

Contraband Cigarettes in Ontario

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Executive Summary

Taxation of tobacco is an effective policy for preventing and reducing cigarette consumption. However, the widespread availability of contraband cigarettes can undermine the effectiveness of this policy, negate the intended health benefits of tobacco taxation and reduce taxation revenues.

Recent increases in the acquisition and use of contraband cigarettes in Canada have raised concern in many quarters. According to a recent Health Canada report, much of the contraband tobacco in Canada originates from US First Nations reserves and is smuggled into Canada through the Akwesasne Reserve that borders Ontario, Quebec and New York State. Other sources of contraband include counterfeit cigarettes from overseas, tax-exempt cigarettes diverted from First Nations reserves, and domestic illicit production of cigarettes. Contraband tobacco products are sold on the street, in retail outlets, in hospitality venues and on reserves throughout the province. The street price for contraband cigarettes is less than one-third of the price of fully taxed products, and on reserves, cigarettes are even cheaper. The easy access and increased affordability of contraband cigarettes can encourage smoking, particularly among youth, and may discourage adult smokers from quitting. To date, no level of government has released estimates of the extent of the current contraband market.

This report documents the scope of the contraband cigarette market in Ontario and quantifies the extent of use and the financial impact on tax revenues of one source of contraband tobacco products – cigarettes purchased on First Nations reserves. The report also describes the characteristics of smokers who most frequently purchase untaxed or partially taxed cigarettes on reserves. Our key findings, based on data for adult smokers surveyed from July 2005 to June 2006 and reporting on the period January 2005 to June 2006 are as follows:

- 37% of current smokers in Ontario report *ever* purchasing cigarettes on reserves
- 26% of current smokers report having bought at least one pack of cigarettes on reserves *in the previous six months*
- 12% of current smokers report *usually* purchasing cigarettes on reserves
- At least 14% of cigarettes smoked by current smokers were bought on reserves
- Based on the reported number of cigarettes purchased on reserves, the Ontario government failed to collect \$72.3 million in tax revenues between January 2005 and June 2006, and the federal government forfeited \$49.9 million during that period
- Those who purchased cigarettes on reserves were more likely to be heavy smokers, with no intention to quit, lower education and residing in Northern Ontario

Our finding that at least 14% of cigarettes are bought on reserves is a conservative estimate of the use of contraband tobacco products, as it does not include contraband cigarettes sold off reserve. Cutting taxes is not an option, since this will increase tobacco consumption and reduce government revenues.

To maximize the effectiveness of tobacco tax policy and protect tax revenues, the Ontario and federal governments will have to work collaboratively, and with First Nations communities, to develop solutions and implement measures to prevent contraband.

Tobacco control organizations have recommended that the following measures be implemented:

- Enforce current regulations on tobacco quotas
- Establish a refund/rebate system for products intended for tax-exempt sale on reserves
- Revoke tobacco manufacturer licences from those operating illegally
- Prohibit the supply of raw materials to illicit tobacco manufacturers
- Establish a full tracking and tracing system for all tobacco products sold in Ontario
- Establish a bond of at least \$5 million for each manufacturing licence
- Work with the US government to shut down illegal manufacturing facilities there
- Encourage First Nations reserves to collect their own tobacco taxes
- Educate retailers and smokers

Glossary

Tobacco Smuggling

Illegal import or export of tobacco products across borders (international border, interstate or interprovincial borders)

Tobacco Contraband

Sale of tobacco products without all applicable taxes

Casual Cigarette Smuggling

Illegal transport of tobacco product across borders *for personal use*

Organized Cigarette Smuggling

Illegal transport of tobacco products across borders *for profit*

Wholesale Cigarette Smuggling

Procurement of tobacco products in one jurisdiction *without paying taxes*, then smuggling into another jurisdiction *for profit--Large-scale operation*

Cigarette Bootlegging

Procurement of tobacco products in one lower tax jurisdiction *paying applicable taxes*, then smuggling them into another higher tax jurisdiction *for profit*

Introduction

Raising taxes on tobacco products is one of the most effective ways to reduce cigarette consumption and the prevalence of smoking among adults and youth [1-5]. For this reason, tobacco tax increases have been recommended as a major component of any comprehensive tobacco control strategy to reduce smoking [6]. However, recent research from the US has shown that, when low tax or untaxed cigarettes are readily accessible, such as in nearby low tax jurisdictions or on First Nations reserves, some smokers purchase from these sources [7-11].

Tobacco contraband refers to tobacco products that are sold without payment of all applicable taxes. The availability of contraband cigarettes can mitigate the potential health benefits of high taxes by reducing the motivation of smokers to quit or substantially reduce the number of cigarettes they smoke. Contraband can also induce youth to start smoking and ex-smokers to relapse. It may undermine existing initiatives of the Smoke-Free Ontario Strategy, such as the prohibition on selling cigarettes to underage youth, because vendors who sell contraband cigarettes may be less likely to comply with these policies [12]. Because contraband cigarettes are not taxed, substantial federal and provincial revenues are lost. It can also create unfair competition among retailers by placing law-abiding retailers at a competitive disadvantage [12]. In raising tobacco taxes to reduce smoking, it is important for governments to strengthen their contraband prevention measures to ensure these policies achieve their intended health benefits, protect existing tax revenues, and lay the groundwork for future tobacco tax increases.

In Ontario, cigarette taxes have increased by \$26.50 per carton¹ since the beginning of 2001, as part of the comprehensive tobacco control strategy to reduce smoking [13]. Yet, tobacco taxes in Ontario remain the second lowest in the nation, second only to its neighbouring province, Quebec [14]. Despite this, media reports suggest that the use of contraband cigarettes is increasing in Ontario and Quebec, but not in the other provinces. This suggests that availability or supply of contraband cigarettes, rather than demand, is the main determinant of this trend.

This report examines the nature and scope of contraband cigarette purchase in the province of Ontario. It begins with an overview of the types of cigarette tax evasion activities seen in the 1990s, followed by a discussion of the current situation. We then provide estimates of the extent of one type of contraband activity - the purchase of cigarettes on First Nations reserves, including prevalence and amount purchased, and its impact on government revenue. The characteristics of smokers who frequently buy cigarettes on reserves are also described. In the final section of the report, we outline policy measures that can be used to counter contraband cigarettes and discuss the implications of our findings.

While this report focuses on reports of cigarettes purchased on First Nations reserves, most reserves in Canada are not involved in the smuggling of cigarettes. Most contraband cigarettes originate from the US side of cross border reserves, and most First Nations people on these reserves are not personally involved in smuggling.

¹ \$7.1 for federal excise duty, and \$19.4 for Ontario Tobacco Tax.

