

Evaluation of effectiveness of graphic health warnings on tobacco product packaging

An Evaluation Report

Prepared for the Department of Health by
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2 EXECUTIVE SUMMARY

Background and objectives

Health warnings on tobacco product packaging were first introduced in Australia in 1973 and have included graphics since March 2006. The Graphic Health Warnings (GHWs) were updated and expanded under the *Competition and Consumer (Tobacco) Information Standard 2011* (the Standard), which came into full effect on 1 December 2012. These current warnings were developed following an evaluation of tobacco health warnings conducted in 2008 (Elliot and Shanahan 2008) and informed by a program of consumer research on GHWs and plain packaging in 2011.

The current GHWs for cigarettes and most other smoked tobacco products alternate in two sets of seven warnings every 12 months (five warnings are required for cigars). According to the Guidelines for implementation of Article 11 (packaging and labeling of tobacco products) of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), changes in health warnings are important to maintain saliency and enhance effectiveness. It has now been more than five years since the introduction of the updated and expanded GHWs.

In 2017, Essence Communications (Essence) was commissioned by the Department of Health (Department) to undertake a market research evaluation of the effectiveness of the health warnings on tobacco product packaging in Australia.

The key objectives of the evaluation research were to:

- Provide information on the GHWs and their impact on smoking behaviour, attitudes, knowledge and intentions, including the extent to which they are achieving the purpose of the Standard to:
- Increase consumer knowledge of the health effects relating to the use of tobacco products;
 - Encourage the cessation of the use of tobacco products; and
 - Discourage uptake or relapse.
- To provide key information for the development of strategies to improve graphic health warning effectiveness.

It also sought to identify considerations for future design of GHWs on tobacco product packaging in Australia. The research comprised qualitative focus groups and interviews, a quantitative survey, eye-tracking research and stakeholder consultation.

A Program Logic and Evaluation Framework has been developed to guide both the 2018 market research evaluation, and future evaluations of GHWs. The Program Logic identifies three main evaluation domains for investigation:

1. Distal (long-term) behavioural outcomes;
2. Intermediate (mid-term) outcomes (or mediating outcomes through which GHWs are expected to have an effect on long-term outcomes); and
3. Proximal (short-term) outcomes relating to the salience and cognitive processing of GHWs.

The variables and elements impacting on the effectiveness of GHWs were explored through the assessment of these three domains in the primary research.

Evaluation of the graphic health warnings

The 2018 research provides strong evidence for the effectiveness of GHWs in meeting the proximal, intermediate and distal objectives despite signs of wear out.

In combination with other Government initiatives (plain packaging, cost increases, smoking restrictions), GHWs are having a direct influence on health knowledge and cessation outcomes.

To assess the success of the GHWs in achieving objectives, the quantitative survey findings have been analysed according to the evaluation criteria in terms of proximal, intermediate and distal outcomes.

In terms of meeting the ***proximal outcomes*** identified in the Program Logic:

Key findings	Evidence
<p>GHWs are salient and are attracting attention and being noticed</p>	<ul style="list-style-type: none"> • When asked to describe the packaging, smokers and non-smokers were able to provide some description of the packaging with high spontaneous recall of pack elements including GHWs. • The most common mentions included that the packaging was gross/ugly/disgusting/bad/confronting/graphic pictures (38%), that there were pictures of the outcomes from smoking (23%), that there were health or cancer warnings (21%) and plain packaging colour (20%). • Smokers were most likely to notice and recall gross/ugly/disgusting/bad/confronting/graphic pictures (43%), health warnings/cancer warnings/cancer (27%), the plain packaging (23%) and pictures of outcomes from smoking (16%).
<p>GHWs are remembered and encoded in memory</p>	<ul style="list-style-type: none"> • There is high recall of the specific images in particular Foot (PVD), Baby, Emphysema, Bryan (Lung cancer), Teeth (Damages teeth and gums) and Tongue (Mouth cancer) images. • Around seven in ten (70%) were able to describe one of the graphics or messages when asked what pictures they could recall on packaging with 64% specifically describing one of the current 14 graphics. • The most frequently recalled graphic images were the Foot (PVD), Baby (Harms unborn), Emphysema, Bryan (Lung cancer), Teeth (Damages teeth and gums) and Tongue (Mouth cancer) images (between 14% to 19% spontaneous recall). • Recall of the written health warnings was considerably lower than recall of the graphics on the pack however some specific messages are salient, in particular that smoking harms babies/unborn babies and causes lung cancer. • Around four in ten (39%) of smokers and recent quitters were able to recall a written warning with 27% mentioning a specific message that could be attributed to one of the current GHWs. Ability to recall a specific written warning was lower than recall of graphic images (27% versus 63% for graphic images) supporting findings that the graphic is

	the most salient and noticeable component of the health warning.
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In terms of meeting the **intermediate outcomes** identified in the evaluation criteria (program logic):

Key outcome	Evidence
GHWs are contributing to health knowledge associated with tobacco use	<ul style="list-style-type: none"> • The majority (67%) of smokers and recent quitters believe the inclusion of pictures and health information on cigarette/tobacco packaging has improved their knowledge of the health effects of smoking a lot or a little. • GHWs are the number one source for smokers and recent quitters to learn about health harms associated with smoking (58% mentioned health warnings as the source of knowledge about health harm). • Smokers and recent quitters consider the pictures on packaging to be very effective or somewhat effective at communicating the health effects of smoking (71%).
GHWs are contributing perceived risks associated with tobacco use	<ul style="list-style-type: none"> • Around half (49%) of smokers and recent quitters have worried more about the effects of smoking on health because of the health warnings on cigarette/tobacco packaging. • Smokers in contemplation or action/relapse stages in relation to quitting were even more likely to have worried more about the effects of smoking on health because of the health warnings on cigarette/tobacco packaging (58% contemplation and 55% for those in action/relapse). • The health warnings have an even higher impact on non-smokers with 61% who agreed that they would worry more about the effects of smoking because of the health warnings on cigarette/tobacco packaging – evidence of prevention impact.

<p>GHWs are generating affective (emotional) responses associated with tobacco product use</p>	<ul style="list-style-type: none"> • When asked what they feel when they see tobacco packaging, 57% of smokers and recent quitters felt some emotional response. • Reactions most commonly mentioned were feeling disgusted (14%), worry/concern (6%), guilty, fearful/scared (6%), thinking they should stop (5%) and relief they aren't smoking (7% non-smokers). Other mentions included feeling sad (4%), a sense of hopelessness (4%), anger or annoyance (4%). • Around three in ten (31%) claimed to feel 'nothing', ignored them or were desensitised to them.
<p>GHWs are contributing to decreasing brand/package appeal</p>	<ul style="list-style-type: none"> • For smokers who have had exposure to the previous branded packaging without GHWs, the majority (63%) prefer the older packaging (agree or strongly agree). • There was even higher preference (strongly agree) for the older packaging expressed by those in pre-contemplation stages of quitting (40%).
<p>GHWs are leading to avoidance behaviours</p>	<ul style="list-style-type: none"> • Among smokers, 44% admit to some avoidance practices such as transferring or decanting into another case (24%) or concealing/hiding the pack, asking for a pack with a different warning or image (10%) or tearing away part of the packaging (10%). • A third (33%) of smokers continue avoidance practices in particular transference or decanting (16%) or concealment/hiding packs (12%). • There is evidence that due to social pressures and increasing exclusion of smoking in public, 'concealment' or hiding 'smoking' generally is occurring. As such, conscious avoidance behaviour appears to be replaced by concealment of smoking practices generally.

<p>GHWs are contributing to cessation intentions for tobacco product use</p>	<ul style="list-style-type: none"> • Half of smokers or recent quitters (52%) agreed that health warnings on the packaging make or made them think about quitting which is consistent across smoking status. • More specifically smokers say the health warnings have: <ul style="list-style-type: none"> ○ Made them think about quitting (34%) ○ Raised their concerns about smoking (28%) ○ Led them to reduce how much they smoke (23%) ○ Helped them smoke less (23%) ○ Helped them try to quit (15%) ○ Led them to not have a cigarette/smoke (9%) ○ Led them to call Quitline (5%) ○ Led them to not buy or postpone buying another packet (5%). • The impact of health warnings was stronger among those contemplating quitting or in the process of quitting (77% contemplators and 67% for quitting/relapse compared to 41% for pre-contemplators). • The majority of recent quitters (61%) also claimed health warnings have contributed to their concerns about smoking, thoughts about smoking as well as helping them smoke less, quit and stay smoke free. • 14% of smokers and quitters cited health warnings as the reason they want to quit smoking.
<p>GHWs are making small contributions to cessation knowledge of tobacco product use</p>	<ul style="list-style-type: none"> • A small number of smokers claimed the health warnings led to calling Quitline, suggesting the GHWs have among a small proportion, contributed to increased awareness of the channels to aide in cessation. However as an element of the GHW design, it does not appear to be the element with strong noticeability. • 5% of smokers and 4% of recent quitters claimed that the health warnings led them to call Quitline.

Additionally, statistics on smoking prevalence suggests that collective efforts are leading to increased cessation and diversion from smoking as a society with smoking rates decreasing as shown in the latest Australian Institute of Health and Welfare

(AIHW), National Drug Strategy Household Survey (NDSHS) data¹. Since 2007, there has been a decrease in smoking prevalence from 16.6% down to 12.2% for 14 year olds and over and a decrease in smoking prevalence from 17.5% down to 12.8% for 18 year olds and over.

Conclusions and recommendations

The 2018 research found that overall, GHWs continue to be a key mechanism for communicating health harms and increasing concerns around health. GHWs are also contributing to thoughts and intention to quit. In combination with other government interventions including cost increases, smoking restrictions and plain packaging, GHWs are contributing to decreased appeal of smoking overall.

More specifically the 2018 research finds that GHWs are:

- Salient (in particular the graphic component) and are attracting attention and being noticed
- Remembered and encoded in memory
- Contributing to health knowledge associated with tobacco use
- Contributing to perceived risks associated with tobacco use
- Generating affective (emotional) responses associated with tobacco use
- Contributing to decreasing brand/package appeal
- Leading to avoidance behaviours
- Contributing to cessation intentions for tobacco use
- To some extent contributing to cessation knowledge of tobacco use.

Many of the suggestions from the 2008 research which were adopted for the current set, may have contributed to the overall impact, in particular:

- Addressing wear out through rotation and refreshing warnings
- Optimising images and associated text
- Increasing the size of the graphic and warning
- Introducing plain packaging/reducing brand elements
- Introducing new diseases with established links
- Consideration of the use of statistics in some explanatory texts
- Including quit messaging and Quitline
- Increasing personalisation of GHWs

¹ Australian Institute of Health and Welfare 2017. National Drug Strategy Household Survey 2016: detailed findings. Drug Statistics series no. 31. Cat. No. PHE 214. Canberra: AIHW. Available at: <https://www.aihw.gov.au/reports/illicit-use-of-drugs/2016-ndshs>

- Extending and ensuring the consistency of packaging and health warnings across tobacco products.

These suggestions, in particular recommendations to reduce wear out are still important considerations in 2018. While integration of graphics in other media has yet to be implemented this can aid in reinforcement of new messaging and overall impact of GHWs. This is particularly relevant when introducing 'new' health harms or those that are less likely to be associated with smoking.

There are in 2018 signs of wear out of the existing suite and a lessening impact over time with many smokers and recent quitters claiming they 'don't take any notice' of the GHWs and that they 'paid more attention when the GHWs were first released'. Additionally, some GHWs are performing better than others; Bryan (Lung cancer), Foot (PVD), Teeth (Damages teeth and gums), Baby (Harms unborn), and Emphysema while others are relatively weaker on the key criteria in the evaluation framework; Toilet (Kidney or Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills). This is not to say the warning should be dismissed but rather that elements of the overall warning could be improved.

Based on the research findings amongst a range of cohorts, it appears that the impact of GHWs have generally lessened over time. Distal effects outlined in the Program Logic and Evaluation Framework such as increasing prices of tobacco, on-location venue bans have contributed to decreased visibility of packaging. Additionally, the current suite of GHWs have been around for many years and there is increased familiarity with the images. That said, the survey findings provide evidence that GHWs are directly leading to thoughts of quitting underpinned by a social shift away from smoking and very high proportions of smokers that want to stop smoking.

The intermediate behavioural outcomes also suggest a lessening of impact in some key areas. For example, pack concealment appears to have decreased but also there may be general concealment of smoking in general which is a positive outcome. Similarly, affective response (emotional) also appears to have decreased overall.

Notwithstanding this general finding, the decline in the proximal outcomes of the overall suite has not impacted on all warnings equally. For example, the GHWs 'Baby', 'Tongue' and 'Bryan'; and to a lesser extent, 'Foot' and 'Emphysema' all demonstrate a higher level of impact than other options. In reviewing new imagery, the same aspects of relevance and salience apply, with some new images more impactful than others – although the nature of the imagery being new and different also had a higher level of impact overall.

This evaluation report concludes that since the introduction of the current suite of GHWs, there has been a reduction in their impact over time.

It is timely to consider how future GHWs could be incepted and implemented in order to increase health knowledge of tobacco use and reduce prevalence in line with those achieved when the current suite came into effect.

Finally, while the research evaluated the existing images and explored a range of new images, we do not recommend that any of these in particular be retained or ceased. Rather, it is timely to reconsider the range of health warning messages on tobacco products including images, warning statement and the written information.

The GHWs rely on a strong, identifiable and memorable images, coupled with a clear and credible message. If new or surprising messaging are used, they should also be supported by other channels of media to reinforce messaging and credibility.

Maintaining a suite of GHWs is imperative, as it is evident from the research some individual GHWs have greater impact on different smoking cohorts and demographics.

3 GLOSSARY OF TERMS

The following terms and their associated definitions have been used throughout the report.

Graphic health warning references:

Report terminology	Full health warning (Front of pack text)
GHWs	Graphic health warning(s)
Bryan (Lung cancer) or Bryan	Smoking causes lung cancer
Foot (PVD Gangrene) or Foot	Smoking causes peripheral vascular disease (PVD)
Teeth (Damages teeth and gums) or Teeth	Smoking damages your gums and teeth
Baby (Harms unborn) or Baby	Smoking harms unborn babies
Throat (Throat cancer) or Throat	Smoking causes throat cancer
Emphysema	Smoking causes emphysema
Child (Others breathe) or Child	Don't let others breathe your smoke
Heart (Heart disease) or Heart	Smoking causes heart disease
Tongue (Mouth cancer) or Tongue	Smoking causes mouth cancer
Toe-tag (Smoking kills) or Toe-tag	Smoking kills
Eye (Blindness) or Eye	Smoking causes blindness
Ashtray (Quitting improves health) or Ashtray	Quitting will improve your health
Cynthia (Stroke) or Cynthia	Smoking doubles your risk of stroke
Toilet (Kidney and Bladder cancer) or Toilet	Smoking causes kidney and bladder cancer

Smoker status references:

Report terminology	Definition
Total	All survey respondents including the general population sample plus boost samples
Smoker	Currently smokes any of the following products: <ul style="list-style-type: none">• Cigarettes (manufactured/tailor made)• Roll-your-own tobacco• Cigarillos• Cigars• Pipe tobacco
Recent Quit	Smoked or used tobacco products but stopped in the last ten years
Smoker/Quit	A mix of smokers and recent quitters
Non-smoker	Does not currently smoke nor recently quit (all except smoker and recent quit sample)

Product references:

Report terminology	Definition
Cigarette	Typically refers to cigarettes (manufactured/tailor made)
RYO	Roll-your-own tobacco

Smoker contemplation references:

Report terminology	Definition
Pre-Contemplators	Committed smokers or those not seriously thinking about quitting. Answered to the responses: <ul style="list-style-type: none">• I don't think at all about quitting/stopping using tobacco products• I have thought about quitting but not seriously and haven't cut down or tried to
Contemplators	Smokers contemplating quitting. Answered to the responses: <ul style="list-style-type: none">• I have thought seriously about wanting to quit in the next six months but I haven't done anything yet• I intend to quit in the next six months and am taking steps to do so
Quitting/ Relapse	Smokers contemplating quitting. Answered to the responses: <ul style="list-style-type: none">• I am currently in the process of quitting/cutting down• I have tried quitting but keep starting again

Demographic references:

Report terminology	Definition
Indigenous	Persons who consider themselves to be of Aboriginal or Torres Strait Islander origin
CALD	Culturally and linguistically diverse interviewees. Defined by answering that they were born in a non-English speaking country and or recently migrated to Australia (five or less years ago) from a non-English speaking country and/or speak a language other than English at home regularly

Significance testing references:

Symbol	Interpretation
↑	Upward arrow indicates stated measure is significantly higher than other population groups at a 95% confidence level
↓	Downward arrow indicates stated measure is significantly lower than other population groups at a 95% confidence level

4 BACKGROUND

Health warnings are one component of Australia's comprehensive suite of tobacco control measures designed to work in concert to reduce tobacco prevalence.

Health warnings on tobacco product packaging were first introduced in Australia in 1973 and have included graphics since March 2006. The GHWs were updated and expanded under the *Competition and Consumer (Tobacco) Information Standard 2011*² (the Standard), which came into full effect on 1 December 2012. These current warnings were developed following an evaluation of tobacco health warnings conducted in 2008 (Elliot and Shanahan 2008) and informed by a program of consumer research on GHWs and plain packaging in 2011.

The current GHWs for cigarettes and most other smoked tobacco products alternate in two sets of seven warnings every 12 months (five warnings are required for cigars). According to the Guidelines for implementation of Article 11³ (packaging and labeling of tobacco products) of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC), changes in health warnings are important to maintain saliency and enhance effectiveness. It has now been five years since the introduction of the updated and expanded GHWs.

The Department has commissioned a market research evaluation of the current GHWs on tobacco products to assess their effectiveness and identify strategies for improvement (2018 market research evaluation).

A Program Logic and Evaluation Framework has been developed to guide both the 2018 market research evaluation, and future evaluations of GHWs (see 7 PROGRAM LOGIC).

The elements impacting on the effectiveness of GHWs were explored through the assessment of the Program Logic.

This provides greater consistency and validated triangulated data outcomes over time in line with best practice research recommendations.

² Available at: <https://www.legislation.gov.au/Details/F2011L02766>

³ Available at: http://www.who.int/fctc/guidelines/adopted/article_11/en/

5 OBJECTIVES AND SCOPE

As stated earlier, this market research was undertaken as prescribed under the *Competition and Consumer (Tobacco) Information Standard 2011* (the Standard), which commenced on 1 January 2012, and took full effect from 1 December 2012.

The key objectives of the evaluation research were to:

- Provide information on the GHWs and their impact on smoking behaviour, attitudes, knowledge and intentions, including the extent to which they are achieving the purpose of the Standard to:
 - Increase consumer knowledge of the health effects relating to the use of tobacco products;
 - Encourage the cessation of the use of tobacco products; and
 - Discourage uptake or relapse.
- To provide key information for the development of strategies to improve graphic health warning effectiveness.

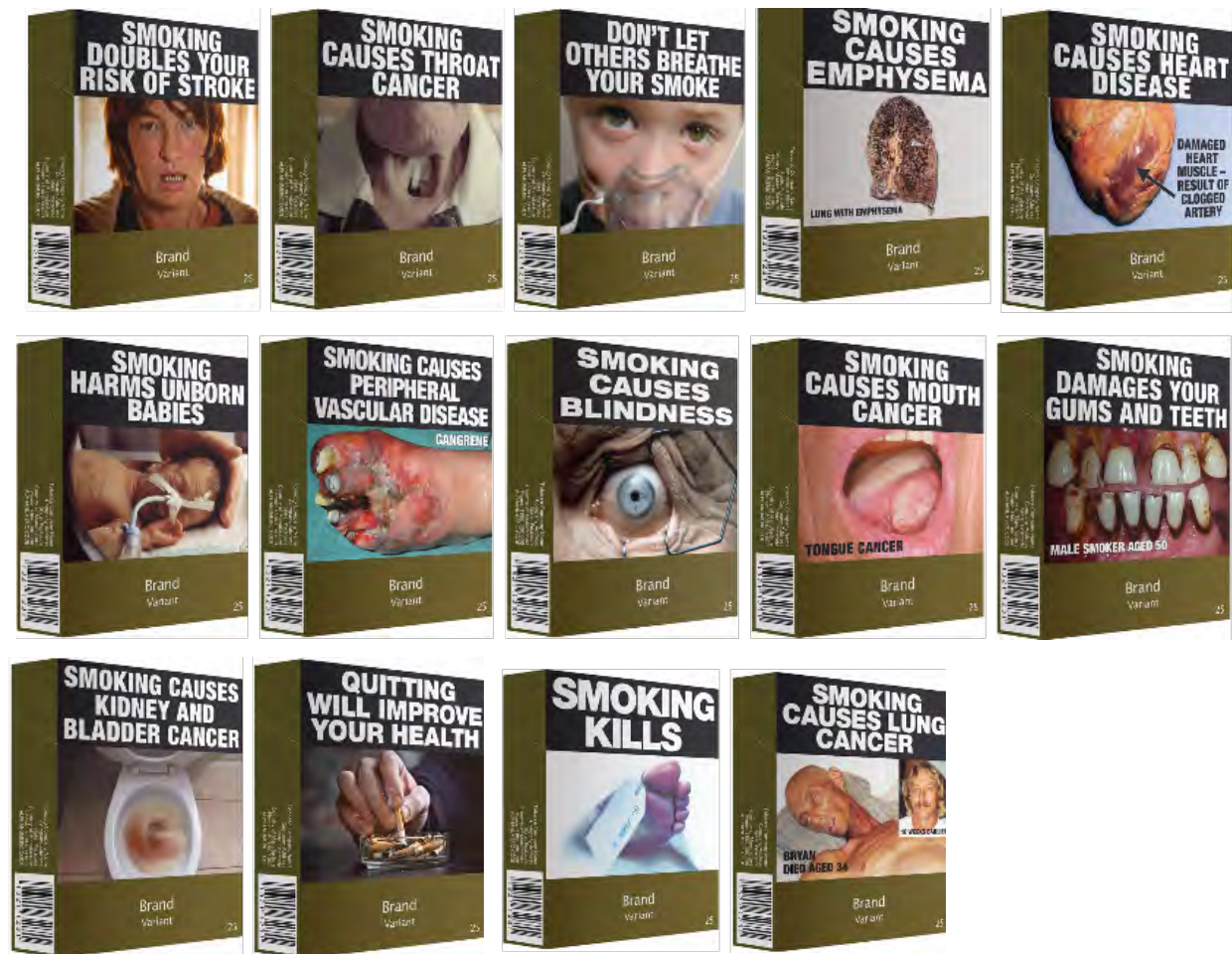
The research also sought to identify considerations for future design of GHWs on tobacco product packaging in Australia.

In response to these objectives, a research program was developed to examine the impact of the health warnings as a group and address specific elements of each of the health warnings on tobacco products (including cigarette, cigar, and RYO) as specified in the Standard. Essence partnered with Griffith University Social Marketing (Griffith) to deliver the program. Essence was responsible for the management of the overall program as well as conducting primary qualitative and quantitative research while Griffith was responsible for the development of the Evaluation Framework and Program Logic, literature review and eye tracking.

6 THE GRAPHIC HEALTH WARNINGS

The focus of the research was the 14 current GHWs on cigarette packaging as shown below. These were the main stimuli for discussion for participants with the exception of cigar smokers.

Figure 1: Suite of 14 GHWs on cigarette packaging



Copyright details

"Smoking damages your gums and teeth" - © Professor Laurence J Walsh, The University of Queensland.

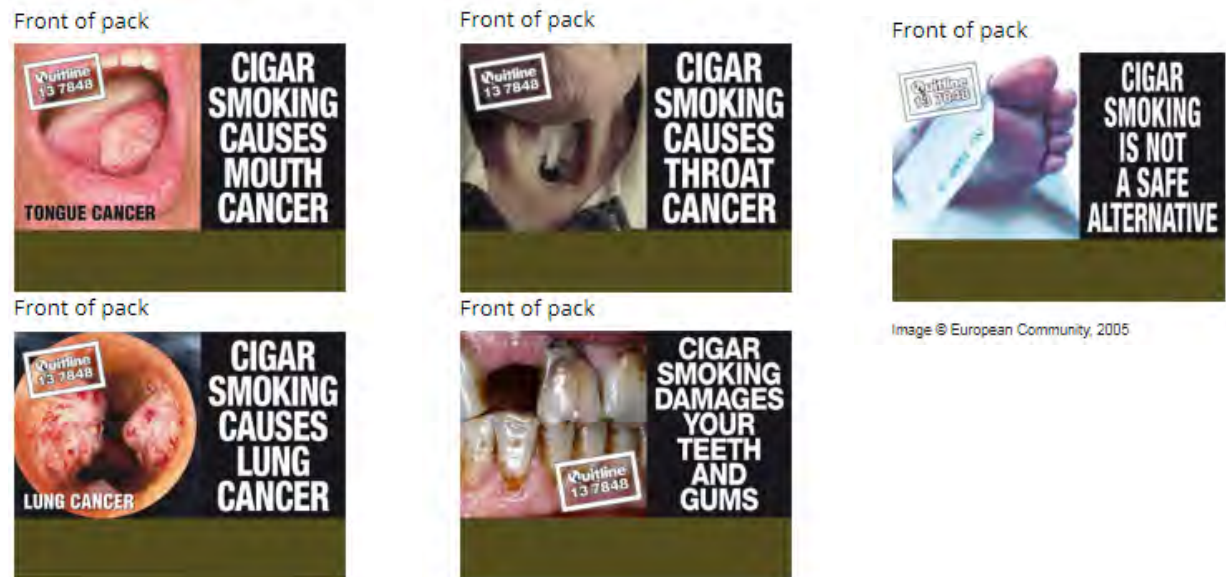
"Smoking heart disease" - Licensed under Health Canada copyright

"Smoking cause kills" - © European Community, 2005

"Don't let others breathe your smoke"- © European Community, 2005

For cigar smokers, the five current cigar GHWs were evaluated during the research.

Figure 2: Suite of five GHWs on cigar packaging



Copyright details

"Smoking kills" - © European Community, 2005

7 PROGRAM LOGIC

The Program Logic provides structure from which to assess and evaluate the effectiveness of GHWs, considering a range of factors. These include knowledge of health impacts, perceived risks, attitudes, intentions, prevalence of tobacco use and rates of consumption, tobacco use cessation, and prevention of uptake and relapse. The elements that may impact the effectiveness of GHWs, and the context in which GHWs were implemented, were considered in the development of the Program Logic and Evaluation Framework.

