Dear Mr Jones,

Submission regarding application for authorisation by British American Tobacco Limited & Ors (Ref: A91550)

We refer to the above application for authorisation, lodged on behalf of British American Tobacco Australia Limited, Imperial Tobacco Australia Limited and Philip Morris Limited (‘the applicants’).

We understand the applicants have requested that the ACCC authorise an arrangement which would permit them to identify suppliers of illicit tobacco within Australia and take action against those suppliers by, among other things, jointly refusing to make further sales of their tobacco products to those suppliers for an agreed period.

Cancer Council Victoria acknowledges that the applicants have a responsibility to ensure that appropriate duties (excise and customs) have been paid on all products manufactured by their companies and that the arrangement outlined in the application is one avenue for monitoring this. However we have concerns regarding this arrangement as proposed. It is Cancer Council Victoria’s view that there are a number of potential public harms which may arise and that these ought to be considered when assessing whether the arrangement is likely to give rise to a net public benefit. In addition, we believe the application for authorisation lodged on behalf of the applicants contains a number of inaccurate assertions, which require correcting.

We have outlined each of our concerns below. We would be grateful if the ACCC would take these concerns into account in reaching its determination.

The Australian illicit tobacco market – How big is the problem?

The application for authorisation makes a number of allegations regarding the illicit tobacco market in Australia. While Cancer Council Victoria acknowledges that some illicit tobacco trade occurs at the retail and/or wholesale level in Australia, we do not agree with the estimates referred to in the application regarding the level/frequency at which it occurs.

In particular, we note that the application refers to a report prepared by KPMG (at the applicants’ request) dated 15 April 2016. The report asserts that illicit tobacco represented 14% of Australia’s total tobacco consumption in 2015. Cancer Council Victoria strongly disputes the accuracy of this estimate.
A detailed explanation of the reasons why we consider the estimate to be inaccurate is enclosed (see ‘Appendix 1’).1

It is important to note that previous reports commissioned by the tobacco industry regarding illicit tobacco trade have significantly differed from data collected by the Australian Institute of Health and Welfare.2 We therefore recommend that a high degree of caution be exercised when considering the information contained in these reports, due to the risk of industry bias.

Alleged link between illicit trade and plain packaging of tobacco products –

The application also asserts that Australia’s plain packaging laws have played a role in increasing the ‘importation, availability, supply of, and demand for, illicit tobacco products in Australia.’ Cancer Council Victoria does not accept this assertion.

Since the implementation of Australia’s plain packaging legislation, a number of peer-reviewed studies have been undertaken which have found no change in smokers’ reported use of unbranded illicit tobacco, and no evidence of any increase in use of contraband cigarettes.3 Furthermore, in its post-implementation review of Australia’s plain packaging legislation, the Department of Health observed that it is ‘most likely that the impact of the tobacco plain packaging measure on the changes in the illicit tobacco market in Australia has not been substantive, if there has been any impact at all.’4

Further information disputing the alleged link between illicit tobacco trade and Australia’s plain packaging legislation is enclosed (see ‘Appendix 2’).

WHO Framework Convention on Tobacco Control –

It is Cancer Council Victoria’s view that the arrangement as proposed, without additional requirements for transparency and reporting to government agencies discussed below, could potentially be inconsistent with Australia’s obligations as a party to the World Health Organization Framework Convention on Tobacco Control (‘the FCTC’) under Article 5.3.

Article 5.3 of the FCTC

Article 5.3 of the FCTC requires parties to take measures to protect tobacco control policies from commercial and other vested interests of the tobacco industry, in view of the ‘fundamental and

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1 Please note: the enclosed document refers to an earlier KPMG report (dated 30 March 2015). However, the estimates provided in the 2016 report appear to be based on the same methodology as the estimates contained in the earlier report. The limitations identified in the attached document therefore apply equally to the 2016 report.


irreconcilable conflict’ between the interests of the tobacco industry and the interests of public health policy.5

1. Lack of transparency in proposed arrangement -

Principle 3 of the Guidelines for Implementation of Article 5.3 of the FCTC, which were adopted by the FCTC’s Conference of the Parties to assist parties in implementing their obligations, states that ‘parties should require the tobacco industry and those working to further its interests to operate and act in a manner that is accountable and transparent.’6 Recommendation 5.1 of the Guidelines recommends that ‘Parties should introduce and apply measures to ensure that all operations and activities of the tobacco industry are transparent.’

Cancer Council Victoria is concerned that the proposed arrangement lacks transparency. In particular, there is no requirement for the applicants to provide any information to the ACCC, the Australian Tax Office (ATO) or the Department of Immigration and Border Protection’s Tobacco Strike Team (DIBP Tobacco Strike Team) (or other government departments/agencies) regarding any illicit tobacco sales detected, or any action taken by the applicants as a result of such detection.

In the event that the proposed arrangement is authorised, we recommend the arrangement be closely monitored by the ACCC. In particular, we are of the view that the arrangement should require the applicants to provide the ACCC, the ATO and the DIBP Tobacco Strike Team (and/or other government departments/agencies) with the following information:

(a) Details of all ‘covert purchases’ made by the applicants;
(b) Details of any illicit tobacco sales detected (including the basis upon which the applicants have formed the view that illicit sales have occurred);
(c) Full details of any action taken by the applicants in response to detected illicit sales.

In addition, retailers and wholesalers should be encouraged to raise with the ACCC any concerns they may have about potential misuse of the arrangement by the applicants.

2. Importance of avoiding perception of any partnership between the tobacco industry and government departments/agencies -

The Guidelines for Implementation of Article 5.3 of the FCTC require parties to avoid the creation of any perception of a real or potential partnership or cooperation between government and the tobacco industry.7

In the event that the proposed arrangement is authorised, we are of the view that the authorisation should be conditional upon the applicants refraining from making any representation or engaging in any conduct which is capable of giving retailers, wholesalers or members of the public the impression that the applicants are in any way working in collaboration or partnership with the ACCC, the ATO or the DIBP Tobacco Strike Team (or any other government department or agency).

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6 See Guidelines for Implementation of Article 5.3 of the WHO Framework Convention on Tobacco Control, at page 3.
Other concerns –

In addition to the above concerns regarding the potential conflict between the proposed arrangement and Australia’s obligations under the FCTC, we have a number of further concerns regarding the potential negative impacts of the proposed arrangement which we believe ought to be taken into account when assessing whether the arrangement is likely to give rise to a ‘net public benefit’. These include the following:

1. **Potential increase in supply of illicit tobacco** – The proposed arrangement could result in some offsetting increases in the supply of illicit tobacco by retailers and wholesalers. For example, it is possible that covert ‘mystery shopper’ purchases could give retailers and wholesalers the impression that the demand for illicit tobacco has increased. Furthermore, any public statements made by the applicants about the proposed arrangement may result in an increase in public awareness of the availability of illicit tobacco. This may in turn increase demand for illicit tobacco products among members of the public.

2. **Potential for misuse** – It is Cancer Council Victoria’s view that the ‘covert purchase model’ outlined in the application has the potential to be misused by the applicants and/or their agents or employees, in order to further commercial (or even possibly personal) interests other than the disruption of illicit tobacco trade. We note that the World Health Organization has warned Member States to be aware of efforts by the tobacco industry to use ‘social responsibility initiatives’ to thwart effective tobacco control policies and programs.\(^8\) We are concerned that authorisation of the arrangement as proposed, without further requirements for transparency and reporting, would give the applicants broad discretion that could potentially lead to misuse of the arrangement for the purpose of manipulating the retail and/or wholesale sector and thereby potentially interfering with tobacco control efforts.

Recommendations –

Australia has made significant progress in reducing the prevalence of tobacco use over many years, through the use of evidence-based tobacco control policies. In view of the concerns outlined above, and in order to ensure that Australia continues to reduce the harm caused by tobacco, we recommend that a high degree of caution be exercised when considering whether to authorise the proposed arrangement.

In the event that the proposed arrangement is authorised, we recommend that the arrangement be closely monitored by the ACCC. In particular, we recommend that any authorisation be subject to the following conditions:

(1) Each of the applicants should be required to immediately (e.g. within two business days) notify nominated officers at the ATO and the DIBP Tobacco Strike Team of any suspected illicit tobacco products detected by the applicants. In addition, each of the applicants should be required to provide the ATO and DIBP Tobacco Strike Team with details of the basis upon which they have formed the view that sales of illicit products may have occurred in each case.

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(2) The applicants should be required to report to the ACCC on a regular basis (e.g. quarterly) with the following information:
   (i) Details of all ‘covert purchases’ made by the applicants;
   (ii) Details of any illicit tobacco sales detected (including the basis upon which the applicants have formed the view that illicit sales have occurred);
   (iii) Full details of any action taken by the applicants in response to detected illicit sales.

(3) The applicants should be required to refrain from making any representation or engaging in any conduct which is capable of giving retailers, wholesalers or members of the public the impression that the applicants are in any way working in collaboration or partnership with the ACCC, the ATO or the DIBP Tobacco Strike Team (or any other government department or agency).