Contraband Cigarettes in the 1990s

Between 1982 and 1991, the federal and provincial governments raised their tobacco taxes substantially. As a result, cigarette prices increased dramatically, and national consumption fell by almost 40% over this period [15]. High taxes also significantly widened the cigarette price differential along the Canada-US border, providing an incentive to smuggle exported Canadian cigarettes back into Canada from the United States. Facilitated by other factors, including untaxed cigarette exports, relatively weak border controls, and the high concentration of the Canadian population near the US border, cigarette smuggling across the border increased significantly during the early 1990s [16]. This included both organized smuggling, which involved large scale for profit operations, and casual smuggling, which involved smaller quantities of contraband, brought in for personal use.²

Organized Cigarette Smuggling

"Organized cigarette smuggling"[17] can be classified as either wholesale smuggling or bootlegging [12, 18]. Both activities are driven by profit motives and involve the illegal transport of cigarettes across jurisdictions for resale. Wholesale smuggling usually involves organized crime networks using sophisticated technology to smuggle large shipments of cigarettes over long distances. In particular, wholesale smugglers use various methods to obtain tax-not-paid cigarettes and then smuggle them to the jurisdiction where they are to be consumed, thereby evading taxes both in the jurisdiction of origin and in the jurisdiction of destination. In contrast, bootlegging involves small gangs or ordinary citizens using vans and trucks to illegally transport cigarettes to nearby jurisdictions. Bootleggers often purchase tax-paid cigarettes through legal distribution channels at the jurisdiction of origin - usually a neighboring location with lower taxes - and smuggle them into a high tax jurisdiction, thereby evading taxes in the jurisdiction of destination only [12,18].

Wholesale cigarette smuggling accounted for most of the smuggling that took place along the Canada-US border in the early 1990s. During this period, Canada did not impose taxes on tobacco products that were destined for foreign countries, though they were required to comply with tax laws of the importing countries.³ Canadian tobacco manufacturers exported billions of Canadian brand cigarettes to wholesalers in the US, which were subsequently returned as contraband by smugglers [16]. Often, cigarettes were shipped to duty-free warehouses in upstate New York where they were sold to distributors. Most of these cigarettes were ultimately smuggled back to Canada through the Akwesasne Reserve that straddles Ontario, Quebec, and New York State, without paying US or Canadian taxes. On the Canadian side of Akwesasne, organized runners would buy and transport thousands of these smuggled cigarettes to major cities, like Toronto and Montreal, and to other reserves [19]. More than 90% of the contraband in Canada consisted of products originally manufactured in Canada, and up to 80% of this contraband entered Canada through the Akwesasne Reserve [16].

² Under customs regulations, returning residents who had been outside Canada for 48 hours and were of legal age, were allowed to bring in, tax free, 200 cigarettes, 400 grams of fine-cut tobacco products and 50 cigars. Amounts brought in that exceeded these allowances without paying applicable taxes were considered smuggling.

³ An export tax of \$8 per carton was imposed in February, 1992, but was repealed six weeks later following pressure from the tobacco industry.

Canadian tobacco manufacturers claimed that their exports were legal transactions in response to demands from licensed wholesalers in the US, and that whatever happened after their sale was not their concern [20]. They denied any direct dealing with smugglers, yet recent evidence has revealed otherwise. In a US court case in 1998, one RJR-Macdonald affiliate,⁴ Northern Brands International, and one of its executives pleaded guilty to charges of being involved in illegal smuggling in the 1990s [21]. In 2003, the RCMP laid charges of fraud and conspiracy related to cigarette smuggling in the 1990s against JTI-Macdonald, its sister companies and some of its executives [22]. One of the executives subsequently pleaded guilty, while JTI-Macdonald and another executive have been ordered to stand trial on smuggling charges [23]. There is also an ongoing civil lawsuit related to tobacco smuggling against JTI-Macdonald and its related companies [24].

In addition to wholesale smuggling, there was also cigarette bootlegging. Some of the Canadian cigarettes exported into the US were in fact distributed to US retail outlets along the Canadian border where US taxes were applied at point of sale. Because of the lower taxes in the US, these Canadian cigarettes were still cheaper than those bought in Canada. Taking advantage of these price differentials, individuals and small gangs would cross the border to purchase these cigarettes to be smuggled back into Canada [20,25]. Some also bought from US First Nations reserves where US taxes were not collected, such as on the Tuscarora Reserve near Niagara Falls, New York. Cigarettes, in tens or hundreds of cartons, were then illegally brought into Canada through unpatrolled roads and waterways. The western end of Lake Ontario, for example, was a significant route for contraband from New York into Ontario. Some smugglers would bring contraband through customs checkpoints using cars whose structures had been altered to conceal cigarettes from border guards. On arrival in Canada, these smuggled cigarettes were sold to individual smokers or black market vendors at considerable profit.

Casual Cigarette Smuggling

"Casual smuggling" [17] is similar to bootlegging, except that cigarettes are brought in on a smaller scale for personal use rather than for profit. In the early 1990s, some Windsor residents would evade taxes by purchasing a few cartons of cigarettes in Detroit (beyond the duty free allowance) and hiding them under the car seats when crossing customs checkpoints on their way home [26].

The Purchase of Untaxed Cigarettes

Contraband cigarettes were available in major cities in Canada during the early 1990s. Canadians purchased them in corner stores, bars and restaurants or through less formal channels, and on reserves, at prices much lower than those for taxable cigarettes. Numerous smoke shops were established on the Six Nations Reserve near Brantford and the Kahnawake Reserve near Montreal, and both became important selling and distribution points for contraband [16]. Most contraband cigarettes sold on the black market were Canadian exports that were smuggled back into Canada as described above; a few were US brands and Canadian-style cigarettes manufactured in the US that were illegally imported into Canada [19].

⁴ RJR-Macdonald became JTI-Macdonald in 1999 when Japan Tobacco took over its parent RJR International based in US

In Canada, diplomats, armed forces and Natives are allowed to purchase tax exempt tobacco products. In the early 1990s, these designated tax-exempt cigarettes were also vulnerable to diversion to the contraband market. During this time, there was a sharp increase in the amount of cigarettes sold to diplomats in Canada, suggesting that the diplomatic community engaged in the illegal sale of tobacco products [27].

The Tax Roll-Back

The market share of contraband tobacco products in Canada was estimated at about 12% in 1991, 17% in 1992 and 30% in 1993 [28].⁵ By early 1994, according to the federal government, the contraband market was about 40% in Canada, up to 65% in Quebec, 40% in the Atlantic region, 35% in Ontario,⁶ and 15% in the West [29]. A more conservative estimate for that time was about 25%, nationally [15]. On February 8, 1994 (“Black Tuesday”), the federal government cut its excise tax on tobacco by \$5 per carton and offered to match any provincial cuts of at least \$5 per carton. This was subsequently taken up by the governments of Quebec, Ontario and three of the four Maritime Provinces (except Newfoundland), resulting in combined cuts of \$14 to \$21 per carton. The federal government also reemployed an \$8 per carton export tax and a surtax on tobacco manufacturers’ profit along with other measures [30]. Following these measures, exports plummeted [28], and cross-border smuggling was reduced, but some small-scale smuggling persisted until 1998 [21]. The tax reduction also created a significant price differential across Canadian provinces [28], which led to increases in interprovincial smuggling, with cigarettes being smuggled from low tax provinces, such as Ontario and Quebec, to other provinces with higher taxes [31].

