a policy that the Australian Government and the NSW Government have committed to through the National Tobacco Strategy 2023-2030. Maintaining substantial tobacco taxation is also consistent with the Australian Government’s international commitment as a Party to the WHO Framework Convention on Tobacco Control. Hence, there are also wider questions to be asked concerning why this Parliamentary Inquiry has focused their line of questioning on a policy that is inconsistent with these commitments as well as the recommendations from international authorities on tobacco tax and illicit trade.

Relevant questions include:

What is the policy goal of the NSW Government and this Parliamentary Committee regarding tobacco smoking in NSW?

What evidence has this NSW Government Parliamentary Committee received that has led them to focus their attention on a policy of tobacco excise reduction?

Who supplied that evidence to the Committee? What is their track record in tobacco control policy research and their standing in the field internationally?

How has the Committee weighed the provenance and reliability of this evidence against the advice of international authorities on illicit tobacco and tobacco tax, such as World Bank, Organization for Economic Co-operation and Development (OECD), World Health Organization (WHO), the International Monetary Fund (IMF) and Economics for Health?

Why is the Committee focused on a policy response that diverges from the policy commitments outlined in the National Tobacco Strategy and the WHO FCTC, in addition to the recommendations of the aforementioned international authorities?

Why has the Committee not focused their efforts and questioning on policy responses that are recommended by international experts on illicit trade that could be implemented by the NSW Government?

Supplementary Question 8

How does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame incorporate equity considerations, including impacts on low-income and regional populations, into its assessment of excise-based harm minimisation?

Response: Tobacco smoking fundamentally generates inequity. Tobacco control policies improve health equity. Because young people and those on low incomes are the most price sensitive, tobacco taxation is one of the most effective tobacco control policies for improving health equity compared to policies, such as health education.

Making tobacco products cheaper, which encourages use, would exacerbate the cycle of poverty that tobacco smoking contributes to. The economic impacts on people who smoke are not confined to the price of the pack. The bigger economic impacts are from the adverse health effects and shortened lifespan (often during what should be productive years) that smoking causes. Ignoring the health impacts of smoking that would be caused by a reduction in the real price of cigarettes on people on low incomes or in regional areas is not consistent with a commitment to improving equity or public health.

The equity benefits of tobacco taxation is a key reason why the NSW Government should take firm and swift action to reduce illicit tobacco trade within NSW because this will boost the effectiveness of this policy for people on low incomes and particularly for protecting youth. Increasing access to and affordability of tobacco products for people on low incomes is not a kindness or pro-equity policy. Indeed, focusing on increasing affordability of legally sold tobacco products rather than measures that support people on low incomes to quit smoking and maintain abstinence is a perverse approach to the complex issue of tobacco-related inequity. In addition to the physical and psychological distress of contracting lung cancer, throat cancer, cardiovascular disease, chronic obstructive pulmonary disease and many other avoidable life-limiting diseases caused by smoking, the financial impact on families when someone is diagnosed with one of these illnesses is enormous, particularly because the health impacts of smoking typically appear before retirement age and so families who are impacted are often managing not only the cost of medical treatment but also the loss of income the results from contracting a serious illness and dying prematurely. A better approach is to support people to quit smoking, and to prevent their children from taking up smoking to avoid the intergenerational transmission of the physical, psychological and financial adverse impacts of tobacco addiction.

The following quote from the World Bank Report: A Global Review of Country Experiences (Executive Summary) is a good explanation of why reducing illicit trade (not reducing tobacco tax) is important for improving equity.

“Youth and the poor are most impacted. Illicit cigarettes generally sell for considerably less than their tax-paid equivalents, as evidenced by the case studies presented in this book. They inflict the greatest harm to the most price-sensitive population group, reducing prices to and so encouraging consumption by, in particular, young people and those with low incomes. The availability of inexpensive

illicit cigarettes increases the likelihood of young people developing addiction (particularly where illicit imports "glamorize" smoking through aspirational brands). It also encourages the poorest quintiles of the population to continue smoking, rather than choose to quit, even when tobacco taxes and the price of legal cigarettes rise. The poor tend to have higher tobacco consumption levels and consequently are disproportionately impacted by tobacco-related diseases and premature deaths, placing them at higher risk of being pushed into extreme poverty due to costs of treatment and/or loss of income when an income-earning smoker develops a tobacco-related disease. As a result, illicit trade in tobacco products exacerbates equity gaps.”

A specific example is provided in an analysis of the effect of tobacco taxes in Ukraine conducted by the Poverty and Equity Global Practice Group at the World Bank. The abstract summarises the results as follows:

“Tobacco taxes are usually considered regressive, as the poorest individuals allocate larger shares of their budget toward the purchase of tobacco-related products. However, because these taxes also discourage tobacco use, some of the most adverse effects and their economic costs are reduced, including lower life expectancy at birth, higher medical expenses, increased years of disability among smokers, and the effects of secondhand smoke. This paper projects the effects of an increase in the tobacco tax on household welfare in Ukraine. It considers three price-elasticity scenarios among income deciles of the population. The results show that although tobacco taxes are often criticized for being regressive in the short run, in a more comprehensive scenario that includes medical expenses and working years, the benefits of tobacco taxes far exceed the increase in tax liability, benefitting in large measure lower income households. The results also indicate that lower health expenditure seems to be the main driver, because of the reduction in tobacco-related diseases that require expensive treatments. Tobacco taxes are also associated with positive distributional effects related to the higher long-term price elasticities of tobacco consumption.”

Reference: Fuchs, Alan and Meneses, Francisco Jalles, *Regressive or Progressive? The Effect of Tobacco Taxes in Ukraine* (October 27, 2017). World Bank Policy Research Working Paper No. 8227, Available at SSRN: <https://ssrn.com/abstract=3060915>

We also outline (in a just accepted manuscript in the top international tobacco policy journal – *BMJ Tobacco Control*) the reasons why reducing illicit trade through supply reduction measures combined with smoking cessation support, tobacco taxation and endgame measures, such as reducing the number of tobacco retailers, should be part of a pro-equity approach to tobacco control policy. The abstract (below) summarises these explanations, however we have also included an author-accepted version of the manuscript with this submission.

“There is strong evidence for the effectiveness of tobacco taxes on reducing smoking at a population level, both internationally and in Australia. Australia has implemented tobacco taxation at levels in line with the World Health Organization’s recommendations. Critics claim this policy has unintended negative impacts on health equity and has caused growth in illicit tobacco trade. While higher tobacco prices can drive consumers to seek cheaper illicitly traded untaxed tobacco products, this simplistic argument is too easily used to justify proposals (typically made by the tobacco industry) for dismantling restrictions that have reduced smoking in Australia, especially taxation. We argue that simply reducing tobacco taxes does not effectively address health equity and illicit tobacco trade. Tobacco taxes would need to be drastically reduced to compete with untaxed alternatives and would lead to increased smoking uptake and reduced cessation, especially among young people, while simultaneously reducing the government revenue available to fight tobacco smuggling, support people to quit smoking, and treat smoking-related diseases. Rather than making all tobacco cheaper, it is crucial to allow time for recently implemented regulations and law enforcement measures to take effect. Ultimately, demand for illicitly traded tobacco is most effectively reduced by reducing demand for all tobacco products, including through “endgame” measures, such as reducing retail availability. Therefore, smoking cessation support and pro-equity measures should be prioritised, especially for disadvantaged groups, while assessing the impact of strengthened regulation and law enforcement measures on Australia’s illicit tobacco trade.”

Reference: Brookfield S, Puljević C, Cho A, Gartner C. Advancing Australia’s Tobacco Control Policy and Taxation Strategies to Reduce Illicit Trade, Improve Health Equity, and Resist Industry Narratives. *Tobacco Control* (accepted manuscript); doi: 10.1136/tc-2025-059928

Similar to previous questions, we find the phrasing of this question problematic because it suggests our research centre is focused solely on excise as a measure for reducing smoking. The expert consensus is that effective tobacco control requires a multi-strategy approach. This is why the WHO FCTC contains a range of different policy approaches within its Articles, not just price-based policies, although these are an important component. Similarly, the National Tobacco Strategy includes price-based measures but also a range of other non-price measures. The advice of the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame is consistent with this approach that tobacco harm minimisation requires price and additional non-price policy approaches to most effectively achieve a comprehensive tobacco control strategy. We encourage the NSW Government to focus on implementing non-price based policy approaches in line with their jurisdictional responsibilities, particularly supply reduction and access to smoking cessation support. These non-price based policies have substantial potential to reduce both the legal and illegal tobacco markets by supporting smoking cessation and reducing uptake of smoking. Implementing them alongside strong tobacco taxation and illicit tobacco control measures will optimise their effectiveness.

The NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame (CREATE) welcomes the Committee's interest in equity considerations. However, it is disappointing that the Committee did not focus their question on how to improve health equity for people who smoke, but instead appear to be singularly focussed on arguing for reducing tobacco excise, which would exacerbate health disparities. We hope that the Committee translates implied interest in improving equity into concrete recommendations for policies and programs that will increase smoking cessation support for people on low incomes and regional areas, including funding of free comprehensive smoking cessation counselling programs with free smoking cessation medicines. The committee may be interested to learn about the nation-leading programs that have been implemented in Queensland by the Queensland Government called the Intensive Quit Support Program, which is delivered via the Queensland Quitline (which is administered by Queensland Health). State Government investment in such programs shows genuine commitment to increasing health equity.

“Smoking cessation programs remain a core component of global efforts to reduce smoking and nicotine addiction. Telephone-based counselling, with or without the provision of nicotine replacement therapy, commonly referred to as Quitlines, has been a cornerstone of smoking cessation programs and they vary in scope and content and the populations they target. We describe the history, and structure of Quitline Queensland, Australia that was implemented in 1997. Quitline Queensland offers intensive quit support programs incorporating 4 weeks of telephone-based counselling, free nicotine replacement therapy mailed to participants and up to 12 months of follow-up. The program has evolved through a strong government commitment to, and support for, evidence-based solutions to reducing the burden of smoking in Queensland. Eligible cohorts have been identified by evidence-based reviews, equity considerations, trends in smoking prevalence and to address new challenges to smoking cessation such as vaping and the impact of the COVID-19 pandemic. New approaches to engaging and retaining smokers and delivering the program are being evaluated and implemented.”

Reference: Isbel J, Kennedy M, West M, O’Grady K-AF and Peardon-Freeman S (2025) Quitline Queensland: the journey to a globally unique smoking cessation service in Australia. *Front. Public Health* 13:1576541. doi: 10.3389/fpubh.2025.1576541 available at: <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1576541/full>

In addition to the above article, the Committee may wish to read about programs that the NSW Government could implement to improve access to smoking cessation care for people from disadvantaged backgrounds:

Pleaver S, Gartner CE. Smoking cessation assistance should be free, accessible, and part of routine care. *Med J Aust.* 2022 Apr 18;216(7):345-346. doi: 10.5694/mja2.51468.

Pleaver S, Kisely S, Bonevski B, McCarthy I, Emmerson B, Ballard E, Anzolin M, Siskind D, Allan J, Gartner C. Can improvement in delivery of smoking cessation care be sustained in psychiatry inpatient settings through a system change intervention? An analysis of statewide administrative health data. *Aust N Z J Psychiatry*. 2023 Oct;57(10):1375-1383. doi: 10.1177/00048674231164566.

Pleaver S, Kisely S, Bonevski B, McCarthy I, Anzolin M, Siskind D, Ballard E, Emmerson B, Allan J, Gartner C. Increases in delivery of a brief smoking cessation intervention following implementation of a system change intervention in community psychiatry settings. *Aust N Z J Psychiatry*. 2025 Jul;59(7):602-611. doi: 10.1177/00048674251340214.

We also recommend policies that transform retail environments into ones that support achieving and maintaining abstinence from smoking. This includes reducing the number of tobacco retailers in the state. Despite a minority of the population smoking tobacco remains one of the most widely available consumer products in retail environments and this widespread availability contributes to smoking relapse and also makes monitoring and control over the tobacco retailing sector difficult. We recommend capping the number of tobacco retail licenses and implementing greater controls over who can hold a tobacco retail licence and where tobacco retailers can operate. We published a review of Australian federal and state and territory retailing laws last year that found many ways that retailing laws could be strengthened to better protect children from exposure to tobacco retailing that normalises tobacco products. The reference details are as follows, if the Committee is interested in reading about ways the NSW Government could better protect children in NSW from tobacco marketing.

Rooney T, Okninski M, Morphett K, Richards B, Gartner C. Protecting children from tobacco products in retail environments: A review of Australian tobacco control laws. *Drug Alcohol Rev*. 2025 May;44(4):1062-1078. doi: 10.1111/dar.14033.

Investing in broader programs and services that improve general social support systems and housing for people on low incomes, including those relying on Centrelink payments, would also be genuinely effective ways of decreasing inequity.

Supplementary Question 9

To what extent does the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame consider evidence on organised crime involvement in illicit tobacco when evaluating the net public health outcomes of current excise settings?

Response: Organised crime presents a serious safety risk to the community. It is why the NSW Government should invest in enforcement measures to dismantle organised crime syndicates.

Similar to previous questions, this question appears to be based on a flawed premise that ‘excise settings’ are the dominant or only influence on organised crime involvement in illicit tobacco trade. Other factors that have been identified include the lower penalties associated with illicit tobacco trafficking offences compared to illicit drug trafficking, making illicit tobacco trade a relatively low risk – high reward activity.

“Most significantly, a contributing factor to the growth in ITT is the Australian regulatory and law enforcement response, which has historically lacked timeliness, consistency and coordination in efforts across jurisdictional borders⁵¹ and government agencies and the lower penalties for ITT crimes compared to other forms of trafficking.²⁵ For example, in the state of Queensland, the maximum penalty applicable for a person convicted of carrying on the “business of unlawfully trafficking in a dangerous drug”, such as methamphetamine, is life imprisonment.⁵² In contrast, under federal laws, the maximum penalty for a conviction of illicit tobacco manufacture is “*a prison sentence of up to 10 years or a fine between \$165,000 and \$495,000, or both*”, with lower penalties applicable for selling, buying and possessing.⁵³ Several Australian states have recently introduced new illicit tobacco offences with substantial penalties, including custodial sentences in some states, the longest being a maximum penalty of 15 years imprisonment in Victoria.⁵⁴”

Reference: Brookfield S, Puljević C, Cho A, Gartner C. Advancing Australia’s Tobacco Control Policy and Taxation Strategies to Reduce Illicit Trade, Improve Health Equity, and Resist Industry Narratives. Tobacco Control (accepted manuscript); doi: 10.1136/tc-2025-059928

Furthermore, the widespread retailing of ‘legal tobacco products’ has provided a cover and opportunity for openly selling smuggled tobacco products to a wider consumer base than exists for ‘illicit drugs’. Law enforcement have also not traditionally treated illicit tobacco sales with the same attention that might be expected if the product was methamphetamine rather than tobacco, yet illicit tobacco sales should also be given substantial priority and penalties because these sales fund additional serious crimes and may serve as an introduction into trafficking of other drugs and outlawed products (such as illegal weapons).

Supplementary Question 10

What lessons has the NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame identified from comparable international jurisdictions where high excise has coincided with sustained illicit tobacco markets?

Experiences from other countries suggests that illicit tobacco trade is driven by a complex array of factors, particularly related to governance and control over tobacco supply and taxation systems. Supply chain control and adequate monitoring and enforcement are critical elements controlling illicit trade. A World Bank project conducted a series of case studies of different countries and drew the following conclusions about the causes of illicit trade:

“There also are concerns about the relationship between illicit tobacco trade, public safety, and governance, since illegal networks both thrive in and contribute to weak governance contexts. In addition, tobacco business interests often use the presence of illegal tobacco products to advocate for reductions in tobacco control policies and/or to prevent tobacco tax increases. The tobacco industry commonly argues that higher taxes and prices (as well as other tobacco control measures), will motivate customers to buy illegal products rather than smoking less or quitting, and that this will impact tax revenue without a decline in tobacco use. Numerous empirical analyses, across a diversity of countries – including the case studies presented in this report – refute this argument...