(4) The applicants should be required to refrain from publicly using data regarding rates of detection and surveillance as estimates of the prevalence of illicit tobacco sales (given that surveillance activity undertaken by the applicants is unlikely to be random).

(5) Retailers should be clearly informed about the arrangement, and should be encouraged to raise any concerns they may have about the arrangement with the ACCC.

(6) The arrangement should be subject to review by the ACCC in two years in order to allow an opportunity to identify and address any problems with the arrangement. The review should involve public consultation with interested parties.

Thank you for the opportunity to comment on the request for authorisation.

If you require any further information, please do not hesitate to contact Kylie Lindorff, Manager, Tobacco Control Policy on 9514 6462 or via email at kylie.lindorff@cancervic.org.au

Sincerely,

Todd Harper
Chief Executive Officer
Cancer Council Victoria
Analysis of KPMG LLP, *Illicit tobacco in Australia: 2014 Full Year Report, 30\textsuperscript{th} March 2015*

Critique prepared by Cancer Council Victoria, 5–15\textsuperscript{th} May 2015
Executive summary

KPMG LLP’s report released on the 4th May 2015 estimates that use of illicit tobacco in Australia has increased from 13.5% in 2013 to a ‘record high’ of 14.5% of total tobacco consumption in Australia in 2014.[1] KPMG LLP estimates that while use of illegal manufactured cigarettes has declined by 17%, use of unbranded ‘chop-chop’ tobacco (either loose or pre-rolled into cigarettes) has increased by 43%. The report uses the same methodology as previous reports[2-4] and is subject to the same limitations as have previously been identified in critiques of previous reports.[5-7]

KPMG LLP’s estimate of use of illicit unbranded tobacco lacks basic face validity.

If 18% of smokers are buying an average of almost 4000 grams of unbranded chop-chop tobacco every year as stated on page 50 (and an average cigarette made with chop-chop tobacco weighs between 0.6 gms and 0.75 gms as stated on page 56), then each smoker must be smoking an average of between 5,300 and 6,660 chop-chop cigarettes per year. That’s between 14.5 and 18 chop-chop cigarettes per day, well above the national average total number of (any type of) cigarettes per day reported smoked by all current smokers. For this to be correct, one would have to assume that almost all chop-chop smokers almost exclusively smoke chop-chop. And yet all government-funded surveys suggest that the majority of users of chop-chop tobacco use it only occasionally.

Is KPMG LLP seriously suggesting that every fifth smoker one encounters in Australia will be smoking a chop-chop cigarette?

This basic logic check indicates some fundamental problem in the calculations.

Beyond the suspicion of a fundamental error in the calculations, any estimates of prevalence and extent of use of illicit tobacco from this study are likely to be inflated because they are based on data from a non-random sample of respondents opting into and completing a very long internet survey of little interest to anyone not a user.[7] Estimates of total use across the market are also likely to be inflated due to the crudity of the calculation process.

The second component of KPMG LLP’s estimate of total use of illicit tobacco in Australia is an estimate of the use of illicit manufactured cigarettes. The firm’s estimates of use of contraband cigarettes (including cheap white cigarettes and also counterfeit cigarettes1) are also likely to be inflated to the extent that packs disposed of outdoors are more likely to be those used by younger people (who are more likely to report any purchase of packs that are non-compliant with Australian packaging legislation), international students and other visitors to Australia, all of whom are more likely to be carrying packs not produced for the Australian market.[7]

The report provides no persuasive evidence to support tobacco industry assertions that use of illicit tobacco has been affected by the introduction of plain packaging. Opponents of plain packaging predicted that use of illicit tobacco would increase because packs would be easier to counterfeit, however the prevalence of counterfeit packs found in the industry-funded surveys of discarded packs has fallen substantially. In fact on page 42 it is stated

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1 Considered a separate category in the KPMG LLP and other tobacco industry reports on illicit tobacco
“Through to the end of 2014, there has been no evidence of counterfeit plain packaging cigarettes.”

The overall estimated prevalence of non-domestic cigarette packs detected in discarded pack surveys increased sharply between 2012 and 2013, however the 2012 survey was conducted by a different survey company and the methodology, exact sample areas or protocols may have varied in seemingly minor ways that had major consequences. Further, the estimate of the prevalence of illicit cigarettes in discarded pack surveys did not continue to increase between 2013 and 2014. While not highlighted in the report, in fact the figure for Half Year 2, 2014 was almost 60% lower than the figure for 2013 (half years 1 and 2 combined, Table 5.2, page 30).

There is no doubt that some smokers in Australia use illicit tobacco at least occasionally. However seizures of illicit tobacco, levels of consumption reported in government-funded consumer surveys and levels of willingness to sell illicit tobacco in retail audits all suggest that the extent of use is substantially lower than suggested by the KPMG LLP reports. The relative price of contraband and chop-chop tobacco compared to tax-paid factory-made cigarettes (as usefully documented on page 23) no doubt contributes to use of illicit tobacco among price-sensitive smokers.

KPMG LLP’s report is highly professionally produced, and the overall approach appears to be well-conceived. However, this critique raises concerns about the representativeness of the industry-funded surveys on which estimates are based, as well as grave doubts about the way that results of such surveys are being analysed.
1. Analysis of estimates—illicit unbranded tobacco

The total amount of unbranded tobacco that KPMG LLP estimates to be illicit is not credible: it lacks basic face validity. If 18% of smokers were buying an average of almost 4000 grams of unbranded chop-chop tobacco every year as stated on page 50 (and an average cigarette made with chop-chop tobacco weighs between 0.6 gms and 0.75 gms as stated on page 56), then each smoker would be smoking between 5,300 and 6,660 chop-chop cigarettes per year. That’s between 14.5 and 18 chop-chop cigarettes per day, well above the national average of 13.8 cigarettes reported smoked per day in Australia’s largest national survey [8].

For KPMG LLP’s estimate to be correct, one would have to assume that virtually all chop-chop smokers virtually exclusively smoke chop-chop (i.e., almost every cigarette, almost every day), and yet it seems unlikely that 100% of users would be able to access or would wish to use this illegal product 100% of the time. And in any case, all published peer-reviewed papers and published reports of results of government-funded surveys suggest that the majority of users of chop-chop tobacco only use it occasionally [8, 9] [10]. This basic logic check indicates some fundamental problem in the calculations.

The KPMG LLP report states (on page 36 and in Figure A1 on page 50) that in 2014 HY 2, 18.0% of regular smokers reported purchase of unbranded chop-chop tobacco up from 16.9% in 2013 HY 2. The report does not state in either of these graphs whether these figures relate to purchases in the last year or to ever purchases. The graph at the top of column 2 on page 33 suggests that the figures relate to “ever smoked unbranded tobacco.” And yet the questionnaire does not include a question asking have you ever smoked unbranded tobacco; it only asks about purchase. So

… is the figure used in the key calculation of population use on page 50 derived from the question “Have you purchased unbranded tobacco in the last 12 months?” If so, why is this not stated in the row heading in the table and in the title of the figure at the top of page 36? And why is exactly the same figure (17.7%, the average of 17.3% for HY1 and 18.0% for HY2) labelled as ‘Ever smoked unbranded’ tobacco’ in the title on the graph at the top of page 33?

Or

… is the 18.0% figure used in the key calculation of population use generated from the question “Since you turned 18 have you ever purchased unbranded tobacco?”

If this is the case, then have the average amounts purchased and the average frequency of purchase stated in the tables taken into account the ‘zero’ values for the large number of people that would have purchased since they turned 18 years old but not have purchased in the last year? This seems unlikely given that the average amount of tobacco purchased per annum (3,966 grams which, as stated above, equates to between 5,000 and 6,600 cigarettes per annum or between 14.5 and 18 cigarettes per day) is higher than the total average daily reported consumption of 13.8 cigarettes per day for all Australian adult smokers.

Could there be an error in this calculation? The Appendix listing questions at the back of the KPMG LLP report suggests quite a complex survey, with numerous skips. So, for instance, someone answering ‘no’ to the question ‘since you turned 18 have you ever purchased unbranded tobacco’ may not have been asked subsequent questions about chop-chop but
may instead have been directed to skip to the questions about contraband cigarettes. Smokers who responded negatively to the question ‘do you purchase unbranded tobacco for your own use currently’ may have been directed to the questions about previous use. Did KPMG LLP perform statistical analyses on a data file provided by Roy Morgan Research? This seems unlikely as no confidence intervals are reported, and no statistical tests appear to have been conducted on changes in prevalence estimates over time. Or did KPMG LLP conduct its analysis based on a report from Roy Morgan that would have included hundreds of tables summarising the responses to the several hundred questions in this survey? Each table would have had different total numbers of respondents—i.e. different denominators—and it would not have been possible from such a report to determine which respondents responded positively and negatively to each individual question. Perhaps the 18.0% figure used in the key calculation in the KPMG LLP report was in fact not the percentage of smokers who had purchased in the last year but rather the percentage of current users of chop-chop tobacco who had purchased in the last year. Or perhaps it was the percentage of smokers who have ever used chop-chop tobacco since they were 18 who had purchased in the last year.