As expected, consumption of cigarettes and the prevalence of smoking increased following the tax rollback, particularly among youth [32]. Yet, despite the increase in cigarette consumption, federal tobacco tax revenues actually dropped below the pre-1994 level in the few years after the roll back because of the drastic cut in the tax rate. As a result, over the five years following the rollback, the federal government lost almost \$2.9 billion in tobacco tax revenues, and the Ontario government lost almost \$2 billion [28].

Contraband Cigarettes in the 2000 and Beyond

An Overview

In the early 1990s, cigarette manufacturers exploited the absence of an export tax on domestic manufactured cigarettes that were exported to foreign countries, resulting in a huge supply of contraband cigarettes in the Canadian market, particularly in Ontario and Quebec. In 1994, the federal government reinstated the cigarette export tax and in 2001, further revised it. By June 2002, federal excise taxes and tobacco taxes of the five provinces that reduced their taxes in February 1994 had returned to their pre-1994 levels with no significant amount of contraband [33]. Soon after, enforcement agencies began to identify emerging sources of contraband cigarettes [33].

⁵ These share estimates were derived from reports commissioned by the tobacco industry, and prepared by Lindquist Avey Macdonald Baskerville, Inc., a forensic accounting consulting firm.

⁶ Estimate for Ontario in 1992 was 13%.

According to a 2007 Health Canada report, most contraband cigarettes in this decade are, as in the 1990s, smuggled into Canada through the Akwesasne Reserve. However, contraband no longer involves exported Canadian brands; instead, the smuggled cigarettes are tobacco products manufactured on the American side of the Akwesasne Reserve [34]. Other sources of contraband include: (1) Chinese brand cigarettes and counterfeit Canadian and American brand cigarettes originating in China and smuggled into Canada through marine ports of entry; (2) tobacco products domestically produced by illicit manufacturers who secure illicit raw leaf tobacco from licensed tobacco growers [34]; and (3) tax-exempt cigarettes that are designated for sale on reserves to status Natives but are diverted to the non-Native community [35].

Cigarettes sold in Canada are subject to the federal excise duty,⁷ GST, and provincial tobacco taxes. Ontario and Quebec and three other provinces do not charge provincial sales tax (PST) on tobacco products, while other provinces do.⁸ The applicable taxes for a carton of cigarettes in Ontario now amount to at least \$43.57,⁹ while taxes in other provinces range up to more than \$60. Under Canadian law, status Native purchases on reserves are exempt from provincial tobacco taxes, provincial sales taxes, and the federal GST or HST.¹⁰ Federal excise duty does apply, however. On-reserve sales to non-Natives must include all of these taxes. All sales off reserve, whether to Natives or non-Natives, must include all taxes [28]. To avoid the abuse of the tax-exempt system, since late 1993, the Ontario government has implemented a quota system to limit the amount of tax-exempt tobacco products sold to reserves.

A 2007 Health Canada report indicated that the most popular contraband cigarettes are no-name brands wrapped in clear plastic bags, manufactured by small plants run by organized crime groups and by fully equipped industrial plants located in First Nations communities. There are increasing numbers of “smoke shacks” on reserves throughout the country, which are major points of sale and distribution for the underground market [34].

In the last couple of years, the Royal Canadian Mounted Police (RCMP) has made frequent reports of seizures of US made cigarettes found on trucks and vans intercepted on the Canadian side of the Akwesasne Reserve [36]. Among the seizures were re-sealable bags of cigarettes, Native and Chiefs brand cigarettes, and unstamped raw leaf tobacco. Additionally, unstamped cigarettes (taxes not paid) purchased on the Six Nations Reserve, including Sago, Putters, Golden Leaf and DK brands, were seized from off-reserve locations in Windsor and in the Sudbury area. Organized crime is also involved in cigarette smuggling. Recently, the RCMP dismantled an underground cigarette manufacturing plant on the American side of the Akwesasne Reserve and apprehended its owners, who allegedly are the ringleaders of a drug trafficking and cigarette smuggling ring [37].

As in the 1990s, the availability of contraband cigarettes on the street, in retail outlets, other informal channels, and around schools across Ontario is in the news [38,39]. It has also been reported that contraband cigarettes are sold to non-Natives from smoke shops on the Six Nations Reserve near Brantford [40], the Tyendinaga Mohawk Reserve near Kingston [41], the Oneida Reserve near London [42], and on Whitefish First Nations in Sudbury [43]. Some cigarettes are bought for personal consumption and some for resale at off-reserve locations. Native cigarettes in Ziploc bags are popular and sold without charging all federal and

⁷ In June 2003, the previous federal excise tax was combined with federal excise duty.

⁸ Sales tax was combined with tobacco taxes in June 2002 in Ontario, and in 1998 in Quebec.

⁹ It consists of federal excise duty (\$16.41), Ontario tobacco tax (\$24.7) and GST.

¹⁰ Harmonized Sales Tax which is in effect in some of the Atlantic provinces.

provincial taxes. A bag of 200 cigarettes can be purchased for \$20 to \$25 on the street, and for even less (\$9 to \$15) on reserves [41]. Mainstream brands delivered to reserves under the quota system and products that are legally manufactured on reserves, all intended only for status Natives, are also sold to the non-native community without charging applicable Ontario tobacco taxes and GST [39, 44]. There are also illegal manufacturing plants on the Tyendinaga Reserve and on the Kahnawake Reserve near Montreal [35,45].

The Extent of the Contraband Cigarette Market

Only a few studies provide estimates of the extent of current contraband activities, covering different aspects of the issue. According to the results of the Canadian Tobacco Use Monitoring Survey (CTUMS), in 2006, 17% of Canadian current smokers reported buying cigarettes on First Nations reserves during the six months preceding the interview, unchanged from 2005 [46]. Across the country, the percentage of smokers buying from First Nations reserves in 2006 was highest in Nova Scotia (31%) and lowest in Newfoundland (6%), with Ontario at 25% near the upper end of the range and Quebec below the national average at 12%. Compared to 2005 [44], there was an increase of 19% in Ontario, and a decrease of 19% in Quebec.

