# Update of Illicit Trade in Tobacco Products in New Zealand 2013

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Update of the current situation of illicit trade in tobacco products in New Zealand, in terms of recent policy contexts. It also assesses the trends in illicit tobacco consumption after subsequent rounds of excise tax increase since 2010.

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## I. Key Points at a Glance

#### **Illicit Tobacco Consumption in New Zealand 2013**

- Use of tobacco remains a major cause of pain, suffering and preventable death in New Zealand.
- The New Zealand government has increased tobacco excise tax to among the highest levels in the world, but illicit tobacco consumption remains relatively low, estimated to be between 1.8% and 3.9% in 2013.
- The 2013 estimate is slightly higher than the estimate for 2010. This results from the higher figures for interception of illicit loose leaf tobacco products at cargo streams and a higher interception of *high volume*, *small quantity* imports of tobacco products via post. (Higher interception figures may represent higher volumes of illicit tobacco or higher levels of success in interception or most likely some combination of both)
- The natural isolation of New Zealand makes illicit tobacco trade relatively difficult.
   Additionally, New Zealand Customs staffs are globally acknowledged for their high level of integrity and professionalism.

#### **Current Policy Contexts**

- The New Zealand government set the vision of a smokefree nation by 2025. The business
  environment in regard to tobacco sales is highly restrictive. Pricing strategy and price
  promotion are the two remaining elements of the marketing mix in New Zealand's
  tobacco market.
- There appears to have been no significant change in the consumption of illicit tobacco after recent rounds of tobacco tax increases. Major tobacco companies have seen an increase in sales quantities in the ultra-low-cost segment. Tobacco companies remain highly competitive in this segment. Such findings coincide with research from other countries such as the United Kingdom where tobacco products are also highly regulated.
- Early findings from Australia show no evidence of increased illicit tobacco consumption since the implementation of tobacco plain packaging in December 2012.
- In Europe, there is evidence of continuing tobacco industry involvement in tobacco smuggling in some countries, despite protestations by transnational companies that business will be affected by an increase in illicit tobacco consumption. (1)

#### **Recommendations**

- The Protocol to Eliminate Illicit Trade in Tobacco Products, adopted by the Parties to the Framework Convention on Tobacco Control of the World Health Organization has opened the door for cooperation to tackle the problem at both national and global level.
   New Zealand is yet to ratify the Protocol.
- Measures of the Protocol such as licensing regimes and record-keeping will be beneficial to New Zealand.
- The Protocol however will also establish an opportunity for the tobacco industry to interfere with public health policy.
- The New Zealand government should also strengthen its implementation of Article 5.3 of the WHO FCTC in order to ensure that the tobacco industry's involvement in discussion of public health policy, in particular tobacco control measures, does not occur.



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# I. Summary

#### Introduction

The New Zealand government has implemented various measures in recent years as steps to achieve the goal of a smokefree nation by 2025. Following a large increase in 2010, annual rounds of excise tax increase on tobacco products are scheduled until 2016. The Health Select Committee is currently considering tobacco plain packaging. Throughout the policy process, the tobacco industry has claimed the probable consequences of such policy measures — a growth in illicit tobacco consumption in New Zealand. This includes commercial growth of loose leaf tobacco and counterfeit tobacco products.

The purpose of this report is to provide the most up-to-date estimate of illicit trade in tobacco products in New Zealand.

#### **Methods**

New Zealand Customs provided the key data and accepted the phone interview. A literature review and other information were also sought.

#### **Results**

In 2013, illicit tobacco consumption was estimated to be between 1.8% and 3.9% of total tobacco consumption.

Although the size of the estimate of illicit tobacco consumption has increased slightly, the scale of the problem appears to remain relatively low, particularly by global standards. Estimating the scale of illicit tobacco consumption is challenging, given the nature of illicit tobacco trade. It is hard to collect accurate information on sales and purchases of illicit products at the retail level; small scale evasion by smokers through misuse of duty free allowances or purchase can only be estimated not precisely quantified. And use of illegally grown tobacco is also quite difficult to quantify particularly given the complication of it being legal to grow tobacco for personal use. As mentioned in the 2010 report, the best source of data on illicit tobacco consumption currently available in New Zealand is provided by New Zealand Customs. This includes data on the amount of manufactured cigarettes and loose leaf tobacco products detained at various Customs streams. Such data also provides the best estimate of the extent of small-scale smuggling. There has been no report of any large-

scale seizure of locally grown tobacco in New Zealand since ASH's 2010 report on illicit trade.

Recent rounds of tobacco tax increases have not led to a dramatic increase in illicit tobacco consumption. The government's recently announced legislation to reduce the duty-free allowance will further reduce the supply of tobacco to the secondary or 'grey market'. In Australia, academics have found no evidence of an increase in illicit tobacco consumption after the implementation of tobacco plain packaging. Research from the United Kingdom and Europe has found some evidence of recent involvement of the tobacco industry in illicit tobacco trade. This includes the overproduction of legal tobacco brands in Ukraine.

#### **Recommendations**

Measures to tackle the problem of illicit tobacco trade are crucial to prevent such problems undermining the government's tobacco control policies. The Conference of Parties of the WHO FCTC adopted the Protocol to eliminate illicit trade. It is the first Protocol negotiated by the WHO FCTC and will enter into force ninety days after the fortieth party ratifies the protocol. New Zealand is yet to ratify the protocol. New Zealand may benefit from ratifying the Protocol in that this may facilitate the adoption of measures such as a licensing system and record-keeping for tobacco import, export and manufacture. Ratifying the Protocol would also allow New Zealand to contribute to efforts to combat illicit tobacco at a global level through international sharing of information and expertise.

The Protocol will also raise the risk of tobacco industry interference with public health policy. Consequently it is important for New Zealand to strengthen its implementation of Article 5.3 of WHO FCTC to ensure that the tobacco industry not be involved in policy making for managing illicit tobacco trade.



#### II. Introduction

The New Zealand government set a goal of becoming a smokefree nation or reducing smoking prevalence to <5 % by 2025. (2) The goal was made after forty-two recommendations contained in the Māori Affairs Committee Report, following an extensive inquiry into the tobacco industry and the consequences of tobacco use among Māori in 2010. (2) The intent is clear – averting smoking-related illness or death that accounts for 4,500—5,000 annual deaths in New Zealand; Māori are disproportionately over-represented in these mortality statistics. (3-5) Implementing such a goal also reflects the government's commitment to the international public health treaty, the WHO FCTC as a ratified party alongside 179 other state-members. (6, 7) Progress has been made with various measures implemented at various stages since the WHO FCTC was ratified in 2004.

Tobacco retail displays were banned in 2011. (8) The New Zealand government introduced a major tobacco excise tax increase of 24% on loose leaf tobacco products and 10% on manufactured cigarettes in 2010, followed by an annual 10% increase on all tobacco products until 2016. (9, 10) In early 2014, the *Smokefree Environments (Tobacco Plain Packaging) Amendment Bill* passed its first reading and is currently under deliberation by the Health Select Committee. (11, 12) In combination with adequate cessation services the objective of implementing such policies is to further reduce tobacco consumption in New Zealand. As with other jurisdictions where tobacco sales are becoming more restrictive, pricing and packaging are the two major remaining elements of the marketing mix for tobacco companies.

Increasing tobacco tax is deemed the most effective measure to reduce tobacco use, especially among young smokers and people living in areas of low socio-economic status (LSES). (13, 14) In New Zealand, a 10% increase in price has typically led to a 5% decrease in cigarette consumption, in other words, a negative elasticity of -0.5. (15) For plain packaging, evidence shows that it will take away the power of imagery on packets to communicate lifestyle and personality associated with brands, which reduces the overall appeal of tobacco products to current and potential consumers. (16-18) In this way, tobacco plain packaging can contribute to a comprehensive mix of policies that will reduce smoking uptake and encourage people to quit. (16-18)

Tobacco companies have argued that there is no proof that plain packaging reduces tobacco consumption but instead makes counterfeiting easier by removing product differentiation. (19-21) They further argue that plain packaging and higher tobacco tax will lead to more smokers switching to cheaper alternatives, i.e. illicit tobacco products. (22-24) While it is true that illicit tobacco trade does reduce revenue to the government, so far the demand for illicit tobacco has been low in New Zealand due to its geographic isolation and population size. (19, 25) Worldwide 11.6% of all tobacco is sourced from illicit streams, or around one in every nine cigarettes. (26) A recent study estimated illicit tobacco trade to contribute only 7% to all tobacco consumption in the eighteen surveyed European countries (1). The survey provides an accurate estimate by asking over 1,000 adult smokers to show their latest purchased pack of cigarettes or loose leaf tobacco (1).