In addition to the suspicion described above that a fundamental error may have occurred in the treatment of the survey data, further concerns can be raised about the representativeness of the Roy Morgan internet survey as a means of establishing prevalence. The Roy Morgan Establishment Panel and the internet surveys conducted using this panel provide a very useful resource for clients seeking a more in depth understanding of consumer behaviour. But it is the company’s Household Survey rather than this internet survey which is more appropriately designed to establish population prevalence of particular behaviours. In other words, even appropriately analysed data on the extent of use of illicit unbranded tobacco from the Roy Morgan internet survey are likely to generate inflated estimates because they have been collected from a non-random sample selected by a process in which respondents opt in to an internet survey. Problems of representativeness are detailed in the Section 1.1 below.

Finally, the averages included in the KPMG LLP report appear to be calculated with insufficient precision. This problem is spelled out in more detail in Section 1.2.
1.1 Problems of representativeness of survey

Participants in this survey are not randomly selected. They are 2,017 smokers of 13,115 people who responded to an e-mail invitation to complete the survey that was sent to 92,527 members of the Roy Morgan consumer research panel. No information is available on whether the 14% of people who responded to the invitation were different in any important respects to those 79,412 people who did not respond to the invitation.

The half-year surveys conducted since 2012 have predominantly been drawn from Roy Morgan Research Company’s panel of people for whom they have e-mail addresses (including people who have participated in previous door-to-door and telephone surveys and have agreed to provide such e-mail addresses). Participants are paid to complete the survey. The 10,133 people deemed ‘qualified’ to participate may have been representative of the demographic characteristics of the Australian population (page 35), however the 2,017 smokers who ended up doing the survey may nevertheless have ended up being different to the total population of Australian smokers in several important respects likely to increase the likelihood of their using illicit tobacco. For instance,

- No information is provided about the smoking characteristics of either the sample from the consumer panel, or the supplementary samples or the final sample on which the estimates are based. Crucially,
  - No information is provided on prevalence of use of cigarettes hand-made from roll-your-own (RYO) tobacco versus prevalence of factory-made (FM) cigarettes.
    Analysis of previously unpublished data from the last four National Drug Strategy Household Surveys conducted by the Australian Institute of Health and Welfare shows that rates of use of unbranded tobacco are more than three times higher among those who smoke both factory-made (FM) cigarettes as well as RYO tobacco compared to those who only smoke FM cigarettes.[11]
  - Similarly, the number of cigarettes smoked per day among smokers in the sample may be higher than average, perhaps because heavier smokers are more likely to be under financial stress (even controlling for income and other demographic factors) and therefore more likely to agree to participate in a survey for which they are paid.
    Rates of use of illicit tobacco reported in the National Drug Strategy Household Survey are almost twice as high among heavier smokers (those smoking more than 20 cigarettes per day) than among lighter smokers (smoking ten or fewer cigarettes per day).[11]

- The percentage of participants in the 2014 HY2 Roy Morgan internet survey (about illicit tobacco) who had participated in the same survey (concerning illicit tobacco) in previous half years was not reported.

2 Appendix A7 on page 71 of the report reveals that the survey sample is supplemented with ‘samples from a set of qualified third-party suppliers’. No information is provided about the nature of these suppliers.
More than 400 (almost 17%) of the 2,425 people eligible for the survey failed to complete it. The survey is a very long one comprising several hundred questions including more than 160 relating to unbranded chop-chop tobacco alone. Apart from being more likely to suffer financial stress (and therefore more likely to want to qualify for payment for completion of the survey) it is possible that smokers who use some form of illicit tobacco would be more likely to: (a) agree to do the survey once they understood what it was about, particularly if they had done it in previous years and (b) complete it rather than drop out part way through than would smokers who did not use any form of illicit tobacco and would therefore find the questions less personally relevant or interesting.

Suspicions that the Roy Morgan Internet survey may be over-sampling chop-chop users is supported by an analysis of results of similar questions asked in the AIHW’s National Drug Strategy Household Survey (NDSHS) which conducted fieldwork over a period which included the month of November when the Roy Morgan internet survey was conducted for HY 2 in 2013. The National Drug Strategy Household Survey interviewed approximately double the number of smokers as were interviewed in the Roy Morgan internet survey in 2013 HY 2. The AIHW has been analysing and publishing results of the NDSHS every year since 1991, with very few instances of errors in reporting identified over the last 25 years.

The figure for the percentage of smokers ‘currently smoking unbranded tobacco’ in the second half of 2013 for smokers 14 years and over from the National Drug Strategy Household Survey was only 3.6% for those 14 years and over[8] (and 3.3% for those 18 years and over[11]) compared to 8.7% in the Roy Morgan internet survey for smokers 18 years and over (figure top right hand column page 33).[1] While highlighting the fact that the rates of awareness and rates of ‘ever use’ in the two surveys are very similar (see column 1, page 33), the KPMG LLP report[1] provides no explanation for the discrepancy in this key figure. The KPMG report suggests that respondents are more likely to under-report ‘current use’ than more distant use. This may be so, however this does not explain why the internet survey is finding a much higher level of current use than the NDSHS when the other indicators of awareness and ‘ever use’ are similar. The NDSHS is a government-funded survey, however the assurances of anonymity are credible. In any case it is Roy Morgan Research that conducts the National Drug Strategy Household Survey. (That is, Roy Morgan Research conducts both the tobacco company funded internet survey used in the KPMG LLP reports,[1] and the drop-and-collect survey for the Australian Institute of Health and Welfare’s National Drug Strategy Household Survey[8]).

Suspicions that there is an error in KPMG LLP’s estimation of the total amount of chop-chop tobacco consumed in Australia are further strengthened when one examines comparable data on current use and prevalence of purchase in the previous year from other surveys in the same year.

Questions about purchase (as opposed to use) of unbranded tobacco have not been asked in the AIHW’s National Drug Strategy Household Survey in previous years and data generated from questions asked in 2013 were not published due to very low numbers of people responding to these questions.[8] However, analysis of unpublished data from the 2013 NDSHS
data file reveals that only one-third of current users of unbranded tobacco—1.4% of all smokers—reported purchasing any unbranded tobacco in the previous 12 months (CBRC, unpublished analysis). This means that the percentage of Australians deemed by KPMG LLP to have ‘reported purchasing illicit tobacco’ p 36 and deemed by KPMG LLP to be ‘Illicit tobacco users as % of Australian tobacco users”, p 50), based on data from the HY2 Roy Morgan 2013 internet survey, was 13 times higher than percentage of smokers reporting in the AIHW’s National Drug Strategy Household Survey over a similar period in 2013 that they had purchased illicit unbranded tobacco in the previous year.

It is true that the NDSHS only asked the purchase question of current users, however questions about purchases of chop-chop tobacco in the last year were asked of all smokers in the Victorian Smoking and Health population survey conducted by the Cancer Council Victoria in 2013, and these yield estimates of between 4 and 5%.[9] still little more than a quarter of the figure cited in the KPMG report for Half Year 2, 2013. Once again, no explanation is offered in the KPMG LLP report that might explain the discrepancies in these estimates.

1.2 Inappropriate estimation of average amounts of unbranded ‘chop-chop’ tobacco used per annum

To obtain its estimate of the average amount of illicit unbranded tobacco used by each user per annum, KPMG LLP simply multiplies the average reported number of purchases with the average amounts purchased across the whole sample. This approach would be justified if the relationship between amount purchased and number of purchases varied in a linear manner, so that those who purchased less frequently tended to purchase large amounts and those who tended to purchase more frequently tended to purchase smaller amounts—see figure A1 in Attachment 1.

No information is provided on the distribution of responses in the Roy Morgan internet survey, but analysis of unpublished data from the National Drug Strategy Household Survey suggests that this assumption does not hold either for loose unbranded chop-chop tobacco or for unbranded chop-chop cigarettes—see below and figures A2 and A3 Attachment 1. Far from quantity going down as purchase frequency goes up, purchasers of loose tobacco tend to buy similar amounts—250, 500 or 1000 grams—regardless of purchase frequency. Purchase of chop-chop cigarettes tend to buy a carton of 100 cigarettes (weighing 80 grams, much less than the amount purchased by purchasers of loose tobacco). Once again, they tend to buy this amount regardless of purchase frequency.

Figure 1 below plots the reported amounts purchased against the number of purchases for each of the 55 respondents that reported any purchases in the previous year. If the relationship between purchase quantity and frequency were a linear one, then the respondents’ responses would group closely around a straight line of best-fit, with roughly
half the respondents falling just below and roughly half falling just above that line. It is clear that the data do not behave in this way.

![Figure 1](image_url)

**Figure 1.** Reported frequency of purchase (x axis) and amounts purchased (y axis) by all 55 respondents who reported any purchase in the previous year in the National Drug Strategy Household Survey 2013

Source: ANU NDSHS 2013 data file

### 1.3 Alternative estimates on extent of use of illicit unbranded tobacco in 2013—methodology matters!

Numbers of respondents who indicated any number of purchases of unbranded are too small in the NDSHS to generate reliable estimates of the total quantity of illicit tobacco purchased in Australia. However detailed examination of the pattern of responses among smokers with different levels of purchasing behaviour who did answer this question shows that it is possible to generate widely varying estimates of average annual purchases of illicit tobacco per chop-chop smoker depending on exactly how the average is calculated.