In May and June 2007, the Canadian Tobacco Manufacturers' Council commissioned a national 'pack swap' survey that involved interviews of over 2,000 adults who smoked five or more cigarettes a day, and collection of their current packs for analysis [47]. A similar survey was conducted in 2006 [48]. The new study reported that, nationally, 22% of cigarettes purchased were illicit, an increase from 16.5% in 2006 [47]. The majority of the illegal cigarettes were concentrated in Ontario and Quebec. More than 22% of smokers in each of these two provinces had bought illegal cigarettes, an increase from 16.7% in 2006. Almost one out of every three cigarettes purchased in these provinces was illegal (31.6% and 30.5% respectively), compared to almost one out of every four cigarettes in 2006. The reports also showed that most Canadian smokers purchased their illicit cigarettes on First Nations reserves or through friends, relatives and colleagues or personal delivery and that this had increased from 31.8% to 45.6%. In Ontario, 45.2% of illicit cigarettes were purchased on reserves in 2006 [49]. The study estimated that illicit cigarettes cost the federal and provincial governments \$1.6 billion annually [47]. It is not possible to assess the validity of the study methods and results, as the study reports, posted on Imperial Tobacco Canada's website, did not include details on the methods used.

A provincial telephone survey commissioned by the Quebec Ministries of Finance and Health and Social Services, and conducted in November, 2006, found that 14% of Quebec smokers reported having smoked or bought contraband cigarettes during the three months preceding the survey, and 45% reported that their contraband consumption was half or more of their total cigarette consumption [50]. Sixty-two percent of those who smoked or bought contraband cigarettes obtained them from friends or parents, while 29% purchased them on reserves. About 67% of the contraband cigarettes bought were in Ziploc bags or were not a specific brand.

In analyzing data from the Canadian Tobacco Use Monitoring Survey (CTUMS) and the official statistics on taxation revenues, Physicians for a Smoke-Free Canada estimated that the market for illegal cigarettes across Canada was at least 10% in 2005 and likely higher in 2006, and that the problem was most extensive in Ontario and Quebec [44]. They estimated that losses to governments in 2005 resulting from the use of illicit cigarettes increased from the previous year by \$280 million for the federal government and about \$150 million each in Ontario and Quebec.

A litter audit conducted by the City of Toronto in the summer of 2006 in 298 randomly selected sites across the city found that bootleg cigarette packages were represented among the litter found on city streets. Of the 96 cigarette packs that were audited, 8% were brands not sold on the legal market (Native, DK's, Panda, Mang Mei, and Capri) [51].

In summary, studies using different data sources and methods show that the contraband market within Canada, and particularly in Ontario and Quebec, is significant.

The Purchase of Cigarettes on First Nations Reserves

Studies in the US that have examined the cigarette purchasing behaviour of smokers conclude that when low-tax or untaxed cigarettes are readily available, either on First Nations reserves, in nearby low-tax jurisdictions, or through mail or Internet, some smokers take advantage of these opportunities [7-11]. In a telephone survey conducted in the Erie and Niagara Counties of New York State, where there are reserves located inside or close to their borders, 67% of smokers reported having usually purchased their cigarettes from reserves where state taxes, though applicable, were not collected [11].

In this section, we present the methods and results of our investigation of the extent to which Ontario smokers purchase cigarettes from reserves, and its impact on government revenues.

Data and Methods

Data used in this analysis are from the Ontario Tobacco Survey (OTS) carried out by the Ontario Tobacco Research Unit. This survey was developed to monitor tobacco use and related issues, and to evaluate the initiatives of the Smoke-Free Ontario Strategy [52-53]. It consists of both a cross-sectional survey of Ontario residents aged 18 or older and a longitudinal survey of Ontario adult smokers. A regionally stratified random telephone survey design was used to over-sample smokers. This analysis used data from the first two waves of the cross-sectional component conducted between July 2005 and June 2006 (overall response rate = 64%). The sample consisted of 2,520 respondents of whom 1,405 are current smokers.¹¹

Current smokers who provided a response ($n=1391$)¹² were asked the brand of cigarette they usually smoked; where they usually bought their cigarettes, including on reserves, out of province, through the Internet or by mail, and at other retail stores; and had they ever purchased cigarettes on a reserve. Those who had ever purchased cigarettes on a reserve were asked about the number of packs of cigarettes they had bought on a reserve in the six months prior to the interview. These responses allowed us to measure the prevalence of ever purchasing cigarettes on reserves, usually purchasing on reserves and having bought at least one pack of cigarettes on reserves in the previous six months. Based on these responses, we also estimated the total number of packs that were purchased on reserves over the reference period (January 2005 to June 2006). To estimate the loss in tax revenue associated with cigarettes purchased on reserves, we multiplied the estimated

¹¹ Current smokers were those who reported smoking every day, almost every day or occasionally at the time of the survey.

¹² Throughout this report, n is used to denote the sample size

total number of packs purchased on reserves by the tax rates, then adjusted this amount to reflect the fact that some of these packs were only partially untaxed (details in Appendix A).

Smokers were also asked the number of weekdays and weekend days they smoked in the past month, and the corresponding number of cigarettes they usually smoked on those days. Using this information, the number of cigarettes consumed over six months was computed for each respondent and was converted into number of packs of 20. We then derived the estimate of the share of reported consumption that was purchased on reserves by dividing the estimate of the total purchase on reserves by the estimate of the total reported consumption among current smokers.¹³ It is important to point out that our estimates for total consumption as well as for total purchases are based on self-reported data. It is well established that estimates of total cigarette consumption derived from self-report data underestimate actual consumption [54]; however, the relation of self-reported to actual purchase of cigarettes has not been studied. We assumed that the degree of under-reporting, if any, was the same with respect to self-reported consumption as with purchases, and thus that our estimate of the share of cigarettes bought on reserves was representative of the share for the general population.

A multiple logistic regression analysis was conducted to identify the characteristics associated with the likelihood of usually purchasing cigarettes on reserves. Demographic characteristics (age, gender, education and marital status) and smoking behaviours (number of cigarettes smoked per day, previous quit attempts and intentions to quit) were examined. Variation across region was also examined, using telephone area codes to determine boundaries (Appendix B).

Among respondents who reported purchasing one or more packs on reserves in the past six months (n=407), there were four participants who reported buying more than 1,500 packs (1,536, 2,400, 3,600 and 10,000 packs). These amounts far exceed what a heavy smoker could consume in six months,¹⁴ and including them in the analysis leads to unstable estimates of contraband share and revenue lost. Hence, they are excluded from these two analyses. There were also 71 respondents whose reported number of cigarettes purchased from reserves was greater than their total reported cigarette consumption, with the excess purchases ranging from a negligible amount to 484 packs. Thus, we provide two sets of estimates for tax revenue losses and the share of cigarettes bought on reserves: one using the amount of purchase as reported, and another with excess purchases capped to the amount of their reported consumption.

Analyses were conducted by taking into account the complex survey design, so that estimates were representative of the Ontario population at the time of the survey. Native people represent less than 2% of the Ontario population, though the proportion is much higher in some regions [55]. Because the survey did not collect information on ethnic origin, we were unable to identify First Nations participants.