The Evaluation Framework considers the extent to which GHWs are working within the suite of tobacco control measures to achieve the purpose of the Standard to:

- Increase consumer knowledge of the health effects relating to the use of tobacco products;
- Encourage the cessation of the use of tobacco products; and
- Discourage uptake or relapse.

The Evaluation Framework includes examination of, but not necessarily limited to:

- Salience – noticeability, cut-through;
- Lay-out/presentation – colour, size of label, size of text, warning positioning on pack;
- Comprehensibility – understandability, readability;
- Believability – truthfulness, credibility;
- Personal relevance;
- Memorability and recall;
- Avoidance behaviour;
- Content – interesting and informative;
- Rotation of health warnings – timeliness, the novelty effect; and
- Persuasiveness – influence upon tobacco use behaviour, emotional response, ability to increase and reinforce awareness of the negative health effects of tobacco use, intention and motivation to quit, and prevention of uptake and relapse.

The Program Logic identifies three main evaluation domains for investigation:

1. Distal (long-term) behavioural outcomes;
2. Intermediate (mid-term) outcomes (or mediating outcomes through which GHWs are expected to have an effect on long-term outcomes); and
3. Proximal (short-term) outcomes relating to the salience and cognitive processing of GHWs.

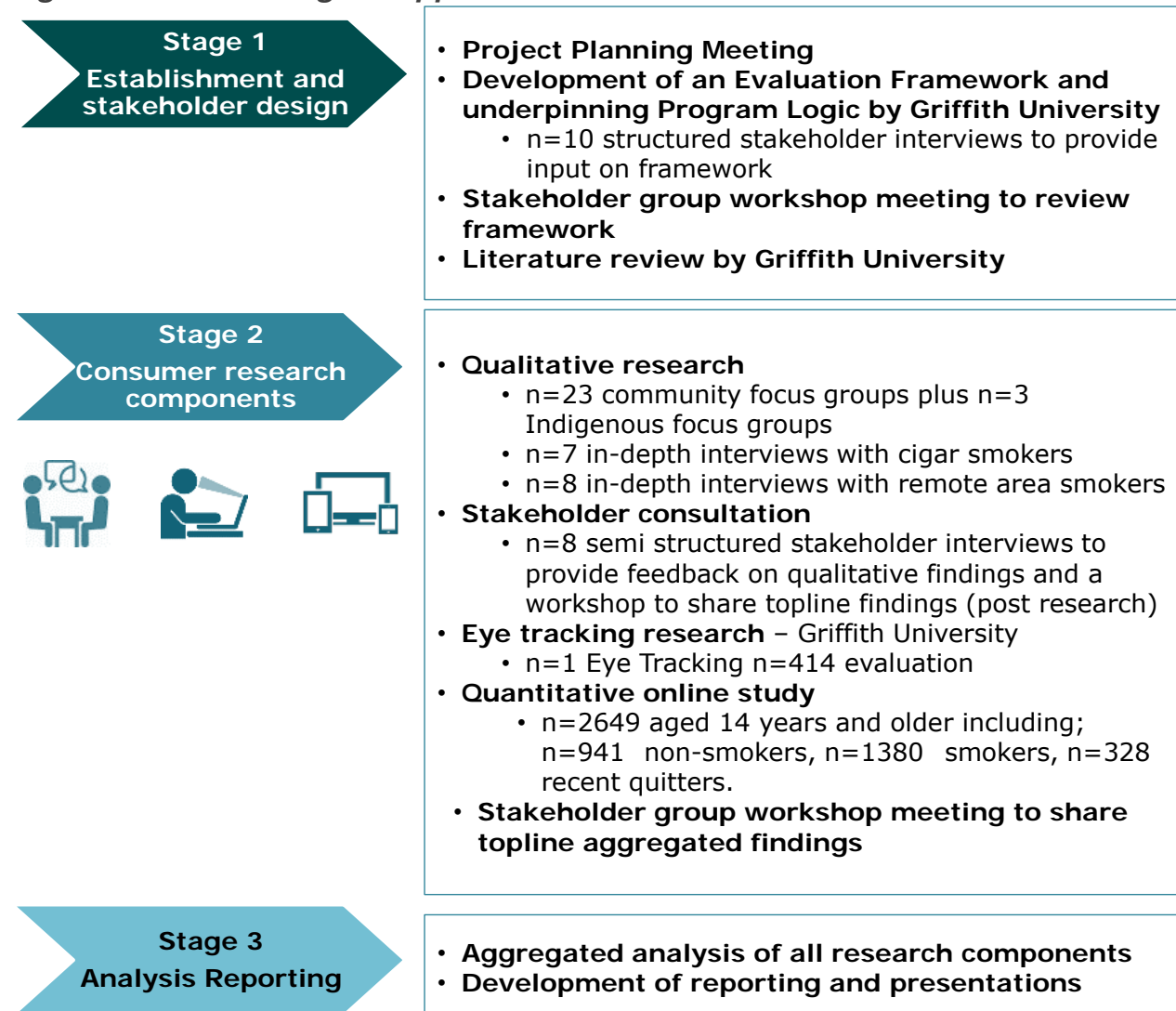
The elements impacting on the effectiveness of GHWs were explored through the assessment of these three domains in the primary research. This report provides a detailed overview of the research outcomes found within the evaluation domains.

8 RESEARCH METHODOLOGY

8.1 Overall approach

A multi-staged approach using mixed methodologies was implemented to provide a triangulated evaluation of the GHWs.

Figure 3: Methodological approach



There were three stages to the evaluation:

Stage 1 – To establish the research foundations and framework and consult stakeholders

This phase included the following activities:

- Development of an Evaluation Framework and underpinning Program Logic by Griffith University
 - n=10 structured stakeholder interviews to provide input on framework
 - Stakeholder group workshop meeting to review framework
- Literature Review by Griffith University

Stage 2: Consumer research including qualitative and quantitative primary research among the Australian population including smokers and recent quitters of tobacco products

This phase included:

- Qualitative research comprising focus groups and in-depth interviews:
 - n=23 community focus groups plus n=3 Indigenous focus groups
 - n=7 in depth interviews with cigar smokers
 - n=8 in depth interviews with remote area smokers
- Stakeholder consultation
 - n=8 semi structured stakeholder interviews to provide feedback on qualitative findings
 - Stakeholder Group Workshop to share and review top line aggregated findings
- Eye tracking research by Griffith University

Eye tracking and post activity questionnaire with n=414 participants

- Quantitative online survey with a total of n=2649 responses including; n=941, non-smokers, n=1380, smokers, n=328 recent quitters.

Stage 3 – The analysis and reporting of the findings

Aggregated analysis of all research components and development of reports and presentations.

The next sections provide more detail into the methodological approach for the consumer research stage.

8.2 Qualitative research

The qualitative research program consisted of 26 group discussions and 15 individual telephone interviews. Each group discussion involved six to eight participants and was up to 90 minutes duration. Each individual telephone interview was 50-55 minutes duration.

Fieldwork was conducted between 5 and 19 March 2018. The sample of the qualitative research summarised by variables is outlined below:

- Metropolitan - n=19 groups
- Regional - n=7 groups
- Remote - n=8 in-depth interviews
- Committed Smokers - n=8 groups
- Light/social smokers - n=2 groups
- Contemplators - n=6 groups
- Newer smokers - n=3 groups
- Recent quitters - n=3 groups
- Current non-smokers at risk of taking up - n=2 groups
- Cigarillo Smokers - n=2 groups
- Premium cigar smokers - n=7 in-depth interviews
- 16-18 year olds - n=4 groups
- 18-25 year olds - n=6 groups
- 26-49 year olds no children - n=3 groups
- 50-65 year olds - n=4 groups
- People with children - n=2 groups
- Blue SES - n=14 groups
- White SES - n=8 groups
- Mixed SES - n=4 groups
- Indigenous Australians - n=3 groups

For the detailed sample table, see the Appendices, 26 QUALITATIVE SAMPLE.

8.3 Quantitative research

Research Approach and Survey Methodology

The quantitative research comprised an online quantitative survey, with participants recruited from online research panels. Panel members were invited to participate via an email with a link to the survey and were subsequently screened for eligibility. An online survey was chosen for this evaluation for its ability to reach large numbers of the population in a cost-effective manner, coupled with the ability to prompt with

images of the actual GHWs. This data collection method differed from previous years where telephone interviews were used for collecting consumer responses.

A disproportionate stratified sample design was employed with quotas applied for age, gender and location. The survey recruited to general population of 14 years and over with boost samples of key audience groups (smokers and recent quitters and Indigenous from a specialist online panel, McNair Ingenuity). A total of n=2649 survey responses were collected which included:

- n=941 non-smokers
- n=1380 smokers
- n=328 recent quitters
- n= 158 Indigenous (including n=120 Indigenous smokers and recent quitters.

Overall this provided a total of n=1708 smokers and recent quitters represented in the overall sample.

Note: individuals were classified as 'smokers' if they currently smoked manufactured cigarettes, RYO, pipe tobacco, cigarillos, cigars or chop chop.

To ensure ability to report findings at a population representative level, the results were weighted back to the population and incidence of smoking within the community. This provided an immediate 'snap shot' of smoking in the community and the statistics reported are representative of the views of the overall Australian population. It should be noted that post weighting of sample data is common practice in social and market research. It takes advantage of the fact that stratified designs are more cost effective than general random samples and allows more detailed analysis of small but important segments in the population.

Questionnaire and Fieldwork

A questionnaire was developed in consultation with the Department, with questions designed to address the key outcomes identified in the Evaluation Framework criteria. Some questions from the 2008 survey were included however, some wording and code frames were changed for readability and relevance.

The questionnaire underwent questionnaire testing and pilot testing to ensure they were understood across a range of audiences. Fieldwork was conducted between 6 and 19 June 2018. The survey was timed at 15.43 minutes (median time for completion) with an average completion time of 21.59 minutes. The questionnaire included a number of sections on the following topics:

- Screening (smoking behaviour)
- Perceived health harms and sources of information
- GHW evaluation (descriptions, depth of exposure, recall, perceived impact, most/least likely, most/least effective)
- Attitudes and perceptions to smoking
- Further profiling.

8.3.1 Sample profile

The quantitative sample included a robust sample of smokers (n=1380) and recent quitters (n=328) for analysis. Most of the smokers were mainly cigarette (72%) or RYO (25%) smokers. The sample included males and females aged 14 years old and over with high representation of CALD (n=617) and Indigenous (n=158).

Table 1: Quantitative sample profile – smoking status

Smoking status	Sample size (n=)	Weighted %
Total	2649	100
Current smoker	1380	14
Recent Quitter (quit within the last 10 years)	328	22
Non-smoker	941	64

Table 2: Quantitative smoker sample profile

Smoker product and stage of change	Sample size (n=)	Weighted %
Smoker	1380	100
Cigarettes (manufactured/tailor made) or RYO tobacco–main product	1344	97
Cigarettes (manufactured/tailor made) – main product	990	72
RYO tobacco–main product	354	25
Cigarillos–main product	10	1
Cigars–main product	14	1
Pipe tobacco– main product	4	0
Pre-contemplation (committed or not serious)	31	431
Contemplation (seriously thinking/intend to quit)	32	438
Action/Relapse (tried or trying to quit)	35	481
I don't think at all about quitting/stopping using tobacco products	12	174
I have thought about quitting but not seriously and haven't cut down or tried to	18	257
I have thought seriously about wanting to quit in the next six months but I haven't done anything yet	20	280
I intend to quit in the next six months and am taking steps to do so	11	158
I have tried quitting but keep starting again	18	246
I am currently in the process of quitting/cutting down	17	235

Smokers were most likely to be aged 25 years and over with a higher proportion of CALD persons than would be expected in the population. With the low numbers of smokers aged 14-17 years old in the sample (ten smokers, two recent quitters), analysis of younger smokers is not feasible given the low sample size.

Table 3: Quantitative sample profile by smoking status (proportions and sample size)

Profile	Total % and sample size	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Total	(n=2649)	(n=1708)	(n=1380)	(n=328)	(n=941)
Male	49 (n=1131)	47 (n=713)	50 (n=586)	46 (n=127)	50 (n=418)
Female	51(n=1516)	53 (n=995)	50 (n=794)	54 (n=201)	50 (n=521)
14-17	6 (n=133)	1↓ (n=12)	1↓ (n=10)	1↓ (n=2)	9↑ (n=121)
18-24	11 (n=345)	13↑ (n=247)	12 (n=199)	13 (n=48)	9↓ (n=98)
25-39	26 (n=878)	38↑ (n=695)	40↑ (n=568)	37↑ (n=127)	18↓(n=183)
40-59	32 (n=796)	30 (n=508)	33 (n=424)	28 (n=84)	33 (n=288)
60 plus	26 (n=497)	18↓ (n=246)	14↓ (n=179)	21 (n=67)	30↑ (n=251)
Indigenous	3 (n=158)	4 (n=120)	4↑ (n=101)	3 (n=19)	2 (n=38)
CALD	21 (n=617)	23 (n=423)	28↑ (n=361)	19 (n=62)	20 (n=194)

See Appendices, 24 QUANTITATIVE TECHNICAL REPORT for additional sample profiling tables.

8.4 Eye tracking

Griffith University conducted the eye tracking research component with the objective of triangulating the research into how individuals respond to GHWs.

The target participants for this study were both Australian smokers and non-smoking residents aged between 18 and 65 years old. A total of n=419 participants completed the eye tracking experiment and post-survey and of those, n=414 were used in the analysis. A total of n=166 participants (40%) were smokers. The experiment recorded eye movements with participants instructed that they would have their eye movements tracked across a set of household goods (e.g. bread and milk) which functioned as dummy information, to prevent priming study participants to the nature of the experiment. Two variables were collected in relation to the GHWs:

1. Fixation count (number of times a participant looks at the designated areas of interest); and
2. Fixation duration (average length of time taken to look at an area) to calculate attention, being the sum of all duration fixations (total length of time looked at an area of interest).

For further information on eye tracking see Appendices, 27 EYE TRACKING RESEARCH.

8.5 Stakeholder Engagement

Throughout the evaluation, stakeholders played an important reference role to ensure they had appropriate opportunities to contribute to the overall design of the approach. Relevant stakeholders included a range of individuals and organisations determined by the department to have deep knowledge and background in the development of GHWs in both Australia and internationally. A list of organisations consulted throughout the project is included in the Appendices 23 STAKEHOLDER CONSULTATION.

Stakeholders were consulted at four key opportunities throughout the project:

- n=10 semi-structured interviews were held with a range of stakeholders in the initial stages of development of the Program Logic to ensure that the underpinning thinking to both the Logic and the Evaluation Framework were appropriate.
- A stakeholder workshop was subsequently held to share the final Program Logic and Evaluation Framework for feedback.

- Once the qualitative fieldwork was complete, a draft report of 'Topline Findings' was completed and n=8 semi-structured interviews were conducted with stakeholders to glean feedback on early findings.
- A final stakeholder workshop was held and the cumulative topline findings of the qualitative, quantitative and eye tracking research methodologies were shared.

8.6 Analysis and Reporting

Qualitative analysis

Reporting of the qualitative component consists of an analysis and interpretation by the researchers of the comments made throughout both the group discussions and individual interviews with stakeholders.

It should be noted that the semi-structured interviews and group discussion phases of the study were exploratory and diagnostic in nature. This aspect of the study is impressionistic. No attempt, therefore, has been made to attach numbers to the findings; rather they are indicative of target group attitudes to the GHWs. Verbatim quotations from the group discussions are included to illustrate consumer responses to the GHWs.

Quantitative analysis

In regard to the quantitative survey, data was tabulated and analysed using Q-Research software. Post-data collection weighting was applied to match the overall sample to population statistics sourced from the Australian Bureau of Statistics (ABS) 2016 Census of Population and Housing⁴ for age, gender and state. Weights were also applied to the smoking boost and Indigenous boost samples to general population proportions.

Throughout the report, tables are provided for key measures and supporting tables with additional cross tabulations are also available in a separate Excel file.

Significance testing was conducted on weighted data to establish the existence of significant differences between population cohorts. The following symbols are used

⁴ Australian Bureau of Statistics (ABS) 2016 Census of Population and Housing, Table builder data for AGE5P-Age in Five Year Groups by STATE (UR) and SEX Sex.
<https://auth.censusdata.abs.gov.au/webapi/jsf/dataCatalogueExplorer.xhtml>

to highlight significant differences at a 95% confidence level between sub-groups within the 2018 survey:

Table 4: Significance testing key

Symbol	Interpretation
↑	Upward arrow indicates stated measure is significantly higher than other population groups at a 95% confidence level
↓	Downward arrow indicates stated measure is significantly lower than other population groups at a 95% confidence level

The report will highlight in commentary where there are statistically significant different measures observed for individual populations of interest.

Tables of the main survey findings are provided within the report with explanatory commentary. Additional commentary with supporting statistics for specific cohort analysis are also provided within the report without tables). A separate companion document of data tabulations has been provided for the full analysis and survey tables.

8.7 Limitations of the research

Low incidence groups

Due to low incidence of some cohorts there were insufficient sample sizes to report on some survey sub-group populations.

For example, while n=133 surveys were collected with 14-17 year olds, there were only 10 smokers in this age group and therefore smokers for this age cannot be reported.

During the survey, smokers were asked about the product they mainly smoked. There were only two current smokers that primarily used cigars and eight recent quitters that mainly smoked cigars. The feedback on individual GHWs for cigar packaging is limited to qualitative research only. Where there are low sample sizes for audiences of interest, they are included in the overall reporting but not displayed in subgroup analysis.

Indigenous sample

It is important to consider that the Indigenous sample included in the survey may not reflect all Indigenous communities, including those based in remote areas or those with lower online activity. The sample has been drawn from online panels and reflects a more metropolitan and urban population.

Qualitative research with Indigenous smokers included Indigenous Australians living in remote areas and was recruited and facilitated by an Indigenous community member.

Comparison with 2008

It should be noted that while comparisons have been made to 2008 survey findings, the 2008 research was conducted via telephone. As such, comparability of results should be considered indicative only. Additionally, some response codes are not worded the same as the 2008 survey.

Eye Tracking

There are some limitations to the eye tracking findings to be noted. The current design exposed respondents to one cigarette GHW for a 20 second duration, which may increase attention beyond what would be given in 'real life' settings. A research approach that gave participants the freedom to move through the experiment at their own pace may have resulted in much lower time spent viewing the GHW.

The results comparing and contrasting individual GHWs must be viewed in light of sample sizes for each GHW exposure. Sample sizes for each GHW average 29 participants (minimum 24 and maximum 35). As noted by Wedel and Pieters (2008, p. 126)⁵ 'the eyes don't lie' and therefore results reflect the behaviour observed for the individuals participating in this study for each GHW. The overall sample sizes for smokers and non-smokers exceeded sample sizes typically found in eye tracking studies and overall findings can be treated with full confidence (Wedel and Pieters (2008)).⁶

⁵ Michel Wedel, , Rik Pieters, (2008), A Review of Eye-Tracking Research in Marketing, in Naresh K. Malhotra (ed.) Review of Marketing Research (Review of Marketing Research, Volume 4).

⁶ Ibid

CONSUMER RESEARCH FINDINGS

This section reports the main findings of the qualitative research, quantitative research and key findings from the eye tracking research. The main analysis and evidence is based on the quantitative research and where appropriate, the qualitative research findings are included to provide further context and understanding of the survey findings.

9 CURRENT LANDSCAPE (ATTITUDES AND BEHAVIOURS)

9.1 Smoking incidence

Smoking/tobacco use was highest among 25-39 year olds, Indigenous and CALD.

Across the population, certain cohorts, 25-39 year olds (22%, Indigenous (20% and CALD (19%) were more likely to be smoking or using tobacco products where there is possible exposure to GHW or products to be 'smoked'⁷.

Manufactured cigarettes were the most commonly smoked tobacco product (12%) followed by RYO tobacco (6%). The use of cigarillos, cigars, pipe tobacco and chop chop was under 1% each and around 6% were vaping/using e-cigarettes.

Younger adults aged 14-17 years old were more likely to be using e-cigarettes (4%) than traditional tobacco products (1% for manufactured cigarettes and RYO).

Vaping/e-cigarettes were more common among younger adults, 18-24 year olds (13%) and 25-39 year olds (9%).

The use of RYO tobacco was more common among 18-39 year olds (10%), Indigenous (11%), and CALD (7%).

Males were more likely to be using products other than manufactured cigarettes such as RYO tobacco (7% versus 5% of females).

⁷ This refers to cigarettes, RYO tobacco, cigarillos, cigars, pipe tobacco or chop chop - products where there is possible exposure to GHWs.

Table 5: Products smoked/used⁸ by sex and background

Total sample, S6. Do you currently smoke or use any of the following?

Products smoked/used Column %	Total	Male	Female	Indigenou s	CAL D
Currently smoke (products 1-6)	14	15	14	20 ↑	19 ↑
Cigarettes (manufactured/tailor made) – 1	12	12	12	16 ↑	16 ↑
Roll-your-own tobacco -2	6	7 ↑	5 ↓	11 ↑	7 ↑
Cigarillos – 3	0	1 ↑	0 ↓	1	1 ↑
Cigars - 4	1	1 ↑	0 ↓	2 ↑	2 ↑
Pipe tobacco - 5	0	1 ↑	0 ↓	1	1 ↑
Chop Chop - 6	0	1	0	1	1 ↑
Bidis	0	0 ↑	0 ↓	0	1 ↑
E-Cigarettes/Vaping	6	7	6	8	9 ↑
Shishas/Hookas/Nargillas/Waterpipe	2	2	2	1	5 ↑
Other sorts (specify)	0	1 ↑	0 ↓	1	0
None of these	81	80	82	75	74 ↓

⁸ Note smoking prevalence weighted to 14%.

Table 6: Products smoked/used⁹ by age

Total sample, S6. Do you currently smoke or use any of the following?

Products smoked/used Column %	Total	14-17 years	18-24 years	25-39 years	40-59 years	60+ years
Currently smoke (products 1-6)	14	1 ↓	16	22 ↑	15	8 ↓
Cigarettes (manufactured/ tailor made) – 1	12	1 ↓	14	19 ↑	12	6 ↓
Roll-your-own tobacco - 2	6	0 ↓	10 ↑	10 ↑	6	2 ↓
Cigarillos – 3	0	0	1	1 ↑	0	0 ↓
Cigars - 4	1	0	1	2 ↑	0 ↓	0 ↓
Pipe tobacco - 5	0	0	0	1 ↑	0	0 ↓
Chop Chop - 6	0	0	1	1 ↑	0 ↓	0 ↓
Bidis	0	0	0	1 ↑	0 ↓	0 ↓
E-Cigarettes /Vaping	6	4	13 ↑	9 ↑	4 ↓	4
Shishas/ Hookas/ Nargillas/ Waterpipe	2	1	6 ↑	4 ↑	0 ↓	0 ↓
Other sorts (specify)	0	0	0	1	0	1
None of these	81	94 ↑	72 ↓	71 ↓	83	88↑

⁹ Note smoking prevalence weighted to 14%.

9.2 Smoking behaviour

Smokers are typically smoking on a daily basis. The frequency and quantity of units smoked/used was highest among older smokers suggesting consumption will increase over time (that is, the longer one smokes the more they smoke).

Smokers were typically smoking daily (83%). Daily smoking was however higher among older smokers (90% for smokers aged 40 years and over) while smokers aged 18-24 years old were less likely to smoke daily (61%) and more likely to smoke weekly (22%) or fortnightly to monthly (12%).

On average, current smokers smoked/used 79 'cigarettes' or tobacco products a week. The quantity of cigarettes/tobacco products smoked/used increased with age; 18-24 year olds smoked 43.3 units per week compared to 98 products for 60 year plus smokers.

RYO smokers smoked the highest quantity – 91 cigarettes a week versus 76.4 for manufactured cigarette smokers.

There was insufficient information about other products to accurately report on quantity consumed.

Table 7: Frequency of smoking/tobacco use (proportions)

Smokers, Q2. Thinking about [MAIN PRODUCT], how many do you smoke or use?

Frequency of smoking/tobacco use Column %	Smoker	18-24 years	25-39 years	40-59 years	60+ years	Indigenous	CALD
Daily	83	61 ↓	82	90 ↑	90 ↑	83	78 ↓
Weekly	10	22 ↑	12	6 ↓	3 ↓	10	13 ↑
Fortnightly	2	6 ↑	1	1	2	3	2
Monthly	2	6 ↑	2	1	1	0	4 ↑
Every six months	1	2	1	0	0	1	2
Every year	2	2	2	1	4 ↑	3	2
Column n	1380	199	568	424	179	101	361

Table 8: Frequency of smoking/tobacco use (average)

Frequency of smoking/ tobacco use	Smoker	18-24 years	25-39 years	40-59 years	60+ years	Indigenous	CALD
Average number smoked/used per week	79.0	43.3 ↓	69.5 ↓	96.5 ↑	98.0 ↑	83.9	59.1 ↓
Column n	1380	199	568	424	179	101	361

Table 9: Frequency of smoking/tobacco use (average) by product

Smokers, Q2. Thinking about [MAIN PRODUCT], how many do you smoke or use?

Average *Caution low sample size	Smoker	Cigarettes (manufact ured/tailor made)	RYO	Cigarillos*	Cigars*	Pipe tobacco*	Chop Chop*
Average number smoked/ used per week	79.0	76.4 ↓	91.0 ↑	23.6 ↓	7.1 ↓	5.8 ↓	139.2
Column n	1380	990	354	10	14	4	8

9.3 Exposure to Australian standard packaging (plain packaging and GHWs)

Plain packaging with GHW is the norm but not all products used appear to have Australian standard packaging.

Not all smokers claimed they were always exposed to the current tobacco plain packaging and GHW packaging. While 64% of smokers claimed their products came in the standard plain packaging design¹⁰, 27% claimed the products they used were in 'branded colours' ¹¹ with logos plus health warnings – suggesting 'black market' products. This was more common for cigarette smokers than RYO smokers (30% versus 19% branded colour packaging). The qualitative research also found that a few individuals mentioned buying imported products from neighborhood stores that had 'branding'. This was rare and not prevalent. The questionnaire testing found

¹⁰ An image of the plain packaging pack was shown to indicate plain packaging.

¹¹ The term 'branded colours' was used in the questionnaire.

some individuals who were smoking after the introduction of tobacco plain packaging could be confused and select branded colours even though they only bought tobacco plain packaging products.

As the survey found selection of branded packaging was more common among recent quitters, this could be reflecting their exposure to different packaging across their smoking lifetime.