To further contain the problem of illicit trade, the Conference of the Parties to the WHO FCTC has just completed the negotiation of its first Protocol to eliminate illicit tobacco trade, which will enter into force on the ninetieth day following the fortieth signatory to ratify the protocol. The significance of the Protocol is in establishing international and multidisciplinary cooperation to tackle the issue at a global level. This will also serve as a legal instrument for parties that have ratified the protocol.

In 2010, ASH New Zealand conducted the first report on illicit tobacco trade in New Zealand. (25) Its aim was to explore the illicit tobacco trade in New Zealand using a robust framework to estimate the levels of illicit tobacco consumption in the country.

#### Objective of the Update of Illicit Tobacco Trade in New Zealand 2013

The purpose of this report is to give an update and thorough assessment of the current situation of illicit trade in tobacco products in New Zealand, in terms of recent policy contexts. It also assesses the trends in illicit tobacco consumption after subsequent rounds of excise tax increase since 2010. The report examines the issue from three perspectives:

#### Section 1: Update of Illegal Tobacco Consumption in New Zealand 2010-2013

The first section updates the estimated scale of illicit trade as a proportion of total tobacco consumption and briefly reviews the current knowledge of the issue in New Zealand and

worldwide. Additional information is provided to give a better glimpse of the illicit tobacco market in New Zealand.

# Section 2: Examining the Impact of Current Policy Measures on the Demand for Illegal Tobacco Consumption

The second section examines the demand for illicit tobacco consumption as a result of implementation of tax measures and tobacco plain packaging. It also examines tobacco industry behaviours.

# **Section 3: Policy Recommendations and Conclusions**

The third section concludes and provides policy recommendations. It also examines the place for the *Protocol to eliminate illicit trade in tobacco products* in New Zealand. (27)

#### III. Methods

This report has applied the same method used in ASH's 2010 report to estimate the amount of illicit tobacco trade in New Zealand. Most of the data used in the analysis was obtained from New Zealand Customs. This includes interview with Customs officials and data obtained from New Zealand Customs' database. (28, 29)

Some aspects of the methodology in the current and the 2010 report were borrowed from the Ernst & Young report on illicit tobacco trade that commissioned by British American Tobacco. (30) In particular we have adopted assumptions regarding the interception rate of illicit tobacco at sea ports, commercial and residential premises.

A literature search was performed (via Pub Med) in order to review the latest research and updates on illicit tobacco trade. Apart from seeking information from an academic source, a grey literature search was conducted (via Google) to identify relevant media coverage and reports that may contain the latest details of illicit tobacco activity in the country. Selected documents from key policy actors were also sought, including submissions made by tobacco companies during public consultation. (19-21) The KPMG report on illicit tobacco in Australia and a rebuttal report prepared by Quit Victoria were also reviewed. (31, 32)



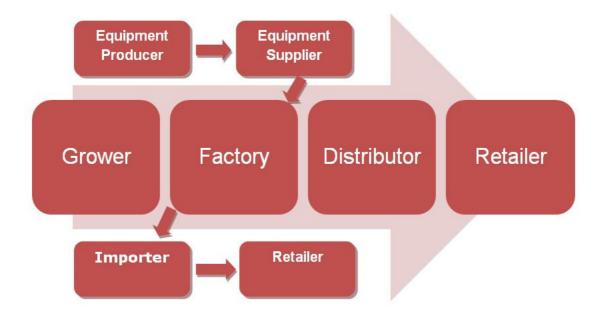
## 1. Update of Illegal Tobacco Consumption in New Zealand 2013

#### 1.1. Overview of Illicit Tobacco Trade

Illicit trade is defined in Article 1 of the WHO FCTC as any practice or conduct prohibited by law and which relates to the production, shipment, receipt, possession, distribution, sale or purchase including any practice or conduct intended to facilitate such activity. (27, 33)

Illicit tobacco trade refers to all illegal activities related to the tobacco trade. (25) This usually occurs in the supply chain of tobacco products ranging from illicit manufacturing and smuggling to distribution through the wholesale and retail network. (27, 34, 35) Figure 1 provides a breakdown of the usual component of a supply chain. (36) Tobacco smuggling is divided into large-scale smuggling and small-scale smuggling (also known as bootlegging).

Figure 1. Basic Tobacco Supply Chain (Source: Sou G, Preece R. 2013)



Large-scale smuggling involves the illegal transportation, distribution and sale of tobacco products, usually in large consignments. Large-scale smuggling occurs in both high-tax and low-tax jurisdictions. It is often arranged by transnational organised crime networks with well-established routes and networks to transfer and distribute the smuggled goods. (26, 37) Legal and duty-unpaid tobacco products are diverted from the wholesale chain in one

jurisdiction during international transportation and end up in the contraband market in another jurisdiction. (25, 38) Factors attributed to large-scale smuggling are similar to those of other forms of trafficking organised by transnational crime networks. (26, 37)

In the past, popular legal cigarettes brands such as *Marlboro* were among those most commonly smuggled. (26) There has been a growth in counterfeit tobacco products that are produced solely for large-scale smuggling. These products are known as *cheap whites* within tobacco circles; they comply with the same manufacturing requirements as legal cigarettes and even have their own brands. These 'branded' cigarettes are then transported and merged into the illegal market of other countries. Brands in this category include *Jin Ling* that is produced in Russia and made available in other European countries. (26) A similar brand called *Manchester* was found in Australia according to information provided by the tobacco industry.(31, 39)

Bootlegging or small-scale smuggling involves the purchase of tobacco products that exceed the allowance set by customs regulations from a low-tax country, with the smuggled products resold in a country with a higher tobacco tax. Small-scale smuggling is usually conducted by individual travellers or small tourist groups. (38)

Over the past decade, there has been a decrease in large-scale contraband smuggling but an increase in small-scale smuggling and counterfeit cigarette trade around the globe. (26, 38) The decrease in large-scale smuggling is mainly due to changes in export practices and a lawsuit against tobacco companies for their role as suppliers for contraband smuggling activities. (26, 38, 40)

China is a major source of contraband and counterfeit tobacco. The most profitable destinations for counterfeit cigarettes from China are North American, Europe and Africa and are distributed via global channels to these regions. (28, 30, 41)

The nature of illicit tobacco trade makes it difficult and challenging to assess the actual scale of tobacco smuggling due to the problem associated with measuring and collecting reliable quantitative data from credible sources. Often, there is a lack of clear methodological design described in the studies while data from the tobacco industry tends to overstate the

problem altogether. (43) It is also difficult to detect or collect related data such as the amount of cigarette production and the movement of cigarettes across international borders. (26, 38) The handbooks of *International Agency for Research on Cancers* suggests a combination of different methods to be used to estimate the scale of illicit tobacco trade in one country. (43) Data collected from Customs is useful to capture the size of small-scale smuggling.

#### 1.2. Previous Estimate of Illegal Tobacco Consumption in New Zealand

Illicit cigarette consumption in New Zealand was estimated to be 1.3% of total cigarette consumption in 2012 by Euromonitor International. (43) The market intelligence firm, whose clients includes the tobacco industry and governments, based their calculation on the 2010 Ernst & Young report commissioned by British American Tobacco. (30)

A more accurate estimate of illicit tobacco in New Zealand comes from the ASH report, attributing 0.7 to 2.0 % of total consumption in New Zealand in 2010. (25) The report established a robust framework to calculate the scale of illicit tobacco trade as a proportion of total tobacco consumption in New Zealand (Table 1). Its findings were based on interviews and statistics obtained from New Zealand Customs for the numbers of detained tobacco products at various customs controlled areas, which provides a more accurate estimate on the scale of illicit tobacco trade including both small-scale smuggling along with large-scale smuggling. (25)

Table 1 Total tobacco consumption in New Zealand

Legal Tobacco Products	Illicit Tobacco Trade				
Excise Duty-paid					
Legal tobacco for domestic market					
Non Excise Duty-paid					
Legal personal allowance	Illicit tobacco smuggling				
Duty-Free tobacco under personal allowance	Smuggled contraband				
Home grown tobacco for personal use (15 kg per	Duty-free misused (resold)				
year)					
	Illegal tobacco manufacturing				
	Illegal home grown tobacco in excess of allowable				
	amounts				