¹³ Since most of the contraband cigarettes sold on reserves originated from the US where the most common pack size is 20, we adopted a conservative approach by using a pack size of 20 to convert the number of cigarettes to packs.

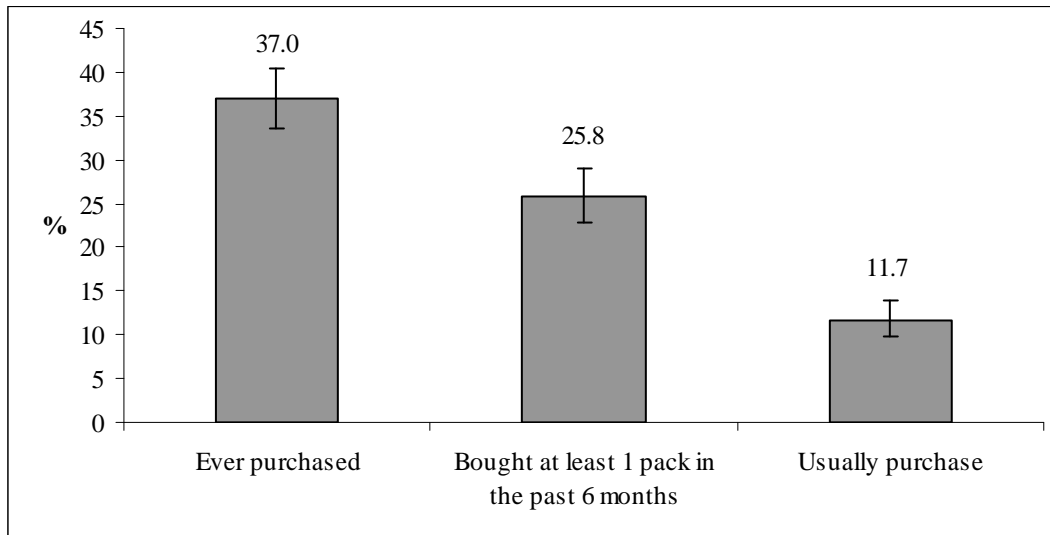
¹⁴ A heavy smoker smoking 100 cigarettes (five packs) a day would smoke 900 packs in six months.

Results

Prevalence of Purchasing Cigarettes on First Nations Reserves

In Ontario, 37% of current smokers reported *ever* buying cigarettes on a reserve. Twelve percent of current smokers reported *usually* buying on a reserve, and 26% reported they had purchased at least one pack of cigarettes on a reserve in the *six months* prior to the survey (Figure 1).

Figure 1: Percent of smokers who reported purchasing cigarettes on First Nations reserves, Ontario, July 2005 to June 2006

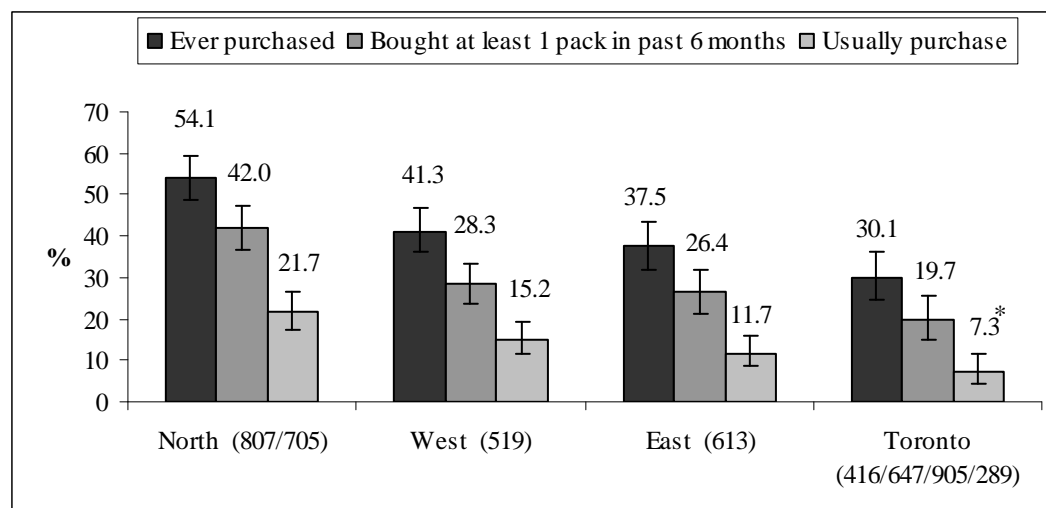


Vertical lines represent 95% confidence intervals.

Source: Ontario Tobacco Survey, Wave 1 and Wave 2.

The rate of *ever* purchasing cigarettes on a reserve varies by region (Figure 2). The Northern region of Ontario has the highest proportion of smokers (54%) who reported ever purchasing cigarettes on a reserve, followed by the Western (41%), Eastern (38%), and Toronto regions (30%). The rates of *usually* purchasing on reserve and buying at least one pack of cigarettes on reserve in the *past six months* exhibit the same trend across regions.

Figure 2: Percent of smokers who reported purchasing cigarettes on First Nations reserves, by region, Ontario, July 2005 to June 2006



* Moderate sampling variability, interpret with caution.
 Vertical lines represent 95% confidence intervals.
 Numbers in brackets indicate telephone area codes.
 Source: Ontario Tobacco Survey, Wave 1 and Wave 2.

The Loss of Tax Revenues Associated with Cigarettes Bought on First Nations Reserves¹⁵

Based on the raw data, it was estimated that more than 38.2 million packs of cigarettes were bought on reserves between January 2005 and June 2006, resulting in a loss of \$145.6 million in tax revenues: \$86.2 million in Ontario tobacco taxes, \$48.9 million in federal excise duty and \$10.6 million in GST. (Detailed computation in Appendix A). As described in the Methods section, these estimates included some cases where reported purchases were greater than reported personal consumption.

When these excess purchases were capped to the value of the respondents' reported personal consumption, the total packs that were bought on reserves was estimated at 32.1 million,¹⁶ resulting in a loss of tax revenues of \$122.2 million: \$72.3 million in Ontario tobacco taxes, \$41.0 million in federal excise duty, and \$8.9 million in GST.

Share of Reported Consumption Bought on First Nations Reserves¹⁷

It is estimated that current smokers in Ontario consumed 227.8 million packs of cigarettes between January 2005 and June 2006. Of these, an estimated 16.6% (37.9 million packs) were bought on reserves. When

¹⁵ Results were based on a sample size of 1366. The number of packs that were bought on reserves for 21 out of the 1391 respondents could not be determined due to refusals. Four outliers were excluded as described above.

¹⁶ There were 14,481,041 packs in wave 1 and 17,621,608 packs in wave 2.