Table 10: Type of product packaging

Smoker/Recent quitters, Q4. Do the cigarettes/tobacco products you mainly smoke or use come in...?

Type of product packaging Column %	Smoker/ Quit	Smoker	Recent Quit	Cigarettes	RYO
Plain packaging in one dark green/brown colour with health warnings [image shown of plain packaging colour]	53	64 ↑	47 ↓	61 ↓	75 ↑
Packaging in various branded colours, with logos and health warnings	35	27 ↓	39 ↑	30 ↑	19 ↓
Packaging in various branded colours and logos, without health warnings	5	4	5	5	3
Unbranded/clear packaging	2	2	2	1	1
No packaging	1	1	1	1	1
Not sure	5	2 ↓	7 ↑	2	1
Column n	1708	1380	328	990	354

9.4 Exposure to smoking

Regular exposure to smoking or smokers was high among smokers and to a lesser degree, recent quitters. Exposure to smoking or smokers was particularly high for younger people and Indigenous participants.

Smokers and recent quitters were often around other smokers. Nearly two thirds of smokers (65%) and recent quitters (38%) lived with smokers and/or had friends/family who smoked. Non-smokers were less likely to be around smokers although 20% lived with smokers or had friends/family who smoked.

There was higher exposure to smoking among younger people aged under 40 years old. Over four in ten of the population aged under 40 years old lived with smokers and/or had friends/family who smoked:

- 14-17 years (42%)
- 18-24 years (46%)
- 25-39 years (40%).

Indigenous participants in particular were more likely to be exposed to smoking with around half of the Indigenous sample (49%) living with smokers and/or have friends/family who smoke.

Table 11: Exposure to other smokers

Total sample, Q3. In a typical week, are you around others who smoke/use tobacco products?

Exposure to other smokers Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Yes, I live with smokers + Yes, my friends/family are smokers	30	48 ↑	65 ↑	38 ↑	20 ↓
Yes, I live with smokers	17	27 ↑	40 ↑	19	11 ↓
Yes, my friends/family are smokers	18	29 ↑	39 ↑	23 ↑	13 ↓
Yes, people I work with	16	23 ↑	27 ↑	21 ↑	11 ↓
Yes, but no one I know directly (just people on the street)	8	7	6 ↓	8	8
Yes, but less often than a typical week	7	8	6	9	7
No, rarely around people smoking	48	27 ↓	15 ↓	35 ↓	60 ↑
Column n	2649	1708	1380	328	941

9.5 Perceptions toward smoking

There is a belief that there is an increasing cultural shift away from smoking - that smoking is less acceptable today than 10 years ago, and that fewer people are smoking.

There is agreement across the general Australian population that smoking is less acceptable than 10 years ago (78%) and this is only slightly lower among smokers (74%). There is also a belief that fewer people are smoking compared to 10 years ago (62%) and this view is more common among recent quitters (67%).

Older people in particular who have lived through the various phases of smoking culture agreed with these views (89% and 70%).

Table 12: Perceptions of smoking

Perceptions of smoking - Agree/Strongly agree Column %	Total	Smoker/Quit	Smoker	Recent Quit	Non-smoker
Smoking is less acceptable than it was 10 years ago	78	78	74 ↓	81	77
Fewer people are smoking compared to 10 years ago	62	64	60	67 ↑	60
Column n	2649	1708	1380	328	941

9.6 Visibility of tobacco packaging

The qualitative research found that tobacco packaging (including GHWs) are less visible today than in the past.

Qualitative research participants (both smokers and non-smokers) consistently reported that they were less likely to see tobacco packaging lying around than they might have in the past. Some participants stated that the tobacco packaging was not pleasant to look at, particularly when in the company of non-smokers so they would not put it out on show. For example, in the past, many regular smokers may have left their packs and/or lighter on the table of a public venue in full view of those around them. This practice has very much changed, due to the high price of tobacco and the fear of friends asking for or just taking a cigarette (or packets being stolen). Participants reported they are much more likely to keep their tobacco packs hidden to avoid this outcome.

This is not to say that GHWs have not had a role to play in avoiding leaving packs on tables, only that smokers find it easier to use cost as the primary justification rather than admit to hiding their packs due to the warnings.

"I never leave mine on the table anymore, they're just too expensive to let your mates scab them."

"I don't think it's particularly nice to have that gross looking packet on the table.... I really make sure I put them in my bag if I'm with non-smoking friends. It stops them making comments on my smoking at least."

"Remember the old days...you'd have your packet of fags out on the table? These days, not a chance."

Non-smokers reported that the only time they really see tobacco packaging today is as litter as opposed to in the past when smokers more readily kept their packets out in the open.

This finding of lower visibility contributes to the perception that generally, smoking has less visibility now than in the past.

9.7 The role of Government

The majority of Australians (non-smokers, recent quitters but also some smokers) support Government having a role in reducing smoking/tobacco use.

There is general agreement that the Government should have a role in reducing smoking/tobacco use (71%), particularly among non-smokers (77%).

Table 13: Perceptions of Government role

Total sample, Q38. Here are some different statements about smoking/tobacco products, please indicate your level of agreement – showing agree/strongly agree.

Perceptions of Government role - Agree/Strongly agree Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
The Government should have a role in reducing smoking/ tobacco use	71	61 ↓	52 ↓	66 ↓	77 ↑
Column n	2649	1708	1380	328	941

The qualitative discussions found mixed views with some smokers that supported government education and support programs although many were angry and felt they were being 'targeted'. Some smokers felt other issues like alcohol were more harmful and more widespread but did not receive the same negative attention as smoking.

Recent quitters and those wanting to quit appeared to be more supportive of government interventions. Generally, there was a negative feeling around the increasing costs of cigarettes and public bans.

There was a feeling among many smokers that the Government was not truly concerned about reducing smoking as they benefit financially from smokers. Interestingly, smokers felt no negativity towards tobacco companies with higher levels of animosity towards government.

There does appear to be some mixed responses to Government intervention. There is a desire for government to help smokers quit if they want to (support programs, nicotine replacement etc.) but not interventions that compromise their finances or lifestyle. There were mixed responses to the need for GHWs with many who felt they were 'good' and should be on packaging and others that felt they made no impact or were a waste of money.

10 AWARENESS AND KNOWLEDGE AROUND HEALTH HARMS FROM SMOKING

10.1 Smoker attitudes

Smokers believe they understand the risks associated with smoking and acknowledge that smoking is likely to be affecting their health. The majority wish they were not smoking.

Most smokers (82%) believe they fully understand the risks of smoking and agree that smoking has/does increase the risk of a health problem occurring (72%). The majority of smokers (68%) wish they could be non-smokers. Furthermore, many smokers claim they wouldn't have started smoking if they knew how addictive smoking is (64%) and/or the health effects from smoking (56%).

More committed smokers or those in pre-contemplation stages (not thinking or not thinking seriously about quitting) were less likely to agree with the above statements. This group was more likely to express statements denying health risks, that is, a higher proportion agreed with the following statements:

- "The health risks/harms from smoking are not as bad as they make out" (32%)
- "I don't think smoking has any real negative effect on my health at all" (24%)
- Females were more likely to acknowledge health harms and wish they were not smoking while more males denied health harms.

Table 14: Smokers attitudes

Total sample, Q38. Here are some different statements about smoking/tobacco products, please indicate your level of agreement – showing agree/strongly agree.

Smokers attitudes – Agree/Strongly agree Column %	Smokers	Pre-Contemplator	Contemplator	Quitting/Relapse
I fully understand the risks/harms from smoking	82	76 ↓	82	87 ↑
I think that smoking probably has/does increase the risk of a health problem occurring for me	72	62 ↓	78 ↑	77 ↑
I wish I could be a non-smoker/ stop smoking	68	44 ↓	81 ↑	77 ↑
If I'd known what I know now about how addictive smoking is, I wouldn't have started smoking	64	51 ↓	73 ↑	70 ↑
If I'd known what I know now about the effects of smoking on health, I wouldn't have started smoking	56	44 ↓	61 ↑	64 ↑
The health risks/harms from smoking are not as bad as they make out	24	32 ↑	23	19 ↓

I don't think smoking has any real negative effect on my health at all	17	24 ↑	16	12 ↓
Column n	1380	431	438	481

10.2 Perceived health harms as a result of smoking

Acknowledgement of the health impacts from smoking is high and there is evidence that the warnings from GHWs are shaping levels of knowledge, particularly among younger smokers.

It was widely accepted that smoking is associated with a range of health risks, harms or impacts. There were many harms that the majority of respondents associated with smoking which typically were cancers or afflictions centred around the lung or mouth/throat area and respiratory related illnesses or 'smell' related effects. The exception was heart disease (noting this is a current GHW).

The top ten health harms/risks associated with smoking were:

- Lung cancer (87%)
- Throat cancer (81%)
- Mouth cancer (78%)
- Difficulty in breathing (78%)
- Respiratory issues (77%)
- Bad breath (76%)
- Teeth/gum disease (72%)
- Emphysema (70%)
- General poor health (70%)
- Heart disease (69%).

Other top mentions were general health and fitness issues and hygiene related:

- Smelling bad (74%)
- Affects fitness (68%).

Harms that were also recognised (but not in the top ten associated harms) included death, stroke, advanced ageing, harms to others (including fetus/unborn babies), circulation and clotting issues and gangrene. Many of these reflected those appearing in GHWs on packaging.

- Death (66%)
- Early signs of ageing/wrinkles (66%)
- Harm to babies and children's health (66%)
- Harm for others health (65%)
- Stroke (64%)
- Harm to fetus/embryo/unborn babies (61%)
- Asthma (60%)
- Oesophageal cancer (57%)
- Peripheral vascular disease/poor circulation (52%)
- Issues with pregnancy (52%)
- Blood clots/thickening (48%)
- Stomach cancer (46%)
- Gangrene (45%).

Health harms that were less likely to be associated with smoking typically were those that did not directly involve the mouth/throat/lungs. This included certain cancers (kidney, bladder, stomach, liver, pancreatic), fertility related issues, blindness and diabetes:

- Liver cancer (41%)
- Infertility/poor sperm (for men) (37%)
- Infertility/difficulty getting pregnant (for women) (37%)
- Kidney cancer (36%)
- Pancreatic cancers (35%)
- Blindness (33%)
- Bladder cancer (33%)
- Erectile dysfunction (in men) (31%)
- Peptic ulcers (30%)
- Diabetes (29%).

The survey findings reflected findings around health harms in the qualitative research noting the qualitative research did not prompt participants with the extensive list of health harms but rather collected spontaneous mentions. As such, the more commonly mentioned health harms identified in the quantitative survey were those raised in qualitative discussions.

Table 15: Perceived health harms

Total sample, Q6ab. Which of these, if any, do you think are likely health risks, harms or impacts of smoking?

Perceived health harms Column %	Total	Smoker/ Quit	Current smoker	Recent Quitter	Non-smoker
Lung cancer	87	86	82 ↓	89	88
Throat cancer	81	79	73 ↓	83	82
Mouth cancer	78	77	72 ↓	81	78
Difficulty in breathing	78	75	69 ↓	79	79
Respiratory issues	77	74	68 ↓	78	78
Bad breath	76	73 ↓	70 ↓	75	78 ↑
Smelling bad	74	69 ↓	65 ↓	72	76 ↑
Teeth/gum disease	72	71	68 ↓	73	72
Emphysema	70	71	66 ↓	74 ↑	69
General poor health	70	67 ↓	59 ↓	72	72 ↑
Heart disease	69	69	64 ↓	73	68
Affects fitness	68	67	60 ↓	72	68
Death	66	62 ↓	57 ↓	65	68 ↑
Early signs of ageing/ wrinkles etc.	66	63	57 ↓	67	67
Harm to babies and children's health	66	63 ↓	56 ↓	67	68 ↑
Harm for others health	65	57 ↓	52 ↓	61	70 ↑
Stroke	64	66	60 ↓	69 ↑	63
Harm to fetus/ embryo/ unborn babies	61	56 ↓	47 ↓	63	64 ↑
Asthma	60	58	54 ↓	61	61
Oesophageal cancer	57	53 ↓	47 ↓	57	60 ↑
Peripheral vascular disease/poor circulation	52	51	43 ↓	56	52
Issues with pregnancy	52	48 ↓	42 ↓	53	54 ↑

Blood clots/thickening	48	47	44 ↓	49	48
Stomach cancer	46	45	42 ↓	48	47
Gangrene	45	46	42	48	44
Poor outcomes after surgery	45	41 ↓	37 ↓	44	48 ↑
Liver cancer	41	40	40	39	43
Infertility/poor sperm (for men)	37	35	34 ↓	36	39
Infertility/Difficulty getting pregnant (for women)	37	36	32 ↓	39	38
Kidney cancer	36	35	36	34	36
Pancreatic cancers	35	34	33	35	35
Blindness	33	36 ↑	34	38 ↑	31 ↓
Bladder cancer	33	33	33	32	34
Erectile dysfunction (in men)	31	29	27 ↓	31	31
Peptic ulcers	30	28	27 ↓	29	31
Diabetes	29	28	27	28	30
None of these	4	3	4	3	5
Other (specify)	1	0	0 ↓	1	1
Column n	2649	1708	1380	328	941

Compared to non-smokers and recent quitters, smokers were relatively less likely to admit that the more commonly listed health risks were a potential result of smoking (on average smokers selected 18.2 likely individual health harms/risks from smoking while recent quitters or non-smokers selected on average 20.7).

Those in contemplation and trial/action stages of quitting were significantly more likely to acknowledge a wider range of health harms as a result of smoking when compared to committed smokers, or those in pre-contemplation.

As smokers moved closer to quitting (contemplation and quitting/relapse), there was increasing acknowledgement of health harms from smoking (on average 15.5 for pre-contemplators compared to 18.2 for contemplators and 20.4 for those quitting or in relapse).

Table 16: Average number of perceived health harms - smokers

Smokers, Q6ab. Which of these, if any, do you think are likely health risks, harms or impacts of smoking?

Perceived health harms Average	Total	Pre-Contemplators	Contemplators	Quitting/Relapse
Average number of health harms/risks selected	18.2	15.5 ↓	18.2	20.4 ↑
Column n	1380	431	438	481

There were some health harms from smoking that had higher acknowledgement among certain smoker demographics. Generally, among smokers, females were more likely to associate smoking with a broader range of health issues (on average 20 health harms/risks versus 16.4 for males). Women were also more likely than men to acknowledge harm to unborn babies as well as children and babies:

- Harm to fetus/embryo/unborn babies (female 56% versus male 38%)
- Harm to babies and children's health (female 64% versus male 48%).

Parents that smoked were also more likely to acknowledge harm to unborn babies, children and babies, as well as general impacts to hygiene and health, asthma and harm to others:

- Smelling bad (69%)
- General poor health (64%)
- Harm to babies and children's health (60%)
- Asthma (59%)
- Harm for others health (57%)
- Harm to fetus/embryo/unborn babies (57%).

Smokers aged 25-39 year were more likely to consider issues related to fertility and pregnancy to be associated with smoking:

- Issues with pregnancy (49%)
- Infertility/poor sperm (for men) (38%).

There is evidence that younger smokers (18-24 year olds) were more likely to attribute issues shown in the current GHW to be likely health harms from smoking. Young smokers nominate health issues such as harm to unborn babies, kidney cancer, gangrene and teeth and gum disease, as well as other cancers and impacts:

- Teeth/gum disease (75%)
- Asthma (65%)
- Harm to fetus/embryo/unborn babies (56%)
- Liver cancer (51%)
- Stomach cancer (51%)
- Gangrene (50%)
- Kidney cancer (46%)
- Infertility/difficulty getting pregnant (for women) (41%)
- Pancreatic cancers (40%).

10.3 Health risks/harms most concerned about

Concerns about health risks are highest for those harms more typically associated with smoking.

As noted above, it was widely accepted that smoking is associated with a range of health risks, harms or impacts. When it comes to the level of concern smokers and quitters have about these health risks in relation to their own personal health, they were most concerned with the health harms they typically associate with smoking:

- Lung cancer (53%)
- Respiratory issues (40%)
- Throat cancer (39%)
- Difficulty in breathing (39%)
- Emphysema (38%)
- Mouth cancer (37%)
- General poor health (36%)
- Death (33%)
- Teeth/gum disease (33%).

Recent quitters were generally more concerned than smokers about lung cancer, respiratory issues and asthma, as well as general health, smelling bad and ageing. Similarly, those smokers in the quitting or relapse stage were also more concerned about a range of health issues compared to those in pre-contemplation or contemplation stages.

Table 17: Health risks/harms most concerned about

Smokers/recent quitters, Q9. Of the following, what would you be most concerned about for yourself personally?

Health risks/harms most concerned about Column %	Smoker/Quit	Smoker	Recent Quitter
Lung cancer	53	49 ↓	56 ↑
Respiratory issues	40	35 ↓	44 ↑
Throat cancer	39	35	41
Difficulty in breathing	39	34 ↓	42 ↑
Emphysema	38	37	39
Mouth cancer	37	31 ↓	40 ↑
General poor health	36	29 ↓	40 ↑
Death	33	33	34
Teeth/gum disease	33	31	34
Heart disease	32	29	33
Stroke	31	29	32
Bad breath	31	29	32
Smelling bad	30	27 ↓	33 ↑
Affects fitness	28	24 ↓	30 ↑
Early signs of ageing/wrinkles	25	21 ↓	27 ↑
Asthma	22	17 ↓	26 ↑
Oesophageal cancer	21	19	23
Harm for others health	21	18	23
Blood clots/thickening	19	18	20
Harm to babies and children's health	18	16	20
Peripheral vascular disease/poor circulation	17	15	19
Stomach cancer	16	16	17
Liver cancer	15	16	15
Gangrene	15	15	15

Blindness	15	15	15
Kidney cancer	14	14	13
Bladder cancer	12	14	12
Pancreatic cancers	12	12	12
Poor outcomes after surgery	12	11	13
Harm to fetus/embryo/unborn babies	11	9	12
Diabetes	10	9	10
Issues with pregnancy	10	8 ↓	11 ↑
Peptic ulcers	9	8	10
Infertility/difficulty getting pregnant (for women)	9	7	10
Erectile dysfunction (in men)	8	7	8
Infertility/poor sperm (for men)	6	7	6
I'm not concerned about any of these	13	13	13
Column n	1708	1380	328

There were also differences by demographics where females, parents and those in 'child bearing' age groups were more concerned about the impacts of smoking on them personally in terms of fertility, pregnancy and babies or children.

Female smokers were more concerned about the health impacts than male smokers generally, and were more likely to be concerned about issues related to pregnancy and babies/children as well as ageing:

- Emphysema (43%)
- Mouth cancer (36%)
- Early signs of ageing/wrinkles (29%)
- Blood clots/thickening (22%)
- Asthma (20%)
- Harm to babies and children's health (20%)
- Harm to fetus/embryo/unborn babies (12%)
- Issues with pregnancy (11%)
- Infertility/difficulty getting pregnant (for women) (11%).

Parents that smoked were more concerned about:

- Lung cancer (54%)
- Harm to babies and children's health (21%)
- Issues with pregnancy (10%)
- Harm to fetus/embryo/unborn babies (11%).

Smokers aged 18-24 years old were more concerned about:

- Mouth cancer (39%)
- Asthma (22%)
- Harm to babies and children's health (22%)
- Stomach cancer (21%)
- Harm to fetus embryo/unborn babies (17%)
- Infertility/difficulty getting pregnant (for women) (12%)
- Issues with pregnancy (11%).

Smokers aged 25-29 years old were more concerned about:

- Bad breath (33%)
- Harm to babies and children's health (21%)
- Blood clots/thickening (20%)
- Issues with pregnancy (13%)
- Harm to fetus/embryo/unborn babies (13%)
- Infertility/difficulty getting pregnant (for women) (11%)
- Infertility/poor sperm (for men) (10%).

Smokers aged 40-59 years old were more concerned about Emphysema (42%).

10.4 Other beliefs about smoking

There were some misconceptions about the causes of health harms and level of harm resulting from smoking among smokers and quitters particularly among users of products other than manufactured cigarettes. These misconceptions include beliefs about the combustion/inhaling smoke as the cause of harm, whether one smoke a day has the potential to cause harm, and that some products are less harmful than others. This suggests opportunities to provide further education to address prevailing misconceptions.

The majority of smokers and recent quitters (78%) believed the main harms from smoking are because of the chemicals present in cigarettes. Fewer believed the main harms were from inhaling smoke or the burning of the contents (65%).

Recent quitters were more likely to believe that even one cigarette a day can increase risks of diseases like heart attacks and stroke (67% recent quitters agreed versus 60% smokers) suggesting room to improve knowledge about the dangers of even one cigarette.

There continues to be a notable minority of smokers and recent quitters who believed RYO cigarettes are less harmful than manufactured cigarettes (27% of smokers) or that light cigarettes are less harmful (23% of smokers).

Table 18: Other beliefs about smoking

Smokers /Recent quitters, Q38B. Here are some other statements about smoking/tobacco products, please indicate your level of agreement – showing agree/strongly agree.

Other beliefs about smoking Column %	Smoker/ Quit	Smoker	Recent Quit
The main harms from smoking is because of the chemicals present in cigarettes	78	75	79
The main harms from smoking is through inhaling smoke/burning of the cigarette contents	65	64	65
Smoking even one cigarette a day can increase risks of diseases like heart attacks, stroke etc.	64	60 ↓	67 ↑
Roll-your-own cigarettes are less harmful than manufactured cigarettes	26	27	25
'Light cigarettes (those with longer filters, lighter colour variants) are less harmful	17	23 ↑	13 ↓
Smoking cigars are less harmful than cigarettes	16	18	14
Column n	1708	1380	328

These beliefs were held more strongly among different cohorts:

- Smokers in pre-contemplation stages were more likely to believe light cigarettes are less harmful and cigars were less harmful than cigarettes (26% and 22% respectively).
- Males were also more likely to believe light cigarettes were less harmful and cigars are less harmful than cigarettes (28% and 23%).
- In particular, younger smokers were also more likely to believe that RYO tobacco, light cigarettes and cigars are less harmful than manufactured cigarettes.

Beliefs about smoking varied greatly by the type of products smoked:

- RYO tobacco smokers were more likely than manufactured cigarette smokers to consider RYO less harmful than cigarettes (35% versus 25%). However it was other product users that were even more likely to hold these misconceptions.
- Those smoking tobacco products other than cigarettes (cigarillos, cigars and pipe tobacco) were much more likely to believe that RYO, light cigarettes and cigars were less harmful.
- Cigarillo and cigar smokers were more likely to consider cigars to be less harmful than cigarettes (55% and 32% respectively).
- Those vaping/using e-cigarettes were more likely to believe that the main harms from smoking is through inhaling smoke/burning of the cigarette contents (72%).

Table 19: Other beliefs about smoking – by type smoked

Smokers, Q38B. Here are some other statements about smoking/tobacco products, please indicate your level of agreement – showing agree/strongly agree. Columns showing type smoked/used currently.

Other beliefs about smoking Column %	Smokers	M.Cigarettes	RYO	Cigarillos	Cigars	Pipe tobacco	Chop Chop	E-Cig	Shisha
The main harms from smoking is because of the chemicals present in cigarettes	75	75	77	72	76	69	75	78	77

The main harms from smoking is through inhaling smoke/ burning of the cigarette contents	64	64	65	75	64	68	69	72 ↑	63
Smoking even one cigarette a day can increase risks of diseases like heart attacks, stroke etc.	60	60	61	75	64	57	69	65	65
Roll-your-own cigarettes are less harmful than manufactured cigarettes	27	25 ↓	35 ↑	53 ↑	34	54 ↑	45 ↑	33 ↑	39 ↑
'Light cigarettes (those with longer filters, lighter colour variants) are less harmful	23	23	22	52 ↑	38 ↑	42 ↑	49 ↑	30 ↑	40 ↑
Smoking cigars are less harmful than cigarettes	18	18	17	55 ↑	32 ↑	48 ↑	41 ↑	22	27
Column n	1380	1133	597	39	71	36	48	258	81

10.5 Sources of information about health harms from smoking

Health warnings on tobacco packaging were the top source of information about risks and harms to health from smoking among smokers and recent quitters and had even greater cut-through for smokers who were contemplating quitting or in the process of quitting.

Sources of information about health harms from smoking were typically a mix of government initiatives, medical and social influences.

Across the general population, the most common sources of information around health harms from smoking were:

1. Government advertising on TV (58%);
2. GHWs on packets (50%); and
3. Advice from the medical profession (doctors, nurses, pharmacists and other medical professionals) (47%).

Parents and word of mouth were also common sources of information (36% each respectively).

GHWs were the top source (alongside Government advertising on TV) for smokers and recent quitters. Nearly six in ten smokers and recent quitters cited GHWs on the packets as a source of information (58% for GHWs and 59% for Government advertising on TV).

Smokers and recent quitters were somewhat less likely to cite social influence via parents as a source of information about health harms compared to non-smokers (30% versus 39% respectively). Non-smokers also cited TV shows, documentaries and school as sources of health harms.

Table 20: Source of information about health harms – total

Total sample, Q7. Where do you learn about the risk or harms to health from smoking?

Source of information about health harms Column %	Total	Smoker/ Quit	Smoker	Recent quit	Non-smoker
Government advertisements on TV	58	59	54	62	57
Health warnings on tobacco packets (pictures, written warnings etc.)	50	58 ↑	56 ↑	58 ↑	46 ↓
Doctors/Nurses/Pharmacists/Medical professionals	47	48	47	48	46
Parents/family when growing up	36	30 ↓	31 ↓	30 ↓	39 ↑
Talking to other people	36	35	33	36	36
Information on the internet/website	34	32	32	32	36
TV shows	33	28 ↓	29 ↓	28 ↓	35 ↑
Documentaries	29	23 ↓	24 ↓	22 ↓	32 ↑
School	28	24 ↓	23 ↓	25	31 ↑

Press or radio advertising by pharmaceutical companies for products such as nicotine gum, patches or Bupropion (Zyban, etc.) and Varenicline (Champix)	25	23	22	23	26
Social media advertising	24	27 ↑	26	28	23 ↓
Pamphlets or brochures on how to quit	24	26	27	25	24
Quitline	22	23	25 ↑	22	21
Local community advertising	17	17	15	18	17
Local community programs	12	9 ↓	10	9 ↓	14 ↑
Quit smoking mobile device App	10	12	13 ↑	11	9
Course/Seminar	8	5 ↓	5 ↓	5	9 ↑
Other (specify)	2	2	1 ↓	2	2
None of these	8	5 ↓	5 ↓	5 ↓	9 ↑
Column n	2649	1708	1380	328	941

Smokers in contemplation and action/relapse stages (closer to quitting) cited more sources (5.1 and 5.3 sources) than those in pre-contemplation, who cited 3.7 sources.