#### 1.3.1 Purchases for sharing or on-selling

A crucial issue on which KPMG LLP fails to report, is what to do about data from respondents who are quite evidently purchasing much greater quantities of illicit tobacco that they report using—possibly people who are purchasing in bulk and sharing (possibly even on-selling in some cases) with others in their family, household or friendship groups. While the questionnaire specifies that the survey is ‘talking about purchases for your use’, someone who was purchasing in bulk for sharing but nevertheless are using a small proportion of what they were buying for themselves, would still provide answers based on total purchase frequency and amounts to the questions *in the past 12 months, how often did
you purchase unbranded tobacco’ and ‘when you last purchased unbranded tobacco, how many grams did you buy (in grams)?’ When such cases are excluded from analysis of the NDSHS data in 2013, it is even clearer that the data are not linear—see Figure 2.

![Figure 2](image.png)

**Figure 2.** Reported frequency of purchase (x axis) and amounts purchased (y axis) by 52 respondents who reported any purchase in the previous year in the National Drug Strategy Household Survey 2013, excluding three cases where purchase quantity was implausibly low/high, suggesting respondent error or purchase for purposes beyond personal use.

Source: ANU NDSHS 2013 data file[12]

As indicated above, the survey includes almost 200 questions concerning purchase of unbranded tobacco, but nowhere are current users asked how much unbranded tobacco they smoke per day or per week. So, KPMG LLP would not have been able to check whether the reported amounts purchased were implausibly higher than the reported amounts used.

### 1.3.2 The crucial importance of the calculation method

Another problem quite clearly arises from the application of averages across the board—average number of purchases multiplied by average amount purchased—rather than the more accurate method of calculating the average annual use based on each person’s reported number of purchases multiplied by each person’s reported amounts purchased.

The Roy Morgan internet surveys conducted in November 2013 suggest an average purchase amount of 221 grams and an average of 12 purchases per year (increasing to 236 grams 17 times per year in H2 2014). Using the same method as the KPMG LLP report, the
estimated annual quantity purchased by each purchaser identified in the National Drug Strategy Household Survey was 5.18 kg, or 4.16 kg once extreme cases were excluded (see footnotes to Table 1), as shown in the first section of data in Table 1. This is very similar to the 3.97 kg reported in the KPMG LLP report for the second half of 2013.[1] However the table also shows that purchasing habits of those buying loose tobacco are very different to those of smokers purchasing loose chop-chop cigarettes. As a consequence of this and of the non-linear nature of the data, estimates of total annual average use per chop-chop smoker can vary widely depending on how the figures obtained from users of each form of tobacco are treated.

In the second section of the Table 1, an estimated purchase total for each individual is indicated, both overall, and by tobacco type—calculated by multiplying each individual’s number of purchases by their most recent purchase quantity. The results are then averaged across the whole sample. Accounting for individual purchasing behaviour in this way resulted in a reduction in the estimated average annual amount of chop-chop tobacco purchased per annum of approximately 1 kg for the whole sample and a reduction of almost 50% using the data excluding purchases for non-personal use.

Finally, a third possible estimation technique is demonstrated in the third section of Table 1, where purchase amounts are calculated separately for individuals who purchased only loose cigarettes, only loose tobacco, and both types of unbranded tobacco. When the purchase quantities were weighted to the proportion of each type of purchaser, the annual average purchase quantity was approximately 3.1 kg including ‘extreme’ cases. It can be seen here (comparing columns 1 and 2) that ‘extreme’ cases tended to be among individuals who purchased loose tobacco only, vastly inflating the purchase quantity for this sub-group. Because this sub-group comprised approximately half of all unbranded tobacco purchasers, excluding the extreme cases greatly reduced the estimated average total purchase quantity … down to just 2.08 kgs.

The purpose of these workings is not to provide a definitive estimate of the amount of unbranded chop-chop tobacco used in Australia—the numbers of respondents from whom relevant data was collected was too small to allow this—but rather simply to demonstrate that estimates vary considerably depending on the estimation technique. In this data set greater precision in the estimation technique yields substantially lower estimates. KPMG LLP provides no information as to how outlying figures or missing data are treated. The table and text suggest that average amount purchased has been calculated in the crudest possible way. Whereas the method that appears to have been adopted by KPMG LLP applied to data from the NDSHS resulted in an estimated annual average quantity purchased of 5200 grams per current chop-chop user, a more precise estimation of the average annual amounts purchased for personal use was more like 2080 grams, almost two-thirds lower.
Table 1. Rough estimates of average amount of chop-chop tobacco purchased per annum in Australia using three different possible estimation techniques—All current smokers, Australia, April–November 2013

<table>
<thead>
<tr>
<th>Rough estimates (sample average purchase frequency * sample average last purchase quantity)</th>
<th>Including quantities not purchased for personal use</th>
<th>Excluding cases where purchase quantity exceeds personal use#</th>
</tr>
</thead>
<tbody>
<tr>
<td>All tobacco combined*</td>
<td>(n=53) 14.1 times * 367g = 5.18 kg</td>
<td>(n=50) 13.0 times * 319g = 4.16 kg</td>
</tr>
<tr>
<td>But note….</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loose tobacco</td>
<td>(n=38) 7.9 times * 464.9g = 3.69kg</td>
<td>(n=34) 6.1 times * 417g = 2.52 kg</td>
</tr>
<tr>
<td>Loose cigarettes*</td>
<td>(n=26) 17.2 times * 68.9g = 1.18kg</td>
<td>(n=26) 17.2 times * 68.9g = 1.18kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Individual estimates (purchase frequency * last purchase quantity, per case, averaged across sample)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>All tobacco combined</td>
<td>(n=53) 4.19 kg</td>
<td>(n=50) 2.33 kg</td>
</tr>
<tr>
<td>Loose tobacco</td>
<td>(n=39) 3.72 kg</td>
<td>(n=34) 1.77 kg</td>
</tr>
<tr>
<td>Loose cigarettes*</td>
<td>(n=26) 1.22 kg</td>
<td>(n=26) 1.22 kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Estimates using individual's responses, by purchaser type</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchased loose tobacco only</td>
<td>(n=27, 50.9%) 3.65 kg</td>
<td>(n=24, 48.0%) 1.56 kg</td>
</tr>
<tr>
<td>Purchased loose cigarettes only*</td>
<td>(n=15, 28.3%) 1.58 kg</td>
<td>(n=15, 30.0%) 1.58 kg</td>
</tr>
<tr>
<td>Purchased both</td>
<td>(n=11, 20.8%) 3.89 kg</td>
<td>(n=11, 22.2%) 3.89 kg</td>
</tr>
<tr>
<td>Combined total, weighted to purchaser type proportion</td>
<td>(n=53) 3.11 kg</td>
<td>(n=50) 2.08 kg</td>
</tr>
</tbody>
</table>

# Excluded three cases altogether: one case who made 30 purchases of loose tobacco with the last purchase being 500 grams; one case who purchased loose tobacco 22 times and purchased 1kg on the last occasion; and one case who purchased loose tobacco 24 times and purchased 1kg on the last occasion.

The loose tobacco data for one case was also excluded (but their cigarette purchases retained): they purchased loose tobacco 20 times and purchased 1kg on the last occasion.

Data from two cases that were deemed implausible purchase amounts (4 grams and 20kg) were excluded from all calculations.

Cases with missing data for either purchase frequency or purchase quantity were excluded, rather than imputing the average or other missing value score.

* Assumes 0.75g of tobacco per purchased cigarette stick. The average number of cigarettes purchased per occasion was 92 sticks (min=1, max=300)

^ Includes both loose tobacco and cigarette purchases for those that purchased both.

Source: ANU NDSHS data file[12]
2. Analysis of estimates—contraband (and counterfeit) cigarettes

Estimates of use of contraband cigarettes (including cheap white cigarettes and also counterfeit cigarettes) based on their representation in studies of discarded packs are likely to be inflated to the extent that packs disposed of outdoors are more likely to be those used by younger people (who are more likely to report any purchase of packs that are non-compliant with Australian packaging legislation), international students and other visitors to Australia, all of whom are more likely to be carrying packs not produced for the Australian market.[7]

KPMG LLPs’ 2014 full-year report[1] provides more detail than contained in previous reports about the sampling frame for collection of discarded packs. It asserts that tourist areas are not focussed on. The report also notes that while minimum quotas of 30 packs from each of 281 neighbourhoods across Australia must be met, ‘collectors accumulate as many empty packs as possible within each neighbourhood regardless of the quota requested in the sampling plan.’ The report also states however, that 12,000 packs are analysed, some 3,570 more than the 8,430 that would be required to meet the quota. So, it is still not clear what percentage of packs come from areas which are frequented by high numbers of international students and/or other overseas visitors. The report does not state whether exactly the same method of selecting neighbourhoods applied to previous surveys; this raises the question whether the sample was more representative in 2014 HY2 and whether this contributed to the very large (60%) decline in estimated prevalence of non-compliant packs compared to HY 2013.