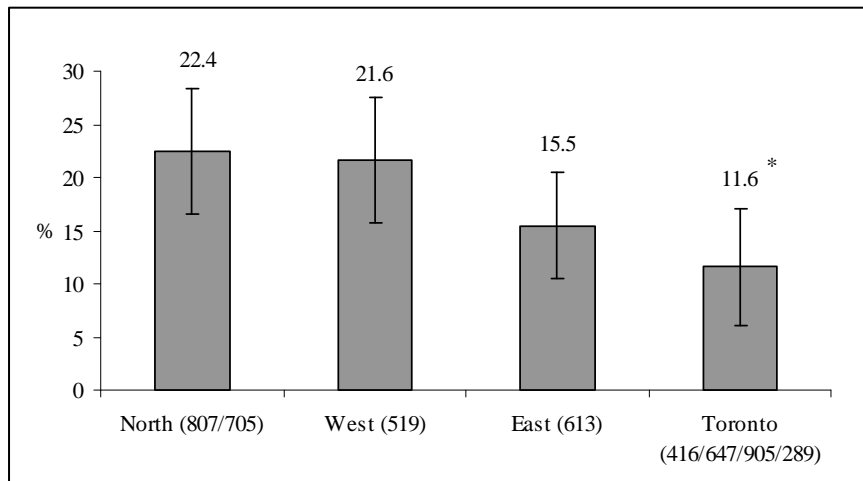
¹⁷ Results for this section are based on a sample size of 1,309. Among the 1366 respondents in the last section, number of cigarettes consumed was not asked of 34 respondents as they did not smoke within the 30 days prior to the survey; consumption for another 23 respondents could not be determined due to refusals or inconsistent responses.

reported excess purchases were capped to reported cigarette consumption, the estimate for the share of reported consumption bought on reserves was 14.0% (31.8 million packs).

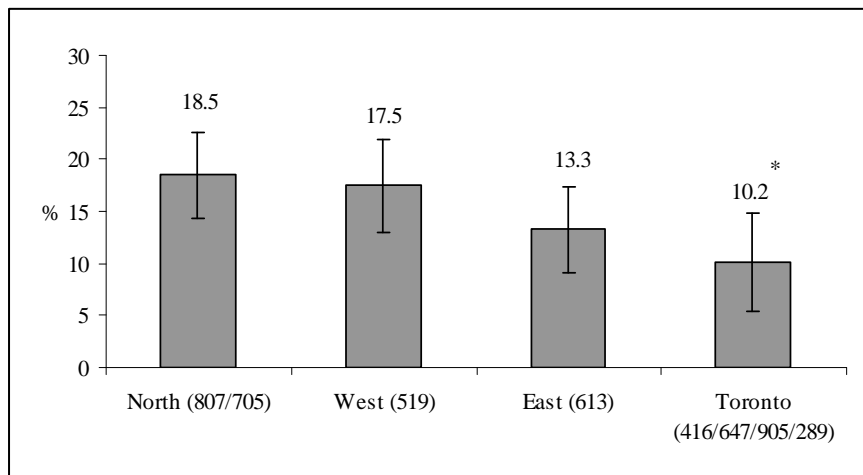
The regional differences in the proportion of cigarettes that were bought on reserves were similar to those for the prevalence of purchasing on reserves (Figure 3). The Northern and Western regions had the highest share, followed by the Eastern and Toronto regions, although the differences were not statistically significant.

Figure 3: Share of reported cigarette consumption bought on First Nations reserves, by region, Ontario, January 2005 to June 2006

Self-reported purchases not capped to reported consumption



Excess purchases capped to reported consumption



* Moderate sampling variability, interpret with caution.

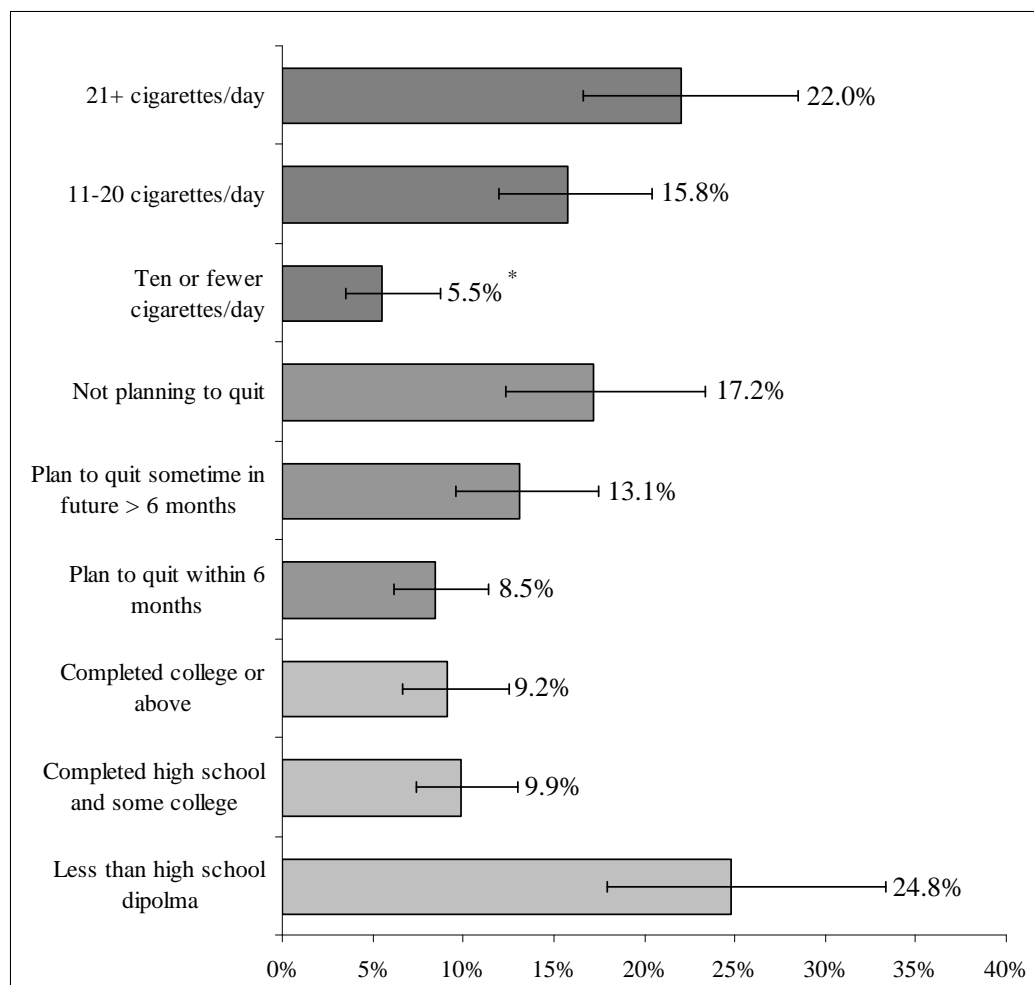
Vertical lines represent 95% confidence intervals

Source: Ontario Tobacco Survey, Wave 1 and wave 2

Characteristics of Smokers Who Purchased Cigarettes on First Nations Reserves

Current smokers who smoked more cigarettes per day, reported having no intention to quit, and did not have a high school diploma were more likely to usually purchase cigarettes on a reserve (Figure 4). In Ontario, smokers who smoked more than ten cigarettes per day were more likely to report usually purchasing cigarettes on a reserve than those who smoked less. Among smokers who did not plan to quit, 17% reported usually purchasing on reserve compared to 9% of those who said they were planning to quit in the next six months. In addition, smokers who did not have a high school diploma were more likely to report usually buying cigarettes on reserve. Age, gender, marital status and previous quit attempts were not significantly related to usually buying on reserve.