Specifically, as smokers move towards quitting, they were more likely to consider GHWs to be a source of information about risks or harms to health (46% for pre-contemplators, 59% for contemplators and 61% for those in action/relapse).

Table 21: Source of information about health harms – by stage of change

Source of information about health harms – by stage of change	Smoker	Pre-Contemplators	Contemplators	Action/Relapse
Average number of sources	47	3.7 ↓	5.1 ↑	5.3 ↑
Column %				
Health warnings on tobacco packets (pictures, written warnings etc.)	56	46 ↓	59	61 ↑
Government advertisements on TV	54 ↓	43 ↓	57	61 ↑
Doctors/Nurses/Pharmacists/Medical professionals	47	36 ↓	49	56 ↑
Talking to other people	33	28 ↓	33	39 ↑
Column n	1380	431	438	481

Health warnings on packaging had greater cut through as a source of information about health harms for female smokers (62%). Meanwhile fewer male smokers (51%) and CALD smokers (41%) cited health warnings as a source of information.

Indigenous smokers were more likely to also mention social media advertising (37%), Quitline (35%) and local community advertising and programs (25% and 24% respectively) as a source of information about health harms.

The qualitative research also found the health warnings on packaging to contribute to health knowledge.

Overall, all smokers in the qualitative discussions could spontaneously recall many of the health risks presented to them on the packets, demonstrating familiarity with the

health risks. This familiarity was driven predominantly by the images on the packaging, rather than the written warnings, and further information on the back of the packaging or yellow side panel.

While most claimed that the information on the warnings was not new to them, there were some that admitted that when the warnings were first introduced, they had not been aware of some of the specific health risks and that knowledge had been gained through exposure to the packaging over time.

"We all know smoking causes lung cancer and emphysema and things like that, but I remember being surprised at some of the other things... like the foot and the one with the blood in the toilet."

This is reinforced by the reaction to the warnings by 'at risk' non-smokers and 'social smokers' who were not aware of some of the health risks on the packaging. This is despite receiving education on tobacco use in schools and being exposed to other prevention advertising. Commonly, these were the warnings on mouth and throat cancer, bladder cancer, and peripheral vascular disease.

These warnings tended to further reinforce the general understanding of the negative health effects of smoking for 'at risk' smokers. However, the impact was less on 'social smokers'. This cohort tended to hold the belief that like the other health consequences, these would only ever happen to heavy, long term smokers of which they were not.

"I just don't smoke enough for any of these things to happen to me. They only happen to really old hard-core smokers."

"You have to smoke a lot for a really long time for that to happen to you, if it does even."

As stated above, recall of the wording of the written warnings was significantly lower than recall of the image, although it was generally recognised that the text was associated with the image. For example, while there was strong recall of the gangrenous foot without looking at the pack directly, many smokers could not state what caused the condition (peripheral vascular disease).

10.6 Level of concern about health

Smokers are worried about the impacts of smoking on their future health particularly if they are contemplating quitting or have attempted to quit.

Nearly all smokers (87%) claimed they were 'a little worried' to 'very worried' that smoking would affect their health in the future with over half (52%) 'worried' or 'very worried'. Smokers who were contemplating quitting or in the process of quitting were even more likely (94% and 93% respectively) to be worried to some degree.

A high proportion of recent quitters were also 'worried' (63% 'a little worried' to 'very worried') that smoking would affect their health in the future. Recent quitter's level of concern was lower than smokers with 28% that were 'very worried' or 'worried' compared to 52% of smokers.

Table 22: Worry about effects on health in future

Smokers/Recent quitters, Q12. How worried are you that smoking will affect your health in the future?

Worry about affects to health in future Column %	Smoker/ Quit	Smoker	Recent Quit	Pre- Contempl ators	Contempl ators	Action/Re lapse
Very worried + Worried + A little worried	73	87 ↑	63 ↓	76 ↓	94 ↑	93 ↑
Very worried + Worried	38	52 ↑	28 ↓	37 ↓	63 ↑	55
Very worried	14	19 ↑	11 ↓	11 ↓	16	28 ↑
Worried	23	33 ↑	17 ↓	26 ↓	48 ↑	27 ↓
A little worried	35	36	35	39	30 ↓	38
Not worried	27	13 ↓	37 ↑	24 ↑	6 ↓	7 ↓
Column n	1708	1380	328	431	438	481

Some smokers had even higher levels of worry about their health in the future (very worried/worried):

- 25-39 year old smokers (57%)
- Parents who smoke (61%)
- CALD smokers (56%).

10.7 Impact on health

Smokers and recent quitters believe that smoking has (already) affected their health.

When asked how much smoking has affected their health, 81% of smokers believe smoking has affected their health a lot, a fair amount or a little with 37% who believe it has affected their health a lot or a fair amount. Smokers who are contemplating or quitting were even more likely to believe smoking affected their health a little, a fair amount or a lot (87%).

The majority of recent quitters also felt smoking had impacted their health, although this was to a lesser degree than current smokers (68% a little, a fair amount or a lot and 29% a lot or a fair amount).

Table 23: Impact of smoking on health

Smokers/Recent quitters, Q11. How much would you say smoking has affected your health?

Impact of smoking on health Column %	Smoker/ Quit	Smoker	Recent Quit	Pre- Contempl ators	Contempl ators	Action/Re lapse
A lot + A fair amount + A little	73	81 ↑	68 ↓	70 ↓	87 ↑	87 ↑
A lot + A fair amount	32	37 ↑	29 ↓	33 ↓	40	41
A lot	4	3	4	2	2	4
A fair amount	28	35 ↑	24 ↓	30 ↓	38	37
A little	41	44	39	37 ↓	47	47
Not at all	27	19 ↓	32 ↑	30 ↑	13 ↓	13 ↓
Column n	1708	1380	328	431	438	481

Smokers aged 25-39 years old were more likely to admit that smoking had affected their health (42% a lot/a fair amount). Smokers aged 60 years and over were least likely to admit that smoking had affected their health (28% a lot/a fair amount).

Half (49%) of Indigenous smokers admitted that smoking had affected their health a lot or a fair amount.

Table 24: Impact of smoking on health by demographics

Smokers, Q11. How much would you say smoking has affected your health?

Column %	Total	18-24	25-39	40-59	60 plus	Indigenou s
A lot (specify) + A fair amount + A little	814	80	85 ↑	81	73 ↓	88
A lot (specify) + A fair amount	37	31	42 ↑	38	28 ↓	49 ↑
A lot (specify)	3	1 ↓	3	3	4	5
A fair amount	35	31	40 ↑	35	23 ↓	43
A little	44	49	43	43	45	39
Not at all	19	20	15 ↓	19	27 ↑	12
Column n	1380	199	568	424	179	101

11 STAGE OF CHANGE (CESSATION INTENT)

11.1 Cessation intent

Nearly all smokers think about quitting, are planning to quit or have tried quitting.

Over eight in ten (85%) smokers have at a minimum thought about quitting smoking. Around seven in ten (67%) have thought seriously about wanting to quit, intend to quit, are in the process of quitting or have tried to quit in the past. Only one in ten smokers (12%) do not think about quitting or stop using tobacco.

Smokers are evenly spread across the various stages of quitting:

- 31% in the pre-contemplation stage (don't think or haven't thought seriously about quitting)
- 32% in the contemplation stage (20% are thinking seriously and 11% are taking steps to quit)
- 35% in the quitting or relapse stage (17% are in the process and 18% have quit but started again).

Table 25: Stage of change (with relation to cessation/quitting)

Smokers, S9A. Which best describes you?

Stage of change (with relation to cessation/quitting) Column %	Smoker
I don't think at all about quitting/stopping using tobacco products	12
I have thought about quitting but not seriously and haven't cut down or tried to	18
I have thought seriously about wanting to quit in the next six months but I haven't done anything yet	20
I intend to quit in the next six months and am taking steps to do so	11
I have tried quitting but keep starting again	18
I am currently in the process of quitting/cutting down	17
Pre-contemplation stage	31
Contemplation stage	32
Quitting/Relapse stage	35
Any thoughts on quitting (total)	85
Other	2
Column n	1380

The desire to quit (whether seriously or not seriously) was consistent across groups with males only slightly more likely to not think about quitting (14%).

Some groups of smokers were more likely to seriously contemplate quitting:

- 25-39 year old smokers (38%)
- CALD (36%)
- Parents (37%).

Some groups of smokers were more likely to be in the quitting or relapse stage:

- Females (38%)
- 60 year olds and over (46%).

More specifically, females and smokers aged 60 years and older were more likely to claim to be a relapsed smoker that quit and started again (22% and 30% respectively).

11.2 Reasons for quitting

The general 'social' shift away from smoking, government interventions and recognition of health harms are driving quit intentions. Smokers and recent quitters acknowledge a range of reasons for wanting to quit with the most common being the cost, health and fitness (personal and of others around them), and a sense of guilt. Advice from the medical profession, friends and family as well as a sense of social judgement and feeling socially awkward is also apparent. Health warnings are also contributing to wanting to quit. Reasons to quit also include seeing others quit and smoking restrictions.

The most commonly mentioned reasons for quitting were cost (54%), a recognition that smoking is affecting health/fitness (35%) as well as wanting to get fit/fitter (29%). Feeling guilty and hating the smell were also frequently mentioned (21% and 20% respectively).

Over one in ten stated that GHWs on packaging as a reason for wanting to quit (16% for smokers and 13% for recent quitters). Smokers in contemplation or quitting/relapsed were more likely to mention GHWs as a reason to quit (19% and 18% respectively versus 10% for pre-contemplators). Males were more likely to cite a combination of GHWs on tobacco packets or the packaging is so unattractive (22%) as a reason to quit.

In line with attitudes about smoking being less acceptable there were also mentions around social barriers. For example, other reasons for wanting to quit included feeling socially awkward (13%), smoking being socially unacceptable (12%), smoking restrictions (9%) and it being too hard to smoke nowadays (8%). One in ten (10%) also mentioned seeing others quit as a reason to quit.

Smokers contemplating quitting were more likely to give social motivations such as smoking restrictions and feeling socially awkward and guilty as reasons for quitting. Those smokers in the process of quitting or relapsed smokers were more likely to mention costs and impact on health/fitness.

Table 26: Reasons for quitting

Smokers/Recent quitters'Q31. IF CONTEMPLATING: What are the main reasons you are thinking about quitting/stopping using tobacco products? IF QUIT: Which of the following motivated you to try quitting or giving up smoking? Showing top selected responses.

Top reasons for quitting Column %	Smoker/ Quit	Smoker	Recent Quit
Cost – costs too much	54	59 ↑	52 ↓
Affecting health or fitness	35	37	34
Want to get fit/fitter	29	33	27
Feeling guilty	21	24	20
Hate the smell	20	18	21
Doctors/Medical advice	18	16	19
Family and/or friends asked me to quit	16	19	14
Worry about it affecting the health of those around me	15	18 ↑	13 ↓
Health warnings on tobacco packets	14	16	13
Feeling socially awkward	13	13	13
It is socially unacceptable/people's judgement	12	11	12
Seeing others around me quit	10	12	8

Smoking restrictions in public areas (e.g. restaurants, sporting venues, public transport etc.)	9	12	8
It's too hard to smoke nowadays	8	10	7
I am/was pregnant or planning to start a family	8	5 ↓	10 ↑
Column n	1534	1206	328

Across all smokers, cost was the most frequently mentioned reason for quitting (59%) with the exception of smokers with a household income of over \$130K a year where cost was less frequently mentioned (51%) as a reason for quitting.

In fact, smokers with a household income of over \$130K a year were more likely to cite other reasons as motivations for quitting. These were related to health warnings/packaging being unattractive, family/friend and social pressure, guilt, smell and advertising for Quitline (note ordered by ranking for smokers and recent quitters overall):

- Health warnings on tobacco packets or packaging is so unattractive (27%)
- Advertising (23%)
- Hearing about/seeing advertisements for Quitline (12%)
- Family and/or friends asked me to quit (28%)
- Feeling guilty (35%)
- Hate the smell (24%)
- Feeling socially awkward (19%)
- It is socially unacceptable/people's judgement (17%).

Females were more likely to mention feeling guilty (27%) and hating the smell (22%).

Smokers aged 60 years and over were more likely to mention health or medical reasons as well as it being harder to smoke in public:

- Affecting health or fitness (45%)
- Doctors/Medical advice (28%)
- Smoking restrictions in public areas (e.g. restaurants, sporting venues, public transport etc.) (27%)
- It's too hard to smoke nowadays (16%).

Government interventions appear to be having a greater impact on CALD smokers with higher mentions about packaging, advertising and Quitline advertising:

- GHWs on tobacco packets or packaging is so unattractive (24%)
- Any form of advertising including Government advertising (24%)
- Hearing about/seeing advertisements for Quitline (10%).

The qualitative research also found a combination of factors were contributing to the high levels of desire to quit among smokers.

During the qualitative discussions, many smokers reported that they actively 'want to quit' and it was often at the point of buying a new packet that they would question whether it was time. The very process of buying tobacco products forces them to recognise that their musings and quit intentions have failed to convert to cessation. In regard to the relationship between quit intentions and cost, some smokers who would buy their cigarettes in bulk identified that they were at times spending more on cigarettes for the week than on food shopping for the family.

"When I buy a carton for my husband and a carton for myself when I do the weekly shop, it really hits home how expensive they are..."

Some smokers identified that when the warnings were first introduced they recalled questioning their decision to smoke due to the prominence and nature of the warnings, specifically the images. Combined with the introduction of plain packaging at the same time, the change in the appearance of the product reportedly disrupted their existing behaviour to some extent. However, smokers claimed this had decreased significantly over time as familiarity with the packaging grew.

"I remember that for the first couple of months they affected me, but now I don't even notice which one I've got."

"When they first came out I may have had a think about whether I could possibly get that... whatever was on the pack... but since then I haven't really seen people walking around with tongues or feet like that so I tend to look over them now."

While the warnings themselves may not motivate quit intentions directly, some smokers who claimed to be actively contemplating quitting identified that certain warnings can reinforce their intentions. This was particularly the case where certain warnings held more personal relevance, for example, they had recently had a family member diagnosed with or die from emphysema or heart disease.

"My aunt recently died of emphysema and that was due to smoking, so that one makes me have a bit of a think when I get it... these things kind of run in the family, don't they?"

Among Indigenous participants, the higher incidence of tobacco use and related health conditions resulted in a higher level of personal experience with various health conditions, particularly lung cancer and stroke. As a result, when quitting becomes a consideration, these warnings can help to reinforce intentions.

Most of the recent quitters participating in the group discussions claimed to have done so predominantly for health reasons. These recent quitters believed that the warnings had a role in reinforcing the negative health impacts while they were actively considering quitting, however were not necessarily the core motivator. Similarly, they also believed that the warnings held some role in reinforcing their decision to quit when they were in a social situation and offered a cigarette by others.

"When you start to not be able to train like you used to....getting out of breath and all that, and then you get a pack with lung cancer on it, then yeah, quitting was the better option."

"I remember waking up with that 'furry tongue' thing you get after a big night out and I had the pack with the tongue on it..... quit pretty soon after."

"When you're out with your friends and they're smoking, sometimes you really feel like one, but a look at those packs can gross you out enough not to, 'specially as you don't see them that often anymore."

The qualitative research also found that increased cost of tobacco products has had a significant effect on distal outcomes.

Since GHWs were introduced, the cost of tobacco products has risen considerably. Many qualitative participants claim that cost has been a key factor in reducing their consumption of smoking and in some cases, cessation. The impact of cost is evident with both lower and higher socio-economic groups claiming to have considered reducing their tobacco use due to cost.

"It's the cost these days. Even if you buy from the supermarket, you're handing over a fifty and not getting much change from it"

"Just the cost makes you think about how much you're smoking."

"It's \$1 a dart now."

Increased cost has also affected the type of tobacco product used, as many participants noted they had moved to RYO tobacco products because it was cheaper. Others claimed to purchase the cheapest product displayed on the price board.

"I smoke rollies at work, 'cos that's where we power through them the most on breaks. If I have to stop and roll one, that takes up some of the time that I'd be cramming in a couple tailors."

"I just go for the cheapest now. Whatever is the least cost on that board at the supermarket, that's the one I get."

Disconcertingly, some young people have also reported an increased prevalence of smoking marijuana as it was claimed to be cheaper in price, and with a greater effect on emotional state than can be achieved with tobacco. Some younger people also make a clear trade-off analysis between cost and 'return' of a variety of illicit drugs (ecstasy, marijuana), alcohol and tobacco. This suggests that for these participants, uptake and usage is more focused on mind state and outcome than it is on any other factor, and the cheapest way to achieve this is clearly the goal for some. Therefore, the prevalence of tobacco use may decrease in preference for other cheaper options that also have a potentially greater impact on mental state.

The qualitative research also found that bans on smoking inside venues which have led to the creation of smoking areas outside have had a significant effect on distal outcomes.

Many participants noted that a key contributing factor to their decreased use of tobacco products has been the creation of smoking areas outside venues in response to smoking bans in venues. This, together with the gradual decrease in tobacco usage overall, has influenced smoking behaviour as many participants expressed distaste for those areas for three main reasons.

First, the location itself is often visually unappealing and isolated in distance from friends still within the venue. Many participants stated that the outdoor locations are 'after-thoughts' with little attention paid by venues to make them attractive or enjoyable, which builds on the perception that smokers are socially undesirable.

Second, a number of smokers reported that as many of their friends have quit smoking (in line with national trends), they now have no one to socialise with when they go off to smoke. What was once a major opportunity to socialise amongst a

group of friends has now become a largely solo activity for many, which vastly diminishes the appeal of smoking.

"Sometimes when I go out, I'm the only smoker and I've got to do the little sneak off and have one outside.....used to be a couple of us going outside but now it can sometimes be only me out in the cold."

"They always make it the tiny little area out the back or around the corner."

Finally, a number of smokers spoke disparagingly about the 'type' of smokers that frequent the smoking areas, making it an unappealing place to be. Smokers were often described in terms such as 'old haggard-looking losers'; 'dregs of society desperate for a fag' or 'very down-market individuals and places'. Whilst it may not yet be the case that the perception of others has translated to self-perception (e.g., 'I am one of those losers'), some smokers claim that this has resulted in lowering their own use of tobacco.

12 GWH NOTICABILITY AND BELIEVABILITY

12.1 Noticeability

The qualitative research found the graphic component of GHWs to be the key recalled elements across the entire packaging.

During qualitative discussions, it was clear that across all cohorts the visuals were the most recalled aspects, with other considerations such as the yellow flash and text warnings far less likely to be recalled or noted. Overall, there was a low level of awareness that the warnings differed by pack or were tailored to the visual. This was particularly the case for younger cohorts, many of whom cognitively process visually (kinaesthetic learners) rather than through written words.

The qualitative research also found recall of the written information on the health risks provided on the back of the packaging was low. While some reported reading it “when bored”, there was no apparent recollection of what that information may have included. That said, when some of the text was read out in groups it provided new information to participants.

For example, when some groups admitted to not actually being aware of what emphysema was, the written warning provided them with this information. The key issue is to encourage engagement with this information in order to increase knowledge.

“I know there is writing on the back, but I don’t stand there and read it. It’s too small and there’s lots of it so why bother?”

“I’ve read it when I was bored. Like when I’m having a dart by myself. I kind of remember the Bryan story but apart from that I don’t really remember anything.”

There was a similar response to the yellow warning panels. These also may have been read “when bored”, however the content was not readily recalled. That said, there was a general sense that they contained information on the chemicals that were used in tobacco products.

*“Isn’t it about all the s%*t they put in it apart from tobacco?”*

As stated earlier, the emphasis on the image to communicate due to low engagement with the written information is even greater among Indigenous Australians due to lower English literacy levels.

12.1.1 Design elements recalled

Design elements of GHWs and plain packaging have high noticeability with packaging described as gross/ugly/disgusting pictures and health warnings on dark coloured packaging.

When asked to describe the packaging, smokers and non-smokers were able to provide some description of the packaging with high spontaneous recall of pack elements including GHWs.

The most common mentions included that the packaging had gross/ugly/disgusting/bad/confronting/graphic pictures (38%); that there were pictures of the outcomes from smoking (23%), that there were health or cancer warnings (21%) and plain packaging colour (20%).

As expected, smokers and recent quitters that had higher exposure to packaging were more likely to provide a response (75% versus 67% for non-smokers).

Smokers were most likely to describe packaging as:

- Gross/ugly/disgusting/bad/confronting/graphic pictures (43%)
- Health warnings/cancer warnings/cancer (27%)
- Dark green/olive/brown/black/blue/rectangular/small/pack/box (23%)
- Pictures of outcomes from smoking (16%).

Table 27: How they described the packaging

Total sample, Q14. If you were asked to describe the packaging of cigarette/tobacco products to another person, how would you describe it? Showing top responses. Coded from open ended verbatim.

How they described the packaging Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Any mention (total)	70	75 ↑	77 ↑	74	67 ↓
Gross/ugly/ disgusting/ bad/ confronting /graphic pictures	38	39	43 ↑	36	38
Pictures of outcomes from smoking	23	15 ↓	16 ↓	15 ↓	28 ↑
Health warnings/ca ncer warnings/ cancer	21	24 ↑	27 ↑	22	20 ↓
Dark green/olive /brown/ black/blue/ rectangular /small/pack / box	20	24 ↑	23 ↑	24 ↑	18 ↓
Plain packaging/g eneric packaging/n o branding	7	9 ↑	9 ↑	9	6 ↓
Dull/Plain/B land/Simple	4	8 ↑	9 ↑	7 ↑	2 ↓
Column n	2649	1708	1380	328	941

Smokers in pre-contemplation were less likely to describe the packaging as gross/ugly/disgusting/bad/confronting/graphic pictures (35%) while those contemplating quitting or in the process or relapsed smokers were more likely to describe packaging this way (47% and 46% respectively).

Female smokers were also more likely to describe packaging as/as having:

- Gross/ugly/disgusting/bad/confronting/graphic pictures (51%)
- Health warnings/cancer warnings/cancer (30%)
- Dark green/olive/brown/ black/blue/rectangular/ small/pack/ box (27%)
- Pictures of outcomes from smoking (19%).

Smokers aged 25-39 years were more likely to describe the packaging as gross/ugly/disgusting/bad/confronting/graphic pictures (52%). CALD smokers were less able to provide a description of the packaging.

12.1.2 Eye tracking findings on attention

The eye tracking found visual components garnered the highest level of attention being the area where participants first looked and looked at for longest.¹²

The companion eye tracking experiment recorded participant's eye movements. Two variables were collected:

1. Fixation count (number of times a participant looks at the designated areas of interest)
2. Fixation duration (average length of time taken to look at an area) to calculate attention, being the sum of all duration fixations (total length of time looked at an area of interest).

For each participant, one GHW was tested. Images were displayed individually for 20 seconds before the image was changed automatically. The first area participants looked at was measured as the first one second of eye tracking recordings.

The eye tracking measured and analysed attention given to seven areas:

- Front top warning message
- Front graphic image
- Branding of information
- Back top warning message
- Back graphic image
- Back Quitline message.

¹² The eye tracking activity comprises 'forced' attention where participant's eye movement are measured for a forced period of 20 seconds. As such, caution should be noted as this may not reflect day to day behaviour.

Figure 4. Eye tracking GHW areas



The eye tracking found that:

- The front GHW visual is most commonly looked at followed by the front top warning or back graphic
- The Quitline message/logo is looked at the longest
- The side warning message areas are the least looked at among participants.

Smokers and non-smokers reactions were similar suggesting that even for those more familiar with the designs (smokers), the image is still the area that draws the highest attention.

Among smokers, the front graphic image area (72%) was the first GHW area most commonly looked at; followed by the back graphic image area (14%) and the front top warning message area (14%) respectively. The Quitline message area (43%) was the GHW part most looked at, followed by either the front graphic image area (36%) or the back graphic image area (21%). The side warning message area (36%) and back top warning message area (36%) was the GHW area least looked at, followed by the branding information area (13%) and front top warning message area (13%).

Among non-smokers, the front graphic image area (93%) was the first GHW area most commonly looked at; followed by the front top warning message area (7%). The Quitline message (71%) was the GHW area most looked at, followed by the front graphic image area (29%). The side warning message area (50%) was the GHW area least looked at, followed by the back top warning message area (29%) and branding information area (21%).

Figure 5. GHW area first looked at, Figure 6. GHW area most looked at and

Figure 7. GHW area least looked at.