The ASH report estimated that between 2007 and 2009, on average 2.3–6.7 million cigarettes were imported every year into New Zealand via illegal sources. (25) This equated to 0.06–0.2% of all cigarettes available in New Zealand. (25) At the same time, 4.5–22 tonnes of loose tobacco were illegally grown in New Zealand, equating to 0.6–2.6% of total annual New Zealand loose leaf tobacco consumption. (25)

Ernst & Young's estimate total consumption from illicit sources was higher at 3.3 %. (30) The report used a similar framework and data sources for calculating tobacco smuggling. The difference was due to a higher estimate of the amount of illegal tobacco grown and roughly processed for sale by small operators in New Zealand, which contributed to around 7.8–8.9% of loose leaf consumption in the New Zealand market (compared with 0.6–2.6% in ASH 2010 report). (25, 30)

Ernst & Young based their calculation on the amount of tobacco seeds imported into New Zealand in order to calculate the yield of tobacco grown in the country for both legitimate personal use and illegal commercial sale. (25, 30) They then deduced the proportion of the estimated tobacco yield that was illegally grown, manufactured and sold according to a Colmar Brunton Survey on black market consumption. (25, 30) The findings of the Colmar Brunton survey were highly questionable due to a lack of clear methodological detail, response data or assessment of the results' validity and reliability. (44)

#### 1.3. Results

Illicit tobacco is estimated to form a small proportion of total consumption in New Zealand, accounting for 1.8% to 3.9% of total tobacco consumption in 2013.

#### 1.3.1. Smuggling in New Zealand 2013

Amount of contraband detained and amount entering New Zealand

Smuggled illegal tobacco was estimated based on the amount of illicit tobacco detained at the border and other Customs Controlled Areas (CCAs) (Table 2). These are places where imported goods are inspected and duty-free or excisable goods are manufactured, sold or stored. (29) The amount of illegal tobacco entering New Zealand was calculated from the amount of tobacco detained from specific import streams (airport, mail centres/CCAs and sea ports) and their respective interception rates (i.e. the rate at which NZ Customs was able to

intercept illegal tobacco imports). (29) New Zealand Custom's detection protocols (for illicit goods) are relatively robust and there have been no major overhauls since 2010. Consequently, this report used the interception rates specified in the previous ASH report as follows:

- At airports all luggage is screened by X-ray and drug detection dogs in the baggage claim area. We assumed a 50% interception rate for illegal contraband entering through airports.(25)
- At cargo streams, Ernst & Young estimated 6–15% interception for shipped contraband. (25)
- At mail centres, parcels are examined manually and are also put through x-ray. Therefore this report will use the 50% interception rate used by ASH 2010 for smuggled goods coming into the country via mail. (25, 29)

Tobacco detained by New Zealand Customs is only released for public consumption once excise duty on it has been paid so the amount of detained tobacco needs to be excluded from the estimated total tobacco entering the country (29).

The amount of released contraband (or the amount of tobacco detained) and the estimated illegal tobacco entering New Zealand is shown in Table 2.

There was an increase in the amount of cigarettes detained from 800.2 million sticks in 2010 to 962 million sticks in 2013. The amount of loose leaf tobacco detained also increased from 221.3 tonnes in 2010 to 2.319 in 2013.

The estimate of contraband tobacco entering into New Zealand has declined from 2.2–5.2 million sticks in 2010 to 1.2–1.7 million sticks in 2013, mainly due to the decline in amounts intercepted at sea ports, commercial and residential premises (Table 2). The amount of smuggled illegal loose leaf tobacco has increased from 0.4 to 0.8 tonnes in 2010 to 9.5 to 25 tonnes, mainly due to the increase in the amount intercepted at sea ports and commercial and residential premises.

Table 2 Overview of Illegal Tobacco Detained by New Zealand Customs and Estimated Illegal Tobacco Entering into New Zealand 2010 - 2013

Streams	<b>Detained contraband</b> Average amount of tobacco  detained 2010-2013*		Interception	Contraband  Estimated average illegal tobacco entering New Zealand		
			rate			
				2010	-2013	
	Cigarettes	Loose leaf		Cigarettes	Loose leaf	
	(000's)	tobacco (kg)		(000's)	tobacco (kg)	
Airport	441	180	50%	441	180	
Sea ports, commercial	50	1,548	6-15%	285-787	8,770-24,248	
and residential premises						
Mail centre & customs	471	591	50%	471	591	
controlled areas						
Total (000's)	962	2,319		1,197-1,699	9,541-25,019	
Total (million sticks)	1	2.3		1.2-1.7	9.5-25	

\*Note: Tobacco detained by New Zealand Customs is only released for public consumption once excise duty on it has been paid

Current estimates indicate that the amount of illicit tobacco entering New Zealand has increased since 2010. New Zealand Customs indicate that this is mainly due to an increase in *high volume, small quantity* imports of tobacco products (both cigarettes and loose leaf tobacco) through international mail. (29) These are mainly local brands from South-Asian countries with a mix of both contraband and counterfeit products. (29) Customs data also indicates an increase in the amount of illegal tobacco entering New Zealand via sea ports.

#### Estimated duty-free misused

It is illegal for duty free tobacco to be exchanged, gifted or sold without the relevant excise and duty and GST being paid.

In 2010, Ernst & Young estimated 15–24 million cigarettes and 1.9–6.6 tonnes of loose duty free tobacco was illegally sold or exchanged in New Zealand. (30) One of the assumptions made by the report was that the volume of duty free tobacco imported into New Zealand by individuals was equal to the volume of duty free purchased in New Zealand and exported.

Based on this premise and according to the sales quantities of duty-free products provided by tobacco companies from their annual returns, duty free consumption in New Zealand in 2013 was 75.8 million cigarettes and 30.2 tonnes of tobacco.

Until 1 November 2014, travelling passengers are allowed to bring 200 manufactured cigarettes or 250g of loose tobacco or 50 cigars (or a combination thereof weighing less than 250g) into the country. (10)

In 2013, 4.97 million air passengers and 55,000 sea passengers entered New Zealand. Assuming that:

- 72% of the passengers were 19 years or older (based on Census 2013 data that was stratified by 5-year age groups starting from 15–19 years)
- Of the passengers aged 19 and over, 12-13% were smokers (less than the national average smoking rate of 15% due to the assumed demographic of international passengers)
- 80% of those smokers chose to purchase their full allowance of duty free tobacco
- Based on the Ernst & Young report, 70% purchased manufactured cigarettes and 30% loose tobacco
- Passengers did not exceed their duty free allowance
- Non-smoking travelers purchased duty-free tobacco that were not purchased or consumed by this group of smokers. These products were in turn sold, exchanged or gifted to family, friends or acquaintances.

The above estimates indicate between 24.5—28.5 million cigarettes and 2.8—4.9 tonnes of loose duty-free tobacco was illegally sold or exchanged in New Zealand in 2013 (Table 3).

#### 1.3.2.Illegal tobacco growing

Commercial tobacco growing is currently illegal in New Zealand while the current personal allowance for tobacco growing in New Zealand is 15 kilogram per annum, as per the Customs and Excise Act 1996 No 27 and Public Act & Customs and Excise Amendment Act (No3) 2008. (45, 46)

New Zealand Customs confirm that there have been no large scale (> 0.5 tonnes of loose tobacco) seizures of illegally grown tobacco since 2010. (29) Both New Zealand Customs and Landcare Research indicate that there has been no reports of commercial growth of tobacco in New Zealand.(29, 47) The most recent seizure of illicit grown tobacco reported in the media was the high-profile seizure case in Motueka in 2010. (48, 49)

Consequently the previous ASH estimate of illicit grown tobacco, amounting to 5.7 to 22 tonne, is still valid. Such estimates were based on the land areas (20 acres) found in Motueka for illegal tobacco growth and the commercial yield (1.1 tonnes/acre) of tobacco grown in New Zealand between 1988 and 1994. (25)

#### 1.3.3. Estimate of Illegal Tobacco Consumption in New Zealand 2010-2013

The average annual consumption of tobacco in New Zealand from 2010 to 2013 is shown in Table 3. The amount of loose leaf tobacco products has been converted to cigarette sticks based on an average weight 0.5 grams per loose leaf tobacco stick.