Figure 4: Percent of smokers who usually purchase cigarettes on First Nations reserves, by cigarette consumption, intention to quit, and education, Ontario, July 2005 to June 2006



* Moderate sampling variability, interpret with caution.

Horizontal lines represent 95% confidence intervals.

Source: Ontario Tobacco Survey, Wave 1 and Wave 2.

Although the Ontario Tobacco Survey did not collect data on which brands were bought on reserve, it did include usual brand. Almost half (47%) of the smokers who usually purchased cigarettes on reserve reported that their regular brand of cigarettes was made by native manufacturers, either in Canada or in the US (Table 1). Only one third (33.4%) of smokers who said they usually purchased on reserves indicated that their regular brand was made by one of the three major Canadian tobacco companies (Imperial Tobacco Company Ltd, Rothmans, Benson & Hedges, or JTI Macdonald Crop.) In contrast, more than 91% of smokers who said they never purchased from reserves, reported a regular brand from these three manufacturers.

Table 1: Regular brand smoked by cigarette purchasing status, Ontario, July 2005 to June 2006

Purchased cigarettes on First Nations reserve			
Regular Brand Smoked	% Usually purchase	% Ever purchased	% Never purchased
	n=211	n=578	n=808
ITC/RBH/JTI*	33.4	70.9	91.5
Native Made (DK, Sago, Putter's, Gold Leaf) [†]	31.1	11.0	--
Reserve/No Name [‡]	16.3	6.0	--
Other Brands [§]	16.2	11.0	7.2
Don't Know or Refused	--	--	--
	100	100	100

* Brands produced by Imperial Tobacco Canada Limited (ITC), Rothmans, Benson & Hedges Inc. (RBH), and JTI-Macdonald Corp. (JTI)

[†] These brands were produced by Grand River Enterprises (GRE), a licensed manufacturer located on the Six Nations Reserve. However, the brands DK and Putter's were also produced by U.S. Native manufacturers.

[‡] Brands reported by respondents: Native, All Natural Native, no name brand from a reserve, Indian reserve cigarettes, Mohawk tobacco products, rollies from reserve, and no name brand.

[§] Other brands include brands made by small manufacturers, miscellaneous brands, no regular brands and roll your own tobacco.

^{||} Moderate sampling variability, interpret with caution.

-- Estimate suppressed due to high sampling variability.

Source: Ontario Tobacco Survey, Wave 1 and Wave 2.

Recommended Measures to Reduce Contraband Cigarettes

Using self-reported consumption data, our results indicate that at least 14% of cigarettes smoked by Ontario adult smokers were bought on reserves. To maximize the effectiveness of tobacco tax policy and to protect tax revenues, the Ontario and federal governments will have to work collaboratively and with First Nations communities, to develop solutions and implement measures to prevent contraband.

Lowering tobacco taxes is not an option, since the tax roll-back in 1994 showed that major tax reductions increase tobacco consumption and reduce government revenues. Instead, the governments should consider different approaches to target different sources of contraband cigarettes - illegal imports from the US and other foreign countries, illicit domestic production, and the diversion of tax-exempt cigarettes intended for status Natives to the non-Native community.

In this section, we outline a number of measures that have been recommended by tobacco control organizations for preventing the illegal production and sale of tobacco products [35, 56-58].

1. **Enforce the current regulation on the quota system**

Ontario has already implemented a quota system to limit the quantity of tax-exempt cigarettes that may be shipped to reserves, depending on the smoking patterns of the Native population on and off reserve. However, the quota system is not well enforced. Some native manufacturers are not complying with the quota system, and Canadian brand-name cigarettes shipped to Native reserves are diverted to the non-Native community [56]. This creates the potential for large amounts of tax-exempt cigarettes to be diverted to illegal sales. To ensure that all cigarette manufacturers adhere to the quota system, the Ontario government should enforce the existing regulations. The formula for calculating the tax-exempt quota should be updated periodically to reflect ongoing changes in the population and smoking rates on a reserve.

2. **Establish a refund/rebate system**

The Ontario government should require that manufacturers and wholesalers include the Ontario tobacco tax in their prices when tax-exempt cigarettes are delivered to retail outlets on reserves. After a retailer makes a sale to a status Native, the retailer could apply to the province for a refund.

3. **Revoke licenses from any manufacturers operating illegally**

The federal and Ontario governments should revoke licenses from any cigarette manufacturers operating illegally.

4. **Prohibit the supply of raw materials to illicit tobacco manufacturers**

The federal and Ontario governments should make it illegal for suppliers to sell various inputs (raw tobacco, cigarette filters and papers, packaging, potential electricity), tear tapes and tobacco manufacturing equipment to any illicit tobacco manufacturer, and require suppliers to submit reports for all of their shipments. Substantial penalties for violations could be imposed to encourage compliance. This approach would effectively shut down an illicit production plant without even going inside the facility.

5. Implement a full tracking and tracing system

The federal and Ontario governments should collaborate to establish a comprehensive tobacco product tracking and tracing system. The technology is currently available to attach to each package a unique identifier that allows the tracking of a package from a manufacturer or importer to retail. If a tobacco product is seized as contraband, this system will identify its manufacturer, which should then be required to pay the taxes that would otherwise have been paid if the product had gone through legal distribution channels. This system would provide an economic incentive to manufacturers to ensure their products do not enter illicit distribution channels.

6. Establish a bond of at least \$5 million for each manufacturing licence

A large bond would inhibit illegal activity by giving companies a greater economic incentive to comply with the law. The bond for each federal tobacco manufacturing licence should be raised from \$5,000 to a minimum of \$5 million. The Ontario Ministry of Finance should establish a minimum bond of \$5 million for each Ontario tobacco manufacturer licence. All bonds would be forfeitable if a manufacturer is non-compliant with the law.

7. Work with the US Government to shut down illegal manufacturing facilities across the border

The majority of contraband cigarettes are manufactured on the US side of the Akwesasne reserve. The Government of Ontario should work with federal authorities and the US Government to shut down the ten or more illegal tobacco manufacturing facilities there.