...What causes illicit trade, and what measures can be used to confront illicit trade in tobacco products? Contributing factors to illicit trade are complex. However, contrary to tobacco industry arguments, taxes and prices have only a limited impact on the illicit cigarette market share at country level.¹⁴ Evidence indicates that the illicit cigarette market is relatively larger in countries with low taxes and prices while relatively smaller in countries with higher cigarette taxes and prices.¹⁵ Non-price factors such as governance status, weak regulatory framework, social acceptance of illicit trade, and the availability of informal distribution networks appear to be far more important determinants of the size of the illicit tobacco market.¹⁶

Measures controlling the illicit tobacco market are a necessary component of a well-designed tobacco control policy. The degree of government effort to combat illicit trade in tobacco products is motivated both by the potential tax revenue gain and by public health gains due to lower tobacco use. Since illicit trade in tobacco products is determined by multiple factors, an effective strategy to address this issue would need to be explicitly multi-sectoral, involving all relevant agencies of government. Ideally, ministries of finance, trade, industry, foreign affairs, justice, interior, customs, education, and health would be involved, in addition to civil society and the media.¹⁷ Vested interests of key stakeholders and public opinion regarding illicit tobacco trade can influence the degree of tax evasion and, consequently, also need to be examined.¹⁸

Prioritizing and coordinating control of the entire supply chain (from the fields where tobacco leaves are grown, or the port of entry, to the final purchase by the individual

consumer) and enforcement of tobacco regulations have proven to be effective measures in reducing tax evasion along with the consumption of tobacco products.¹⁹ “

Reference: *Confronting Illicit Tobacco Trade : a Global Review of Country Experiences (Vol. 1 of 2) : Confronting Illicit Tobacco Trade : a Global Review of Country Experiences (English)*. WBG Global Tobacco Control Program Washington, D.C. : World Bank Group.

<http://documents.worldbank.org/curated/en/677451548260528135>

As outlined in response to previous Supplementary Questions, Brazil provides an informative example of why reducing tobacco excise is not an effective policy response to illicit tobacco trade and demonstrates that increasing excise can still reduce smoking even in the context of substantial illicit trade.

Another example is Montenegro. The country had a substantial illicit tobacco market (estimated to be around half of the total tobacco market). The government sought and followed expert advice which was to increase tobacco excise while implementing illicit tobacco control measures. The size of the illicit market was halved within a three year period. This demonstrates how non-price measures (illicit tobacco control measures) are effective against illicit trade and can increase the effectiveness of price measures (tobacco excise increases). The following quote is from a report on the measures implemented and their impact.

“This research estimates the extent of the illicit cigarette market in the tobacco market in Montenegro. The results show that the illicit market share in 2022 decreased significantly compared to 2019, from 51 percent in 2019 to between 22.1 and 26.0 percent in 2022. This large decrease in the share of the market for illicit cigarettes coincides with government measures to combat the illicit tobacco market in the country.

One of the most effective measures, which is considered a best practice for controlling illicit cigarettes, is the implementation and enforcement of the government decision on the prohibition of storage of tobacco products on the territory of the free-trade zone in the Port of Bar starting in July, 2021 (Bar is in the southern municipality in Montenegro). Additionally, border protection (customs officers and police) vigilance has been strengthened and surveillance has increased in the free-trade zone of Novi Duvanski Kombinat Podgorica (NDKP).”

Reference: Tobacconomics. (2023). *The Illicit Cigarette Market in Montenegro*. A Tobacconomics Research Report. Chicago, IL: Tobacconomics, Health Policy Center, Institute for Health Research and Policy, University of Illinois Chicago.

<https://www.economicsforhealth.org/research/the-illicit-cigarette-market-in-montenegro/>.

Attachments

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Advancing Australia's Tobacco Control Policy and Taxation Strategies to Reduce Illicit Trade, Improve Health Equity, and Resist Industry Narratives.

Samuel Brookfield^{1*}

Cheneal Puljević¹

Ara Cho¹

Coral Gartner¹

¹ NHMRC Centre of Research Excellence on Achieving the Tobacco Endgame, School of Public Health, The University of Queensland, Brisbane, Australia

* Corresponding author: Dr Samuel Brookfield, School of Public Health, The University of Queensland, 288 Herston Road, Herston, Brisbane, Australia 4006; s.brookfield@uq.edu.au

Abstract

There is strong evidence for the effectiveness of tobacco taxes on reducing smoking at a population level, both internationally and in Australia. Australia has implemented tobacco taxation at levels in line with the World Health Organization's recommendations. Critics claim this policy has unintended negative impacts on health equity and has caused growth in illicit tobacco trade. While higher tobacco prices can drive consumers to seek cheaper illicitly traded untaxed tobacco products, this simplistic argument is too easily used to justify proposals (typically made by the tobacco industry) for dismantling restrictions that have reduced smoking in Australia, especially taxation. We argue that simply reducing tobacco taxes does not effectively address health equity and illicit tobacco trade. Tobacco taxes would need to be drastically reduced to compete with untaxed alternatives and would lead to increased smoking uptake and reduced cessation, especially among young people, while simultaneously reducing the government revenue available to fight tobacco smuggling, support people to quit smoking, and treat smoking-related diseases. Rather than making all tobacco cheaper, it is crucial to allow time for recently implemented regulations and law enforcement measures to take effect. Ultimately, demand for illicitly traded tobacco is most effectively reduced by reducing demand for all tobacco products, including through "endgame" measures, such as reducing retail availability. Therefore, smoking cessation support and pro-equity measures should be prioritised, especially for disadvantaged groups, while assessing the impact of strengthened regulation and law enforcement measures on Australia's illicit tobacco trade.

Keywords: Illicit Tobacco Trade, Smoking Cessation, Health Equity, Taxes, Tobacco Products

What This Paper Adds

Taxation is a significant and impactful tobacco control strategy, which is currently debated in the context of Australia's increased illicit tobacco market. This debate is often framed by commentators in a binary assessment of whether or not tobacco taxation is 'effective'. In this Special Communication we aim to move the debate beyond this binary analysis to address the complexities of tobacco taxation, its effect in isolation versus when integrated with other tobacco control strategies, and its interaction with health equity and the illicit tobacco trade. We discuss how these issues can be adequately addressed and managed without conceding to industry demands to make tobacco cheaper through decreasing taxation. Tobacco taxation is thereby situated in a broader discussion of the multiple goals drug policy entails, and a path forward for Australia's tobacco taxation policy is provided within a wider range of tobacco control approaches.

Tobacco Control in Australia

Taxation remains a well-evidenced but debated tobacco control strategy, the effect of which must be understood in the complex setting of other tobacco control policies, and the socio-economic context in which it is applied. Daily tobacco smoking prevalence in Australia has declined from 24% of Australians aged 14 and over in 1991 to 8.3% in 2022-23. (1, 2) Australia established its leadership in tobacco control during this period by introducing plain packaging of tobacco products featuring large graphic health warnings, restricting tobacco retail displays, expanding smokefree spaces, and airing hard-hitting mass media campaigns. The other key strategy has been substantially raising tobacco tax with a 25% increase (in 2010), eight annual 12.5% increases (2013-2020), and three 5% increases (2023- 2025) in addition to biannual inflation adjustment and 10% goods and services tax (GST). (3, 4) Tobacco is therefore subject to excise-equivalent customs duty tax at the federal level when imported to Australia, plus GST. No state or local taxes are applied to tobacco products. Australian tobacco prices now comprise over 60% in tax and can exceed 85% for budget brands. (5) This generally aligns with the World Health Organization's recommendation that taxes make up at least 75% of the retail price of the most commonly sold brand of cigarettes. (6)

Tobacco taxation has been described as “the single most effective intervention” to reduce smoking among the standard WHO Framework Convention on Tobacco Control measures. (7) The extensive and compelling evidence base consistently demonstrates reduced tobacco use in response to increased price. (8-15) The relationship between increased price and overall decreased consumption, even for addictive substances like alcohol and nicotine, (14) is strong and predictable. Australia's first two tax increases in 2010 and 2013 are estimated to have produced a 0.8% reduction in smoking prevalence. (16, 17) Australian and international research has found that cost is an increasingly important motivating factor for smoking cessation attempts. (18, 19) Furthermore, tobacco excise tax generates significant revenue to fund smoking-related disease treatment costs and to support cessation and prevention programs. (3)