2.1 Comments on KPMG LLP analysis of NDSHS survey data on purchase of non-compliant cigarettes

The National Drug Strategy Household Survey for the first time in 2013 asked respondents whether they had purchased cigarettes that did not comply with Australia’s plain packaging legislation.

All Australian states and territories now ban the display of cigarettes at point of sale, so that respondents who reported having seen cigarettes non-compliant with Australia’s plain packaging laws must have seen them being used in the streets or by friends or acquaintances. There may also have been some observations of e-cigarettes which are not required to be plainly packaged. So the 18.5% of smokers in the National Drug Strategy Household Survey who reported having seen tobacco products without plain packaging is not an indication of the percentages that have seen such cigarettes for sale.

The survey went on to ask how many ‘such packs’ the person had purchased and 9.6% reported having purchased at least one non-compliant pack. The majority of these—5.3% of

3 Considered a separate category in the KPMG LLP and other tobacco industry reports on illicit tobacco
4 While the question was intended to refer to the previous three months, it did not specifically specify three months, and it is possible that some smokers interpreted the question as covering a longer time frame.
smokers—had purchased just one or two or a small number of non-compliant packs over that period, with 4.3% of smokers having purchased more than 15 such packs—see Table 2, reproduced from supplementary table 3.13 of that report.[8, 13]

Table 2 Proportion of smokers(a) and total population, aged 14 or older, that have seen tobacco products without graphic health warnings and number of packets purchased(b), 2013 (per cent)

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Smokers(a)</th>
<th>All persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Have seen tobacco products without plain packaging</td>
<td>18.7</td>
<td>18.3</td>
</tr>
<tr>
<td>Have not purchased tobacco products without plain packaging</td>
<td>91.3</td>
<td>89.1</td>
</tr>
<tr>
<td>Have purchased tobacco products without plain packaging</td>
<td>8.7</td>
<td>10.9</td>
</tr>
<tr>
<td>Amount purchased</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased 1 – 2 packets</td>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td>Purchased 3 – 5 packets</td>
<td>1.7</td>
<td>1.6</td>
</tr>
<tr>
<td>Purchased 6 – 9 packets</td>
<td>*0.5</td>
<td>*0.6</td>
</tr>
<tr>
<td>Purchased 10 – 14 packets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased 15 or more packets</td>
<td>*0.6</td>
<td>*0.7</td>
</tr>
</tbody>
</table>

(a) Includes people who reported smoking daily, weekly or less than weekly.
(b) This question asked about seeing […] tobacco products without plain packaging in the previous 3 months. The survey period was 31 July to 1 December 2013, more than six months after 1 December 2012, when all tobacco products sold in Australia were required to comply with plain packaging legislation.


KPMG LLP correctly notes that the NDSHS failed to specify a time period for such purchases. It also notes that some respondents may have been thinking about the last occasion of purchase rather than the total number of packs purchased over the previous three months. However it seems unlikely that any respondent would be answering in terms of just the last purchase occasion: the most common number of packs provided in a carton is ten and very few respondents chose this response option. The respondents reporting various numbers of such packs that had been purchased may equally have been thinking of purchases in periods extending longer than the previous three months (or even purchases that they made overseas).

KPMG LLP goes on to note that almost 50% of respondents had purchased ‘15 packs or more’, the highest allowed response category. It states that this might result in an underestimation of amounts purchased. However this problem does not arise given that the average number of packs purchased was not computed.
2.2 Alternative estimate on extent of use on non-compliant cigarettes in 2013

Even assuming that reported numbers of packs purchased was accurate (and even allowing for all respondents reporting purchasing 15 or more non-compliant packs purchasing enough to cover their total reported consumption), unpublished data from the National Drug Strategy Household Survey data file reveal that reported numbers of non-compliant packs purchased would represent a small percentage of total packs purchased once the higher numbers of cigarettes smoked by older smokers (much less likely to have purchased such packs) are taken into account.

The proportion of packs purchased in Australia without required health warnings can be roughly estimated by examining data from the survey on each age group on both reported purchase of packs without health warnings and total reported consumption. Depending on the assumption made about how many packs on average are purchased by those who report ‘15 or more’, it would seem most likely that about 2% of total packs used might be packs without health required health warnings—see calculations in Table 3. This estimate for 2013 on use of cigarettes without health warnings is roughly a quarter of estimates generated in discarded pack surveys—perhaps somewhere between 2 and 3 percent of all cigarettes purchased compared to the 9.7% estimated by KPMG LLP for 2013,[3] or the 6.7% estimated for 2014.[3]

Table 3 Estimated percentages of cigarettes smoked per quarter from packs without required health warnings—by age group and total

<table>
<thead>
<tr>
<th>Age range</th>
<th>Mean reported total number of cigarettes smoked per quarter</th>
<th>Percentage of smokers who report having purchased a pack without health warnings: 1–2 packs, 3–5 packs, 6-9 packs, 10–14 packs</th>
<th>Percentage of smokers who report having purchased 15+ packs without health warnings: Estimated percentage of total cigarettes smoked if mean 15+ = 15</th>
<th>Estimated percentage of total cigarettes smoked if mean 15+ = 25</th>
<th>Estimated percentage of total cigarettes smoked if 90% of all cigarettes smoked are without health warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>1090.6</td>
<td>4.1, 1.7, 0.5, 1.1</td>
<td>7.4</td>
<td>2.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>25–29</td>
<td>994.2</td>
<td>2.9, 1.9, 0.3, 1.1</td>
<td>4.2</td>
<td>1.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>30–39</td>
<td>1015.3</td>
<td>1.6, 2.3, 0.9, 0</td>
<td>2.7</td>
<td>1.2%</td>
<td>1.7%</td>
</tr>
<tr>
<td>40–49</td>
<td>1370.2</td>
<td>1.4, 1.5, 0.3, 0.7</td>
<td>5.4</td>
<td>1.4%</td>
<td>2.2%</td>
</tr>
<tr>
<td>50–59</td>
<td>1527.5</td>
<td>2.6, 1.7, 0.1, 0.5</td>
<td>3.9</td>
<td>1.0%</td>
<td>1.5%</td>
</tr>
<tr>
<td>60–69</td>
<td>1524.9</td>
<td>3.0, 1.1, 0.6, 0.8</td>
<td>2.9</td>
<td>0.9%</td>
<td>1.2%</td>
</tr>
<tr>
<td>70+</td>
<td>1479.4</td>
<td>3.1, 1.0, 0.8, 0.6</td>
<td>3.3</td>
<td>1.0%</td>
<td>1.4%</td>
</tr>
<tr>
<td>Total</td>
<td>1244.1</td>
<td>2.5, 1.7, 0.5, 0.7</td>
<td>4.3</td>
<td>1.4%</td>
<td>2.1%</td>
</tr>
</tbody>
</table>

Source: ANU NDSHS data file[12]

Notes: Calculation based on mid-point of range for each range up to 14, with three different estimates provided for the 15+ group; Questions asked “In the last 3 months have you seen any tobacco products which do not have the new plain packaging with the graphic health warnings?” and “How many of these packets have you purchased?” The second question did not specify a time frame so that some respondents may have interpreted this as extending back further than three months. This may have resulted in some over-estimation both because of the longer duration and because surveys conducted early in the collection period may have taken place only a few months after introduction of plain packaging.
3. Changes attributable to plain packaging

The report provides no persuasive evidence that use of illicit tobacco has been affected by the introduction of plain packaging. Opponents of plain packaging predicted that use of illicit tobacco would increase because packs would be easier to counterfeit, however the prevalence of counterfeit packs found in the industry-funded surveys of discarded packs has fallen substantially. In fact on page 42 it is stated “Through to the end of 2014, there has been no evidence of counterfeit plain packaging cigarettes.” While the overall estimated prevalence of non-domestic cigarette packs detected in discarded pack surveys increased sharply between 2012 and 2013, it should be noted that the 2012 survey was conducted by a different survey company (refer column 2, page 24). (Nielsen (a generalist market research company) conducted the discarded pack survey in 2012, and MS Intelligence (which specialises in conducting discarded pack surveys for the tobacco industry in Europe and elsewhere) conducted each of the subsequent surveys. Further, the estimate of the prevalence of illicit cigarettes in discarded pack surveys did not continue to increase between 2013 and 2014. While not highlighted in the report, in fact the figure for 2014 was more than 17% lower than the figure for full year 2013 (Figure 1.1, p 6 and Table 5.2, page 30). The figure for Half Year 2 in 2014 (592 kgs, Figure A1, page 50) was almost 60% lower than the figure for 2013 (half years 1 and 2 combined, Table 5.2, page 30). It was also almost 60% lower than the figure for the first half year of 2013 (KPMG, 2014[6] p43) The estimated amount of counterfeit cigarettes (in kgs) declined by more than 94% (from 143 tonnes in 2013 to 8 tonnes in 2014, none of which was plainly packaged).
References


Attachment 1. Amount of chop-chop purchased in most recent purchase for each respondents’ estimated number of purchases per year—regular smokers who report current use of unbranded chop-chop tobacco Australia, April–November 2013

Figure A1. Hypothetical linear relationship between number of purchases per year (x axis) and amounts purchased (y axis), based on highest amount purchased and greatest frequency of purchase reported

Figure A2. Observed non-linear relationship between number of purchases per year (x axis) and amounts purchased (y axis)
**Figure A3.** Amount of tobacco purchased (grams) (y axis) for each purchase quantity (number of times purchased in one year) (x axis) -- loose chop-chop tobacco

**Figure A4.** Amount of tobacco purchased (grams, estimated from numbers of cigarettes purchased) (y axis) for each purchase quantity (number of purchases per year) (x axis) -- chop-chop cigarettes

Source: unpublished data from the data file for the National Drug Strategy Household Survey[12]
Questions and answers on plain packaging in Australia

Facts sheet no. 3:

What has happened to use of illicit tobacco since the introduction of legislation to standardise the packaging of tobacco products in Australia?