8. Encourage First Nations reserves to collect their own tobacco taxes

Although the federal government granted authority in 1997 to First Nations to levy sales taxes, only a handful of western communities have done so [59-60]. The government should work with First Nations to help set up structures to collect sales taxes. The imposition of such taxes would not only narrow the tobacco price differential on and off reserves, but would also help reduce the current high smoking rate among First Nations peoples.¹⁸

First Nations should also levy tobacco taxes to increase their cigarette prices even more. Through a tax agreement with the state, some tribal governments in Washington have imposed a tobacco tax comparable to the state tax and kept the tax revenue for essential government services. As a result, tobacco prices on reserves increased and contraband purchase by non-Natives decreased [61].

9. Educate retailers and smokers

The provincial Government could also launch campaigns to educate retailers on how to identify contraband and counterfeit cigarettes and about the illegality of selling illicit cigarettes. It could also educate smokers about existing laws that prohibit tax evasion.

¹⁸ The Canadian federal Bill C-33 will provide an opportunity for First Nations in Quebec to levy tobacco taxes, but it may take a long time before the proposed bill becomes legislation.

Discussion

A substantial proportion of smokers in Ontario reported purchasing cigarettes on First Nations reserves. At least 14% of the reported cigarettes consumed by Ontario smokers between January 2005 and June 2006 were bought on reserves, leading to an estimated loss of \$122.2 million in tax revenues. These estimates of contraband are conservative, as they do not include contraband activity that occurred off reserve. There are a number of measures that the federal and provincial governments can implement to eliminate the availability of contraband cigarettes.

Certain issues need to be considered when interpreting our results. As noted earlier, our sample could have included Native participants whose purchase of cigarettes on reserves should not be counted as contraband. However, less than 2% of the Ontario population is Native, so the impact on the results would be minimal. This issue becomes more important when we compare estimates across regions, because the distribution of Natives and reserves varies across regions. According to 2001 Census data, the Northern and Western regions have the highest proportion of reserves within their boundaries, 87% and 9% respectively. The high prevalence of purchasing cigarettes on reserves in these two regions shown in our results may be overestimated because there is a greater chance of having sampled First Nations people living there. Future research into contraband should examine this issue.

The potential overestimation of the extent of cigarette purchases on reserve due to the potential inclusion of Native participants in the Ontario Tobacco Survey might be counter-balanced by the possibility of underreporting purchases on reserves. Research has shown that smokers tend to underreport their consumption by about 30% [54]. Therefore, it is possible that there is also underreporting of cigarette purchases, particularly when these purchases are illegal.

Despite the limitations of our estimates, our study provides evidence on the extent of contraband cigarettes purchased on reserves in Ontario. Our study also points to the need for research that triangulates our results using other surveys and administrative databases, to compare the use of contraband cigarettes from other sources, and to monitor trends in contraband activities.

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Appendix A: Estimates of the loss of tax revenues associated with cigarettes bought on First Nations reserves, Ontario, January 2005 to June 2006

	a	b	c=a*b	d=c*0.95	e	f=a*e	g=f*0.806	h	i=h*(c+f)	j=d+g+i
Wave*	OTS self-reported cigarette purchases on reserves (cartons)	Ontario tobacco tax rate per carton (\$)	Ontario tax foregone if cigarettes purchased were all untaxed (\$)	Ontario tax foregone after adjusted for partially taxed cigarettes (\$)	Federal excise duty rate per carton (\$)	Federal excise duty foregone if cigarettes purchased were all untaxed (\$)	Federal excise duty foregone after adjusting for partially taxed cigarettes (\$)	GST rate	GST foregone (\$)	Total federal and Ontario taxes foregone
Wave 1 (n=684)	1,680,080	23.43	39,364,273	37,396,060	15.85	26,629,267	21,463,189	7%	4,619,548	63,478,797
Wave 2 (n=682)	2,144,042	23.96	51,371,239	48,802,677	15.85	33,983,061	27,390,347	7%	5,974,801	82,167,825
Total (n=1366)	3,824,122		90,735,512	86,198,737		60,612,328	48,853,537		10,594,349	145,646,622

Numbers may not add up due to rounding.

*Wave 1 of Ontario Tobacco Survey was conducted from July 13 to Dec 19, 2005; the reference period for purchasing on reserve is from Jan 13 to Dec 19 2005. Wave 2 was conducted from Jan 5 to June 26, 2006; the corresponding reference period ranged from July 5, 2005 to June 26, 2006. During the period from Jan 2005 to June 2006, the Ontario tobacco tax for a carton of cigarettes increased from \$22.2 to \$23.45 on Jan 18, 2005, and increased to \$24.7 on Feb 1, 2006.

The letters on the top of the table denote the column position. The estimated total number of cigarette packs bought on reserves was converted to number of cartons using a pack size of 20, and a carton size of 200 (Column a). Column b is the Ontario tobacco tax rate applied to the reference periods of wave 1 and wave 2. These rates were weighted by the days of different rates prevailing during the reference periods. For wave 1, tax rate is $(5/341 \times 22.2) + (336/341 \times 23.45) = 23.43$, and for wave 2, the rate is $(211/357 \times 23.45) + (146/357 \times 24.7) = 23.96$. The loss in GST was seven percent of the sum of Ontario and federal tax revenue losses. We also estimated the tax forgone after adjusting for partially taxed cigarettes.

Contraband Cigarettes in Ontario

Four types of contraband cigarettes are sold on reserves: (1) illegal imports, genuine or counterfeit, originating from US reserves or elsewhere; (2) illicit production in Canada; (3) tax-exempt cigarettes diverted from the quota system to the non-native community (peach-band on package); and (4) same products as sold in off-reserve stores (yellow band). The first two types were sold completely untaxed on reserves. For “peach band” cigarettes, Ontario tobacco tax and GST were not collected as federal duty has been collected before delivery to reserves. For “yellow bands”, only GST was not collected on reserves.

As reported in Imperial Tobacco’s “pack swap” survey, 95% of illicit cigarettes were manufactured on reserves [48]. Since Native made cigarettes are sold on reserves without provincial tax, we conservatively estimated the adjusted loss in provincial tobacco tax revenues (Column d) as 95% of the estimate in column c. Imperial Tobacco’s “pack swap” survey reported that 66.5% of illicit cigarettes were unbranded native cigarettes, and 28.2% were branded native cigarettes [48]. Assuming half of the branded native cigarettes were from the US, a conservative estimate of the proportion of illicit cigarettes that did not charge federal duty on reserves is 80.6% (66.5%+14.1%); therefore, we estimated ... [see above] (Column g). The loss in GST revenues was not affected by considering partially taxed cigarettes because no cigarettes sold on reserves charged GST.

Appendix B: Map of Ontario Regions and Corresponding Area Codes

Eastern Region = 613

Toronto Region = 416/647/905/289

Western Region = 519

Northern Region = 807/705