Figure 5. GHW area first looked at

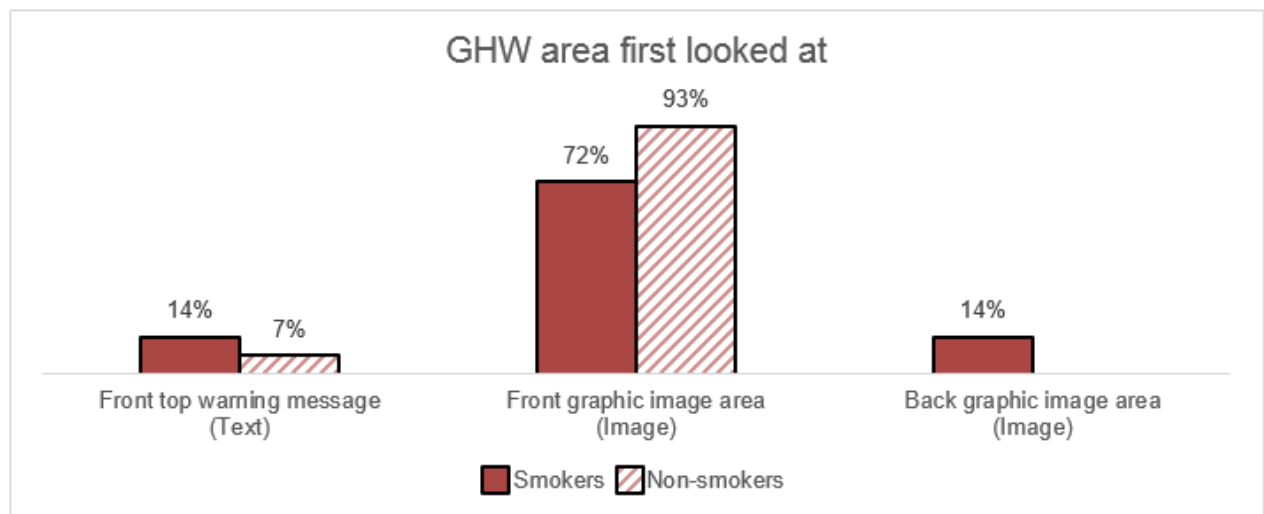


Figure 6. GHW area most looked at

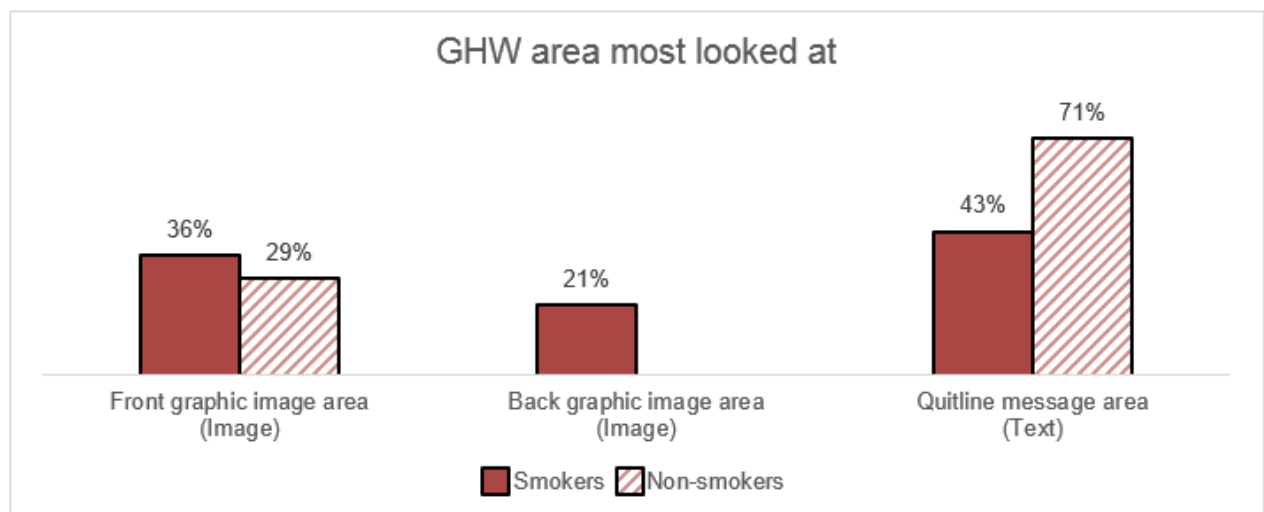
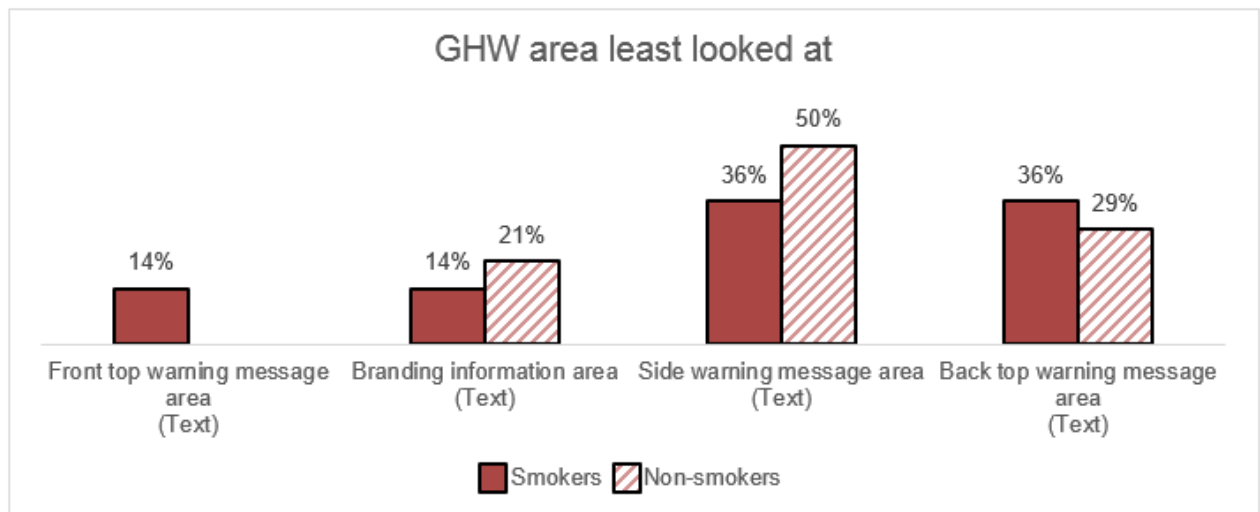


Figure 7. GHW area least looked at



To demonstrate attention distribution, examples of the heat maps for the Teeth (Damages teeth and gums) packaging for smokers and non-smokers is shown below. The green indicates areas looked at, the yellow indicates more time looking at that area and red indicates further time looking at that area.

The heat map for smokers below highlights that the area with the greatest attention was the front graphic. There was also higher attention on the small front text and the back of the pack Quitline logo.

The heat map for non-smokers below, highlights that the area with the greatest attention was the front graphic, large front of pack warning, small front of pack detail. There was also higher attention on the small front text and the back of the pack Quitline logo.

Figure 8. Heat map of attention to GHW (Teeth)



The results from the eye tracking support the importance of the visual component of GHW. Visual elements should be regularly employed to capture immediate attention away from other competing stimuli, while text-based health messages may benefit from being placed to one area to allow consumers to focus on processing one message.

12.2 Components processed

While the graphic images are the main source of information, there is evidence that the written information can provide knowledge particularly for those moving towards quitting.

When asked how often they read the written information, around half of smokers or recent quitters will at some point in time read the front of the pack (often or sometimes), 40% the back of the pack text and 33% the yellow box text. This was consistent across smokers and recent quitters.

Table 28: Frequency of reading written information

Smokers/Recent quitters, Q23. Do you ever read ...? - Often, Sometimes

Frequency of reading written information (often/sometimes) Column %	Smoker/ Quit	Smoker	Recent Quit
Any of the written information (total)	54	55	53
The written information on the front of the pack	51	50	52
The written information on the back of the pack	40	41	39
The written information in the yellow box on the side of the pack	33	36	32
Column n	1708	1380	328

Likelihood to read the written information (often/sometimes) was higher among some smokers:

- Those contemplating quitting (61%)
- Males (59%, with 45% reading information on the back of the pack)
- 18-24 year olds (63%)
- 25-39 year olds (59% with 45% reading information on the back of the pack)
- CALD (66%)
- Parents (46% reading information on the back of the pack).

This supports the earlier findings about where smokers and recent quitters claim to learn about risks or harms to health on the pack. While most smokers or recent quitters mention the graphic pictures as the source of information rather than the individual written warnings, in particular the side of pack information, collectively the written warnings are contributing to knowledge about health harms. Among smokers, while the graphic component was most likely to be the source of information (62%) there is evidence that the other written information is also a source of information although not as widely mentioned (70% collectively, 45% for the back of the pack and 35% for the side of the pack). Recent quitters were less likely to say they had learnt about health harms from the written components of health warnings however, this could reflect that they are less exposed to packaging now they have quit.

It is apparent that the smaller text warnings (back and side of the pack) have less regular cut-through. However, importantly, as smokers started contemplating quitting, they were more likely to mention written components of GHW to be sources of information (63% for pre-contemplators versus 72% for contemplators and 74% for action/relapse).

Table 29: Components where they learn about health harms

Smokers/Recent quitters, Q8. From which parts of the health warnings on tobacco packs, if any, have you learnt about the risks or harms to health

Components where they learn about health harms Column %	Smoker/ Quit	Smoker	Recent Quit
Graphic pictures	61	62	60
Written warnings (total)	62	70 ↑	57 ↓
Written warning on the front of the pack	52	54	50
Written warning on the back of the pack	37	45 ↑	32 ↓
Written warning on the side of the pack	29	35 ↑	25 ↓

Information about quitting on the pack	24	31 ↑	19 ↓
Any component (total)	80	83 ↑	78 ↓
Not sure	6	6	7
None of these	14	11 ↓	16 ↑
Column n	1708	1380	328

12.3 Salience of graphic images (recall)

There is high salience (recall) of specific images in particular Foot (PVD), Baby (Harms unborn), Emphysema, Bryan (Lung cancer), Teeth (Damages teeth and gums) and Tongue (Mouth cancer) images.

Around seven in ten (70%) were able to describe one of the graphics or messages when asked what pictures they could recall on packaging with 64% specifically describing one of the current 14 graphics:

- The most frequently recalled graphic images were the Foot (PVD), Baby, Emphysema, Bryan (Lung cancer), Teeth (Damages teeth and gums) and Tongue (Mouth cancer) images (between 14%-19% spontaneous recall).
- Throat (Throat cancer), Heart (Heart disease), Toilet (Kidney and Bladder cancer), Child (Others breathe), Eye (Blindness) and Cynthia (Stroke) graphic images were less recalled (between 4%-7% spontaneous recall).
- Meanwhile there was low spontaneous recall of the Ashtray (Quitting improves health) and Toe-tag (Smoking kills) images (1% each spontaneous recall).

This was consistent across smokers and recent quitters although smokers were more likely to mention the Eye (Blindness) and Cynthia (Stroke) image.

There were also some generic mentions of damaged organs, lung cancer and gross/ugly images but these were less prevalent than actual recall of specific GHW images.

Smokers who are in the process of quitting or relapsed were more likely to spontaneously recall:

- Emphysema (20%)
- Cynthia (Stroke) (11%).

Table 30: Graphic images recalled

Smokers/Recent quitters, Q15. Thinking about the pictures on cigarette/tobacco packaging, what pictures can you recall? Showing top mentions. Coded from open ended mentions.

Column %	Smoker/ Quit	Smoker	Recent Quit
Any mention (total)	70	70	69
GHW specific mention (total)	64	63	64
Foot (PVD, Gangrene)	19	18	19
Baby (Harms unborn)	19	18	19
Emphysema	17	17	17
Bryan (Lung cancer)	15	16	13
Teeth (Damages teeth and gums)	14	16	13
Tongue (Mouth cancer)	14	12	15
Throat (Throat cancer)	7	9	6
Heart (Heart disease)	7	9	6
Toilet (Kidney and Bladder cancer)	7	7	6
Other graphics - Diseased/damaged organs	5	4	6
Child (Others breathe)	5	6	4
Eye (Blindness)	5	8 ↑	3 ↓
Cynthia (Stroke)	4	8 ↑	2 ↓
Smoking causes lung cancer	4	5	4
Sick people/Dead person/Illness/Death (unspecified)	4	5	3
Other graphics - Foot (general)	3	2	4
Cancer (unspecified)	2	2	2
All other mentioned health issues/smoking can cause (general)	2	2	1

Ashtray (Quitting improves health)	1	2	1
Toe-tag (Smoking kills)	1	2 ↑	1 ↓
Other graphics - Gross/ugly/nasty/disgusting/graphic	1	1	1
Smoking harms others	1	0	1
Ingredients/chemicals/tar	1	0	1
Column n	1708	1380	328

Among smokers, females and 18-24 year olds were more likely to spontaneously recall any of the graphic images (70% and 77% respectively). Meanwhile males, 60 plus year olds and CALD smokers had lower spontaneous recall of any message (57%, 50% and 49% respectively).

Females in particular were more likely to spontaneously recall:

- Baby (Harms unborn) (25%)
- Foot (PVD Gangrene) (23%)
- Teeth (Damages teeth and gums) (20%)
- Bryan (Lung cancer) (19%)
- Eye (Blindness) (10%)
- Toilet (Kidney and Bladder cancer) (9%)
- Child (Others breathe) (8%).

Indigenous smokers were also more likely to spontaneously recall any of the graphic images (76%) and were more likely to also spontaneously recall Heart (Heart disease) (16%) with indicatively higher mentions of Baby (Harms unborn) (23%) and Teeth (Damages teeth and gums) (22%).

12.4 Salience of written health warnings (recall)

Salience (recall) of the written health warnings was lower than recall of the graphics on the pack however some specific messages are salient. In particular, that smoking harms babies/unborn babies and causes lung cancer.

Around four in ten (39%) of smokers and recent quitters were able to provide some mention when asked about what written warnings they recall, and 27% mentioned a specific message that could be attributed to one of the current GHWs. Ability to recall a specific written warning was lower than recall of graphic images (27% versus

64% for graphic images) supporting findings that the graphic is the most salient and noticeable component of the health warning.

As expected given more recent exposure, smokers were more likely to be able to provide a response.

The written warnings that had the highest recall were around the messaging of Smoking harming unborn babies (Baby) (10%) and Smoking causes lung cancer (Bryan) (7%). Other warnings recalled included messages relating to heart disease, emphysema, stroke and general warnings about cancer (5% each). Warnings with the lowest recall were those related to Kidney/Bladder cancer (Toilet), Don't let others breathe your smoke and Quitting improves health.

Smokers in pre-contemplation were less likely to recall specific written health warnings (24% recalled a specific mention). Female smokers and smokers aged 18-25 years old were more likely to recall specific written warnings (35% and 37% respectively).

Table 31: Written health warnings recalled

Smokers/Recent quitters, Q16. Thinking about the types of written health warnings, what warnings can you recall? Please write your response in the boxes below. Showing top mentions. Coded from open ended mentions.

Written health warnings recalled Column %	Smoker/ Quit	Smoker	Recent Quit
Any mention (total)	39	43 ↑	36 ↓
GHW specific mention (total)	27	30	25
Baby (Harms unborn)	10	10	11
Bryan (Lung cancer)	7	8	6
Heart (Heart disease)	5	6	4
Emphysema	5	6	5
Cynthia (Stroke)	5	6	5
General warnings - Smoking causes cancer (general)	5	5	4
Foot (PVD Gangrene)	4	5	3
Smoking harms others	4	4	4
Tongue (Mouth cancer)	4	4	3

Throat (Throat cancer)	3	4	3
Teeth (Damages teeth and gums)	3	3	3
Toe-tag (Smoking kills)	3	2	3
Eye (Blindness)	2	2	3
General warnings - Smoking is bad for you	2	3 ↑	1 ↓
All other mentioned health issues/ smoking can cause (general)	2	3	1
Cancer (unspecified)	2	2	1
General warnings - Smoking leads to death	1	2	1
Toilet (Kidney and Bladder cancer)	1	2 ↑	1 ↓
Sick people/Dead person/Illness/Death (unspecified)	1	2	1
Child (Others breathe)	1	2 ↑	0 ↓
Other graphics - Foot (general)	1	0 ↓	1 ↑
Quitline - Logo + Quitline - Call Quitline	1	1	0
Ingredients/chemicals/tar	0	1	0
Ashtray (Quitting improves health)	0	1	0
Column n	1708	1380	328

12.5 Believability

GHWs are seen to be believable, particularly for smokers considering quitting or trying to quit.

Overall GHWs are seen to be believable with 85% considering them to be very or somewhat believable and 54% very believable. Non-smokers were particularly likely to consider health warnings to be believable (58% very believable).

Smokers were somewhat more sceptical (44% somewhat believable and 38% very believable). As smokers moved further towards action they were more likely to consider the health warnings to be believable (73% for pre-contemplators versus 90% for contemplators and 85% for quitting/relapsed) or very believable (28% for pre-contemplators versus 39% for contemplators and 46% for quitting/relapsed).

Table 32: Believability of health warnings

Total sample, Q19. Overall, do you find the health warnings...?

Believability of health warnings Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Very believable + Somewhat believable	85	84	82 ↓	85	86
Very believable	54	45 ↓	38 ↓	50	58 ↑
Somewhat believable	32	39 ↑	44 ↑	36	28 ↓
Not believable	6	11 ↑	12 ↑	11 ↑	4 ↓
Not sure	8	4 ↓	5 ↓	4 ↓	11 ↑
Column n	2649	1708	1380	328	941

Health warnings were considered to be more believable (very or somewhat) among certain groups of smokers:

- 25-39 year olds (86%)
- CALD (86%)
- Parents (86%).

The 2018 survey results around believability of health warnings are slightly down from 2008 measures on believability for smokers (92%) and recent quitters (97%).

13 WEAR OUT AND IMPACT OVER TIME

Wear out does appear to affect the GHWs with smokers and recent quitters claiming they 'don't take any notice' of the GHW and paid more attention when the GHWs were first released.

Over half of smokers and recent quitters (54%) believe they took more notice of health warnings when they first came out. This supports the need to continue to refresh or disrupt the design to minimise wear out (familiarity leading to less attention or noticeability).

Table 33: Taking notice of new health warnings

Smokers/Recent quitters, Q22. I take more notice of the health warnings (picture, written warning) when they are new/first come out

Taking notice of new health warnings Column %	Smoker/ Quit	Smoker	Recent Quit
Agree + Strongly agree	54	53	54
Strongly agree	17	18	17
Agree	37	36	37
Neither	21	22	20
Disagree	10	12	9
Strongly disagree	10	10	9
Don't know	5	3 ↓	7 ↑
Column n	1708	1380	328

A high proportion also claimed to 'not take any notice' of the health warnings on pack (62%) and this was higher among smokers (66%).

Table 34: Level of taking notice of health warnings

Smokers/Recent quitters Q22. I believe most people don't take any notice of the health warnings on cigarette/tobacco

Level of taking notice of health warnings Column %	Smoker/Quit	Smoker	Recent Quit
Strongly agree + Agree	62	66 ↑	59 ↓
Strongly agree	27	27	26
Agree	35	39	33
Disagree	14	11 ↓	16 ↑
Strongly disagree	3	3	3
Don't know	4	3	4
Column n	1708	1380	328

The qualitative research also found that GHWs have had a lessening 'shock' effect over time.

As widely suggested throughout initial stakeholder consultations, the initial 'shock value' achieved at the introduction of GHWs has lessened significantly over time. Qualitative participants reported that the previous behaviours they or others may have initially undertaken, such as decanting tobacco product into other formats and the use of cigarette cases and/or stickers to hide graphic images, had significantly decreased.

While also having decreased, the behaviour of asking shop assistants for less confronting images at the point of sale or asking to avoid specific images was still engaged in by some smokers.

"I still ask to not get the baby."

"I once used to ask to not get the foot or the baby or the teeth or Bryan, but now I don't care really. They don't affect me that much anymore."

Some smokers were able to recall previous packaging, including younger smokers who recalled their parent's packs. There was recognition that older packaging used to be '*much prettier and cooler*' – yet there was acceptance that this was gone for good, and the current GHWs appear to be the accepted norm.

There are a range of behaviours that accompany this acceptance – first, a number of participants comment that GHWs have made it easier to identify ownership of packaging when they are stored together amongst friends (e.g. in a girl's handbag).

That is, *'mine was the ashtray, yours is the baby'*. This indicates that the GHWs are also acting as an identifier as well as any possible impact they may have in reducing prevalence.

Second, there was clear and consistent evidence of some of the GHWs being popularised, where once they were considered shocking and impactful. The most notable example of this is the 'Bryan' pack that has appeared to achieve a level of significant recognition and celebration. Some young people request the Bryan pack over others as a symbol of hero worship. There is a significant amount of internet activity, memes, YouTube videos and Facebook pages dedicated to Bryan. Much of this behaviour appears to have been fueled by a supposed backstory that Bryan passed away from AIDs rather than cancer. This, together with the speed of his passing, appears to have driven debate and satire around Bryan. Such notoriety has certainly brought the GHW of this particular packaging into a broader cultural domain. This could be advantageous; helping to increase discussion about health warnings, irrespective of whether there is doubt or cynicism about the 'real story'.

"But he died of AIDS. It's all over the internet."

"I used to feel sorry for Bryan and I hated getting the packet and then someone told me that he died from AIDS, so I was like, whatever..."

14 SUPPORT FOR HEALTH WARNINGS ON PACKAGING

There is high support for health warnings among smokers and recent quitters, and particularly among non-smokers.

The majority of the population support health warnings on packaging (81% agree or strongly agree that cigarette/tobacco packaging should have health warnings and 51% strongly agree). This support was highest among non-smokers (85%) and recent quitters (78%) with lower support among smokers (66%).

As smokers moved closer to quitting they were more likely to support health warnings on packaging (53% for pre-contemplators versus 72% for contemplators and 71% for quitting/relapsed). Support for health warnings on packaging was consistent across smoking cohorts with particular support among parents who were smokers (70%).

Table 35: Support for health warnings on packaging

Total sample, Q22. I think cigarette/tobacco packaging should have health warnings

Support for health warnings on packs Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Agree + Strongly agree	81	73 ↓	66 ↓	78	85 ↑
Strongly agree	51	38 ↓	28 ↓	45 ↓	58 ↑
Agree	30	35 ↑	38 ↑	33	27 ↓
Neither	10	14 ↑	18 ↑	11	7 ↓
Disagree	3	5 ↑	7 ↑	3	3 ↓
Strongly disagree	2	4 ↑	6 ↑	3 ↑	1 ↓
Don't know	4	4	3	4	5
Column n	2649	1708	1380	328	941

Smokers support for GHWs are down from 2008 (71% maintained it was 'very' or 'quite' important that the Government has health warnings on tobacco). Support was on par with 2008 for recent quitters (84%) noting variations in the response codes used in 2018.

Additionally, when asked about any final comments on GHWs, 23% of survey respondents provided a mention that was positive or in favour of GHWs.

As mentioned in earlier sections around the role of the Government, the qualitative research found mixed responses to GHWs. Those in contemplation and those who had quit believed they were a good idea. More committed smokers and those that felt strong animosity around other interventions and bans were more negative about GHWs. There was a sense that all these efforts 'don't stop smokers' however the strength of some of these reactions reveals the ability of GHWs in promoting affective responses.

15 IMPACT ON HEALTH KNOWLEDGE AND CONCERNS

GHWs are perceived to be effective at communicating health risks. GHWs are one of the key sources of health risk education and have impacted smoker concerns and knowledge of health risks.

15.1 Perceived effectiveness at communicating health effects

The graphic elements on packaging are considered to be effective at communicating the health effects of smoking for smokers and non-smokers alike.

The majority of the population considered the pictures on packaging to be effective in communicating the health effects of smoking (70% somewhat to very effective, 31% very effective). Smokers and recent quitters also considered the pictures on packaging to be somewhat effective or very effective at communicating the health effects of smoking (71%).

Smokers were more likely to consider the pictures to be somewhat effective (44%) with 23% considering the pictures to be very effective and 28% not effective at all. As smokers moved closer to quitting they were more likely to consider the pictures to be more effective at communicating (58% for pre-contemplators versus 78% for contemplators and 67% for quitting/relapsed).

2018 survey results have slightly improved on 2008 for smokers overall that consider pictures on packaging to be very or somewhat effective):

- 60% 2008 total vs. 70% 2018 total
- 63% 2008 smokers vs. 68% 2018 smokers
- 73% 2018 recent quitters vs. 73% 2018 recent quitters.

There was some indication that the proportion considering the pictures to be 'very effective' has declined from 2008 (showing very effective):

- 34% 2008 smokers vs. 23% 2018 smokers
- 49% 2008 recent quitters vs. 35% 2018 recent quitters.

Table 36: Perceived effectiveness at communicating health effects

Total sample, Q18. How effective are the pictures on packs at communicating the health effects of smoking?

Perceived effectiveness at communicating health effects Column %	Total	Smoker/ Quit	Smoker	Recent Quit	Non-smoker
Very effective + Somewhat effective	70	71	68	73	70
Very effective	31	31	23 ↓	35	32
Somewhat effective	39	40	44 ↑	37	38
Not effective	17	24 ↑	28 ↑	22 ↑	13 ↓
Not sure	13	5 ↓	4 ↓	6 ↓	17 ↑
Column n	2649	1708	1380	328	941

The perceived effectiveness of the graphics in communicating health effects was higher among certain smokers (very/somewhat effective):

- 25-39 year olds (73%)
- CALD (76%)
- Parents (75%).

Meanwhile older smokers considered the graphics to be relatively less effective (very/somewhat effective):

- 40-59 year olds (63%)
- 60 plus year olds (57%).

15.2 Impact on health knowledge

The pictures and health information on packaging have improved knowledge about the health effects of smoking among smokers and recent quitters.

The majority (67%) of smokers and recent quitters believe the inclusion of pictures and health information on cigarette/tobacco packaging has improved their knowledge of the health effects of smoking a lot or a little (64% for smokers and 68% for recent quitters).

As smokers moved closer to quitting, pictures and health warnings contributed more to knowledge (74% of contemplators believe their knowledge has improved a lot or a little compared to 54% of pre-contemplators) and three in ten (31%) of smokers quitting or who have relapsed believe their knowledge has improved a lot.

Table 37: Improved knowledge because of GHW

Smokers/Quitters, Q17. Would you say the inclusion of pictures and health information on cigarette/tobacco packs has improved your knowledge of the health effects of smoking...?

Improved knowledge because of GHW Column %	Smoker/Quit	Smoker	Recent Quit	Pre-Contemplator	Contemplator	Action/Relapse
Yes, a lot + Yes, a little	67	64	68	54 ↓	74 ↑	65
Yes, a lot	30	24 ↓	34 ↑	18 ↓	24	31 ↑
Yes, a little	36	40	34	35 ↓	50 ↑	34 ↓
No, made no difference	30	34	28	45 ↑	25 ↓	32
Don't know	3	2	4	2	1	3
Column n	1708	1380	328	431	438	481

Among smokers, males (69%), 18-24 year olds (76%), 25-39 year olds (70%) and CALD (76%) were even more likely to believe the inclusion of pictures and health information on cigarette/tobacco packaging had improved their knowledge of the health effects of smoking a lot or a little.

Other smoker cohorts who were more likely to say pictures and health warnings had made no difference were females (38%) and those aged 40-59 years (41%) and 60 years and over (46%).

The 2018 survey results on knowledge of the health effects have maintained the 2008 measures for smokers (66% improved knowledge a lot/a little for 2008 smokers vs. 64% 2018 smokers). It has however declined for recent quitters (84% improved knowledge a lot/a little for 2008 recent quitters vs. 68% 2018 recent quitters).

15.3 Impact on perceived risks/concerns

Health warnings have contributed to increased concerns about the effects of smoking on health.

Around half (49%) of smokers and recent quitters agree that they have worried more about the effects of smoking on their health because of the health warnings on cigarette/tobacco packaging (51% and 48% respectively). Six in ten (61%) of non-smokers felt they would worry more about the effects of smoking on health because of health warnings.

Those smokers in contemplation or action/relapse stages in relation to quitting were even more likely to agree to this measure (58% contemplation and 55% for those in action/relapse).