In May 2015, Australian tobacco companies released the fourth[1] and in November 2015 the fifth[2] of 14 commissioned reports[3-5] [6-9] [10-12] [13, 14] [1, 2] estimating very high levels of use of illicit tobacco in Australia. Tobacco companies have argued that plain packaging would increase the level of use of illicit tobacco because, it was claimed, plain packs would be much easier to counterfeit than fully branded packs.[15-17]

3.1. Don’t reports by KPMG LLP provide reliable estimates of the size of the market for illicit tobacco in Australia?

As with the previous three reports prepared by international consulting group KMPG LLP [3-5], the reports released in May 2015[1] and November 2015[2] (covering the 2014 calendar year and the first half of calendar year 2015) included estimates of use of illicit unbranded tobacco derived from an internet survey of smokers and an estimate of use of contraband cigarettes based on a survey of discarded cigarette packs, adjusted to take into account an estimate of the number of packs discarded by international visitors. The validity of the 14.5% estimate of the size of the illicit market in Australia in 2014 (and 14.3% for the first half year of 2015) depends crucially on the representativeness of those two surveys and the adequacy of adjustments for legitimate non-domestic purchases.

Internet surveys of use of illicit unbranded tobacco

Health groups have been highly critical of the internet surveys relied on in industry studies. These depend on smokers opting in to the survey, raising the possibility of a higher percentage of respondents being interested in illicit tobacco than would occur across the total population.[18-23] Results from large more representative surveys yield much smaller estimates of the extent of illicit tobacco use—see 3.3 below.

Discarded pack surveys

Discarded pack surveys are also problematic. No packs are collected outside capital cities and major regional centres (in which over 70% of the Australian population resides.[24]) The
estimates of use of illicit tobacco are extrapolated from the results of surveys in towns and major cities to the entire population. However it is quite plausible that rates of use of illicit tobacco would be substantially lower in rural areas many hundreds of miles away from likely illicit distribution channels. No information is provided on the exact locations of collections (i.e. suburbs) within the listed cities. No detail is provided on the exact methodology of collection, however it seems likely that discarded pack surveys would collect more packs from areas with more public rubbish bins and areas where litter is more common.... for instance areas near public transport stations/stops, shopping strips, and restaurants and take-away food outlets. It could be that people—people such as tourists and overseas students and younger people more generally—using such non-domestic packs (both legal and illegal) would be more likely to be congregate in those sort of areas than in the rest of the country. Those who dispose of packs outdoors—leaving them on tables at outdoor venues or on street furniture, in bins or dropping on the pavement—may therefore not be representative of the total population of Australian smokers who would dispose of the majority of packs at home, work or elsewhere indoors.

**Adjustments for legal domestic use**

Estimates of illicit manufactured cigarettes based on litter studies typically deduct a small amount to account for foreign packs that are in fact not illicit but are purchased legitimately overseas, for instance by returning travellers. The estimates for amounts of non-domestic purchases included in industry-funded reports have been based solely on the duty-free allowances for returning travellers and overseas visitors—e.g. see page 152 of Asia-14 report.[25] These are calculated based on the age structure of the population and smoking rates in the countries of origin of each visitor as well as applicable duty-free allowances. This calculation ignores the fact that younger adults (who generally have higher smoking rates) are more likely than people of other ages to be travelling to (or returning to) Australia. It also excludes non-smokers bringing in cigarettes for gifts for family members. And it ignores/excludes people visiting or returning to Australia who bring in cigarettes beyond the duty free allowance and simply declare these and pay customs duty.

In its annual report released in October 2014, the Australian Customs and Border Protection Service included data on interceptions of cigarettes through the mail service in Australia.[26] In passing, the report mentions that 44% of tobacco noted in monitoring of the international mail stream was legal duty-paid. No allowance is made for duty-paid cigarettes received through the mail in the estimate of ‘legal non-domestic’ product in the KPMG or ITIC/OE studies.

For these reasons and given the likely unrepresentativeness of the discarded pack surveys, estimates of the prevalence of contraband tobacco in industry-funded reports are likely to be inflated.
3.2. What do official government interceptions data suggest about the size of and trends in the illicit tobacco market in Australia?

Given concerns about the validity of industry estimates, it is useful to contrast data from these reports with data from official government sources, government surveys and surveys conducted by public health researchers.

**Interceptions of sea cargo and international mail**

Data on sea cargo interceptions by the Australian Customs and Border Protection Service over the past five years indicate an increase in seizures of contraband cigarettes commencing in 2010-11 when excise and customs duty in Australia increased by an unprecedented 25%.[27] Contraband cigarettes were being smuggled into Australia well before the introduction of plain packaging, and the total amount of tobacco seized over each of the past seven years—the number of tonnes of contraband cigarettes plus loose tobacco combined—has remained surprisingly constant despite the increased number of detections and the substantial increase in prices of tobacco products in Australia over that time[28-32]—see figure 1. Despite an increase in the number of detections, the total amount of tobacco intercepted in 2014–15 is considerably lower than in recent years.[33]

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of detections</th>
<th>Tobacco (tonnes)</th>
<th>Cigarettes (millions of sticks)</th>
<th>Duty evaded ($ million)</th>
<th>Equivalent tobacco weight (tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>58</td>
<td>287</td>
<td>107</td>
<td>114</td>
<td>373</td>
</tr>
<tr>
<td>2008-09</td>
<td>33</td>
<td>180</td>
<td>50</td>
<td>70</td>
<td>220</td>
</tr>
<tr>
<td>2009-10</td>
<td>42</td>
<td>311</td>
<td>68</td>
<td>120</td>
<td>365</td>
</tr>
<tr>
<td>2010-11</td>
<td>55</td>
<td>258</td>
<td>82</td>
<td>135</td>
<td>324</td>
</tr>
<tr>
<td>2011-12</td>
<td>45</td>
<td>177</td>
<td>141</td>
<td>125</td>
<td>289</td>
</tr>
<tr>
<td>2012-13</td>
<td>76</td>
<td>183</td>
<td>200</td>
<td>151</td>
<td>344</td>
</tr>
<tr>
<td>2013-14</td>
<td>78</td>
<td>183</td>
<td>147</td>
<td>142</td>
<td>301</td>
</tr>
<tr>
<td>2014-15</td>
<td>91</td>
<td>150</td>
<td>40</td>
<td>103</td>
<td>182</td>
</tr>
</tbody>
</table>
Figure 1 Amounts of loose tobacco and contraband cigarettes intercepted in sea cargo bound for Australia, and total weight of tobacco intercepted—Australia 2007-08 to 2014-15

Note an additional 42 million sticks of undeclared cigarettes were intercepted in mail in 2013-14. Figures for previous years not reported.


Even including the cigarettes seized from international mail, data for which were included in the 2013-14 report but not in previous reports, the total amount of tobacco reported seized was lower in 2013-14 than in three of the previous six years—see figure 2. The figure for 2014–15 (not reported in the November 2015 KPMG LLP report,[2] see p32) was the lowest in eight years.

Figure 2 Total weight of tobacco—cigarettes plus loose tobacco—reported seized, 2007-08 to 2014-15, including mail interceptions in 2013-14 only

3.3. What do official government survey data and other surveys suggest about the size of and trends in use of illicit tobacco in Australia?

**Surveys of smokers**

Use of unbranded illicit tobacco

Results from the National Drug Strategy Household Survey in 2013[34-36] suggest a significant decline since 2007 in the percentage of smokers who are aware of unbranded tobacco, who have ever smoked it and who currently use it.

<table>
<thead>
<tr>
<th>Table 1 Use of unbranded tobacco, among smokers aged 14 years or older, 2007 to 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persons</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td><strong>As a proportion of smokers</strong></td>
</tr>
<tr>
<td>Aware of unbranded tobacco</td>
</tr>
<tr>
<td>Smoked unbranded tobacco in their lifetime</td>
</tr>
<tr>
<td><strong>Currently smoke it</strong></td>
</tr>
<tr>
<td>Use it half the time or more</td>
</tr>
<tr>
<td>No longer use it</td>
</tr>
</tbody>
</table>

Note: Survey questions relating to unbranded loose tobacco were modified in 2010 and only asked respondents about awareness and use of unbranded loose tobacco whereas in 2007 and 2013 respondents were asked about awareness and use of unbranded loose tobacco and unbranded cigarettes. This should be taken into account when comparing the 2010 results with the 2007 and 2013 results. The placement of the questions in the 2013 survey may have also impacted how people responded to these questions and results should be interpreted with caution.