While taxation contributes to reduced population prevalence, tobacco and nicotine policy (like other kinds of drug policy) entails goals related to public health, commercial regulation, crime, public safety, (20) and human rights. (21) As such, there is a need to consider how policy may have limitations in these other domains, and work to achieve the optimal balance between competing priorities, without adopting or reinforcing narratives promoted by the tobacco industry whose commercial interests conflict with public health goals. (22)

Limitations of Tobacco Tax Policy

Illicit Tobacco Trade (ITT) in Australia

ITT refers to “*any practice related to distributing, selling, or buying tobacco products that is prohibited by law, including tax evasion (sale of tobacco products without payment of applicable taxes), counterfeiting, disguising the origin of products, and smuggling*”. (23) In

Australia, illicitly traded tobacco products commonly include smuggled foreign-branded packs, counterfeited products and unbranded loose-leaf tobacco (often called ‘chop-chop’). (24, 25) Concerns about ITT in Australia are not new, but previously centred on diversion of tobacco leaf from farms when Australia had a commercial tobacco farming industry. (24) After legal tobacco growing ended in Australia in 2006, reporting of crimes related to ITT declined, reaching a low point between 2010 and 2012, before gradually increasing, particularly from 2018 onwards. (25, 26) Between 2019 and 2022-2023, the proportion of Australians reporting use of chop-chop increased by 80% (4.9% to 9.0%) and purchasing of tobacco products without plain packaging also increased significantly among those who smoke (6.2% in 2019 to 10.2% in 2022-2023) with overlap in use of both. (27) The estimated size of the illicit tobacco market increased approximately tenfold between 2016-17 and 2024-25, growing from 5.4% to 50-60% of the overall tobacco market. (28, 29) The estimated excise value of seized illicit tobacco products in Australia increased from \$359 million in 2016–17 to \$3.23 billion in 2023-24. (28, 30) Some of this increase in value is due to tax increases and inflation adjustment. Australia’s Illicit Tobacco Taskforce reported 81 seizures in 2023-24, up from eight in its first year of operation (2018-19), (28) likely representing both greater capability and enforcement activity and an increase in ITT.

The most publicly visible outcome of ITT in Australia has been the firebombing of tobacconists and other retail outlets by criminal gangs, suggesting a turf war for market control, most significantly in Melbourne and Sydney, but also other states including Queensland and South Australia. (25, 31-33) More than 250 arson attacks in Australia have been reported as related to the illicit tobacco and electronic cigarette market, (34, 35) with one person dying in a deliberately set housefire, (36) and another person involved in the ITT fatally shot. (37) In response, some buildings that rent to tobacconists have had insurance premiums increased or insurance denied. (38)

Discussing Australia’s ITT is complicated by the efforts of the tobacco industry. Industry-funded reports from consultancies such as FTI (2023) use ITT to argue against tobacco control measures such as tax increases or packaging requirements. These reports have historically consistently inflated and overemphasised the issue of ITT prior to the recent increase in the market size. (39) A systematic review of industry-funded reports found them to be consistently unreliable and misleading. (40) Tobacco companies also profit from the illicit market internationally. (41-43) Therefore, it is important to acknowledge the limitations and challenges of tobacco taxation policy, without these observations being absorbed into a broader argument against tobacco control measures that aims to increase overall use of tobacco and industry revenue.

There are likely multiple significant drivers of the increase in Australia’s ITT. (44) The increased cost-of-living in Australia, which increased substantially during the COVID-19 pandemic, (45, 46) is an important contextual factor that may have influenced purchasing of illicitly traded tobacco, as financial insecurity can drive people to seek cheaper alternatives. (47) While some individuals who smoke, particularly those on lower incomes, may be motivated to quit to reduce their expenses, financial stress can also hinder quit attempts. (48) Nicotine dependence can lead to purchasing tobacco rather than essentials like food. (49)

Australia's Food Bank report (50) indicated that 77% of people experiencing food insecurity recently were doing so for the first time, suggesting a growing population of Australians under financial stress. COVID-19 may also have presented an opportunity for organised crime to increase their ITT operations while police and public health regulators were focused on other priorities. Most significantly, a contributing factor to the growth in ITT is the Australian regulatory and law enforcement response, which has historically lacked timeliness, consistency and coordination in efforts across jurisdictional borders (51) and government agencies and the lower penalties for ITT crimes compared to other forms of trafficking. (25) For example, in the state of Queensland, the maximum penalty applicable for a person convicted of carrying on the "business of unlawfully trafficking in a dangerous drug", such as methamphetamine, is life imprisonment. (52) In contrast, under federal laws, the maximum penalty for a conviction of illicit tobacco manufacture is "*a prison sentence of up to 10 years or a fine between \$165,000 and \$495,000, or both*", with lower penalties applicable for selling, buying and possessing. (53) Several Australian states have recently introduced new illicit tobacco offences with substantial penalties, including custodial sentences in some states, the longest being a maximum penalty of 15 years imprisonment in Victoria. (54) Importantly, available studies indicate a complex mix of both supply and demand factors contribute to ITT. (25, 55) Both supply- and demand-side measures are therefore required to reduce ITT, and to continue the decline in smoking-related diseases.

Tobacco Taxation and Equity

The second issue raised in relation to tobacco taxation is health and economic equity. Because smoking prevalence is higher among people with lower incomes, the higher cost of tobacco and related health outcomes are borne disproportionately by disadvantaged and marginalised populations, thereby potentially compounding inequality for those who do not quit in response to higher tobacco prices. (56-58) While a significant majority of people who smoke daily in Australia report high levels of physical and mental health, paid employment, and having completed high school education,(59) the enduring population-level association between income level and tobacco use is driven by complex social and structural forces. These include earlier nicotine exposure, parental and peer modelling, and higher levels of stress and other substance use. (60) Systemic effects on tobacco use emerge intersectionally from gender, sexual identity, mental health, and cultural and community factors, and also structural impacts of colonisation, migration, and economic systems recently conceptualised as 'commercial determinants of health'. (61, 62) Taxation as a tobacco control strategy can help alleviate other adverse factors when it successfully incentivises quitting, or may exacerbate them when people continue to devote more of their income to smoking. Evidence on the outcomes of tobacco taxation is therefore essential for guiding future policy.

Data in the USA has indicated that people living on lower incomes without college education are the least responsive to tax increases on tobacco. (63) Some people on lower incomes who use tobacco describe feelings of desperation and increasing resentment of tobacco control policies, as they struggle to stop smoking while rising prices erode their disposable income. (64) Research in other settings has found, however, that people on low incomes can be more likely to quit or reduce their smoking in response to increasing tobacco prices than high-

income consumers. (65) For example, when tobacco taxes were significantly increased in the Philippines between 2012 and 2016, the largest decline in smoking was among the lowest-income households. (66) While the relative percentage decline in smoking prevalence in Australia between 2010 and 2022-23 was greatest among the two highest socioeconomic quintiles (quintile 5/Q5: -45%; quintile 4/Q4: -46%) and lowest among the two lowest quintiles (quintile 1/Q1: -36%; quintile 2/Q2: 38%), the reduction in the number of people smoking was greatest in the lowest quintile (384,480 fewer people smoking compared to continuation of the 2010 Q1 smoking prevalence) and least in the highest quintile (241,920 fewer people smoking compared to continuation of the 2010 Q5 smoking prevalence), due to the higher baseline number of people smoking in the lowest quintile in 2010 [relative percentages and numbers calculated from Table 2.11 of *National Drug Household Survey 2022-2023*. (67) Modelling has also indicated that among low-income families, when family members quit, the financial benefit can have significant systemic benefits, providing a ‘wealth transfer’ to the whole family. (68) Young people experiencing financial hardship may have greater exposure to tobacco, (69) however higher prices can have a stronger inhibitory effect for people with less disposable income. (70)