Encouragingly, the health warnings have an even higher impact on non-smokers with 61% who agreed that they would worry more about the effects of smoking because of the health warnings on cigarette/tobacco packaging. This provides positive support for the GHWs having a preventative role in take up of tobacco.

Table 38: Role of GHW in increasing health concerns

Total sample, Q22. Here are some different statements about cigarette/tobacco packs....State level of agreement. I (have) worried more about the effects of smoking on my health because of the health warnings on cigarette/tobacco packs (Smokers/Quit) or I would worry more about the effects of smoking on my health because of the health warnings on cigarette/tobacco packs (non-smokers).

Role of GHW in increasing health concerns Column %	Total	Smoker /Quit	Smoker	Recent Quit	Non-smoker	Pre-Contemplator	Contemplator	Action/Relapse
Agree + Strongly agree	57	49 ↓	51 ↓	48 ↓	61 ↑	40 ↓	58 ↑	55 ↑
Strongly agree	23	18 ↓	17 ↓	19 ↓	27 ↑	12 ↓	15	22 ↑
Agree	34	32	35	30	35	29 ↓	42 ↑	33
Neither	21	21	20	23	21	21	22	17
Disagree	10	14 ↑	14 ↑	15 ↑	7 ↓	13	12	15

Strongly disagree	6	12 ↑	13 ↑	10 ↑	3 ↓	23 ↑	6 ↓	10 ↓
Don't know	6	3 ↓	2 ↓	4	7 ↑	3	1	2
Column n	2649	1708	1380	328	941	431	438	481

Among smokers, some cohorts admitted higher concerns about health because of health warnings (agreed/strongly agreed that I (have) worried more about the effects of smoking on my health because of the health warnings on cigarette/tobacco packs):

- 18-24 years (59%)
- 25-39 years (55%)
- CALD (59%).

The impact of health warnings on concerns about health is similar to 2008 where 48% of smokers strongly agreed/agreed that they worry 'more about the effects of cigarettes on my health since the picture health warnings were put on cigarette packs' (compared to 51% of 2018 smokers).

16 IMPACT ON SMOKER ATTITUDES AND BEHAVIOUR

16.1 Ability to generate affective response

The health warnings and information on packaging are generating emotional and affective responses in particular disgust, worry or concerns about smoking, guilt, fear and relief (for those who have quit).

When asked what they feel and what goes through their mind when they see tobacco packaging, 57% of smokers and recent quitters felt some emotional response. Reactions most commonly mentioned were feeling disgusted (14%), worry/concern (6%), guilty, fearful/scared (6%), thinking they should stop (5%) and relief they aren't smoking (7% non-smokers). Other mentions included feeling sad (4%), a sense of hopelessness (4%) and anger or annoyance (4%). Around three in ten (31%) claimed to feel 'nothing', ignored them or were desensitized to them. A small proportion also provided positive mentions about the health warnings being a good deterrent (5%).

Smokers were more likely to say that seeing the packs made them feel they should quit (8%) and 5% felt annoyed or anger as they thought they already knew the risks (5%). A higher proportion of smokers also claimed to feel nothing/be desensitised (36%).

Recent quitters were more likely to react with disgust (18%) and relief at no longer smoking (7%) with more expressing positive mentions about the health warnings being a good deterrent (6%).

Table 39: Emotional/Affective response

Total sample, Q10B. When you see health warnings or health information on a cigarette or tobacco pack, what emotions do you feel? What goes through your mind? Please write your response in the box below. Showing top mentions. Coded from open ended mentions.

Emotional affective response to health warnings on packs Column %	Smoker/ Quit	Smoker	Recent Quit
Affective response (total)	57	57	57
Disgusted/gross/yuck/ sick etc.	14	10 ↓	18 ↑
Worried/concerned	6	7	6
Guilty regret/pity/reluctant/annoyed I smoke/disappointment	6	7	5
Fearful/scared/anxiety/depressed	6	6	7
Must quit/should quit/trying to stop/will try to stop/want to stop/should stop	5	8 ↑	3 ↓
Relief/I'm no longer a smoker	5	0 ↓	7 ↑
Sad	4	4	5
Hopelessness/hope it doesn't happen to me/this could be me	4	4	4
Already know the health risks - will not quit (various reasons)/annoyed/angry	4	5 ↑	2 ↓
Unhealthy/bad for you/feel bad/harmful/health hazards/illnesses	3	4	3
Seen it all before/nothing new/hyped/funny/unreal	2	3	2
Try not to look/try not to think/ try to ignore	2	3	1
Dislike them/don't like it	2	2	2
No affect /desensitised (total)	31	36 ↑	27 ↓

Nothing/not much	15	17	13
Doesn't bother me/I don't care/don't take any notice/doesn't deter/ignore	13	15	12
Desensitised	6	7	5
Messages - don't smoke/deter/people shouldn't smoke	3	1 ↓	4 ↑
Positive feedback - works as a deterrent, good idea, good information etc.	5	2 ↓	6 ↑
Other negative (total)	3	3	2
Negative feedback - waste of money, pointless, too late etc.	1	2	1
Government/policy related: ban them, better solutions needed, price etc.	1	1	1
Not sure	3	1 ↓	4 ↑
No answer/ NA.	2	2	1
Column n	1708	1380	328

Smokers in pre-contemplation were more likely to claim they felt no response or were desensitised to the packaging (45%) while contemplators and those in quitting/relapse stages were more likely to mention they felt worried (10% and 7%) or felt they should quit (11%) when they see health warnings.

Female smokers and smokers aged 25-39 years old were more likely to mention some form of affective response (60% and 62%) while smokers aged 60 years and over were more likely to claim nothing or felt desensitised (51%).

Parents were more likely to claim some form of affective response, in particular worry/concern (10%).

Qualitative findings

The qualitative research highlighted the need to differentiate between when a graphic health warning generated a response or reaction of disgust or distaste, and

more emotive responses due to personal relevance. The more graphic the image, the greater the response of disgust across all cohorts. For example, the teeth and feet were broadly considered ugly images and caused some smokers to visibly react to the images.

In some group discussions, images were covered or hidden after they were individually discussed. However, due to a lack of perceived risk of these health consequences being a result of smoking, these did little to prompt an emotional response. Emotional responses were stronger when there was a credible perceived risk or there was some direct personal relevance for the smoker. For example, while the baby image tended to generate an emotional response across almost all the sample, it was far greater with parents (especially mothers) and younger women.

"It's when you see that little baby, your heart breaks. You wonder how someone could do that to a baby."

This image did prompt a strong level of anxiety from the one pregnant woman within the main sample:

"When I look at that, it makes me think of what am I doing still smoking? But as much as I try to give up, I just reach that point of stress and I start smoking again. I know it's wrong...."

Indigenous female participants also reacted strongly to the image of the baby with feelings of guilt as many admitted to having used tobacco products throughout their pregnancies (in contrast to the main sample).¹³

"When I was pregnant with twins I smoked more and one of my babies got sick and I knew it was my fault, I know stories of babies who get really sick and hospitalised due to their mother smoking while pregnant, so I avoid reading the back because I don't want to know. It's too scary and makes me feel guilty."

Similarly, smokers that reported having a family member experience emphysema or lung cancer were at times notably impacted on an emotional level by these

¹³ The survey results suggest (though not conclusively due to low sample sizes) that Indigenous smokers who fell pregnant while smoking were less likely than other pregnant smokers to quit or stop smoking during their pregnancy. But they did acknowledge that GHWs helped them recognise the potential harms to their baby.

warnings. Indigenous participants also reacted more strongly to the warning of stroke due to the higher personal experience with stroke.

"If you know someone who has heart disease and they smoke it means more."

The mouth and throat cancer warning also generated an emotive response of fear among some smokers. The risk was considered credible due to tobacco smoke touching the body part and that body part was also one that could be seen by both the smoker themselves and by others. 'Mouth Cancer' was particularly strong in this aspect, with some young smokers expressing that when they developed an ulcer on their tongue which could be caused by a myriad of factors, they tended to feel some anxiety regarding their smoking.

"I've seen one of those old men with something like that in the throat. You know, they talk funny. He would have had to have been a smoker."

"You know when you get one of those ulcer things on your tongue? I get real paranoid, thinking 'here we go'?"

16.2 Influence on appeal of packaging

The preference for the older branded packaging supports evidence that the combination of initiatives (plain packaging coupled with GHWs) has decreased appeal of the packaging.

For smokers who have had exposure to the previous branded packaging without GHWs, the majority (63%) prefer the older packaging (agree or strongly agree).

There was even higher preference (strongly agree) for the older packaging expressed by those in pre-contemplation stages of quitting (40%) and Indigenous smokers (47%).

Table 40: Preference for original/old packaging

Smokers who started smoking pre 2012, Q22. I prefer the original/old packaging to what it is now

Preference for original/old packaging Column %	Smoker	Pre-Contemplators	Contemplators	Quitting/Relapse	ATSI
Agree + Strongly agree	63	68 ↑	66	57 ↓	73

Strongly agree	33	40 ↑	30	30	47 ↑
Agree	30	28	37 ↑	27	26
Neither	22	20	17 ↓	26 ↑	16
Disagree	8	6	10	9	6
Strongly disagree	4	3	4	6	4
Don't know	3	4	2	3	1
Column n	1092	339	336	390	70

The outcomes of the qualitative research indicated that GHWs have decreased the appeal and attractiveness of packaging. However, it is difficult to separate the impact of plain packaging from the impact of the current GHWs given both measures were introduced together.

The qualitative research found that some smokers spontaneously spoke about how cigarette packs used to have *"lots of different"* colours and the *"images used to be small"* so they were not as noticeable. Essentially, the previous packaging was considerably more desirable. This tended to be more common among younger smokers, who had been exposed to the previous packaging when they first started to smoke and/or when their parents or other adults had cigarette packs when they were children.

"I remember from when I was younger and my parents would have packs of cigarettes. They had different colours – looked much nicer than now."

Indigenous participants specifically discussed how the experience of holding a pack has changed over time. Participants described the impact of plain packaging in diminishing the image and positive association with well-known brands.

"It used to be you would buy the brand you like, Winfield Blue, or Benson and Hedges if you had money. You used to be pretty proud if you were a Winfield Blue or Red smoker... There was a certain type of image with the smoke brand before...the packets now days make me feel ashamed to have this out in front of other people."

Aside from admitting to still asking for specific images or trying to avoid specific images, few smokers across both Indigenous and the broader community samples felt that the images had influenced their purchase behaviours. Recent quitters were most likely to admit openly that the lack of appeal of the packaging due to the health warnings had some impact on their purchase behaviour. While this was linked

to lack of attractiveness of the pack, it was primarily driven by the warnings being a reminder of the health risks that were the main motivation for their desire to quit.

"They're ugly and gross. I didn't quit because of them, but now when I look at them, I'm real happy I have."

The qualitative research did indicate that there has been some impact on the perceived taste and product enjoyment among some smokers. These smokers believed that since the introduction of the current GHWs and plain packaging, the brand and variant they regularly smoked now tasted different than it had previously. Some believed that this was caused by the tobacco companies using cheaper production processes and cheaper tobacco, and that cigarettes were now being made in other countries than they had been previously, since the introduction of the plain packaging measure (plain packaging and enlarged GHWs).

Another element contributing to less satisfaction with taste and enjoyment of smoking occurred if they received the wrong brand and/or variant from the place of purchase. Smokers also noted given the high cost of tobacco products, they tended to consume the mistaken brand or variant before buying the correct one.

"I try and make sure I check when they give them to me, but I know I don't when I'm in a rush. Then you open it up, light one up and then you realise it's not your brand of dart. Too late to return them then."

The increasing cost of cigarettes also has caused a small portion of smokers to continually change brands in order to buy the cheapest on offer at the time. This then could have some impact on satisfaction with their smoking behaviours. Similarly, there were a number who reported that increasing cost had caused them to change to RYO cigarettes even if their preference was for tailor made cigarettes.

"I did smoke tailor makes but now they cost so much and rollies are heaps cheaper. And people don't want to scab them as much so they last longer."

16.3 Avoidance behaviours

Many smokers continue to practice avoidance behaviours although there is some evidence that while there is a decline in practices such as transference and asking for other packs, concealment overall (not having packs out) is becoming the norm.

The survey found 44% of smokers admit to some avoidance practices such as transferring or decanting into another case (24%); concealing/hiding the pack

(21%); asking for a pack with a different warning or image (10%); or tearing away part of the packaging (10%). A third (33%) of smokers currently practice avoidance practices in particular transference or decanting (16%) or concealment/hiding packs (12%).

Table 41: Avoidance behaviours

Smokers, Q20. Thinking about packs of cigarettes/tobacco products, have you ever? Q21. Do you currently?

Avoidance behaviours Column %	Have you ever...?	Do you currently...?
Any avoidance (total)	44 ↑	33 ↓
Transfer cigarettes/tobacco products into a different case	24	16 ↓
Conceal or hide the pack in some other way	21 ↑	12 ↓
Ask for a pack with a different health warning/image	10	6
Tear away the images/packaging	10	7
None of these	56 ↓	67 ↑
Column n	1380	1380

There were higher overall avoidance practices admitted by those contemplating quitting (39%).

Smokers aged 25-39 years old and CALD smokers were also more likely to admit avoidance behaviours (39% and 47% respectively). Parents were more likely try to conceal or hide packs (15%).

Indigenous smokers were more likely to undertake avoidance behaviours (41%) and were more likely to ask for a pack with a different image or warning (12%).

The qualitative research found that avoidance behaviours of decanting or asking for other packs may have waned over time.

Many participants in the qualitative group discussions recalled decanting their tobacco into other options when GHWs were first introduced. However, they themselves noted they no longer undertake this behaviour. The small few who reported to still do so, tended to smoke RYO products and would decant into a tin or

designed pouch, for example, a leather pouch. These participants claimed that their decanting behaviour tended to be driven by ensuring a more secure packaging for the tobacco. That is, other containers were less likely to accidentally unravel than the original plastic pouches, resulting in less loss of product.

"When they first came out I'd put them in this plastic sleeve so that I didn't have to look at them, but now it doesn't bother me. They're usually in my bag anyway now."

Similarly, while most reported that they tended to initially ask for packs with or without specific health warnings, this behaviour is no longer as prevalent as it was when GHWs were introduced. That said, there were still some participants who spontaneously stated that they preferred to avoid certain warnings and would ask for this on purchase. For example, young women in particular tried to avoid the warning *with the image of the baby*.

"Oh the baby! The baby! That still gets me, 'specially now I've had my children."

"I remember when they first came out and you'd ask for some and then ask to not get other ones.... I don't think I really do that anymore."

Concealment of packs does occur, however most claim that this does not tend to be driven by images as much as cost, as outlined earlier. While some would leave packs in bags when they were with non-smokers socially, parents tended to be more likely than others to conceal packs, with some claiming to keep packs in places where children were not able to see them. This was done so as not to expose children to the graphic nature of the warnings, and to avoid questions and anxiety that children expressed about their parent's smoking.

"I don't need my children to see that."

"I know that my children do tend to start asking me questions when they see the TV ads and so I deliberately avoid them seeing any of the packs, 'cos then they would be at me....my little one would get really upset."

'Even though she's a teenager and she knows the health effects, I don't need to rub it in her face that I am doing something that is affecting my health."

Indigenous participants, particularly males, were more likely to indicate they practiced avoidance behaviours in some circumstances due to feeling a degree of shame and concern with publicly displaying their cigarette packs.

"...the warning photos are bad and make you worried about smoking. I put a piece of paper over the photos so I don't see them when I'm smoking."

"I always keep (my) smokes in my workbag so no-one knows I've got them. I don't want my children and family to see them, it is shame being a smoker..."

17 IMPACT ON CESSATION RELATED OUTCOMES

17.1 Impact on cessation knowledge

A small number of smokers claimed the health warnings led to calling Quitline suggesting the GHWs have among a small proportion, contributed to increased awareness of the channels to aide in cessation. However as an element of the GHW design, it does not appear to be the element with strong noticeability.

The qualitative research found that when smokers were forced to actively look over the packaging in the group discussions many then noticed the presence of the Quitline information. Spontaneously a few recalled the Quitline logo but there was no direct claim that GHW increased knowledge or awareness of cessation information services including Quitline. Smokers considered it appropriate to offer this information on the packaging, however there was some suggestion that having it on the front of the pack may make it more noticeable.

"Do you know, I've never seen that [Quitline information] before? But I never look at the back of the pack really. It's good that it's there, but maybe it should be more noticeable. Like have it on the front or something?"

Similarly, when asked about possible warnings for the future, a number of smokers suggested that the warning space on the pack could be used to provide positive encouragement or tips to help with cessation self-efficacy. The current cigarette pack that does contain positive encouragement, 'Quitting will improve your health', does not tend to achieve this. The statement is a known fact and does not offer information as to how or why quitting improves health in order to assist smokers to quit.

"Maybe they could give tips or something to help you give up? That [current image] only makes you want to have a smoke and it's a bit like 'ah duh!'"

"Do you remember they had that poster with the person that had about how bits of the body start to recover at different points of time? That was good. Maybe they could do something like that?"

That said, the above suggestions indicate that the space on packaging currently used for 'warnings' could also be effectively used for a more positive message and to increase cessation knowledge.

When asked to describe packaging in the survey, only 1% spontaneously mentioned a response related to Quitline or direct 'stop smoking' or 'quit' messaging.¹⁴ The eye tracking findings (12.1.2 Eye tracking findings on attention) there was high attention paid to the Quitline logo/messaging providing evidence of the ability of the current GHW design to raise awareness of Quitline.

Additionally, the quantitative survey found that 5% of smokers and 4% of recent quitters claimed that the health warnings led to them calling Quitline (see 17.2 Impact on cessation intentions/behaviour). This suggests direct impact on cessation knowledge or behaviour.

17.2 Impact on cessation intentions/behaviour

Health warnings on packaging have contributed to increased cessation considerations and intention among smokers and recent quitters.

Half of smokers (51%) and recent quitters (53%) agreed that health warnings on the packaging made them think about quitting.

Table 42: Cessation impacts of health warnings

Smokers/Recent quitters, Q22. The health warnings on the packs makes/made me think about quitting

Health warnings impact on thoughts to quit Column %	Smoker/ Quit	Smoker	Recent Quit
Agree + Strongly agree	52	51	53
Strongly agree	18	16	19
Agree	34	35	33
Neither	19	20	19
Disagree	13	13	13
Strongly disagree	13	13	12
Don't know	3	2	3
Column n	1708	1380	328

More specifically smokers say the health warnings have:

- Made them think about quitting (34%)

¹⁴ Coded responses from Q14. If you were asked to describe the packaging of cigarette/tobacco products to another person, how would you describe it?

- Raised their concerns about smoking (28%)
- Led them to reduce how much they smoke (23%)
- Helped them smoke less (23%)
- Helped them try to quit (15%)
- Led them to not have a cigarette/smoke (9%)
- Led them to call Quitline (5%)
- Led them to not buy or postpone buying another pack (5%). The impact of health warnings was stronger among those contemplating quitting or in the process of quitting (77% contemplators and 67% for quitting/relapse compared to 41% for pre-contemplators).

Table 43: Impact of health warnings on cessation - smokers

Smokers, Q17B. Thinking about your own behaviour, would you say the health warnings on cigarette/ tobacco packs have...?

Impact of health warnings on cessation Column %	Smoker	Pre-Contemplator	Contemplator	Quitting/Relapse
Any cessation related mention (total)	61	41 ↓	77 ↑	67 ↑
Have made you think about quitting	34	18 ↓	43 ↑	40 ↑
Raised your concerns about smoking	28	18 ↓	38 ↑	28
Led you to reduce how much you smoke	23	14 ↓	24	31 ↑
Helped you smoke less	23	12 ↓	28 ↑	29 ↑
Have helped you try to quit	15	4 ↓	17	23 ↑
Led you to not have a cigarette/smoke	9	6 ↓	9	12 ↑
Led you to call Quitline	5	4	8 ↑	4
Led you to not buy or postpone buying another pack	5	3 ↓	7	6
Column n	1380	431	438	481

Among smokers, males, 18-24 year olds and CALD were more likely to claim health warnings have impacted cessation consideration or attempts overall (made them think about quitting, raised concerns, led to reduction, led to smoking less etc.):

- Male (64%)
- 18-24 years old (71%)
- CALD (72%).

The majority of recent quitters (61%) also claimed health warnings have contributed to their concerns about smoking, thoughts about smoking as well as helped them smoke less, quit and stay smoke free.

In addition to seeding cessation thought processes (raising concerns, making them think about quitting), one in five recent quitters (20%) mentioned that health warnings have helped them stay smoke free/quit.

Indigenous smokers were also more likely to say GHWs have helped them stay smoke free/quit (45%).

A small proportion of recent quitters (4%) mentioned that health warnings led to them calling Quitline.

Table 44: Impact of health warnings on cessation – recent quitters

Recent quitters, Q17B. Thinking about your own behaviour, would you say the health warnings on cigarette/ tobacco packs have...?

Column %	Recent quitters	18-24	25-39	40-59	60 plus	Indigenous	CALD
Any cessation related mention (total)	61	83 ↑	64	55	49 ↓	69	72
Raised your concerns about smoking	26	38 ↑	28	19	23	40	27
Have made you think about quitting	25	23	26	27	23	38	29

Helped you give up smoking	23	23	25	21	22	33	12 ↓
Have helped you stay smoke free/stay quit	20	28	22	18	14	45 ↑	17
Helped you smoke less	16	24	20	9 ↓	14	24	26 ↑
Have helped you try to quit	15	18	13	20	11	28	17
Led you to reduce how much you smoke	13	16	18 ↑	5 ↓	10	28	19
Led to you not having a cigarette /smoke	12	21 ↑	13	8	8	16	14
Led to you not to buy or postpone buying another pack	6	18 ↑	5	3	5	16	8
Led to you calling Quitline	4	7	4	3	1	8	4
Column n	328	48	127	84	67	19*	62

17.3 Impact on pregnant women

Health warnings are also having an impact on women in pregnancy.

Among the smoker and recent quitter sample, 28% of females had been pregnant in the last 10 years. Half (51%) of these women said health warnings on the pack had an impact on their smoking behaviour while pregnant. Of those women that said

GHWs had impacted their behaviour, 74% said they had quit (25%) or stopped smoking while pregnant (49%) and 8% cut down or reduced how much they smoked.

The qualitative findings provided further understanding on cessation considerations and the factors influencing the desire to stop smoking among smokers, with many citing health warnings as contributing to thoughts about quitting (see 11.2 Reasons for quitting).

18 INDIVIDUAL GHW EVALUATION

18.1 Qualitative reactions

The qualitative research findings provide contextual understanding of reactions to the current suite and impact over time.

Overall Suite

The considerable change to plain packaging and the increase in size and format of the health warning introduced on 1 December 2012 resulted in a high degree of salience of the health warnings. As stated previously, the images are the key communication element of the warnings, providing an initial increase in awareness of potential health risks and reinforcing already known risks. While some felt they may have taken initial notice of the text on the front of the pack to gain further information about the image, this was not consistent across the sample and did not appear to be driven by demographic differences. Some also believed they may have initially read the written information on the back of the packaging, however it was clear that this was uncommon. This has a large degree of impact on the credibility of some warnings, where a further explanation is necessary to gain understanding.

Salience and noticeability of the warnings have diminished over time. While smokers can recall the warnings due to the images, they claim to no longer be as impacted as they initially were due to the length of exposure (as the GHWs have been out for many years). Quite simply, the lack of new information on any of the warnings has led to many smokers no longer noticing any element of the warnings.

"I don't notice them anymore. I've seen each one of them a million times – they're just cigarette packets again now."

In regard to cognitive processing, some warnings are the subject of a great deal of attention particularly with younger smokers. While this attention may lead to doubts being cast on the credibility and the believability of the warning, the nature of the attention indicates the warnings still provide a strong communication element.

The Bryan (Lung cancer) GHW continues to gain the attention of many smokers. This warning is the subject of Facebook pages and memes. While these are designed to provide humour and cast doubt on the credibility of the image being used, the fact that this warning continues to gain such attention indicates the high degree of cut through that it has achieved. In almost every group discussion across the sample,

participants stated that they had heard the image was not accurate and that Bryan had died of HIV, rather than lung cancer. This information was commonly known and discussed via social media and other web pages. In younger groups, the conversation often quickly turned to a discussion of the memes featuring Bryan.

"Have you seen the Bryan memes? It's really funny. Here I'll show you."

"Everyone knows Bryan. I heard he died of AIDS though."

Other images that tended to be recalled strongly and continue to generate discussion included the Foot, Teeth and Tongue. This is due to their graphic nature and feelings of distaste that they produce. Similarly, Baby often prompted a discussion about purchasing behaviour. This image was often avoided by women across age groups.

The qualitative research found the decline in the proximal outcomes of the overall suite of GHWs has not impacted on all warnings equally.

The qualitative research highlights the importance of a suite of warnings that has the potential to resonate across different smoker cohorts.

'Smoking harms unborn babies' – 'Baby'

It was largely accepted that this warning was accurate and well known and continues to generate an emotive response among many smokers. This was particularly the case with younger women and parents however, other demographics also responded to the concept of the vulnerable being impacted by smoking. While the image is the strength of the warning, the text was also often recalled.

"I remember the baby one. How someone could do that to a little baby is just wrong." (Younger male)

"Even though it doesn't affect me directly, I still don't like the baby one. It's about hurting the vulnerable." (Younger male)

The continued salience of the warning is evidenced by many smokers spontaneously discussing how they avoid the particular warning (more likely females), or prefer it given it has no direct personal relevance (more likely males).

"I don't mind getting that one. I'm past all that so no real chance of that happening." (Older male)

Given the emotive response to the warning, it is recommended that it be considered for continued use. Further testing would be beneficial in order to determine whether a new, yet similar image would have a greater impact among existing smokers.

'Smoking causes mouth cancer' – 'Tongue'

This warning initially provided some new information to smokers. While it has lost salience over time due to continued exposure, it still does generate a degree of contemplation among some smokers. It is considered credible as smokers identify that cigarette smoke touches the tongue when inhaled, thereby it could be affected by the chemical in the cigarette. Personal experiences of "furry tongues" or mouth ulcers among some smokers enhanced this credibility.

The image is the key element of the message. As a person's tongue is a noticeable part of the body, it was considered to be a highly undesirable consequence and was often recalled spontaneously before being shown. Further to this, some smokers commented as to how it would be *"difficult to live without your tongue"* resulting in a poor quality of life. While body parts such as feet or teeth could be replaced by prosthetics or surgery, it was largely considered that a tongue could not. This in turn would impact on being able to speak and eat.