# indicates a statistically significant decline from 2007 to 2013. Significance testing has only been performed between 2007 and 2013 (not 2010).


Use of cigarettes with indicators of illicit status

The National Drug Strategy Household Survey also reported on the number of smokers who had seen packs of cigarettes for sale that were not plainly packaged and did not bear Australian health warnings. The survey went on to ask how many ‘such packs’ the person had purchased¹ and 9.6% reported having purchased at least one non-compliant pack. The majority of these—5.3% of smokers—had purchased just one or two or a small number of non-compliant packs over that period, with 4.3% of smokers having purchased more than 15 such packs—see Table 3, reproduced from supplementary table 3.13 of that report.[35, 36]

¹ While the question was intended to refer to the previous three months it is possible that some smokers interpreted the question as covering a longer time frame.
### Table 2 Proportion of smokers\(^{(a)}\) and total population, aged 14 or older, that have seen tobacco products without graphic health warnings and number of packets purchased\(^{(b)}\), 2013 (per cent)

<table>
<thead>
<tr>
<th>Behaviour</th>
<th>Smokers(^{(a)})</th>
<th></th>
<th>All persons</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>Persons</td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Have seen tobacco products without plain</td>
<td>18.7</td>
<td>18.3</td>
<td>18.5</td>
<td>13.3</td>
<td>11.7</td>
</tr>
<tr>
<td>packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have not purchased tobacco products without</td>
<td>91.3</td>
<td>89.1</td>
<td>90.4</td>
<td>98.0</td>
<td>98.2</td>
</tr>
<tr>
<td>plain packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have purchased tobacco products without plain</td>
<td>8.7</td>
<td>10.9</td>
<td>9.6</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>packaging</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Amount purchased</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased 1 – 2 packets</td>
<td>2.2</td>
<td>2.8</td>
<td>2.5</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Purchased 3 – 5 packets</td>
<td>1.7</td>
<td>1.6</td>
<td>1.7</td>
<td>0.4</td>
<td>0.2</td>
</tr>
<tr>
<td>Purchased 6 – 9 packets</td>
<td>*0.5</td>
<td>*0.6</td>
<td>0.5</td>
<td>*0.1</td>
<td>*&lt;0.1</td>
</tr>
<tr>
<td>Purchased 10 – 14 packets</td>
<td>*0.6</td>
<td>*0.7</td>
<td>0.7</td>
<td>*0.1</td>
<td>*0.1</td>
</tr>
<tr>
<td>Purchased 15 or more packets</td>
<td>3.6</td>
<td>5.1</td>
<td>4.3</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

\(^{(a)}\) Includes people who reported smoking daily, weekly or less than weekly.

\(^{(b)}\) This question asked about seeing (…) tobacco products without plain packaging in the previous 3 months. The survey period was 31 July to 1 December 2013, more than six months after 1 December 2012, when all tobacco products sold in Australia were required to comply with plain packaging legislation.


The proportion of packs purchased in Australia without required health warnings can be roughly estimated by examining data from the survey on each age group on both reported purchase of packs without health warnings and total reported consumption. Depending on the assumption made about how many packs on average are purchased by those who report ‘15 or more’, it would seem most likely that about 2% of total packs used are packs without health required health warnings—see calculations in Table 3. This estimate for 2013 on use of cigarettes from packs without health warnings is roughly a quarter of estimates generated in empty pack surveys.
Table 3 Estimated percentages of cigarettes smoked per quarter from packs without required health warnings—by age group and total

<table>
<thead>
<tr>
<th>Age range</th>
<th>Mean reported total number of cigarettes smoked per quarter</th>
<th>Percentage of smokers who report having purchased a pack without health warnings: 1–2 packs, 3–5 packs, 6–9 packs, 10–14 packs</th>
<th>Percentage of smokers who report having purchased 15+ packs without health warnings:</th>
<th>Estimated percentage of total cigarettes smoked if mean 15+ = 15</th>
<th>Estimated percentage of total cigarettes smoked if mean 15+ = 25</th>
<th>Estimated percentage of total cigarettes smoked if 90% of all cigarettes smoked are without health warnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>18–24</td>
<td>1090.6</td>
<td>4.1, 1.7, 0.5, 1.1</td>
<td>7.4</td>
<td>2.6%</td>
<td>4.0%</td>
<td>9.3%</td>
</tr>
<tr>
<td>25–29</td>
<td>994.2</td>
<td>2.9, 1.9, 0.3, 1.1</td>
<td>4.2</td>
<td>1.8%</td>
<td>2.7%</td>
<td>5.6%</td>
</tr>
<tr>
<td>30–39</td>
<td>1015.3</td>
<td>1.6, 2.3, 0.9, 0.0</td>
<td>2.7</td>
<td>1.2%</td>
<td>1.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>40–49</td>
<td>1370.2</td>
<td>1.4, 1.5, 0.3, 0.7</td>
<td>5.4</td>
<td>1.4%</td>
<td>2.2%</td>
<td>6.3%</td>
</tr>
<tr>
<td>50–59</td>
<td>1527.5</td>
<td>2.6, 1.7, 0.1, 0.5</td>
<td>3.9</td>
<td>1.0%</td>
<td>1.5%</td>
<td>4.5%</td>
</tr>
<tr>
<td>60–69</td>
<td>1524.9</td>
<td>3.0, 1.1, 0.6, 0.8</td>
<td>2.9</td>
<td>0.9%</td>
<td>1.2%</td>
<td>3.4%</td>
</tr>
<tr>
<td>70+</td>
<td>1479.4</td>
<td>3.1, 1.0, 0.8, 0.6</td>
<td>3.3</td>
<td>1.0%</td>
<td>1.4%</td>
<td>4.0%</td>
</tr>
<tr>
<td>Total</td>
<td><strong>1244.1</strong></td>
<td><strong>2.5, 1.7, 0.5, 0.7</strong></td>
<td><strong>4.3</strong></td>
<td><strong>1.4%</strong></td>
<td><strong>2.1%</strong></td>
<td><strong>5.4%</strong></td>
</tr>
</tbody>
</table>

Source: ANU NDSHS Data file

Notes: Calculation based on mid-point of range for each range up to 14, with three different estimates provided for the 15+ group; Questions asked “In the last 3 months have you seen any tobacco products which do not have the new plain packaging with the graphic health warnings?” and “How many of these packets have you purchased?” The second question did not specify a time frame so that some respondents may have interpreted this as extending back further than three months. This may have resulted in some over-estimation both because of the longer duration and because surveys conducted early in the collection period may have taken place only a few months after introduction.

3.4. Why are estimates generated by empty pack surveys so much higher than those generated by surveys of smokers?

Surveys of smokers may underestimate the use of illicit tobacco if surveys under-represent users or if users are concerned about admitting to purchasing an illicit product. However, Australia’s National Drug Strategy Household Survey has wide coverage and good response rates. It provides credible assurances of anonymity and in any case the question about health warnings is asked in a neutral, matter-of-fact way.

Surveys of discarded packs are likely to over-estimate the proportion of ‘non-domestic’ packs that are illicit if
they include packs purchased overseas and brought in by mail or on return from travel by Australian citizens who pay duty on products in excess of duty free allowance
they over-represent packs legitimately purchased overseas by foreign students, tourists and other visitors (for instance because such people are more likely to dispose of packs outdoors).

Contraband cigarettes may be more likely to be represented in discarded pack surveys
if the areas surveyed over-represent particular ‘hot-spots’ of high levels of use.

No allowance is made for duty-paid personal imports in the industry funded estimates of how much non-domestic product is illicit. And no information is provided on the exact method for selection of areas sampled.

But even a well-designed discarded pack study may overestimate the prevalence of illicit product
if people who use contraband cigarettes (in particular, younger people) are more likely to dispose of packs outdoors, (leaving them on tables in outdoor cafes or pubs, placing them in outdoor disposal units that can be accessed by survey field staff) and/or
if people who use contraband cigarettes are also more likely to litter.

3.5. Has counterfeiting of cigarettes increased since the introduction of plain packaging?
Neither the Australian Customs and Border Protection Agency nor the tobacco industry has so far detected a major problem with counterfeiting of plain packs. Litter surveys to the end of 2014 found no evidence of counterfeiting of plain packs, and a decline in the prevalence of counterfeited brands of foreign origin as well.

The empty pack survey indicated that 4.8% of counterfeit packs carried branding that was available in the Australian market prior to the introduction of Plain Packaging. To date there has been no evidence of counterfeit Plain Packaging cigarettes. This represents a change from 2012 where approximately 45% of counterfeit cigarettes consumed appeared to have been designed for the local market. This shows that since the introduction of plain packaging, Australian counterfeit cigarettes have declined.

Source: KPMG LLP Illicit tobacco in Australia, Nov 2014,[3] half year report. p40

Through to the end of 2014, there has been no evidence of counterfeit plain packaging cigarettes. This represents a change from 2012 where approximately 45% of counterfeit cigarettes consumed appeared to have been designed for the local market.