Despite these previously observed benefits, some recent evidence suggests that Australia’s tobacco tax policy has had mixed effects in addressing the socioeconomic disparity in smoking prevalence and household expenditure. (56, 58) The average proportion of Australian household income spent on tobacco remained relatively constant over the period of substantial tax increases (0.9% in 2009 and 1.0% in 2021) due to the reduction in smoking during that time. (58) However, households that continued purchasing tobacco despite the increasing prices, increased their average tobacco expenditure from 4.1% of household income in 2009 to 5.5% in 2021. When examined by household income level, smoking prevalence decreased the least among those in the lowest income quintile. Accounting for the impact of declining smoking prevalence, the average proportion of household income spent on tobacco remained steady for the top two income quartiles but increased for the lowest three. Therefore, while tobacco taxation contributes to reduced smoking across all groups, and contributes to health equity compared to the counterfactual of low tobacco prices, minimising the differences between groups will require additional policy responses. (71)

Addressing the Challenges

Next Steps for Tobacco Taxation

A common suggestion in the public discourse (and submissions by the tobacco industry) to address Australia’s growing ITT problem is to simply reduce tobacco taxation, thereby purportedly reducing demand for cheaper untaxed tobacco, (72) which is a simple idea that may superficially appear to make intuitive sense. However, reducing tobacco tax neglects wider contextual factors and could be counterproductive. With cost being the single biggest factor inhibiting smoking in Australia (1) and motivating behaviour change, (18) reducing tobacco taxes will increase the affordability of tobacco products across both the legal and illegal markets (as illegal traders reduce their prices to compete), thus reducing a barrier to

young people initiating smoking and a powerful incentive to stop smoking. Additionally, with an up to 90% price difference between taxed and illicitly traded tobacco, (25) reducing the tax may be insufficient to draw customers from the illicit market, since the Australian government would likely need to eliminate tobacco taxation completely to compete with some international prices, as acknowledged by a proponent of this policy response. (73) For example, the price of the cheapest pack of 20 cigarettes in Cambodia was \$0.24 USD in 2022. (74) There are also countries with lower taxes than Australia that have previously observed larger illicit markets (e.g., South Africa, Lithuania, Vietnam, Mongolia, Malaysia), suggesting lower taxes do not necessarily equate to lower ITT. (23, 75-77) Other factors, including policing capacity and corruption, significantly influence these outcomes. (55) The evidence for tobacco tax efficacy remains strong, particularly in contexts with robust enforcement capability. Compromising on tobacco control policies can have negative effects that can be exploited by the tobacco industry to increase their consumer base and revenue by under-shifting tax reductions. Ideally, increasing government monitoring and enforcement capacity at all levels of the tobacco supply chain should have occurred ahead of the steep rise in tobacco taxes. This does not mean that increasing the price of tobacco was an ineffective policy since the goal of substantially reducing the proportion of the population who smoke was achieved. A significant strength of taxation as a tobacco control strategy is the ability to make continual ongoing adjustments, including increasing taxation further in the future. Optimising the impact of tobacco taxation on reducing smoking, however, also requires addressing illicit trade.

Increase Impact and Transparency for Tobacco Tax Revenue

One of the most important ways to reduce demand for illicitly traded tobacco is to reduce demand for any tobacco. Increasing smoking cessation support and other policy measures is needed to accelerate Australia's downward trend in smoking prevalence, while also reducing health disparities. (70) More research should be conducted to further establish the efficacy and acceptability of available smoking cessation support options and new policy approaches to encourage cessation. For example, some evidence suggests that graphic health warnings have less impact on quitting now than when introduced, (78) and that multiple barriers limit access to Quitline or smoking cessation medicines, especially among marginalised groups who report higher rates of tobacco use. (79-81) Furthermore, recent evidence suggests that Australians' awareness of the harms of tobacco is decreasing. The 2022-2023 NDSHS found that just 17% of Australians perceived tobacco as the drug that caused the most deaths, compared to 40% in 2007. (1) This suggests a need for new public awareness campaigns highlighting tobacco-related health risks and promoting cessation resources. (82)

Despite being highly cost-effective and one of the 'best buys' for improving population health in terms of return on investment, tobacco control remains severely under-funded in Australia and internationally. (83) The 2023-2024 federal budget included \$737 million for tobacco control, which is equal to only ~6.4% of the \$11.5b in tobacco tax collected that year. (84) By directing a greater proportion of this revenue to support smoking cessation and other programs and policies to reduce smoking, increase public safety, address ITT and strengthen community well-being, smoking cessation is likely to increase, while simultaneously

offsetting health equity disparities. (5) Tobacco taxation revenue could be directed into a future fund that the states, territories, and community groups could apply to for covering the healthcare costs associated with treating smoking-related diseases, along with ITT monitoring and enforcement measures, and smoking cessation and prevention programs, including new supply-side measures. If sufficiently resourced, this could dramatically improve progress in reducing smoking, and the tobacco tax regime could receive greater public support, rather than being viewed as a cynical ‘cash grab’. (85) Some have criticised hypothecation of taxes for reducing fiscal flexibility and fungibility, increasing intergovernmental complexity and the need to reform current distribution arrangements. (86) However, increasing visibility of tax reinvestment into related government programs can increase public confidence in health-related taxes. (87)

Strengthen Enforcement and Regulation

While price is a factor driving consumer choices to purchase illicitly traded tobacco, international evidence indicates that ITT overall is influenced more by the relative capacity of authorities to enforce taxation. (14) Australia is a developed country with high law enforcement capacity, however many strategies available for controlling ITT are yet to be employed or are only partially implemented. For example, before September 2024, Australia’s three most populous states (New South Wales, Victoria and Queensland) together representing 77% of the nation’s population, did not have tobacco retailer licensing, which enable fines and store closures for retailers caught illicitly trading tobacco or e-cigarette products. (88) Queensland’s tobacco retailer licensing scheme commenced in September 2024. (89) Similar schemes are now operational in New South Wales (90) and Victoria, (91) where most arson attacks on tobacconists have occurred, but is yet to commence imposing penalties for non-compliance. Queensland’s scheme could also be strengthened. (88) Further regulatory measures with potential to curtail Australia’s ITT are detailed in our previous commentary, (25) such as implementing a track and trace system for monitoring tobacco products throughout the supply chain as supported under Article 15 of the WHO Framework Convention on Tobacco Control (FCTC) to which Australia is a Party. (92) Australia will need to overcome legal and technical constraints to implement the unique product identifiers that such a track and trace system requires, however this would move Australia towards compliance with the Protocol to Eliminate Illicit Trade in Tobacco Products (ITP), an international treaty supplementary to the FCTC. Compliance with ITP was recommended by the Inquiry to Illicit Tobacco, and the Australian Government committed to further evaluating how to advance track and trace along with other strategies to achieve this. (93) We also recommend further implementation of Article 5.3 which requires states to protect the *‘setting and implementing [of] their public health policies with respect to tobacco control... from commercial and other vested interests of the tobacco industry’*. (94)

Another important step in addressing ITT in Australia is clarifying the responsibilities currently spread between public health, state police, and federal agencies to allow more effective enforcement. (25, 95) State governments in Australia are responsible for regulating tobacco retailing, whereas engaging in ITT has been a federal offence because in Australia tobacco is only taxed federally. Retailers can be penalised for the incorrect display and

packaging of tobacco products, but there have been concerns about general public health or other general compliance officers, (96) being responsible for enforcement action given the violence associated with the ITT in Australia, and the need for greater police involvement in nicotine product enforcement and regulation. (51) Hence, dedicated public health enforcement officers with appropriate training and clear laws to directly strengthen and streamline enforcement with coordination across jurisdictional boundaries and support from law enforcement as required are needed. (97) The position of Illicit Tobacco and E-cigarette Commissioner was also established in 2024 to support a 'whole of government response' to ITT. (98) Multiple states are in the process of increasing penalties for dealing in tobacco products that do not comply with federal requirements to levels that could substantially disrupt groups operating tobacconists that illicitly trade tobacco. (99, 100) These measures could also be supported by targeted campaigns that reduce the acceptability of purchasing or selling illicitly traded tobacco products by highlighting its association with bringing crime into communities and risks to young people. (101)