"I mean you could live without your foot. Or get a new one. But you can't really get a new tongue, can you?"

"Having your tongue is everything. Imagine not being able to eat or speak?"

This warning could potentially be continued to be used in future. However, if done so, other related images should be considered to increase future salience and noticeability. For example, the graphic health warning of 'Smoking causes oral cancer' that was shown from other jurisdictions, prompted stronger visual reactions.

'Smoking causes lung cancer' – 'Bryan'

The text warning and the image of 'Smoking causes lung cancer' is accepted by all smokers. However, it is a well-known possible health consequence of tobacco use therefore it does not offer any new information to disrupt behaviour. As stated previously, the warning does continue to achieve a high degree of salience, noticeability and cognitive processing, particularly with younger smokers due to the image of 'Bryan'.

The image of Bryan generated a great deal of discussion. Although the social media sites and memes developed based on the image are designed to cast doubt on

credibility, the strength of this attention ensures it is continually brought to the attention of younger smokers, thereby generating some processing of the warning.

The lack of personal exposure to lung cancer means that many smokers are not aware of how quickly the disease can progress. As a result, many doubted that the before and after images on the pack were real in regards to the timeframe of 10 weeks that is stated. These smokers offered this as a reason to doubt credibility of the image.

"I mean how could someone go from being healthy to that in 10 weeks? He would have known he was sick way before he got to that if it was lung cancer and got some help."

Due to the continued salience of Bryan among younger smokers, consideration should be given to continued use of the warning in the future. However, consideration should be given to increasing credibility and persuasiveness of this health message.

'Smoking causes peripheral vascular disease' – 'Foot'

This warning held some salience across all cohorts. It was often the most common warning spontaneously recalled early in group discussions when the topic of GHWs was first raised. That said, findings from the qualitative component suggest wear-out in salience of this warning.

The graphic nature of the image and the feelings of disgust it generates is the driver of the high spontaneous recall of the image. The condition behind the image was commonly referred to as gangrene and there appeared to be little recall or understanding of the text referring to peripheral vascular disease.

Smokers found it difficult to understand how tobacco smoke could affect a body part that it does not directly touch and tended to dismiss the possibility of the health risk by attributing the condition to other possible causes or co-morbidities such as diabetes. The written text warning that may have helped explain this – 'Smoking causes peripheral vascular disease' – did little to help inform how such a condition could occur. As a result, the image lacked credibility amongst all cohorts.

Most smokers could not easily comprehend the phrase and had difficulty in gaining any further understanding with the small amount of the engagement they may have with it. Further, they did not tend to seek out further information from the back of the pack that may assist in comprehension.

"I never look at that bit. And it's not easy to understand, so I'd ignore it anyway."

Some smokers found it difficult to believe that someone would allow their foot to deteriorate to that extent without having sought treatment earlier. Others felt the image looked staged.

"How could someone let their foot get like that? It's not like you wouldn't have gone to the doctor to stop that happening beforehand?"

If this warning continues to be used in future, it is recommended that changes are made to the text warning to offer an easier explanation. Additionally, other images may need to be considered for this warning.

'Smoking causes emphysema' – 'Emphysema'

This current warning no longer holds salience and persuasiveness with smokers across all cohorts. The text presents no new information as smokers accept that emphysema is a health risk of smoking. The warning was often dismissed as only likely to occur to long term, heavy smokers unless there had been a personal experience with emphysema.

The image does not assist with communicating the health risk, as most smokers claimed to be unaware of what a healthy lung looks like. Further, many believe that the image looks manufactured rather than be of 'real' lungs.

"Although I know it's supposed to be a lung, it looks like nothing really. It's just a weird cobweb."

"It's not a picture of a real body part like the others, so doesn't have the same effect. And I don't know what a lung is supposed to look like, so I wouldn't know a healthy one from an unhealthy one."

Extending knowledge about emphysema would assist if this warning is to be used in future. Some suggestions from the group discussions included stating the prevalence of emphysema among smokers and/or explaining how even younger smokers can have some form of emphysema will assist.

'Quitting will improve your health' – 'Ashtray'

There was reasonably strong recognition and recall of this warning, with many recalling it as the only 'positive' message in the suite. In this context a 'positive' message is one that offers an encouraging reason to cease smoking as opposed to

telling the smoker of the health consequences if they continue tobacco use. However, the written warning was considered to be clearly obvious to all cohorts and did not provide any new information as to how to achieve the outcome of quitting tobacco use.

While there was some understanding of the relationship between the text and the image, this was not clear to all smokers. Further, across the sample some smokers claimed the image of the cigarettes resulted in increased cravings.

"Just makes me want to have one really."

"I look at that and I want to go outside and have one. Reminds you of how good the smell is when you're craving one."

It was suggested in the group discussions that inclusion of positive messaging that offered more encouraging reasons to quit would be useful on packaging in the future. However, this would be more effective if it includes information that extends knowledge of how and/why quitting will improve health.

'Don't let others breathe your smoke' – 'Child'

Similar to the 'Baby' warning, this was largely accepted as accurate and prompted discussion among smokers within the groups. The concept of the vulnerable being exposed to second hand smoke generated an emotional response with many smokers. Smokers openly reacted to the concept of a child breathing in second hand smoke and disparaged others who would allow this to occur.

"Only arseholes smoke around little children."

"If I see a little kid around and I've got a ciggie in my hand, I'll walk away to another area. No one smokes around children anymore."

However, the strong reaction of not smoking around children appeared to be driven by a number of factors rather than by the GHW on the packaging. Various legislative and social changes over time has meant that smoking around children is not considered acceptable by smokers. Given this, while the concept resonates with smokers, the current warning does not have any real significant impact. The written warning is an accepted fact among smokers, does not offer any new information and is able to be deflected as being about 'other' smokers and not applicable to themselves.

"I'd never smoke around children... it's different with other adults. It's not the kid's choice to be around when you're smoking"

Nor does the image provide any disruption to smokers' behaviour. While smokers may feel sympathy for the child, many identify that the child's illness could be caused by any number of conditions, for example, asthma.

"That kid could have anything. He looks like he has asthma, but he could be just sick as well."

While recognised when shown, this warning did not tend to have much spontaneous recall. While the general concept of this warning could be used in the future, additional information that builds on the accepted fact should be offered along with a stronger or more disruptive image.

'Smoking causes throat cancer' – 'Throat'

While this warning is considered highly credible, it has lost a large degree of salience and persuasiveness over time. The credibility of the message is based on the acceptance that, as above, cigarette smoke touches the throat as it is inhaled.

The image has lost a significant amount of impact particularly among younger smokers. While it is an undesirable condition, the image is not disruptive in a graphic nature and is easily dismissed as a condition that could only occur to long term, older, heavy smokers. It was more effective for older smokers who may have had more exposure over time to smokers who had suffered from throat cancer, thus increasing credibility of the message. While it was recognised when shown, it did not tend to be spontaneously recalled.

"You have to be a really heavy smoker for a really long time for that to happen."

While a highly credible message, further information or more graphic images may be required to enhance salience of this warning in the future given the current image is well known by smokers.

'Smoking damages your gums and teeth' – 'Teeth'

The graphic nature of the image means that this GHW continues to have some degree of spontaneous recall, and generates some feelings of distaste among younger, more recent smokers. However, overall, salience has been reduced significantly.

While the warning is considered highly credible given that tobacco smoke touches gums and teeth, the extent of the deterioration shown in the image is largely attributed to also having extremely bad hygiene. Further, the use of ages on the image leads younger smokers to dismiss the message as only occurring to older smokers. At the same time, older smokers who had not suffered from the condition also tended to dismiss the health risk.

"I'm 64 and that hasn't happened to me. That person obviously has some other issues and probably never brushes their teeth."

For this warning to continue to be effective in future use, an image that is both credible as well as graphic would need to be developed.

'Smoking causes blindness' – 'Eye'

Similar to the warning involving the foot and teeth, the image of the eye was strongly recalled on a spontaneous level by smokers due to the graphic nature of the image. However, as with other warnings, salience has decreased despite the recall rate.

While the image was highly disturbing for some smokers, there were questions raised in regards to the credibility of the warning. Some smokers had difficulty understanding how tobacco smoke could affect vision. As with other warnings, the condition of blindness is also caused by a range of other factors thereby diminishing the perceived relevance to smokers.

"People are blind for a lot more reasons than smoking. In fact, I bet you that there are more people who are blind that don't smoke, than do smoke."

Further, while disturbing, the image was not considered directly representative of an eye suffering from blindness.

The prongs holding the eye open were more the cause for disturbance rather than the eye itself across all cohorts. This resulted in smokers being more dismissive of the warning, as the image could be attributed to a range of different eye operations.

"That eye doesn't look blind. It could be an operation for anything. Like cataracts or something."

While offering new information to smokers initially, the lack of believability with the message may affect any future impact even if the image was changed.

'Smoking Kills' – 'Toe-tag'

The 'smoking kills' image was recognised when shown in group discussions however, it had little spontaneous recall. While credible, it was largely seen as an obvious message and provided no further information to assist motivate those contemplating quitting.

While the image was easily interpreted, it no longer appears to have an impact on smokers. The image was considered to be similar to what is commonly seen on television shows, therefore lacking any shock value. This was exacerbated by the strong belief that it was staged.

"It just looks like something out of CSI or something."

"There's no way that's real. We're so used to watching this type of thing on TV, it just looks something like that."

This warning is unlikely to have much future impact.

'Smoking causes heart disease' – 'Heart'

While recognised when shown in group discussions, this warning had little memorability. The text of the warning was the key element of the messaging with the image not easily interpreted independent to the written warning. Although it was accepted that smoking could contribute to heart disease, most smokers dismissed the health risk as being caused by another condition, such as being hereditary or diabetes. The ease of dismissing the message was enhanced by the heart being a body part that is internal, that is, smokers cannot visually identify or notice changes. As such, credibility was questioned.

The image does not currently impact on smokers. Without knowledge of what a healthy heart looks like, it was both difficult to identify the image as a heart or to understand what damage had been caused. As such, the image is currently failing as a key communication element, particularly in comparison to other warnings.

"I don't know what a healthy heart looks like so can't really see that damage being done on that one."

"It looks like ham."

Without a strong, relatable image it is unlikely that this warning will have any great impact in future iterations.

‘Smoking causes kidney and bladder cancer’ – ‘Toilet’

This warning had low recall and comparatively low recognition when compared to others. Similar to others discussed above, credibility of the warning was questioned as smokers found it difficult to understand how tobacco smoke could affect the kidney and bladder.

Further, the key communication element of the message is the text with the image difficult to interpret without it. This is in contrast to others within the suite where the images provide the key communication element. As a result, it is less disturbing than other images and the message may be missed if the written warning is not read.

“Although it would be pretty awful to see blood in the toilet, especially if you were a bloke, I’ve never really understood what it had to do with smoking. And even now if I have to read this bit [text warning], I find it a bit hard to believe how smoking could cause that.”

It may be difficult to improve upon the image and to provide an easy explanation of how tobacco smoke can impact on the kidney and bladder.

‘Smoking doubles your risk of stroke’ – ‘Cynthia’

Recall of this warning was comparatively low compared to others. The warning relies on the text as the key communication element, with the image providing little communication in isolation.

While credibility is not doubted, the words used in the text provide smokers with the opportunity to dismiss the warning. The use of the words ‘doubles your risk’ result in the warning being considered ambiguous, with it unclear as to what risk each individual has, therefore offering smokers the opportunity to question whether the warning is relevant. In addition, stroke is also known to be a health risk that is caused by other conditions and is not believed to be a direct risk of tobacco use.

“But risk is relative so it means little. I could have a real low risk of stroke, and you could have a high one so it would mean more to you. But you don’t know what your risk is, so why bother?”

Unless having been exposed to someone who had suffered a stroke, the image was difficult for most smokers to interpret. While not a desirable condition, it was generally believed that the image was of a much older woman, therefore minimising perceived relevance to many. Further many believed the image was of a person suffering from another condition, such as drug addiction. It may be difficult to find

an appropriate image that easily communicates the message accurately in any future iterations.

"She looks like she's on meth."

Notably, reactions to this warning were significantly different among Indigenous participants in the qualitative research. This image had high impact across the Indigenous groups due to the reportedly higher prevalence of stroke caused by smoking within Indigenous communities. Participants expressed fear of the consequences of a stroke, namely death or paralysis, with many reporting personal experience of these.

"It scares me to think of having a stroke and being a vegetable."

18.2 Individual GHWs on key criteria

The quantitative analysis found that are some GHWs within the suite that are performing more effectively than other GHWs on proximal and intermediate measures—noticeability, health message recall, recognition, credibility and perceived effectiveness. Bryan (Lung cancer), Foot (PVD/Gangrene), Teeth (Damages teeth and gums), Baby (Harms unborn), and Emphysema perform strongest on key measures.

The quantitative survey asked a range of questions to ascertain individual GHWs relative strength on five key measures:

- Graphic noticeability
- Written health message recall
- Recognition (seeing often)
- Credibility (perceived likelihood of occurring)
- Effectiveness (perceived effectiveness of getting people to think about quitting)

It is to be noted that there was lower recall of written health messages compared to graphic recall. As such conclusions drawn should acknowledge that while figures for written message recall is low some GHW did garner higher (albeit low overall) mentions.

Bryan (Lung cancer) was the only GHW that had high measures across these five evaluation criteria.

- The Bryan GHW was seen to be most effective in getting people to think about quitting/not smoking (41% most effective). Bryan was perceived as credible/

likely to occur (59%), was recognised as being seen often (56%), was one of the more highly spontaneously recalled graphics (16%), and written health warnings (8%).

The Teeth (Damages teeth and gums) GHW was highly memorable and credible.

- Teeth was one of the most effective GHWs in getting people to think about quitting/not smoking (31% most effective), was perceived as credible/likely to occur (58%), was recognised as being seen often (50%), and was one of the more highly spontaneously recalled graphics (16%).

The Foot (PVD/Gangrene) GHW was not highly credible but considered effective and salient.

- Foot was also one of the most effective in getting people to think about quitting/not smoking (35% most effective), was recognised as being seen often (49%) and was one of the more highly spontaneously recalled graphics (18%). Despite it not being seen to be highly credible (43%), its graphic was strong and consistently recalled.

The Baby (Harms unborn) GHW was considered effective, credible and salient with a strong health message.

- Baby was one of the most effective in getting people to think about quitting/not smoking (29% most effective), was perceived as credible/likely to occur (46%), was one of the more highly spontaneously recalled graphics (18%), and written health warnings (10%).

The Throat cancer, Emphysema, Heart disease, and Mouth cancer GHWs were seen to be credible:

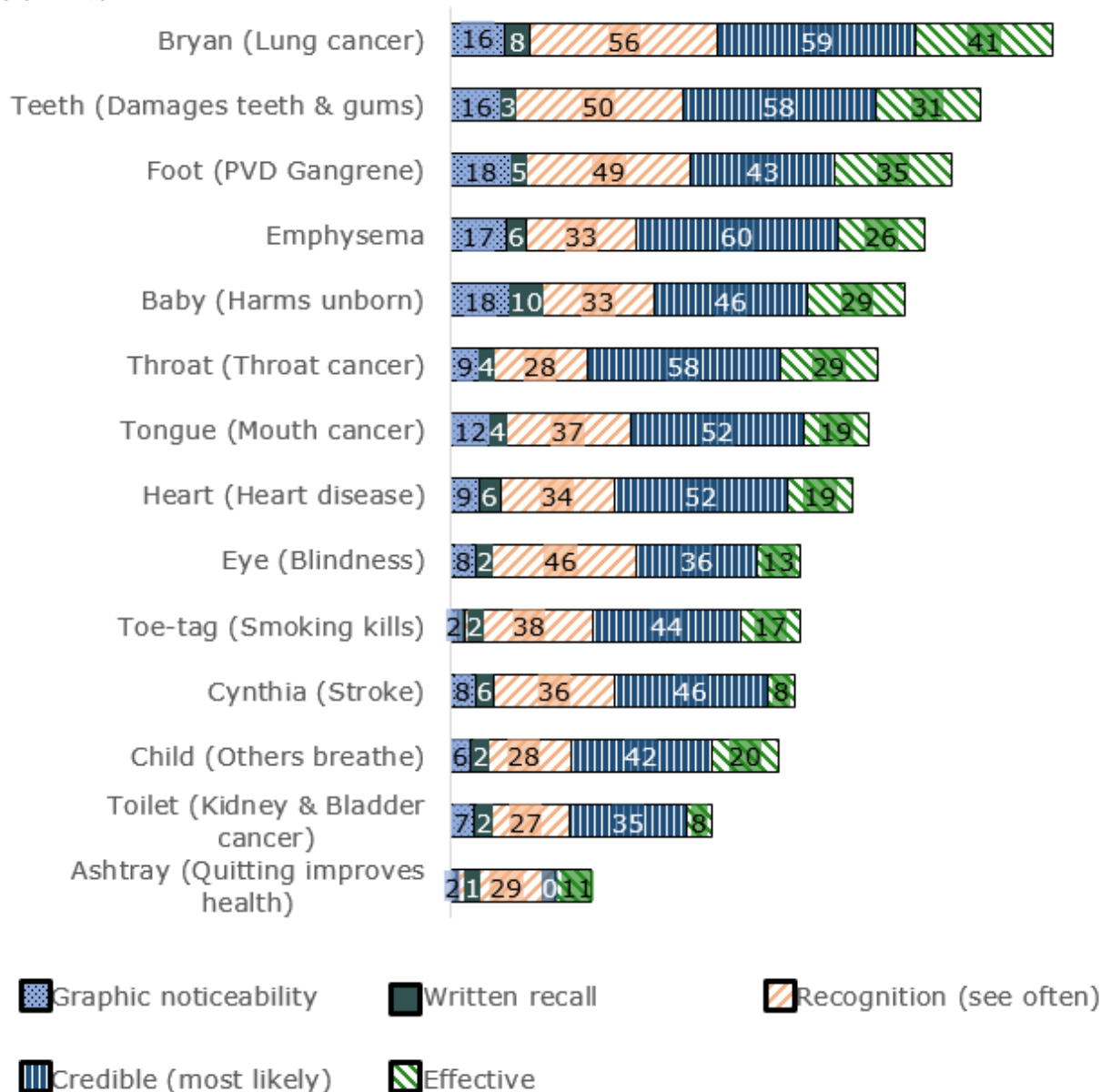
- Throat was seen to be highly credible (58%)
- Emphysema was seen to be highly credible (60%) and had strong graphic recall (17%)
- Heart (Heart disease) was seen to be highly credible (52%)
- Tongue (Mouth cancer) was seen to be highly credible (52%).

The Eye (Blindness) GHW was highly recognised (46% saw often) but appeared to lack credibility (36%).

The other GHWs; Toilet (Kidney or Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills), Ashtray (Quitting improves health) performed weaker across the board of criteria, particularly the Ashtray.

Figure 9: Key measures for individual GHWs

Smokers, Q15. Thinking about the pictures on cigarette/tobacco packaging, what pictures can you recall? Coded, Q16. Thinking about the types of written health warnings, what warnings can you recall? Please write your response in the boxes below Coded, Q24. Here are some of the packs. For each one please indicate how often you see them – showing Often, Q25. Which of these do you consider to be LIKELY to occur as a result of smoking/tobacco use? Q27. Which of these warnings on cigarette/tobacco packs do you think are the MOST effective for getting people to think about quitting/not smoking? Showing column %



The Baby (Harms unborn) GHW was considered more effective among female smokers, child bearing aged smokers and parent that smoke:

- Female (33%)
- 18-24 year olds (43%)
- 25-39 year olds (32%)
- Parents (34%)
- Indigenous (38%).

Among the Indigenous smokers, the Baby (Harms unborn) GHW was most effective (38%) and there was higher perceived effectiveness of the Child (Others breathe) (29%).

Smokers in contemplation were more likely to find certain GHWs to be most effective:

- Throat (Throat cancer) (33%)
- Emphysema (30%)
- Child (Others breathe) (23%)
- Eye (Blindness) (17%)
- Cynthia (Stroke) (11%).

Male smokers were more likely to consider the Eye (Blindness) GHW to be effective (15%).

Smokers aged 18-24 also found other GHWs to be effective (ordered by overall rank):

- Foot (PVD/Gangrene) (44%)
- Teeth (Damages teeth and gums) (40%)
- Baby (Harms unborn) (43%)
- Heart (Heart disease) (31%)
- Toilet (Kidney and Bladder cancer) (12%).

Compared to other age groups Bryan (Lung cancer) was relatively less effective amongst smokers aged 18-24 years and Indigenous smokers.

For younger smokers, the qualitative research suggested the Bryan (Lung cancer) GHW carried controversies (questions around whether the story of Bryan was true).

For Indigenous this may be related to the 'whiteness' of 'Bryan' as it was raised in the qualitative research that relatability was weaker among Indigenous.

"One of the things I noticed with the packaging is that a lot of the people on it are not of colour ... looking at this message for me would be 'this only affects white women'. If I saw a black person on there with emphysema or a hole in

their neck I think it would make more of an impact for me.” *Aboriginal male, Brisbane*

18.3 Effectiveness of elements by GHW

For those GHWs considered most effective, different design elements were seen to contribute to perceived effectiveness:

- The picture (graphic) contributed most to the effectiveness of the Foot, Teeth, Eye, Tongue, Bryan and Throat GHWs (indicated by higher proportions attributing effectiveness to the picture).
 - That said, the Throat was one of the GHWs considered less effective overall.
- The Baby, Child, and Emphysema GHWs and to a lesser extent Bryan, required a combination of the picture and written warning for effect.
- Cynthia (Stroke), Ashtray (Quitting improves health) and Toe-tag (Smoking kills) relied more on the written warning to convey the message compared to other GHWs. This suggests their image has weaker ability to convey an impact alone and could explain why they are less memorable and also perceived to be less effective.

Table 45: Component contributing to effectiveness

Smokers/Recent quitters who selected the GHW as 'Most effective', Q28. Is that because of...?

GHW element contributing to effectiveness Row %	The picture	The combination of the picture and written warning	The written warning	Not sure
Foot (PVD/Gangrene) (n=652)	78	21	1	0
Teeth (Damages teeth and gums) (n=548)	69	27	2	1
Eye (Blindness) (n=246)	68	26	4	2
Tongue (Mouth cancer) (n=316)	66	27	6	1
Bryan (Lung cancer) (n=730)	59	36	5	1
Throat (Throat cancer) (n=490)	58	34	6	2
Toilet (Kidney and Bladder cancer) (n=136)	54	24	18	4

Baby (Harms unborn) (n=529)	51	42	7	1
Child (Others breathe) (n=355)	49	41	9	1
Heart (Heart disease) (n=330)	49	36	15	0
Emphysema (n=434)	41	40	16	3
Cynthia (Stroke) (n=136)	26	22	47	5
Ashtray (Quitting improves health) (n=170)	20	39	39	2
Toe-tag (Smoking kills) (n=285)	30	37	33	1

19 PREMIUM CIGAR FINDINGS

There were too few survey participants that mainly smoked cigars in the sample hence evaluation of the cigar GHWs is limited to qualitative findings.

The qualitative research found there was a notable difference between smokers of premium cigars and users of other tobacco products, particularly if the cigar smoker did not use any other tobacco product. These participants had far less exposure to the graphic warnings due to the way they purchased premium cigars. Cigars were typically ordered online, sourced from specialist cigar shops or purchased at a lounge or bar where cigars are chosen directly from a humidor. The products were often purchased as a single cigar, or numerous cigars of different brands. Packaging was reportedly quite plain and not containing the warnings or any other advertising or branding. Some received the cigar with no labels or wraps suggesting retailers are not always using the bags with the GHWs that are required to package single cigars.

As a result, while premium cigar smokers were aware of GHWs, the lack of exposure to the warnings compared to users of other tobacco products resulted in less impact across the evaluation outcomes. When prompted with images, some had a vague recall of the mouth and throat cancer warnings, with these being considered as credible in regard to use of premium cigars given how the product is used. It was more likely that they would mention cigarette GHWs if they were exposed to these over specific cigar warnings. As smoking premium cigars was not typically a daily occurrence for most participants, they believed themselves to be at low risk relative to users of other tobacco products. One cigar smoker did mention the warning around cigar smoking not a safe alternative as a good 'wake-up call'.

19.1 Evaluation of individual warnings

As discussed previously, premium cigar smokers had far less exposure to GHWs due to the purchasing process. When sourced online, from specialist cigar shops or purchased at a lounge or bar where cigars are chosen directly from a humidor, packaging is reportedly quite plain and without warnings or other advertising or branding. Exposure to the warnings is also limited due to the relative infrequency of use. Smoking premium cigars is not a daily occurrence, or even weekly for some. As such, there was limited spontaneous recall of the images and reactions were largely prompted.

Although various warnings were considered to have greater credibility than others, premium cigar smokers tended to feel that they were at little risk of the health

consequences associated with smoking due to the relative infrequency of their smoking. This was consistent across all the warnings.

‘Cigar smoking causes mouth cancer’ – ‘Tongue’

The key communication of this warning was the text. Premium cigar smokers found it a credible health risk due to the way in which premium cigars are smoked. Given that the smoke is held in the mouth and ‘tasted’ as opposed to being inhaled into the lungs, it was considered that this could have some negative impact as the smoke comes into direct contact for an extended period with the mouth and tongue.

The visual of this warning had less effect on premium cigar smokers than the text. While the concept of mouth cancer was credible, the image was considered to be extreme particularly for the relative infrequency of use of premium cigars. As such, it undermined the credibility of the warning to some extent.

‘Cigar smoking causes throat cancer’ – ‘Throat’

Similar to above, the text of this warning was considered credible due to the manner in which cigars are smoked. Premium cigar smokers identified that with the smoke being held in the mouth and touching the throat that there was some possibility that it could cause throat cancer.

The image of this warning was also considered to be a possibility, albeit a remote one. Premium cigar smokers referred to having seen people who have suffered from throat cancer so the image was believable at an overall level. However, it was considered a far greater possibility with heavy, long term cigarette smokers as opposed to premium cigar smokers, again due to the comparative lesser use.

‘Cigar smoking causes lung cancer’ – ‘Lung’

In contrast to other cigar warnings, the image on this warning was the key communication element. The graphic nature of the lung was somewhat confronting to the cigar smokers given they had little exposure, if any, to it previously.

However, there was some resistance to the message articulated by the text. Premium cigar smokers tend to hold the belief that as the cigar smoke is not actually inhaled, their lungs have little or no exposure to the smoke. That is, it does not touch the lungs. As a result, they feel the risk of lung cancer due to smoking cigars is minimal.