Table 3 Legal and Estimated Illegal Amounts of Tobacco Consumed in New Zealand

	Cigarettes		Loose tobacco	
	(million sticks)		(tonnes)	
	Min.	Max.	Min.	Max.
Legal tobacco sale volume	2,057	2,057	641	641
Illicit tobacco smuggling				
- Detained Contraband	1	1	2.3	2.3
- Contraband	1.2	1.7	9.5	25
- Misused duty-free	24.5	28.5	2.8	4.9
Illegal manufacturing				
- Locally grown illegal			5	22
Estimated total consumption	2,084	2,088	661	695

Conversion of loose tobacco from tonnes to cigarette sticks (0.5g tobacco per loose tobacco stick for both maximum and minimum calculations)

	(million s	stick)
	Min.	Max.
Loose tobacco total	1,322	1,391
Illegal loose tobacco total	35	104

#### Estimated total consumption (cigarette and loose leaf tobacco)

	(million stick)		
	Min.	Max.	
Estimated total illegal tobacco consumption	61.2	134.7	
Estimated total tobacco consumption	3,406	3,479	
Illegal tobacco as proportion of total consumption	1.79%	3.87%	

The total amount of cigarettes, both manufactured and from loose leaf tobacco, consumed in New Zealand annually from 2010 to 2013 was estimated to be between 3,402—3,476 million sticks. Out of these, 61.2—134.7 million cigarettes were illegal, forming 1.8%—3.9% of total annual cigarette consumption for that period. But the problem remains. This represents an increase of 1.1%—1.9% compared to previous estimates. At the same time, total annual tobacco consumption decreased by 459—471 million cigarettes compared to 2007—2009.

Changing the amount of loose tobacco per cigarette to 0.7 grams tobacco per cigarette had a very small impact on the estimate (0.11%-0.46%) while varying the airport and mail centre interception rates by  $\pm 25\%$  changed the estimate by 0.03%. (25, 50) Based on the most recent figures from Customs New Zealand and the tobacco industry, illicit tobacco forms a small proportion of total tobacco consumption in New Zealand (1.8%-3.9%).

#### 1.4. Summary and Other Estimates

Even though the relative proportion of illegal tobacco annually available in New Zealand has increased slightly in the past three years, it does not provide any reasonable basis for the restriction of current or future tobacco control initiatives. The demand for illegal tobacco in New Zealand is extremely low based on current estimates, compared with over 96% of tobacco obtained from the legal tobacco market. The small increase in the proportion of illegal tobacco consumption is partly explained by the decline in total annual tobacco consumption from 2007–2009 to 2010–2013. This reduction was not mirrored in the illicit tobacco imports over that time period which explains the slightly higher current estimate of illegal tobacco in New Zealand. However, the continual decline of tobacco consumption and the relatively trivial increase in the size of illegal tobacco gives a clear indication that the use of tobacco products can be effectively limited without a disproportionate increase in illegal tobacco.

This update has provided a relatively robust estimate of the amount of illicit tobacco consumption in New Zealand, given that the major types of illicit tobacco found in New Zealand is small-scale smuggling. (26)

Further study should be conducted to investigate the distribution of illicit tobacco in retail outlets and amongst the community. This should include retail audits to examine the availability and types of illicit tobacco found in the community. As previously suggested, the New Zealand Tobacco Use Survey published by the Ministry of Health could be used to monitor sources of cigarettes of tobacco consumers in 2008. (51) The percentage of tobacco consumers who bought tobacco from 'somewhere else' (0.4%, 0.1—1.1%) or 'didn't buy them' (0.7%, 0.2%—1.4%) could include illicit sources. At the time of writing, the Ministry of Health is yet to publish data in regards to sources of cigarettes. The new data will also include the scale of online purchase of tobacco products. This will provide a glimpse of the percentage of smokers who purchase tobacco products from illicit sources.

The updated estimate on illicit tobacco consumption is likely to be between 1.8% and 3.9%. The scale of illicit tobacco consumption is still relatively low. New Zealand doesn't share a border with other countries and New Zealand Customs maintains a high level of integrity, efficiency and cooperation with other departments and overseas counterparts.



# 2. Examining the Impact of Current Policy Measures on the Demand for Illegal Tobacco Consumption

#### 2.1. The Demand for Illicit Tobacco Products as a Result of High Tobacco Excise Tax

The government imposed a major tobacco excise tax increase of 24% on loose leaf tobacco products and 10 % on manufactured cigarettes in 2010, followed by an annual ten per cent increase on all tobacco products until 2016.(9, 10)

The Ernst & Young report predicted an increase in illegal home-grown consumption as a result of tax measures. Smokers would switch from legal manufactured cigarettes to illegal loose leaf tobacco consumption. (30) Results of the Ernst & Young report were also cited in the Regulatory Impact Statement on increasing tobacco excise and equitable duties. They assessed the possible risks of illicit tobacco trade including duty-free misused as gifts or on sold, illegal tobacco grown and large scale importation. (52) Apart from findings discussed previously, the report was criticised for its methodology. (44) Ernst & Young has also not accounted for negative price elasticity or the decrease in tobacco consumption resulting from increases in tobacco prices.

The report has also overestimated the willingness for smokers to switch to home-grown tobacco products, given such products are of poorer quality and taste. (44) Currently, there is a lack of robust study on the availability of illegal home-grown tobacco in small retail outlets in New Zealand but study in Australia did not find a percentage of illicit tobacco sales in retail settings. (53) Such findings can also reflect anecdotal comments made by New Zealand Customs during the interview that growing tobacco was an unusual practise that required *certain types* of people to do so. Besides, manufacturing tobacco up to a certain standard also requires high skill and technique. For example, illicit tobacco manufacturers in China were previously legitimate companies that used to manufacture local brands. (41)

Secondly, an increase in the price of legal tobacco products is also likely leading to an increase in the price of illicit tobacco, if the demand for illicit tobacco products will grow. (44) There is also a higher manufacturing and distribution cost for illicit tobacco products, be it home-grown tobacco or illicit tobacco smuggled. (44, 54)

In regards to duty-free tobacco misused, the New Zealand government has recently announced a further reduction in the duty-free allowance, down from 200 cigarettes to 50 cigarettes or 50g of tobacco or cigars. (55) A reduction in the amount of duty-free will further reduce the possible amount misused.

The objective of increasing tobacco taxation could however be undermined by switching brands to tobacco products in the low price segment.

A New Zealand study showed that two-thirds of smokers living in low socio-economic areas attempted to quit smoking after the excise tax increases in 2010 and 2011. (56) But relapse rates among them were high – 40% of smokers in the study who did not quit successfully adapted to the excise increases by reducing their cigarette-per-day consumption and 22% adapted by switching to cheaper brands. (56) The findings of this study suggest that smokers with low incomes can mitigate the finance burden of tax increases by reducing their consumption (rather than quitting) or by switching to cheaper brands. (56)

There has been a decreasing trend in the New Zealand domestic (legal) market since 2007 but the rate of change is more rapid from 2010 onwards after the first round of tobacco excise tax increase in both loose leaf tobacco and manufactured cigarettes. (50) The New Zealand tobacco market remains highly competitive in the low-price/ultra-low price segment. British American Tobacco New Zealand, Imperial Tobacco New Zealand and Philip Morris New Zealand are the three main tobacco companies in New Zealand and the three companies combined contributed to around 98% of total sale quantities in the overall New Zealand tobacco market. (50)

To compare the changes in sale quantity in different price segments after the first tax increase in 2010, we have categorised cigarette brands of the three companies into four price segments – budget (or ultra-low-cost), value, mid-price and premium. All cigarettes of the three companies were categorised into these segments which were based on the price segments used by Ernest &Young in reference to the price of the representative brands in the report. There was an increase in sales volumes in the ultra-low-cost segments since excise tax was first increased in 2010 (Figure 1). The sale quantity of the budget (ultra-low-cost) segment has rapidly increased from 8.5% in 2012 to 41.2% in 2013. The sale quantity of the premium

segment has dropped from 23.4% in 2009 to 19.3% in 2013 but the rate of change is relatively stable compared with other price segments.

Competition in the low price segment already exists, regardless of whether plain packaging is introduced in New Zealand or not. Moreover, despite tobacco industry claims that a higher excise tax will lead to an increase in illicit tobacco consumption, evidence from overseas shows that tobacco companies have the ability to adjust cigarette prices and maintain their market share. (18, 57-59)

The above data reflects overseas trends after recent rounds of excise tax increases, even though more robust study is required to assess the real margin gains by tobacco companies as a result of price adjustments. In New Zealand, the proportion of ultra-low-price segments has increased while the premium segments remained relatively stabled (Figure 2). (42, 59, 60) This indicates tobacco companies maintain their margins by adjusting their price strategies. Similar observations were seen in the United Kingdom and Australia. (18, 57-59)

Far from being undermined by illicit tobacco, tobacco companies remain strong in the tobacco market.