Source: KPMG LLP Illicit tobacco in Australia, May 2015, full year report, p42
The first report of sale of counterfeit plain packs in shops emerged almost two and a half years after plain packs first started appearing on the market.\[37\] The packs were clearly irregular, in a pack size not sold in Australia, and failing to bear the correct variant name.\[38\]

3.6. While the overall estimates of the scale of the problem might be exaggerated, don't the industry studies suggest that use of illicit tobacco overall increased in Australia following the introduction of plain packaging?

The KPMG LLP reports certainly conclude that the size of the illicit market is increasing, estimating that the market increased from approximately 2.0 to 2.6 million kilograms of tobacco between 2012 and 2014.

![Graph showing consumption of illicit tobacco products by category and as a percentage of overall consumption, 2007–2014](image-url)

Source: Extract snipped from KPMG 2015[1]

No confidence intervals around the estimates are provided, so it is difficult to interpret the significance of reported changes. It should also be noted that a different company undertook the litter surveys from 2013 onwards, so it is possible that part of the increase observed in prevalence of non-domestic packs in litter surveys is attributable to different processes in relation to areas selected, time spend collecting in each area and so on. These figures also need to be understood against the backdrop of steeply rising prices of cigarettes in Australia since an unprecedented increase in excise duty on the 29th April 2010, inflated by compounding increases in prices following each indexation of excise and customs duty on tobacco on eight occasions up to the collection period in May 2014, as well as a further large real increase on the 1\textsuperscript{st} December 2013. Cigarettes in Australia are orders of magnitude more costly than in neighbouring countries, so it is not surprising that illicit tobacco is present in Australia as it is elsewhere in the world, or even that the market might be increasing over time. Whether the size of the market is increasing or not, there is no
evidence that use of illicit tobacco is attributable to plain packaging. In a letter to UK Public Health Minister Jane Ellison, dated 2 May 2014 and released under the Freedom of Information Act, Robin Cartwright, a KPMG partner indicated that “The report we released recently, Illicit Tobacco in Australia–2013 Half Year Report, has been somewhat misrepresented by others, without our consent, to suggest it supports the contention that plain packaging could lead of itself to an increase in tobacco smuggling and duty avoidance.”[39]

It is important to note the disclaimers at the beginning of the KPMG reports. The disclaimer for the report prepared for the 2014 year[1] states

The disclaimer in the report prepared in late-2015[2] is even more guarded, reading

Apart from the fact that counterfeiting has not so far been identified as problematic, other studies that have specifically examined changes immediately before and after introduction of the legislation have failed to detect increases in use of illicit tobacco.

**Surveys of smokers 2011 or 2012 compared to 2013**

A study published in August 2014 in BMJ Open[40] analysed cross-sectional data from smokers interviewed before, during and one year after the introduction of plain packaging. The proportion of smokers reporting current use of unbranded illicit tobacco did not change significantly between 2011 and 2013—2.3% in 2011, 2.2% in 2012 and 1.9% in 2013.
Table 4  Usual place of purchase, use of low-cost Asian brands, and use of unbranded illicit tobacco by year – unadjusted percentages and 95% Confidence Intervals (95% CI)

<table>
<thead>
<tr>
<th></th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>95% CI</td>
<td>%</td>
</tr>
<tr>
<td>Past 12-month use</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unbranded illicit tobacco</td>
<td>4.4</td>
<td>2.4 – 6.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Current use</td>
<td>2.3</td>
<td>0.8 – 3.8</td>
<td>2.2</td>
</tr>
</tbody>
</table>

a Includes all current smokers, i.e. smokers who smoke daily, weekly or less than weekly (2011: n=754; 2012: n=590; 2013: n=601)

b Use daily, weekly, or less than weekly.


Audit of retail outlets

A study published in the BMJ’s journal, Tobacco Control, in 2014 [41] found no evidence of increases in the willingness of small retailers to sell illicit unbranded tobacco to trained fieldworkers following introduction of plain packaging legislation and very low levels of positive responses overall—see table 5.

Table 5 Responses to inquiry about illicit unbranded tobacco in small mixed-businesses in Melbourne, Sydney, Adelaide, and Perth—before during and after the implementation of plain packaging

<table>
<thead>
<tr>
<th></th>
<th>Pre-PP implementation</th>
<th>PP implementation</th>
<th>Post-PP implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jun-12 n (%)</td>
<td>Sep-12 n (%)</td>
<td>Dec-12 n (%)</td>
</tr>
<tr>
<td>Total eligible stores (n)</td>
<td>164</td>
<td>174</td>
<td>170</td>
</tr>
<tr>
<td>a) No or don’t know</td>
<td>115 (70.1%)</td>
<td>133 (76.4%)</td>
<td>132 (77.7%)</td>
</tr>
<tr>
<td>b) Confused with RYO tobacco</td>
<td>29 (17.7%)</td>
<td>20 (11.5%)</td>
<td>9 (5.3%)</td>
</tr>
<tr>
<td>Total Negative Responses (a+b)</td>
<td>144 (87.8%)</td>
<td>153 (87.9%)</td>
<td>141 (82.9%)</td>
</tr>
<tr>
<td>c) Gave vague information</td>
<td>13 (7.9%)</td>
<td>7 (4.0%)</td>
<td>8 (4.7%)</td>
</tr>
</tbody>
</table>
In the same study,[41] fieldworkers went on to purchase the cheapest pack of cigarettes available for sale in the store. Only 1.2% of packs were cheaper than 20% below recommended retail prices or failed to carry required Australian health warnings. Taking into account these criteria (as well as a number of contextual factors including usual pricing in each store), researchers judged that fewer than 0.2% of the 878 packs purchased after the introduction of plain packaging were likely to have been illicit. This compared to 1% of the 598 packs purchased prior to introduction.

Overall to date, data derived from sources independent of the tobacco industry suggests relatively low and stable levels of use of illicit tobacco in Australia.

### 3.7. So what is the Australian government doing about illicit tobacco?

Illicit tobacco is an important issue with potential to reduce the efficiency of tax policy in reducing consumption of tobacco products.

A May 2016 report by the Australian National Audit Office[42] identified several shortcomings over the previous few years in coordination between the (then) Department of Customs and Border Protection (DCBP) and the Australian Tax Office (ATO), with DCBP having fallen short on its obligations to provide access to information and systems necessary for the ATO to carry out its roles.

In 2010, nearly all of the top-selling cigarette brands in Australia were manufactured here in just a couple of tightly controlled factories. In the wake of very large increases in excise and customs duty in April 2010, December 2013 and September 2014 and 2015, all manufacturing of tobacco products has moved off-shore.\(^2\) All of the major popular brands

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2 Note that tobacco companies have specifically stated that moves offshore are not due to plain packaging.

British American Tobacco Australia. BAT forced to close Australian factory, 2014, BATA: Sydney. Available from:
in Australia are no longer manufactured in Australia, but are imported from a wide variety of countries e.g. Marlboro, Peter Jackson and Longbeach from the Philip Morris manufacturing plant in Korea; Winfield and Benson & Hedges from Singapore, Rothmans from Malaysia, JPS and Horizon from New Zealand and Peter Stuyvesant from the Ukraine. This dramatic change in supply arrangements poses a new set of challenges for enforcement agencies. The risk level for illicit tobacco was raised by the ATO from ‘low’ to ‘moderate’ in 2014 and then again from ‘moderate’ to ‘significant’ in 2015 due to an increase in ‘the number of touch points by other entities when tobacco product is imported, moved or stored. This is where revenue leakage can occur.’ The audit report pointed to ‘known weaknesses in the administration of the under-bond system for excise equivalent goods’ and calls for improvements in compliance checking.[42]

While the audit report pointed to the need for better compliance strategies to improve visibility and assurance around storage of tobacco, it concluded

"Since mid-2015, there has been a renewed and positive focus within Department of Immigration and Border Protection on arrangements with the ATO for administering tobacco excise equivalent goods. The two agencies are working more closely together to address many long standing issues noted in this report that, when fully implemented, would support more accountable, effective and streamlined administration of excise equivalent goods more broadly." ANO 2016[42], p8

The last federal Budget in Australia in addition to announcing four further 12.5% increases in excise/custom duty in Australia between 2017 and 2020,[43] made provision for extra funding for enforcement by the Department of Immigration and Border Protection, with an extra $7.7million for ‘strike teams’. [44] The ATO response to the audit report included a commitment to taking responsibility for estimating and monitoring the size of the illicit market through its ‘tax gap’ initiative.[42] More reliable estimates of the size of the illicit market will allow the impact of compliance activities to be more effectively monitored into the future.

3.8. For further information

Detailed critiques of each of the reports estimated illicit tobacco in Australia produced for Australian tobacco companies by Deloitte Australia and KPMG LLP are provided at http://www.cancervic.org.au/plainfacts/browse.asp?ContainerID=illicittobacco

For further facts sheets on plain packaging in Australia see https://www.cancervic.org.au/plainfacts/browse.asp?ContainerID=factsheets1

References