The Commercial Tobacco Endgame

Tobacco taxation must be understood within the context of the broader tobacco endgame agenda. The commercial tobacco endgame refers to both a goal to permanently reduce smoking to minimal levels and a plausible strategy to achieve it within a relatively short timeframe. Endgame proposals typically focus on policies that address factors such as the addictiveness of tobacco products and their widespread availability, including the option of completely phasing out legal tobacco sales. (25, 102, 103) Because endgame policies target the wider structural factors that sustain the tobacco epidemic, they are expected to improve health equity better than demand reduction measures alone, such as tobacco taxation. (104, 105)

Similar to taxation policy, a key objection to pursuing an endgame is a potential increase in ITT. However, Smith and Malone (2020) suggest that while some ongoing illegal sales can be expected, if the legal market were phased out, the potential illicit tobacco market is unlikely to reach a size whereby its adverse public health impacts exceed the status quo. (102) This highlights one of the tensions in the current debate around tobacco taxation and illicit trade. For those viewing the issue from a criminology perspective, the proportion of tobacco sales that are illicit may be a key concern, so a situation in which 100% of sales were illicit (if legal sales were eliminated) might be considered a policy failure. However, from a public health perspective, if the overall number of people using tobacco and the subsequent health burden is substantially reduced despite these illicit sales, and the health of those still purchasing tobacco is not further harmed by its illicit status, this would be seen as a policy success.

Endgame sceptics point to the enforcement failures of prohibition and the wider 'war on drugs', which has not eliminated illicit drug use, to argue ITT cannot be constrained through improving enforcement and therefore restricting purchasing through taxation or phasing out sales is ineffective and even harmful. However, the prevalence of weekly use of most illicit drugs in Australia is very low (<0.3% for ecstasy, methamphetamine, cocaine, and heroin). (1) If the goal is reduced use, then enforcement is 'working' for these substances. Notably, no

one arguing that “prohibition has failed” have advocated making these substances commercially available in convenience stores and supermarkets (like tobacco currently is) with low taxation, as an appropriate response to illicit trade. While weekly cannabis use (2.4%) is relatively much higher than other illicit drugs, it is still much lower than weekly tobacco use (9.4%) and would be considered a successful outcome in terms of the commonly cited tobacco endgame goal of <5%. The question of what level of ITT is an acceptable trade-off for overall lower levels of smoking should be explored with policymakers and the public. Furthermore, the existence of a substantial legal market in tobacco, which is one of the most widely retailed products in Australia in terms of availability, has likely also supported the recent growth in ITT with illicitly traded products sold alongside legally traded tobacco products. (106)

Understanding the relationship between taxation and ITT must also include the focus and efficacy of current enforcement measures for ITT in Australia. Penalisation of individuals for possession and use is usually also excluded from tobacco endgame policy proposals. Therefore, there are significant differences between the types of prohibition policies applied to tobacco compared to other illicitly traded substances, which avoid some of the harms associated with illicit markets. These are important distinctions when discussing the possible efficacy and ethical import of increasing enforcement against ITT. Many harms of the war on drugs stem from the criminal penalisation of individuals who use drugs. Focusing enforcement on suppliers while avoiding penalising personal use of illicitly traded tobacco can avoid replicating the failed logic of the wider war on drugs and exacerbating criminalisation and marginalisation of people experiencing nicotine addiction. A review of evidence on decriminalisation, depenalisation and diversion suggests that such approaches to regulating substance use can achieve better outcomes for people who use these substances than traditional policing approaches when the policy is carefully designed to account for specific contextual factors, mechanisms and outcomes. (107)

Conclusion

Taxing tobacco products is undeniably effective at reducing smoking at a population level. Drug policy must balance goals across a range of different domains, including public health and health equity, commercial regulation, crime, public safety, and human rights. Absent from much discussion of these policies is clarity and consensus regarding what is the best-case scenario for nicotine product regulation in Australia. Lessons from the past century of drug control efforts indicate that eliminating ITT or any nicotine use entirely is not realistic. Meanwhile, the health impacts of tobacco use continue to contribute to preventable mortality and morbidity, and taxation is a patently effective way to reduce these impacts for psychoactive substances that are currently legally retailed.

The balance between the competing priorities of reducing tobacco-related health burden and the ITT is difficult to strike, however it must be recognised as a multifaceted balance, rather than a binary analysis of whether tobacco taxes are effective or not and to what extent they contribute to ITT. Acknowledging that tobacco taxation should not be relied upon as the only

approach to reducing tobacco related harms does not imply that reducing or removing taxes should occur in line with industry preferences. Calls for reduction in tobacco tax underestimate the complexity and fluidity of ITT and the important role that high tobacco prices play in reducing smoking. There is still scope to improve ITT enforcement measures, and to maximise smoking cessation support services alongside tobacco supply reduction measures to continue the overall downward trend in smoking prevalence in Australia. Focusing on new non-tax policy measures (such as reducing availability), improving transparency for revenue allocation, stepping up enforcement that focuses on supply without criminalising people who use illegally traded products, and rapidly expanding support services to reduce inequities can allow Australia to maintain its progress in reducing smoking and address these concerns, without reinforcing narratives that support the tobacco industry.

References

1. AIHW. National Drug Strategy Household Survey 2022-2023. 2024.
2. Department of Health and Aged Care. National Tobacco Strategy 2023-2030. (2023a).
3. Bayly M, Scollo MM. 13.7 Revenue from tobacco taxes in Australia. In: Greenhalgh EM, Scollo MM, Winstanley MH, editors. Tobacco in Australia: Facts & issues. Melbourne: Cancer Council Victoria; 2025.
4. Greenhalgh EM, Stillman S, Ford C. 7.20 National strategies to support and increase cessation. In: Greenhalgh EM, Scollo MM, Winstanley MH, editors. Tobacco in Australia: Facts & issues. Melbourne: Cancer Council Victoria; 2025.
5. Bayly M, Scollo MM. 13.6 What tobacco taxes apply in Australia? In: Greenhalgh EM, Scollo MM, Winstanley MH, editors. Tobacco in Australia: Facts & issues. Melbourne: Cancer Council Victoria; 2025.
6. World Health Organization. WHO technical manual on tobacco tax policy and administration. 2021.
7. Paraje GR, Jha P, Savedoff W, Fuchs A. Taxation of tobacco, alcohol, and sugar-sweetened beverages: reviewing the evidence and dispelling the myths. *BMJ Global Health*. 2023;8(Suppl 8).
8. Chaloupka FJ, Yurekli A, Fong GT. Tobacco taxes as a tobacco control strategy. *Tobacco Control*. 2012;21(2):172-80.
9. Cruces G, Falcone G, Puig J. Differential price responses for tobacco consumption: implications for tax incidence. *Tobacco Control*. 2022;31(Suppl 2):95-100.
10. Irwin A, Moreno-Dodson B, Zheng R, Bouw A, Lisulo AS, Fanta Ivanovic E, et al. Tobacco tax reform at the crossroads of health and development: technical report of the World Bank Group global tobacco control program: Executive summary. 2017.
11. Nazar GP, Sharma N, Chugh A, Abdullah S, Lina S, Mdege ND, et al. Impact of tobacco price and taxation on affordability and consumption of tobacco products in the South-East Asia Region: A systematic review. *Tobacco Induced Diseases*. 2021;19:97.
12. NCI and WHO. The Economics of Tobacco and Tobacco Control. National Cancer Institute Tobacco Control Monograph 21. NIH Publication No. 16-CA-8029A. Bethesda, MD: U.S. Department of Health and Human Services, National Cancer Institute; and Geneva, CH: World Health Organization; 2016.
13. Nguyen A. Tobacco excise tax increase and illicit cigarette consumption: evidence from Vietnam. *Tobacco Control*. 2020a;29(Suppl 4):s275-s80.
14. Paraje GR, Jha P, Savedoff W, Fuchs A. Taxation of tobacco, alcohol, and sugar-sweetened beverages: reviewing the evidence and dispelling the myths. *BMJ Global Health*. 2023;8(Suppl 8).
15. World Bank Group. Curbing the epidemic - government and the economics of tobacco control (English). 1999.
16. Durkin S, Scollo M, Wakefield M. Smoking prevalence following tobacco tax increases in Australia - Authors' reply. *Lancet Public Health*. 2024;9(7):e419.
17. Wilkinson AL, Scollo MM, Wakefield MA, Spittal MJ, Chaloupka FJ, Durkin SJ. Smoking prevalence following tobacco tax increases in Australia between 2001 and 2017: an interrupted time-series analysis. *Lancet Public Health*. 2019;4(12):e618-e27.
18. Cho A, Chan G, Gartner C. Motivations to change smoking behaviors between 2007 and 2019 in Australia: a repeated cross-sectional study. *Nicotine and Tobacco Research*. 2023;25(4):674-81.