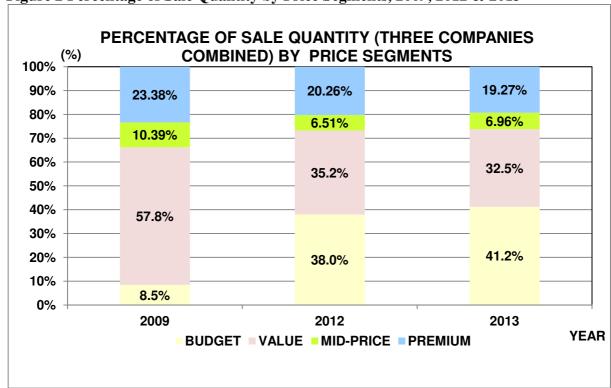


Figure 2 Percentage of Sale Quantity by Price Segments, 2009, 2012 & 2013

Source: Action on Smoking and Health New Zealand, 2013 Tobacco Returns, 2014, ASH New Zealand: Auckland. Available from http://www.ash.org.nz/

# 2.2. The Possible Consequence of Illicit Tobacco as a Result of Tobacco Plain Packaging in New Zealand, Australia and the United Kingdom

In early 2014, the *Smokefree Environments (Tobacco Plain Packaging) Amendment Bill* passed its first reading and is currently under deliberation by the Health Select Committee. (12) Throughout the policy process, the tobacco industry has claimed that there is no proof of plain packaging reducing consumption, given that there are other factors attributed to smoking uptake among young people such as family influences or peer pressure.(19-21) The industry claims instead that there will be an unintended consequence of increased amounts of illicit tobacco consumption. Such policy leads to an increase in *cheap whites* solely manufactured for the purpose of smuggling. Plain packaging will make cigarette brands less differentiated and hence lead to market entry of closer substitutes i.e. illicit tobacco products as smokers will choose the cheaper substitutes given that all cigarette brands are all identical. (19-21) Tobacco companies are forced to compete on price with illicit tobacco products. Such arguments were made by the three main tobacco companies in New Zealand in their submissions. (19-21)

Economic modelling (of demand and supply) is one of the methods to estimate the impact of a policy measure on the overall demand for illicit tobacco consumption, suggested by the World Bank and the International Agency for Research on Cancer. (35, 42) Currently there is no economic modelling on the impact of plain packaging in New Zealand but such economic estimations were examined by Australia prior to introducing plain packaging. (54, 57) The overall price of the tobacco market will return to a higher equilibrium in price given that such regime applies to all tobacco products available in the market.

The tobacco market remains highly concentrated with only a few firms in one market. As such, the major tobacco companies will remain highly competitive. The legal tobacco market in New Zealand is already highly concentrated with three main companies – BATNZ, ITNZ and PMNZ. (43, 50) Based on this premise it can be concluded that illicit tobacco trade in New Zealand will remain relatively stable.

Apart from the change in the cost of legal tobacco products after policy changes, there are other factors that account for the scale of illicit tobacco trade. Smugglers or organised crime need to assess if profit made from illicit tobacco trade is larger than the opportunity costs of such trades. (44) Determinants need to be taken into account. These include corruption, weak tax administration and/or customs, informal distribution networks, probability of being detected, the magnitude of punishment and cost of bribery etc. (42)

There has been no evidence of an increase in illicit tobacco consumption since the implementation of tobacco plain packaging. The estimate of illicit tobacco in Australia, based on analysing data from the National Drug Survey, is only 10—20% of the level suggested by a tobacco company commissioned KPMG report. Figures from Australian Customs also confirmed that plain packaging has not caused an increase in illicit tobacco trade. (61) In New Zealand, submissions of the three companies have all cited the KPMG report that examined the situation of illicit tobacco trade in Australia. (39) The KPMG report was the most comprehensive of the three reports commissioned by the tobacco industry. There has been an increase in the number of such reports published since plain packaging was first proposed in Australia.

Studies conducted by KPMG found illicit tobacco consumption reached its highest proportion (13.3%) of total consumption in Australia post plain packs implementation. Consumption of illicit tobacco products have shifted from smuggled loose leaf to illicit manufactured cigarettes (*cheap whites*).

Findings from the KPMG report were dismissed by the analysis undertaken by the Cancer Council Victoria due to questionable methodology and oversampling of foreign brands as well as contraband of these brands. (32) Australian Government departments, both Health and Customs, also hold a strong view that the KPMG methodology used was flawed.(18) According to the retail audit study in Australia, only 0.6% of all retail visits in the Australian study were retailers who offered home-grown tobacco (commonly known as *chop chop*) and only 1.3% of cigarette packs found in the studied retail outlets were either non-compliant with Australian health warnings and/or suspiciously priced. (53) The changes in the percentage of obtaining *chop chop* or non-compliant brands were small compared with pre-plain packaging implementation. One of the factors that the author attributed to this was the well-published penalties for any infringement of plain packaging. (53)

Similar claims were also made in the United Kingdom throughout the discussion of legislating standardised packaging by the tobacco industry, quoting KPMG and the existing issue of *cheap whites* in its own country. (18) The most popular *cheap whites* consumed in the United Kingdom and Europe is a brand called *Jin Ling*, which is produced in the free trade zone of Russia. (36)

There is no evidence that tobacco plain packaging would lead to an increase in illicit tobacco trade in the United Kingdom.(18, 36) Tobacco plain packaging would not make cigarette packets easier to be copied given that it is not entirely plain. Tobacco manufacturers are required to comply with the new regulations set around plain packaging which include large graphic health warnings, as viewed from regulations set in Australia and those currently under consultation in the United Kingdom. Plain packs are not easier to counterfeit compared with branded packs. (18, 36) In addition, current branded packs are already cheap compared to counterfeit. (18, 36)

KPMG also based their estimation of illicit tobacco smuggled (in this case, *cheap* whites) on a discarded pack survey. (31, 32) A similar empty (discarded) pack survey was undertaken annually in Europe by KPMG as a Philip Morris International commissioned project known as '*Project Star*'. (62)

An empty pack survey can be a useful tool in additional to the suite of tools used to measure illicit trade, as it is a good way to verify results from other methods. However, the empty pack surveys conducted by tobacco industry is highly criticised by researchers in Australia and the United Kingdom due to lack of transparency over methodology and sample representation as well as over relying on industry data. (32, 62)

Discarded pack surveys tend to overestimate the scale of illicit tobacco trade given that they cannot distinguish between legal products (duty-free or cigarettes brought in via tourists or through mail) and illicit tobacco smuggled into the countries. (32, 62)

While the scale of illicit tobacco trade in the United Kingdom has declined, Philip Morris knowingly solicited media coverage and exaggerated the scale of illicit tobacco trade in the United Kingdom during the policy process of standardised packaging. The data source was mainly based on their own empty pack surveys. (63)

The Philip Morris commissioned project has not publicly reported that a quarter of Philip Morris' own brands were being smuggled across European countries. (62) Such findings suggest the company's inadequate control over their supply chain. Brands from other tobacco companies were not investigated in Project Star. However, other research found an overproduction of cigarettes in Ukraine to be the main driver behind the illicit tobacco market in Europe. Neighbouring countries which share a land or sea border with Ukraine, Russia, Moldova or Belarus have the highest use of illicit tobacco. (62) All these findings point to the industry's involvement in illicit tobacco trade and failure to control the supply chain although the nature of the illicit tobacco market has changed over past decades. (26)

One should also take into account that the illicit tobacco consumption is relatively small in Australia and consumption in the United Kingdom had shown a downward trend. (61, 64, 65)

#### 2.3. Summary

In recent years, the tobacco industry has pointed towards a probable rise in illicit tobacco consumption in order to undermine policies such as excise tax increases and tobacco plain packaging. However, there has not been a dramatic increase in illicit tobacco consumption after recent rounds of tax increases since 2010. Such an argument is a logical fallacy that will not be further discussed. (66) The government will further reduce duty-free allowances to reduce the possibility of tobacco products being misappropriated. According to research findings, switching to cheaper tobacco products is the likely option that smokers will choose instead of attempting to quit. In the meantime, the three main tobacco companies remain strongly competitive especially in the ultra-low-price category. This indicates tobacco companies are competing for customers in these segments. Based on economic studies, illicit tobacco trade is improbable in a market which is dominated by a few companies. Early data from Australia also showed no increase in the amount of illicit tobacco consumption, be it illegal manufactured tobacco or *cheap whites*. Similar claims were also used in the United Kingdom during the discussion of standardised packaging. The tobacco industry used its own data and empty pack surveys to push the issue of illicit tobacco trade. Industry data is highly contestable. There is evidence indicating possible current tobacco industry involvement in large-scale smuggling.



## 3. Policy Recommendations and Conclusions

#### 3.1. The Protocol to Eliminate Illicit Trade in Tobacco Products of the WHO FCTC

The Protocol to eliminate illicit trade in tobacco products is the first protocol adopted at the fifth session of the Conference of the Parties in Seoul. It was first conceived in 2007, with the establishment of the International Negotiating Body (INB) that was opened to all Parties to draft and negotiate the Protocol. (27) The Protocol was built upon Article 15 of the WHO FCTC and its purpose was to 'eliminate all forms of illicit trade in tobacco products' through multi-lateral and international cooperation. (27) The Protocol will also serve as a legal instrument for parties that have ratified the protocol. (27) The Protocol will enter into force ninety days following the fortieth signatory to ratify the Protocol. At the time of writing, the New Zealand Government has yet to ratify the protocol. The Protocol contains a set of enforceable measures to control the supply chain of illicit tobacco trade summarised as follows:

#### a) Supply-chain Control

This includes establishing a licensing regime for manufacturing, importing and exporting of tobacco products and manufacturing equipment; requiring a legal person (corporate) to conduct due diligence to their customers before commencing any business relationship; implementing a tracking and tracing system for tobacco products at national and regional level; setting up a global focal point for information sharing; record keeping; applying the Protocol to any business that operates in the free zones and international transit and prohibiting internet sales, examining evidence-based research in regard to misused duty-free.

#### b) Offences

The Protocol has set up a range of new offences to support the implementation and enforcement of the supply-chain controls. This session supports the agencies to make prosecution against entities that fail to apply the supply-chain controls (34). It establishes liability of the legal person (i.e., corporate) for any unlawful conduct and suggests the application of sanctions and the use of special investigative techniques (such as electronic or other forms of surveillance and undercover operations, etc).

#### c) International Cooperation

The Protocol is described as a 'customs and law enforcement treaty born into a health institution'. (67, 68) As such, cooperation is also a core component alongside supply chain control. It is beyond the scope and power of the health institution to enforce the Protocol and requires other agencies to provide their expertise on the administration of the customs and law enforcement. This includes multidisciplinary cooperation between the Health sector and Customs as well as international cooperation between the United Nations Office on Drugs and Crime, the World Customs Organization, and the World Health Organization.

Cooperation involves activities such as information sharing, technical assistance, and cooperation in detection, investigation and prosecution of offences.

#### 3.2. Applications and Key Considerations of the Protocol

There are several factors that need to be considered when applying the Protocol to eliminate illicit tobacco trade in New Zealand.

Firstly, the scale of illicit tobacco consumption is relatively small and the current estimate on illicit tobacco consumption is likely to be between 1.8% and 3.9%. The relative isolation of New Zealand makes illicit tobacco trade relatively difficult. Furthermore, New Zealand Customs has an internal reputation as a high performing organisation that acts both efficiently and effectively. (69) It has a strong workforce and strategies to mitigate the risk at the border. (69)

Secondly, the Protocol may open the door to the tobacco industry to interfere with public health policies. (67, 68) It is well-documented that the tobacco industry has been involved in illicit tobacco trade up while at the same time portraying themselves as partners with government and international agencies to combat illicit tobacco trade. (62, 70) The Protocol will provide an opportunity for the tobacco industry to participate in the discussion of tobacco control policies that otherwise it would not have been a part of. Apart from the health sector, other agencies have not yet set clear boundaries regarding the tobacco industry's involvement in their policy making processes. (68) For example in 2013, INTERPOL (the worldwide police network) accepted a donation from Philip Morris International of fifteen million Euros. (68, 70, 71) INTERPOL also signed a deal with the four biggest tobacco companies to use

their Digital Coding and Tracking system known as Codentify. (70) The four companies were Philip Morris International, British American Tobacco, Imperial tobacco Group and Japan Tobacco International. Codentify is a joint industry project to verify a product's authenticity. (70) This deal however contradicted Article 8.12 of the Protocol which specifies 'obligations assigned to a Party shall not be performed by or delegated to the tobacco industry'. (27) As a result, the application of INTERPOL for observer status of the PROTOCOL was deferred and the COP bureau is currently seeking clarification on the INTERPOL-PMI deal. (68, 70)

Lastly, one of the rationales of making the Protocol is the concern of illicit tobacco trade imposed on price and tax measures. Illicit tobacco trade increases tobacco affordability and accessibility and thus increases demand for tobacco products. The legal tobacco industry has already put pricing strategies in place to make their products more affordable in response to price and tax policies. Besides, legal tobacco products are already highly accessible as they are available in retail settings. A wider perspective shall be considered. The Protocol should be applied with the purpose to reduce tobacco consumption from both legal and illicit sources, and give priority to protect public health. Viewing from this, key recommendations are as follow:

#### a) Establishment of a Licensing Regime

There is a need to establish a centralised system for the purpose of better monitoring and bring all related activities made known to the authority. (34) This includes keeping record and making any information available to the authority, as set in Article 9 of the Protocol. (27) A licensing regime also empowers the authority to place restrictions or conditions on the licensee to ensure a minimum integrity level is enforced. (34)

A license should be issued to all operations of the supply chain, which include tobacco manufacturing, importing and exporting, transporting, distributing and retailing. Issuing a license to all operations of the supply chain reduces the chances for diversion of tobacco during international transport as well as other curbing illegal smuggling activities. (34)

#### b) Monitor Illicit Trade

New Zealand Customs currently monitors the scale of illicit trade in the country. Additional information is useful to provide a more precise understanding of the situation especially at the community level. Questions on current use and internet purchase can be included in a population-based survey to monitor the prevalence of use. Retail audits can also be conducted to access the availability of such products in the retail setting.

#### c) Implementation of Article 5.3 of the WHO FCTC

Preamble of the Protocol requires Parties to be 'mindful of Article 5.3' that they should act to protect public health policies from commercial and other vested interests of the tobacco industry in accordance with national law. The Protocol provides a platform of multilateral cooperation and also increases the risk of interference from the tobacco industry. Only the Ministry of Health has a policy to publicly disclose any meeting with the tobacco industry. It is vital to strengthen the implementation of Article 5.3 and its guidelines in New Zealand.

#### d) Others

The Protocol offers international cooperation to combat illicit tobacco trade. Issues such as restricting internet sales of tobacco products can be achieved at this level. International cooperation can also facilitate sharing of resources and expertise.

#### 3.3. Summary

The Protocol to eliminate illicit trade in tobacco products has opened the door for cooperation to tackle the problem at both the country and global level. New Zealand may benefit from ratifying the Protocol by measures such as establishing licensing system and record-keeping. Ratifying the Protocol will also assist New Zealand to combat the issue at a global level through the sharing of information and expertise.

However, the Protocol will also open the door for industry interference through cooperation with other international agencies. It is important for New Zealand to strengthen its implementation on Article 5.3 of the WHO FCTC and ensure that tobacco industry should not be involved in tackling the problem of illicit tobacco trade.