19. Geboers C, Candel MJ, Nagelhout GE, van den Putte B, Willemsen MC. Tax increases as an incentive to quit smoking: is thinking about quitting due to a tobacco tax increase associated with post-tax increase smoking cessation? *BMC Public Health*. 2024;24(1):1993.
20. Paul-Emile K. Making Sense of Drug Regulation: A Theory of Law for Drug Control Policy. *Cornell JL & Pub Pol'y*. 2009;19:691.
21. Hunt N. Public health or human rights? *International Journal of Drug Policy*. 2005;16(1):5-7.
22. WHO. Conference of the Parties to the WHO Framework Convention on Tobacco Control. Guidelines for Implementation of Article 5.3: Protection of Public Health Policies with Respect to Tobacco Control from Commercial and Other Vested Interests. . 2013.
23. World Bank Group. Confronting illicit tobacco trade: A global review of country experiences. 2019.
24. Geis G. Chop-Chop: The illegal cigarette market in Australia. 2005.
25. Puljević C, King M, Meciari I, Gartner C. Smoking out Australia's growing illicit tobacco market: Current trends and future challenges. *International Journal of Drug Policy*. 2024;127:104424.
26. Meciari I, Puljevic C, Gartner C. A content analysis of illicit tobacco-related crimes reported in Australian media. *Drug and Alcohol Review*. 2024;41(s1):S95-S6.
27. Cho A, Scollo M, Lim C, Puljevic C, Gartner C. Trends and correlates of current use of illicitly traded tobacco in Australia: Evidence from a decade of national surveys. . *Addiction*. 2026;121(3):564-74.
28. Australian Taxation Office. Latest estimate and findings. Australian Government. 2024b.
29. Commonwealth of Australia. Illicit Tobacco and E-cigarette Commissioner Report 2024-25: A national picture of the illicit market.; 2025.
30. Bayly M, Cho A, Scollo M. 13A.5 Estimates of illicit cigarette trade in Australia. In: Greenhalgh EM, ., Scollo M, Winstanley MH, editors. *Tobacco in Australia: Facts and issues*. Melbourne: Cancer Council Victoria; 2025.
31. Bucci N. Firebombings of Victorian tobacco shops surpass 100 as police detail meeting that sparked war. *The Guardian* 2024.
32. Clarke S. Police link dozen Queensland arson attacks to illegal tobacco trade. *ABC News*. 2025.
33. Masters E. Tobacco stores firebombed in Adelaide as organised crime networks battle to control illicit trade. *ABC News*. 2024.
34. MacKenzie B, Farrow-Smith E. Tobacconist ram raids in Tweed Heads and Ballina linked to Queensland organised crime network. *ABC News*. 2024.
35. Gartner C, Puljević C, Okninski M, Minchin L. Queensland landlords could soon face jail for ignoring illegal tobacco. What are other states doing? *The Conversation*. 2025.
36. ABC News. Fatal house fire at Truganina linked to Melbourne's tobacco wars. *ABC News*. 2025.
37. Estcourt D, Ortolan M. Victorian underworld figure Sam 'The Punisher' Abdulrahim shot dead. *ABC News*. 2025.
38. Insurance News. Capacity evaporates as tobacco wars escalate. *Insurance News*. 2024.
39. Rowell A, Evans-Reeves K, Gilmore AB. Tobacco industry manipulation of data on and press coverage of the illicit tobacco trade in the UK. *Tobacco Control*. 2014;23(e1):e35-e43.
40. Gallagher AW, Evans-Reeves KA, Hatchard JL, Gilmore AB. Tobacco industry data on illicit tobacco trade: a systematic review of existing assessments. *Tobacco Control*. 2019;28(3):334-45.
41. Gilmore AB, Fooks G, Drope J, Bialous SA, Jackson RR. Exposing and addressing tobacco industry conduct in low-income and middle-income countries. *The Lancet*. 2015;385(9972):1029-43.
42. Gilmore AB, Gallagher AW, Rowell A. Tobacco industry's elaborate attempts to control a global track and trace system and fundamentally undermine the Illicit Trade Protocol. *Tobacco Control*. 2019;28(2):127-40.
43. Joossens L, Gilmore AB, Stoklosa M, Ross H. Assessment of the European Union's illicit trade agreements with the four major transnational tobacco companies. *Tobacco Control*. 2016;25(3):254-60.
44. Puljević C, Feulner L, Hobbs M, Erku D, Bonevski B, Segan C, et al. Tobacco endgame and priority populations: a scoping review. *Tobacco Control*. 2024;33(e2):e231-e9.
45. Bessell S. The impacts of COVID-19 on children in Australia: Deepening poverty and inequality. *Children's Geographies*. 2022;20(4):448-58.
46. McKibbin W. Australia's cost-of-living crisis has reached a critical juncture. *The Financial Review*. 2024.
47. Cho A, Lim C, Sun T, Chan G, Gartner C. The effect of tobacco tax increase on price-minimizing tobacco purchasing behaviours: A systematic review and meta-analysis. *Addiction*. 2024;119(11):1923-36.
48. Siahpush M, Yong HH, Borland R, Reid JL, Hammond D. Smokers with financial stress are more likely to want to quit but less likely to try or succeed: findings from the International Tobacco Control (ITC) Four Country Survey. *Addiction*. 2009;104(8):1382-90.
49. Siahpush M, Borland R, Yong H-H. Sociodemographic and psychosocial correlates of smoking-induced deprivation and its effect on quitting: findings from the International Tobacco Control Policy Evaluation Survey. *Tobacco Control*. 2007;16(2):e2-e.
50. Food Bank. *Foodbank Hunger Report*. 2023.