#### 4. References

- 1. Joossens L, Lugo A, La Vecchia C, Gilmore AB, Clancy L, Gallus S. Illicit cigarettes and handrolled tobacco in 18 European countries: a cross-sectional survey. Tob Control Published Online First 10 December 2012 doi: 10.1136/tobaccocontrol-2012-050644.
- 2. New Zealand Government. Government Response to the Report of the Māori Affairs Committee on its Inquiry into the tobacco industry in Aotearoa and the consequences of tobacco use for Māori (Final Response); 2011.
- 3. Blakely T, Fawcett J, Hunt D, Wilson N. What is the contribution of smoking and socioeconomic position to ethnic inequalities in mortality in New Zealand? Lancet 2006; 368(9529):44-52.
- 4. Peto R, Lopez AD, Boreham J, Thun M. Mortality from Smoking in Developed Countries 1950-2000 (2nd edition); 2006. Available from <a href="http://www.ctsu.ox.ac.uk/deathsfromsmoking/publications.html">http://www.ctsu.ox.ac.uk/deathsfromsmoking/publications.html</a>.
- 5. Tobias M, Turley M. Causes of death classified by risk and condition, New Zealand. Aust N Z J Public Health 2005; 29(1):5-12.
- 6. World Health Organization. WHO Report on the Global Epidemic, 2008: the MPOWER package. Geneva: The Organization; 2008.
- 7. World Health Organization. Parties to the WHO Framework Convention on Tobacco Control (Internet). Geneva: The Organization; 2014 (cited 25 Sept 2014). Available from <a href="http://www.who.int/fctc/signatories\_parties/en/">http://www.who.int/fctc/signatories\_parties/en/</a>
- 8. Smoke-free Environments (Controls and Enforcement) Amendment Act of 2011, Public Act 2011 No 53 (22 July 2011).
- 9. Excise and Excise-equivalent Duties Table (Tobacco Products) Amendment Act of 2010, Public Act 2010 No 23 (29 April 2010).
- 10. Customs and Excise (Tobacco Products-Budget Measures) Amendment Act of 2012, Public Act 2012 No 77 (23 October 2012).
- 11. Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill, Government Bill 186-2 (2013).
- 12. Health Committee. Smoke-free Enviornments (Tobacco Plain Packaging) Amendment Bill (186-2) (as reported by the Health Committee). Wellington: New Zealand Parliament; 2014.
- 13. Prabhat J, Chaloupka F. Curbing the Epidemic Governments and the Economics of Tobacco Control. Washington DC: The World Bank Group; 1999.
- 14. WHO Framework Convention on Tobacco Control Conference of the Parties. Guidelines for Implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control. FCTC/COP3 (7): 2008. Available from http://www.who.int/fctc/guidelines/article 5 3.pdf?ua=1.
- 15. O'Dea D, Thomson G, Edwards R. Tobacco Taxation in New Zealand. Volume II. Wellington: University of Otago; 2007.
- 16. Quit Victoria, Cancer Council Victoria. Plain packaging of cigarettes: a review of the evidence. Melbourne: Cancer Council Victoria; 2011.
- 17. Moodie C, Stead M, Bauld L, McNeill A, Angus K, Hinds K, et al. Plain Tobacco Packaging: A Systematic Review. London: Public Health Research Consortium; 2012. Available from <a href="http://phrc.lshtm.ac.uk/papers/PHRC\_006\_Final\_Report.pdf">http://phrc.lshtm.ac.uk/papers/PHRC\_006\_Final\_Report.pdf</a>.

- 18. Chantler C. Standardised packaging of tobacco. Report of the independent review undertaken by Sir Cyril Chantler. London: King's College London; 2014. Available from <a href="http://www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF?utm-source=rss&utm-medium=rss&utm-campaign=standardised-packaging-of-tobacco-report-of-the-independent-review-undertaken-by-sir-cyril-chantler-pdf.">http://www.kcl.ac.uk/health/10035-TSO-2901853-Chantler-Review-ACCESSIBLE.PDF?utm-source=rss&utm-medium=rss&utm-campaign=standardised-packaging-of-tobacco-report-of-the-independent-review-undertaken-by-sir-cyril-chantler-pdf.</a>
- 19. British American Tobacco New Zealand Limited. Submission by British American Tobacco (New Zealand) Limited opposing the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill To the Health Select Committee of the House of Representatives of New Zealand; 2014.
- 20. Imperial Tobacco New Zealand Limited. Submission to Health Select Committee by Imperial Tobacco New Zealand Limited on Smokefree Environments (Tobacco Plain Packaging) Amendment Bill; 2014.
- 21. Philip Morris New Zealand Limited. Submission to the Health Select Committee on the Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill; 2014.
- 22. British American Tobacco New Zealand Limited. Submission on the Customs and Excise (Tobacco Products Budget Measures) Amendment Bill: To the Finance and Expenditure Committee by British American Tobacco (New Zealand) Limited; 2012.
- 23. Philip Morris New Zealand Limited. Submission to the Finance and Expenditure Committee on the Customs and Excise (Tobacco Products-Budget Measures) Amendment Bill; 2012.
- 24. Imperial Tobacco New Zealand Limited. Submission to the Finance and Expenditure Select Committee by Imperial Tobacco New Zealand on Customs and Excise (Tobacco Products-Budget Measures) Amendment Bill 2012; 2012.
- 25. Paynter J, U E, Joossens L. Illicit Tobacco Trade: Monitoring and Mitigating Risk in New Zealand. Auckland: ASH New Zealand; 2010. Available from <a href="http://www.ash.org.nz/wp-content/uploads/2013/01/Research\_commisoned\_by\_ASH/Illicit\_Tobacco\_Trade.pdf">http://www.ash.org.nz/wp-content/uploads/2013/01/Research\_commisoned\_by\_ASH/Illicit\_Tobacco\_Trade.pdf</a>.
- 26. Joossens L, Raw M. From cigarette smuggling to illicit tobacco trade. Tob Control 2012; 21(2):230-234.
- 27. WHO Framework Convention on Tobacco Control. Conference of the Parties. Protocol to Eliminate Illicit Trade in Tobacco Products; 2013. Available from <a href="http://apps.who.int/iris/bitstream/10665/80873/1/9789241505246">http://apps.who.int/iris/bitstream/10665/80873/1/9789241505246</a> eng.pdf?ua=1.
- 28. Meredith D. New Zealand Customs; 2010.
- 29. Panettiere S. New Zealand Customs: 2014.
- 30. Ernst & Young Limited. Out of the shadows: An independent report of New Zealand's illicit tobacco market. Auckland, New Zealand: Report prepared for British American Tobacco; 2010.
- 31. KPMG LLP. Illicit tobacco in Australia: 2013 Full Year Report. London, United Kingdom: Report prepared for British American Tobacco Australia, Philip Morris Limited and Imperial Tobacco Limited Australia; 2014. Available from <a href="http://www.pmi.com/eng/tobacco\_regulation/illicit\_trade/Documents/Illicit\_Tobacco\_in\_Australia\_2013\_full\_year\_report.pdf">http://www.pmi.com/eng/tobacco\_regulation/illicit\_trade/Documents/Illicit\_Tobacco\_in\_Australia\_2013\_full\_year\_report.pdf</a>.
- 32. Quit Victoria, Cancer Council Victoria. Analysis of KPMG LLP report on use of illicit tobacco in Australia 2013 Full year report. Victoria, Australia; 2014. Available from <a href="http://www.cancervic.org.au/downloads/mini\_sites/Plain-facts/analysis-kpmg-illicit-tobacco.pdf">http://www.cancervic.org.au/downloads/mini\_sites/Plain-facts/analysis-kpmg-illicit-tobacco.pdf</a>.
- 33. World Health Organization. WHO Framework Convention on Tobacco Control. Geneva: The Organization; 2005.