51. Public Accounts and Estimates Committee. Inquiry into vaping and tobacco controls. Parliament of Victoria; 2024.
52. Drugs Misuse Act, (1986).
53. Office AT. Illicit tobacco - penalties Illicit tobacco: The fight against tax crime: Australian Taxation Office; 2025.
54. Okninski M, Puljevic C, Gartner C. Targeting Illicit Tobacco Trade in Australia: Recent Amendments to State and Territory Tobacco Control Laws. *Journal of Bioethical Inquiry*. 2025;22(4):775-80.
55. Aziani A, Calderoni F, Dugato M. Explaining the consumption of illicit cigarettes. *Journal of Quantitative Criminology*. 2021;37(3):751-89.
56. Blakely T, Gartner C. Tobacco taxes have mixed effects on socioeconomic disparities. *The Lancet Public Health*. 2019;4(12):e595-e6.
57. Hirono KT, Smith KE. Australia's \$40 per pack cigarette tax plans: the need to consider equity. *Tobacco Control*. 2018;27(2):229-33.
58. Newell J, Kang H, Gartner CE. Household tobacco expenditure and associated characteristics during substantial regular tobacco tax increases: analysis from a nationally representative longitudinal study in Australia from 2006 to 2022. *Tobacco Control*. 2025.
59. Aw JYH, Heris C, Maddox R, Joshy G, Banks Am E. Who smokes in Australia? Cross-sectional analysis of Australian Bureau of Statistics survey data, 2017-19. *Medical Journal of Australia*. 2024;220(3):154-63.
60. Greenhalgh EM, Scollo MM, Pearce M. 9.7 Explanations of socio-economic disparities in smoking. 2022. In: *Tobacco in Australia: Facts and Issues*. Melbourne: Cancer Council Victoria.
61. McHardy J. The WHO FCTC's lessons for addressing the commercial determinants of health. *Health Promotion International*. 2021;36(Supplement 1):i39-i52.
62. Kickbusch I, Allen L, Franz C. The commercial determinants of health. *Lancet Global Health*. 2016;4(12):e895-e6.
63. Azagba S, Ebling T, Korkmaz A. Differential impacts of cigarette tax increases on health equity in the United States. *Public Health*. 2025;242:94-100.
64. Hoek J, Smith K. A qualitative analysis of low income smokers' responses to tobacco excise tax increases. *International Journal of Drug Policy*. 2016;37:82-9.
65. Fuchs A, Márquez P, Dutta S, Icaza, F. Is Tobacco Taxation Regressive? Evidence on Public Health, Domestic Resource Mobilization, and Equity Improvements. World Bank Group; 2019.
66. Diosana J-AL. Raising tobacco taxes: the Philippine experience. *Asian Pacific Journal of Cancer Prevention*. 2020;21(S1):27-31.
67. AIHW. National Drug Strategy Household Survey 2022-2023. Australia: Australian Institute of Health and Welfare; 2024.
68. Global Tobacco Economics Consortium. The health, poverty, and financial consequences of a cigarette price increase among 500 million male smokers in 13 middle income countries: compartmental model study. *BMJ*. 2018;361.
69. Evans GW, Kutcher R. Loosening the link between childhood poverty and adolescent smoking and obesity: The protective effects of social capital. *Psychological Science*. 2011;22(1):3-7.
70. Guillaumier A, Bonevski B, Paul C. 'Cigarettes are priority': a qualitative study of how Australian socioeconomically disadvantaged smokers respond to rising cigarette prices. *Health Education Research*. 2015;30(4):599-608.
71. Spencer G, Nugent R, Mann N, Hutchinson B, Ngongo C, Tarlton D, et al. Equity implications of tobacco taxation: results from WHO FCTC investment cases. *Tobacco Control*. 2024;33(Suppl 1):s27-s33.
72. Norman J. 'Excessively high' cigarette taxes 'fuelling' black market, as retailers fear expansion of tobacco wars. ABC News. 2024a.
73. Pearlman J. Australia battles surging illegal tobacco market as organised crime takes over trade. *The Straits Times*. 2025.
74. The Global Health Observatory. Retail price for a pack of 20 cigarettes - premium brand and cheapest brand. Geneva: World Health Organization; 2024.
75. Joossens L, Merriman D, Ross H, Raw M. The impact of eliminating the global illicit cigarette trade on health and revenue. *Addiction*. 2010;105(9):1640-9.
76. Nguyen A. Tobacco excise tax increase and illicit cigarette consumption: evidence from Vietnam. *Tobacco Control*. 2020b;29(Suppl 4):s275-s80.
77. Ross H, Vellios N, Batmunkh T, Enkhtsogt M, Rossouw L. Impact of tax increases on illicit cigarette trade in Mongolia. *Tobacco Control*. 2020;29(Suppl 4):s249-s53.
78. Dhungel B, Borland R, Yong H-H, Gartner C, East KA, Hammond D, et al. Trends in noticing and responding to, health warning labels on cigarette packages among adults who smoke: Findings from the ITC Four Country Surveys between 2002 and 2022. *Nicotine and Tobacco Research*. 2025:ntaf156.

79. Boland VC, Mattick RP, Siahpush M, Barker D, Doran CM, Martire KA, et al. Factors associated with Quitline and pharmacotherapy utilisation among low-socioeconomic status smokers. *Addictive Behaviors*. 2019;89:113-20.
80. Heit K, Snoswell CL, Holland A, Kinner SA, Coomber R, de Andrade D, et al. Smoking cessation support preferences among people released from smoke-free prisons in Queensland, Australia. *International journal of prison health*. 2025(ahead-of-print).
81. Sharma-Kumar R, Meurk C, Ford P, Beere D, Gartner C. Are Australian smokers with mental illness receiving adequate smoking cessation and harm reduction information? *International Journal of Mental Health Nursing*. 2018;27(6):1673-88.
82. QUIT. Perception of smoking harm dramatically drops and decades old Emphysema radio ad reboots. *Quit Org*. 2024.
83. WHO. WHO report on the global tobacco epidemic, 2023: protect people from tobacco smoke. 2023.
84. Department of Health and Aged Care. Taking action on smoking and vaping (2023b).
85. Carter SM, Chapman S. Smokers and non-smokers talk about regulatory options in tobacco control. *Tobacco Control*. 2006;15(5):398-404.
86. Allen LN. Fiscal policies and global public health. *Lancet*. 2019;394(10197):470.
87. Wright A, Smith KE, Hellowell M. Policy lessons from health taxes: a systematic review of empirical studies. *BMC Public Health*. 2017;17(1):583.
88. The Queensland Cabinet and Ministerial Directory. Tough vaping laws put rogue retailers on notice 2024 [Available from: <https://statements.qld.gov.au/statements/101323>].
89. Queensland Government. Smoking product supplier licensing scheme. 2024 [Available from: <https://www.business.qld.gov.au/industries/manufacturing-retail/retail-wholesale/smoking-products-licence>].
90. Norman J. NSW to crack down on tobacco retailers selling under-the-counter cigarettes, in bid to curb black market. *ABC News*. 2024b.
91. Parliament of Victoria. Tobacco licensing scheme debated. Melbourne: Victorian Government; 2024.
92. WHO FCTC. World Health Organization Framework Convention on Tobacco Control (WHO FCTC). Guidelines for implementation of Article 15; 2003.
93. Australian Government. Australian Government response to the Parliamentary Joint Committee on Law Enforcement report: Inquiry into Illicit Tobacco.: Department of Home Affairs; 2021.
94. WHO FCTC. WHO framework convention on tobacco control: guidelines for implementation of article 5. 3.; World Health Organization; 2013.
95. Parliament of Australia. Parliamentary Joint Committee on Law Enforcement: Illicit Tobacco. 2020a.
96. Performance Audit of National Measurement Institute. Auditor General Report No. 5 2023–24. 2024.
97. Parliament of Australia. Parliamentary joint committee on law enforcement: Illicit tobacco. 2020b.
98. Australian Government. Whole of government approach to combating illicit tobacco and e-cigarettes. 2024 [Available from: <https://www.itec.gov.au/media-release-11-dec-2024>].
99. Consumer and Business Services. More police powers and harsher fines against the illicit tobacco and vape trade. 2025.
100. The Queensland Cabinet and Ministerial Directory. Tough new fines to extinguish illegal tobacco and vapes 2025 [Available from: <https://statements.qld.gov.au/statements/102326>].
101. McNeill A, Iring-Koko B, Bains M, Bauld L, Siggins G, Russell A. Countering the demand for, and supply of, illicit tobacco: an assessment of the 'North of England Tackling Illicit Tobacco for Better Health' Programme. *Tobacco control*. 2014;23(e1):e44-e50.
102. Smith EA, Malone RE. An argument for phasing out sales of cigarettes. *Tobacco Control*. 2020;29(6):703-8.
103. WHO FCTC. World Health Organization Framework Convention on Tobacco Control (WHO FCTC). Guidelines for implementation of Article 2.1; 2003.
104. Ait Ouakrim D, Wilson T, Waa A, Maddox R, Andrabi H, Mishra SR, et al. Tobacco endgame intervention impacts on health gains and Māori: non-Māori health inequity: a simulation study of the Aotearoa/New Zealand Tobacco Action Plan. *Tobacco Control*. 2024;33(e2):e173-e84.
105. Malone RE. Justice, disparities and the tobacco endgame. *BMJ Publishing Group Ltd*; 2021. p. e76-e7.
106. Paul CL, Mee KJ, Judd TM, Walsh RA, Tang A, Penman A, et al. Anywhere, anytime: retail access to tobacco in New South Wales and its potential impact on consumption and quitting. *Social science & medicine*. 2010;71(4):799-806.
107. Stevens A, Hughes CE, Hulme S, Cassidy R. Depenalization, diversion and decriminalization: A realist review and programme theory of alternatives to criminalization for simple drug possession. *European journal of criminology*. 2022;19(1):29-54.