- 34. Sou G, Preece R. Reducing the illicit trade in tobacco products in the ASEAN Region: a review of the Protocol to Eliminate Illicit Trade in Tobacco Products. World Customs Journal 2013; 7(2):65-90.
- 35. Merriman D. Tool 7. Smuggling: Understand Measure, and Combat Tobacco Smuggling. In: Yurekli A, De Beyer J, editors. World Bank Economics of Tobacco Toolkit. Washington DC, USA: The World Bank; 2003.
- 36. Joossens L. Smuggling the Tobacco Industry and Plain Packs: a report by Luk Joossens. London: Cancer Research UK; 2012. Available from <a href="http://www.cancerresearchuk.org/prod">http://www.cancerresearchuk.org/prod</a> consump/groups/cr common/@nre/@pol/documents/gen eralcontent/smuggling fullreport.pdf.
- 37. United Nations Office on Drugs and Crime. The Globalization of Crime: A Transnational Organized Crime Threat Assessment. Vienna: UNODC; 2010. Available from <a href="http://www.unodc.org/documents/data-and-analysis/tocta/TOCTA\_Report\_2010\_low\_res.pdf">http://www.unodc.org/documents/data-and-analysis/tocta/TOCTA\_Report\_2010\_low\_res.pdf</a>.
- 38. 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):1640-0649.
- 39. KPMG LLP. Illicit tobacco in Australia: 2013 Half Year Report. London, United Kingdom: Report prepared for British American Tobacco Australia, Philip Morris Limited and Imperial Tobacco Limited Australia; 2013. Available from <a href="http://www.imperialtobacco.com/files/kpmg">http://www.imperialtobacco.com/files/kpmg</a> australia.pdf.
- 40. Chen T-P. China's Marlboro Country: The strange, underground world of counterfeit cigarettes. 2009 29 June 2009.
- 41. Shen A, Antonopouios GA, von Lampe K. "The Dragon Breathes Smoke": Cigarette Counterfeiting in the People's Republic of China. The British Journal of Criminology 2010; 50(2):239-258.
- 42. IARC Handbooks of Cancer Prevention: Tobacco Control. Volume 14. Effectiveness of Price and Tax Policies for Control of Tobacco. Lyon: International Agency for Research on Cancer; 2011.
- 43. Euromonitor International. Tobacco in New Zealand. London: Euromonitor International; 2013.
- 44. New Zealand Institute of Economic Research. Review of Ernst & Young's Report on New Zealand's Illicit Tobacco Market: Report to ASH New Zealand. Wellington: NZIER; 2010.
- 45. Customs and Excise Act of 1996, Public Act 1996 No 27 (4 June 1996).
- 46. Customs and Excise Amendment Act (No 3) of 2008. Public Act 2008 No 68 (16 September 2008).
- 47. Basher L. Landcare Research. 2014.
- 48. New Zealand Customs. Tobacco Grower Found Guilty. Contraband. Wellington: The Customs; 2012. Available from <a href="http://www.customs.govt.nz/news/resources/publications/Documents/contrabandissue122july2012.pdf">http://www.customs.govt.nz/news/resources/publications/Documents/contrabandissue122july2012.pdf</a>.
- 49. Men fined for illegal tobacco operation (Internet). 3 News; 11 June 2012 (cited June 2014). Available from <a href="http://www.3news.co.nz/nznews/men-fined-for-illegal-tobacco-operation-2012061121">http://www.3news.co.nz/nznews/men-fined-for-illegal-tobacco-operation-2012061121</a>.
- 50. ASH New Zealand. Analysis of Tobacco Returns 2013. Auckland: ASH New Zealand; 2014. Available from <a href="http://www.ash.org.nz/wp-content/uploads/2014/06/TOBACCO-RETURNS-ANALYSIS-2013.pdf">http://www.ash.org.nz/wp-content/uploads/2014/06/TOBACCO-RETURNS-ANALYSIS-2013.pdf</a>.

- 51. Ministry of Health. Tobacco trends 2008. Online data tables (Internet). Wellington: Ministry of Health; 2009 (updated cited June 2014). Available from <a href="http://www.health.govt.nz/publication/tobacco-trends-2008-brief-update-tobacco-use-new-zealand-online-data-tables">http://www.health.govt.nz/publication/tobacco-trends-2008-brief-update-tobacco-use-new-zealand-online-data-tables</a>.
- 52. The Treasury. Regulatory Impact Statement, Increase in Tobacco Excise and Equivalent Duties. Wellington: The Treasury; 2012. Available from <a href="http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-tsy-iteed-may12.pdf">http://www.treasury.govt.nz/publications/informationreleases/ris/pdfs/ris-tsy-iteed-may12.pdf</a>.
- 53. Scollo M, Bayly M, Wakefield M. Availability of illicit tobacco in small retail outlets before and after the implementation of Australian plain packaging legislation. Tob Control Published Online First 10 April 2014 doi: 10.1136/tobaccocontrol-2013-051353.
- 54. Clarke H, Prentice D. Will Plain Packaging Reduce Cigarette Consumption? Economic Papers: A journal of applied economics and policy. Published Online First 13 September 2012 doi: 10.1111/j.1759-3441.2012.00186.x.s.
- 55. Hon Tariana Turia. Budget 2014: Duty-free tobacco limits to fall. Wellington (Internet): The New Zealand Government; 8 May 2014 (Cited July 2014). Available from <a href="http://www.beehive.govt.nz/release/budget-2014-duty-free-tobacco-limits-fall">http://www.beehive.govt.nz/release/budget-2014-duty-free-tobacco-limits-fall</a>.
- 56. Glover M, Cowie N. Intermittent Smoking Survey Snapshot 2010-2012: 2011 Survey Results. Auckland: Centre for Tobacco Control Research; 2011.
- 57. Gilmore AB, Branston JR, Sweanor D. The case for OFSMOKE: how tobacco price regulation is needed to promote the health of markets, government revenue and the public. Tob Control 2010; 19(5):423-430.
- 58. Gilmore AB, Reed H. The truth about cigarette price increases in Britain. Tob Control Published Online First 12 August 2013 doi: 10.1136/tobaccocontrol-2013-051048.
- 59. van Walbeek C, Blecher E, Gilmore A, Ross H. Price and Tax Measure and Illicit Trade in the Framework Convention on Tobacco Control: What We Know and What Research Is Required. Nicotine Tob Res 2013; 15(4):767-776.
- 60. Chaloupka FJ, Cummings KM, Morley C, Horan J. Tax, price and cigarette smoking: evidence from the tobacco documents and implications for tobacco company marketing strategies. Tob Control 2002; 11(Suppl 1):i62-72.
- 61. Australian Customs and Border Protection Service. Annual Report 2012-2013; Canberra: Commonwealth of Australia; 2013. Available from <a href="http://www.customs.gov.au/aboutus/annualreports/2013/index.html">http://www.customs.gov.au/aboutus/annualreports/2013/index.html</a>.
- 62. Gilmore AB, Rowell A, Gallus S, Lugo A, Joossens L, Sims M. Towards a greater understanding of the illicit tobacco trade in Europe: a review of the PMI funded "Project Star" report. Tob Control Published Online First 10 December 2013 doi: 10.1136/tobaccocontrol-2013-051240.
- 63. Rowell A, Evans-Reeves K, Gilmore AB. Tobacco industry manipulation of data on and press coverage of the illicit tobacco trade in the UK. Tob Control Published Online First 10 March 2014 doi:10.1136/tobaccocontrol-2013-051397.
- 64. Cancer Research UK. The facts about the illicit tobacco market. London: Cancer Research UK; 2013. Available from <a href="http://www.cancerresearchuk.org/prod-consump/groups/cr-common/@nre/@pol/documents/gen-eralcontent/cr-095817.pdf">http://www.cancerresearchuk.org/prod-consump/groups/cr-common/@nre/@pol/documents/gen-eralcontent/cr-095817.pdf</a>.
- 65. Her Majesty Revenue & Customs. Tobacco tax gap estimates 2012-2013: An Official Statistics. London: Crown UK; 2013.

- 66. ASH New Zealand. Submission on Smoke-free Environments (Tobacco Plain Packaging) Amendment Bill. Auckland: ASH New Zealand; 2014.
- 67. Liberman J, Blecher E, Carbajales AR, Fishburn B. Opportunities and risks of the proposed FCTC protocol on illicit trade. Tob Control Published Online First 5 August 2011 doi: 10.1136/tobaccocontrol-2011-050122.
- 68. Liberman J. The new WHO FCTC Protocol to Eliminate Illicit Trade in Tobacco Products Challenges Ahead. Insights 2012; 16(38). Available from <a href="http://www.asil.org/insights/volume/16/issue/38/new-who-fctc-protocol-eliminate-illicit-trade-tobacco-products-%E2%80%93">http://www.asil.org/insights/volume/16/issue/38/new-who-fctc-protocol-eliminate-illicit-trade-tobacco-products-%E2%80%93</a>.
- 69. State Services Commission, the Treasury, and the Department of the Prime Minister and Cabinet. Formal Review of the New Zealand Customs Service (Customs). Wellington: Crown New Zealand; 2012. Available from <a href="http://www.ssc.govt.nz/sites/all/files/pif-customs-review-oct12.PDF">http://www.ssc.govt.nz/sites/all/files/pif-customs-review-oct12.PDF</a>.
- 70. Joossens L, Gilmore AB. The transnational tobacco companies' strategy to promote Codentify, their inadequate tracking and tracing standard. Tob Control Published Online First 12 March 2013 doi:10.1136/tobaccocontrol-2012-050796.
- 71. Framework Convention Alliance. Industry-INTERPOL deal signals challenges to illicit trade protocol (internet). 18 March 2013 (cited July 2014). Available from <a href="www.fctc.org/fca-news/illicit-trade/976-industry-interpol-deal-signals-challenges-to-illicit-trade-protocol">www.fctc.org/fca-news/illicit-trade/976-industry-interpol-deal-signals-challenges-to-illicit-trade-protocol</a>.