‘Cigar smoking is not a safe alternative’ – ‘Toe-tag’

Premium cigar smokers found this warning offered a direct challenge to a common belief they had – that cigar smoking is a safer alternative to cigarettes.

Due to this direct challenge, the text of the warning was of interest to some cigar smokers as they questioned what evidence was behind the statement. Some claimed they would have read any further information offered on the packaging if they had received the warning when buying cigars.

Similar to the findings with cigarette and RYO smokers, the image of the toe-tag was easily interpreted along with the text, but tended to lack any disruptive value. It is an image often seen (and not always in the context of smoking) in media (like TV shows) and they have become desensitised to these images.

‘Cigar smoking damages your teeth and gums’ – ‘Teeth’

Premium cigar smokers found some credibility in this warning. This was again due to the way that cigars are smoked, with the smoke being held in the mouth rather than inhaled. The contact of the smoke on teeth and gums for some time contributed to the believability of this message.

The text was the more persuasive communication element of this warning, with the image detracting somewhat from the initial believability. Cigar smokers felt that it was highly unlikely that smoking cigars could lead to the level of deterioration shown in the image. Cigar smokers felt it was more likely the damage had been caused by other factors such as poor hygiene.

20 ALTERNATIVE GHW TESTING (QUALITATIVE)

A range of ten new graphic visuals were used as stimulus in the qualitative primary research to understand the attention, impact, persuasiveness and salience potential of new visuals to build greater salience. Importantly, there was no expectation that these visuals will actually be used for future GHWs in Australia, and this did not represent a specific test of efficacy of the chosen images. Rather, the visuals were used to better understand the effect of new visuals in comparison to existing ones, as well as the effect of certain health messages that the different visuals might portray.

In terms of participant responses to the different visuals, while many claimed that GHWs had no effect on reducing their smoking prevalence, their initial reaction to some of the images suggested quite a different effect. Participants universally responded to a number of the images with shock, as research indicated they did when the initial GHWs were introduced in 2012.

As outlined in the intermediate and proximal sections, some of the images created a greater response than others, and generally in a similar way to the existing graphic images (for example, babies had a greater effect on women than on men). Whilst it is not recommended that these images are used in isolation without further in situ testing, it appears some may be more effective than others, and many are more effective than the current Australian images. While they appear to be driven to a large extent by the nature of these GHWs being new, it may also be attributed to the loss of impact of the current images over time.

The images and comments are as follows:



© Health Canada

This visual was one of the more impactful because of both its graphic nature and believability. Participants found it easier to accept that oral cancer was a logical outcome of smoking than a gangrenous foot for example.

"Oh, that's just awful. Can you imagine having a tongue like that? It's just manky."



© Health Canada

This visual had impact because it is a 'real life' case study. The fact that Barb is holding a cigarette was not spontaneously noticed, but when pointed out, appeared to provoke a conversation around addiction which otherwise may not have been raised by other warnings. *"I guess you're so far gone and so addicted by that stage, what else do you do?"*



© Health Canada

This visual stimulated discussion about whether the person had passed away or not as yet. It is seen as equivalent to the current 'Bryan' packaging although it appears there is some desensitising that has occurred in images of this nature. Exposure to the Bryan image, along with more general exposure to images of this nature on television shows has contributed to this desensitisation. That said, some participants did feel that it had a 'real life' element that had some impact.



© Health Canada

As seen with other images accompanying a warning on smoking affecting an unborn baby, this image affected females more than males. That said, it was not as effective as the current Australian warning. Most female participants note pregnancy/babies as a key reason for reduced consumption. However, most participants did not notice the actual intent of the visual.

"Unless you really look at it, it just looks like she's rubbing her stomach."



© European Union

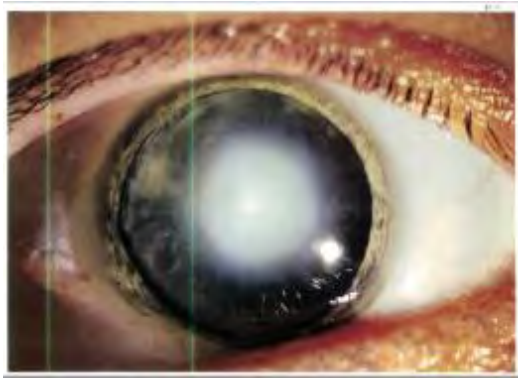
The notion of the family gathering at what is clearly a hospital was compelling for some participants. This concept had a stronger impact on females within the group discussions than on males. Whilst this visual appears to be 'set up', it was considered that a more genuine, less rehearsed visual may be more effective. For some the visual was easily dismissed given the man could be dying from almost any cause.

"He could be dying of anything. It doesn't automatically say smoking."



As outlined, the use of images of a gangrenous foot have some limitations for those who find it hard to believe this may be a natural outcome of tobacco use. However, this appears to be equally graphic but a potentially more genuine visual than the current foot used on the Australian warnings. This is assisted by the surrounds of what appears to be a hospital bed, which increases the efficacy of the visual overall.

"Oh, that looks way more real. That's just gross."



This eye visual was not perceived to be as graphic for most participants as the existing eye visual. There was confusion as to whether the eye was blind, or had cataracts and while not appealing, neither was it as confronting as the existing graphic, which has the added impact of the metal forceps.

"It looks more blind but isn't quite as gross as you can't see the metal prong things."



© European Union

This visual evoked a range of responses. The main detractor to it was perceived to be that the shot was set up and therefore unrealistic. Participants found it hard to believe that an individual would intentionally blow cigarette smoke into a child's face. However, in discussion it was felt that children were often unintentional passive smokers, and a more realistic scenario depicting children breathing in smoke around smokers would be effective.

"No one smokes around children and that picture is so clearly set up. I hope that wasn't real smoke they were blowing at the kid."



© Ministry of Health, New Zealand

The concept that smoking causes premature ageing was more impactful for females than males, however this visual was not considered an optimal depiction. It is perceived to be busy and complicated and that by the time it is to-size on a package it will lose significant impact.

"It's too hard to work out what is going on there."



© Ministry of Health, New Zealand

Consistent with commentary on existing close up visuals of internal organs, participants were unclear as to whether this is a depiction of an unhealthy organ despite its graphic nature. Most eventually determined they were looking at a graphic picture of lungs, but it does not necessarily communicate unhealthy lungs to all. A split visual comparison could be advantageous.

"It would be good to compare it with a healthy lung so you could understand the damage."

20.1 Indigenous smoker reactions

While reactions to all alternative creative options were very similar among Indigenous participants, the images demonstrating family and children tended to resonate more among this cohort, particularly females. Indigenous female participants consistently reported images with children, for example the mother smoking with her baby, the pregnant woman turning away a cigarette and the father in hospital as having the highest impact and most relatable. Female participants were more inclined to be concerned about their children's health more than their own health.

20.2 Unprompted suggestions

essence Strategy, Research and Stakeholder Engagement

Participants were asked to nominate what other images may be depicted on packaging that may be effective in reducing prevalence of tobacco use. Many of the suggestions relate strongly to the financial and social consequences of tobacco use. Such themes could be an effective addition along with specific 'health' warnings.

Whilst the difficulty of sourcing appropriate visual images to depict the following suggestions was acknowledged by participants, there is a clear consensus that such images graphically and genuinely articulate the impact of tobacco use. Suggestions included:

- A visual that reflects the cost of tobacco usage. For example, a picture of a bank statement with the EFTPOS amounts of tobacco highlighted, or a picture of what could have been bought for the same cost as one year's worth of tobacco products.
- A visual that depicts odour and the unpleasantness of the smell, particularly the impact of the smell on others.
- A visual for females that depicts the opposite sex expressing distaste for smoking - e.g. a younger male looking on with distaste at his smoking girlfriend. It may be that aspects of vanity and self-image could be strong emotional drivers for this cohort.
- A visual showing the effect of ageing more definitively, recognising that this is a difficult image to achieve.
- A visual that depicts furtive behaviour that many may recognise themselves as doing, particularly keeping their smoking a secret from others/family members/children. A mother grabbing a quick cigarette while hiding and on the lookout for children appearing was considered to be a powerful symbol.
- A visual of the smoking area at a venue, with an individual looking isolated and unhappy at being in that environment.
- Indigenous participants identified the importance of "real people and real stories" and emphasised the importance of greater representation of Aboriginal people or people of colour in the packaging to increase the relevance of the images.

Whilst these are ideas participants suggested, there was agreement that capturing such scenarios in an impactful manner is challenging. While they may also have quite specific appeal, they provide an indication as to the key areas of concern with regard to tobacco use.

It is expected that more research would need to be undertaken to identify appropriate images. This study has demonstrated that there is potential efficacy in new unseen images, and there are some that are more impactful than others. Further consideration is required around how the optimal choices of images might be selected and implemented in the future.

21 EVALUATING THE IMPACT OF GHW (SUMMARY)

21.1 Overall

The 2018 research provides strong evidence for the effectiveness of GHWs in meeting the proximal, intermediate and distal objectives despite signs of wear out.

In combination with other Government initiatives (plain packaging, cost increases, smoking restrictions) GHWs are having a direct influence on health knowledge and cessation outcomes.

In terms of meeting the ***proximal outcomes*** identified in the evaluation criteria (program logic):

Key outcome	Evidence
GHWs are salient and are attracting attention and being noticed	<ul style="list-style-type: none">• When asked to describe the packaging, smokers and non-smokers were able to provide some description of the packaging with high spontaneous recall of pack elements including GHWs.• The most common mentions was that the packaging was gross/ugly/disgusting/bad/confronting/graphic pictures (38%), that there were pictures of the outcomes from smoking (23%), that there were health or cancer warnings (21%) and plain packaging colour (20%).• Smokers were most likely to notice and recall gross/ ugly /disgusting/bad/confronting/graphic pictures (43%), health warnings/cancer warnings/ cancer (27%), the plain packaging (23%) and pictures of outcomes from smoking (16%).

<p>GHWs are remembered and encoded in memory</p>	<ul style="list-style-type: none"> • There is high recall of the specific images in particular Foot, Baby, Emphysema, Teeth and Tongue images. • Around seven in ten (70%) were able to describe one of the graphics or messages when asked what pictures they could recall on packaging with 64% specifically describing one of the current 14 graphics. • The most frequently recalled graphic images were the Foot, Baby, Emphysema, Bryan, Teeth and Tongue images (between 14%-19% spontaneous recall). • Recall of the written health warnings was considerably lower than recall of the graphics on the pack however some specific messages are salient, in particular that smoking harms babies/unborn babies and causes lung cancer. • Around four in ten (39%) of smokers and recent quitters were able to recall a written warning with 27% mentioning a specific message that could be attributed to one of the current GHWs. Ability to recall a specific written warning was lower than recall of graphic images (27% versus 63% for graphic images) supporting findings that the graphic is the most salient and noticeable component of the health warning.
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In terms of meeting the *intermediate outcomes* identified in the evaluation criteria (program logic):

Key outcome	Evidence
<p>GHWs are contributing to health knowledge associated with tobacco use</p>	<ul style="list-style-type: none"> • The majority (67%) of smokers and recent quitters believe the inclusion of pictures and health information on cigarette/tobacco packaging has improved their knowledge of the health effects of smoking a lot or a little. • GHWs are the number 1 source for smokers and recent quitters to learn about health harms associated with smoking (58% mentioned health warnings as the source of knowledge about health harms). • Smokers and recent quitters consider the pictures on packaging to be very effective or somewhat effective at communicating the health effects of smoking (71%).

<p>GHWs are contributing to perceived risks associated with tobacco use</p>	<ul style="list-style-type: none"> • Around half (49%) of smokers and recent quitters have worried more about the effects of smoking on health because of the health warnings on cigarette/tobacco packaging. • Smokers in contemplation or action/relapse stages in relation to quitting were even more likely to have worried more about the effects of smoking on health because of the health warnings on cigarette/tobacco packaging (58% contemplation and 55% for those in action/relapse). • The health warnings have an even higher impact on non-smokers with 61% who agreed that they would worry more about the effects of smoking because of the health warnings on cigarette/tobacco packaging – evidence of prevention impact.
<p>GHWs are generating affective (emotional) responses associated with tobacco product use</p>	<ul style="list-style-type: none"> • When asked what they feel when they see tobacco packaging, 57% of smokers and recent quitters felt some emotional response. • Reactions most commonly mentioned were feeling disgusted (14%), worry /concern (6%), guilty, fearful/scared (6%), thinking they should stop (5%) and relief they aren't smoking (7% non-smokers). Other mentions included feeling sad (4%), a sense of hopelessness (4%), anger or annoyance (4%). • Around three in ten (31%) claimed to feel 'nothing', ignored them or were desensitised to them.

<p>GHWs are contributing to decreasing brand/package appeal</p>	<ul style="list-style-type: none"> • For smokers who have had exposure to the previous branded packaging without GHWs, the majority (63%) prefer the older packaging (agree or strongly agree). • There was even higher preference (strongly agree) for the older packaging expressed by those in pre-contemplation stages of quitting (40%).
<p>GHWs are leading to avoidance behaviours</p>	<ul style="list-style-type: none"> • Among smokers, 44% admit to some avoidance practices such as transferring or decanting into another case (24%) or concealing/hiding the pack, asking for a pack with a different warning or image (10%) or tearing away part of the packaging (10%). • A third (33%) of smokers continue avoidance practices in particular transference or decanting (16%) or concealment/hiding packs (12%). • There is evidence that due to social pressures and increasing exclusion of smoking in public, 'concealment' or hiding 'smoking' generally is occurring. As such, conscious avoidance behaviour appears to be replaced by concealment of smoking practices generally.

GHWs are contributing to cessation intentions for tobacco product use

- **Half of smokers or recent quitters (52%) agreed that health warnings on the packaging make or made them think about quitting, which is consistent across smoking status.**
- **More specifically, smokers say the health warnings have:**
 - **Made them think about quitting (34%)**
 - **Raised their concerns about smoking (28%)**
 - **Led them to reduce how much they smoke (23%)**
 - **Helped them smoke less (23%)**
 - **Helped them try to quit (15%)**
 - **Led them to not have a cigarette/smoke (9%)**
 - **Led them to call Quitline (5%)**
 - **Led them to not buy or postpone buying another pack (5%).**
- **The impact of health warnings was stronger among those moving closer to quitting or in the process of quitting (77% contemplators and 67% for quitting/relapse compared to 41% for pre-contemplators).**
- **The majority of recent quitters (61%) also claimed health warnings have contributed to their concerns about smoking, thoughts about smoking as well as helping them smoke less, quit and stay smoke free.**
- **14% of smokers and quitters cited health warnings as the reason they want to quit smoking**

<p>GHWs are making small contributions to cessation knowledge of tobacco product use</p>	<ul style="list-style-type: none"> • A small number of smokers claimed the health warnings led to calling Quitline suggesting the GHWs have among a small proportion, contributed to increased awareness of the channels to aide in cessation. However as an element of the GHW design, it does not appear to be the element with strong noticeability. • 5% of smokers and 4% of recent quitters claimed that the health warnings led them to call Quitline.
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Statistics on smoking prevalence suggests that collective efforts are leading to increased cessation in society with smoking rates decreasing as shown in the AIHW NDSHS data. Since 2007 there has been a decrease in smoking prevalence from 16.6% down to 12.2% for 14 year olds and over and a decrease in smoking prevalence from 17.5% down to 12.8% for 18 year olds and over. However, while smoking rates have decreased, it is difficult to extricate the impacts of GHWs from other interventions (plain packaging, smoking restrictions, cost increases).

Table 46: Smoking prevalence (AIHW NDSHS data)¹⁵

Smoking prevalence Year	2007	2010	2013	2016
14+ year olds	16.6	15.1	12.8	12.2
18+ year olds	17.5	15.9	13.3	12.8

21.2 Individual GHW effectiveness

There are some GHWs within the suite that are performing more effectively than other GHWs on proximal and intermediate measures—noticeability, health message recall, recognition, credibility and perceived effectiveness.

Across measures, Bryan (Lung cancer), Foot (PVD/Gangrene), Teeth (Damages teeth and gums), Baby (Harms unborn), and Emphysema perform strongest on key

¹⁵ Australian Institute of Health and Welfare (AIHW)/National Drug Strategy Household Survey (NDSHS) data. Data available on the AIHW website :www.aihw.gov.au/.

measures. The Toilet (Kidney and Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills), Ashtray (Quitting improves health) are weaker on the key criteria.

- Bryan (Lung cancer) was the only GHW that had high measures across these five evaluation criteria of noticeability, health message recall, recognition, credibility and perceived effectiveness
- Teeth (Damages teeth and gums) was highly memorable and credible
- Foot (PVD/Gangrene) was not highly credible but effective and salient
- Baby (Harms unborn) was effective, credible and salient with a strong health message
- Emphysema was seen to be highly credible and had strong graphic recall

Some GHWs were considered credible but did not necessarily have strong salience or recall:

- Throat /Throat cancer was seen to be highly credible
- Heart (Heart disease) was seen to be highly credible
- Tongue (Mouth cancer) was seen to be highly credible

The Eye (Blindness) GHW was highly recognised but appeared to lack credibility.

The other GHWs including the Toilet (Kidney and Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills), Ashtray (Quitting improves health) performed weaker across the board of criteria, particularly the Ashtray.

The strength of a GHW in meeting the criteria typically relied on a strong, readily identifiable image.

- The picture (graphic) was the element most contributing to the effectiveness of the Foot, Teeth, Eye, Tongue and Bryan (indicated by higher proportions attributing effectiveness to the picture).
- The Baby, Child and Emphysema GHW and to a lesser extent Bryan, required a combination of the picture and written warning for effect.

The GHWs with the least powerful images included Cynthia (Stroke), Ashtray (Quitting improves health) and Toe-tag (Smoking kills) and they relied more on the written warning to convey the message compared to other GHWs (indicated by higher selection of the written warning). This perhaps explains the low overall perceived effectiveness and memorability of these GHWs.

There is also evidence that individual GHWs can resonate more strongly for different audiences, confirming the need for a suite of warnings.

21.3 Evaluating 2008 changes

The Evaluation of the Effectiveness of the GHWs on Tobacco Product Packaging 2008¹⁶ found that the GHWs on tobacco product packaging emerged as an important and effective component of tobacco control in Australia. However, areas for improvement were raised by participants in all components of the 2008 Evaluation; including changes to design and content elements as well as the introduction of other messages.

Addressing wear out through rotation and refreshing warnings

In the 2008 research, the Consumers and several stakeholders pointed to the importance of updating and refreshing the GHWs in order to sustain their impact. In addition, the Literature Review findings in the 2008 evaluation report¹⁷ points out that periodically reviewing and revising health warnings are commonly advocated as a means of increasing variety, and thereby boosting warning salience and relevance for different consumer groups. Variety was found to be significant in counteracting over-exposure and wear out of health warnings.

The 2018 research further supports the importance of refreshing the GHWs with signs of wear out coupled with indication that some GHWs are not optimally communicating the intended messages; Toilet (Kidney and Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills), Ashtray (Quitting improves health). The 2018 research suggests wear out is occurring for the current suite and further rotation and refreshing of the images and written warnings should be considered.

Optimising images and associated text

The 2008 research also suggested use of clear well-defined pictures that are recognisable and easily identified to ensure immediate cognition and minimise confusion. This suggestion applied generally to the design of GHWs but also in relation to updating or refreshing existing warnings (new images for existing conditions). In regard to the graphic health warning images and associated text,

¹⁶ Shanahan and Elliott, Evaluation of the Effectiveness of the Graphic Health Warnings on Tobacco Product Packaging, 2008

¹⁷ Shanahan and Elliott, Literature Review, Evaluation of the Effectiveness of Graphic Health Warnings on Tobacco Product Packaging, Department of Health and Ageing, Canberra, 2008 unpublished report

some graphic images were confusing or were suffering from over-exposure which suggests they require updating and refreshing (e.g. Heart Disease, Stroke, Toxic, Addictive, Lung Cancer, Children, Emphysema, Clogged Arteries, Quitting).

The 2018 research supports the 2008 recommendation, also recognising that some warnings/concepts are harder to convey. The refreshing of some graphics has improved impact – for example the Bryan (Lung cancer) warning has performed strongly within the suite as well as the Baby (Harms unborn).

Increasing size of graphic and warning

The 2008 research suggested increased graphic on the front of the pack to promote visibility and noticeability and cut through clutter as well as suggesting increased size of the written warning.

The 2018 research has found that the increase in images and warnings have been successful in promoting visibility and noticeability, making the GHWs cut through any clutter. In combination with plain packaging, the graphic images are readily and often accurately recalled and are the main design element recalled on the pack. The eye tracking research also suggests that those design elements which are large attract the greatest attention.

Introducing plain packaging/reducing brand elements

The 2008 research discussed the ability of GHWs to cut through the branding design elements (colours, branding logo, text) which added to clutter. Consumers maintained that package design and colour can be an enticement to purchase a brand. Design elements were thought to often be in conflict and competition with the health message for consumer attention. To this end, plain packaging (i.e. restricting or prohibiting the use of logos, colours, brand imagery or text other than brand names printed in a standard colour and font size), was suggested by both consumers and particularly stakeholders as one way of strengthening the impact of health messages.

The 2018 research found that plain packaging has also aided the overall objectives of GHWs. The minimal branding and design elements of current packaging have allowed GHWs to cut through. There is also reduced appeal of packaging overall compared to the pre plain packaging designs.

Consideration of the use of statistics in some explanatory texts

The 2008 research suggested using some statistics and stakeholders felt that the use of statistics in some of the explanatory texts could alter the tone by adding a sense of urgency.

The 2018 research would support the 2008 recommendations however it may be necessary to consider credibility of messaging. For example, qualitative discussions found that some individuals dismissed the 'Smoking doubles the risk of stroke' as it appeared unlikely. It may be advisable to include statistics that build on knowledge and support these in channels beyond GHWs—such as in advertising or media reporting. Given a tendency for many smokers to be in denial, 'hard hitting truths' need to be perceived as credible and specific statistics should be tested for comprehension, credibility and impact.

Introduce new diseases with established links

The 2008 research suggested introducing new diseases with established links to smoking (e.g. Impotence, Kidney Disease, Bladder Disease, Bowel Cancer, Pancreatic Cancer, Infertility, Hearing Loss, Osteoporosis). Stakeholders felt that new warnings need to reflect new research findings on the health effects of smoking, as well as encouraging quitting.

The 2018 research suggests the introduction of new diseases (Toilet/Kidney or Bladder cancers) is helping to inform/educate smokers about the possible health harms. However, many smokers may need further evidence in order to consider these new diseases as credible and may require support via other channels.

Increasing personalisation of GHW

The 2008 research suggested putting a personal angle on GHWs such as using pronouns or adding credibility that images are of real people or leveraging social consequences of smoking. Additionally, it suggested considering messages around social consequences, social threat and social disapproval which were particularly resonant for young people.

These changes have had particular success with the 2018 research finding that those GHWs that carry these elements, when coupled with strong graphics, perform strongly in the suite. Bryan (Lung cancer) that utilises the real people recommendation as well as the before and after scenario, and Baby (Harms unborn babies) that leverages social consequences, rate highly in terms of noticeability, credibility and perceived effectiveness.

Additionally, the broader social context of smoking (smoking restrictions, attitudes to smoking/smokers) also appears to have had significant impact on smoking behaviour with a strong desire among smokers to stop smoking. This could be considered a potential message.

Other social or personal impacts could also be considered to increase personal relevance and response. This could include cost impacts or using before and after scenarios including impact on ageing and social exclusion. There are some strong feelings around social judgement underpinned by a sense of guilt that could also be considered.

Inclusion of quit messaging and Quitline

The 2008 research suggested inclusion of content such as tips to quit, a large Quitline phone number, information about ingredients (in lay terms). Stakeholders suggested simplifying the text by replacing terminology (and in some cases modified imagery) with less complex alternatives.

The 2018 research found that while other elements of the GHWs had greater salience than quit related messaging, these were having cut through for those in contemplation. There is evidence that the Quitline logo is recalled and has led to behaviour change (calling Quitline, raising awareness of Quitline). The eye tracking also indicated that the Quitline logo attracts high fixation. Additionally, many participants spontaneously voiced suggestions that GHWs could focus on quitting messaging (including benefits to quit) taking a more 'encouraging' and positive approach to help smokers.

Extending GHWs on other tobacco products

In the 2008 research there was a suggestion by stakeholders to extend GHWs to other tobacco products, particularly tobacco for water pipes and cigars sold individually.

The 2018 research findings support the implementation of this extension. For cigar smokers in particular, there was a clear avoidance practice because of the packaging. Many were buying products online for cost reasons but also to obtain branded packaging. As smoking premium cigars was not typically a daily occurrence for most participants, they believed themselves to be at low risk relative to users of other tobacco products. However, for those exposed to packaging, there was some recall and cognition. Some messaging (Not a safe alternative) can prompt further thoughts around cigar smoking. For consistency and overall reduction of appeal, the

GHW (and plain packaging) is likely to be contributing to overall decreased appeal of 'smoking'.

Integration of graphics in other media

The 2008 research also suggested integrating pack imagery in other media (e.g. TV) to reinforce the warning and heighten impact in general.

While it is not clear that this suggestion has been adopted, the 2018 research supports this approach. In addition to graphics, the associated stories or scenarios would have increased impact if reinforced beyond the GHW. This is particularly relevant for new concepts, diseases or reinforcement of 'facts'/'statistics' that may be disruptive.

Given believability of GHWs generally has dropped since 2008, the introduction of new messages may require further reinforcement from various channels to encourage acceptance of information.

The qualitative research found that Bryan (Lung cancer) had considerable media attention and discussion. Despite questions around credibility, this 'noise' does not appear to have detracted from the impact of this GHW with Bryan (Lung cancer) performing strongest on key evaluation criteria. This supports the concept of a triangulated or non-singular communication channel for messaging.

22 CONCLUSIONS AND FUTURE CONSIDERATIONS

The 2018 research finds that overall, GHWs continue to be a key mechanism for communicating health harms and increasing concerns around health. They are also contributing to thoughts and intention to quit. Additionally, coupled with other government interventions including cost increases, smoking restrictions and plain packaging, GHWs are contributing to decreased appeal of smoking overall.

More specifically the 2018 research finds that GHWs are:

- Salient (in particular the graphic component) and are attracting attention and being noticed
- Remembered and encoded in memory
- Contributing to health knowledge associated with tobacco use
- Contributing to perceived risks associated with tobacco use
- Generating affective (emotional) responses associated with tobacco use
- Contributing to decreasing brand/package appeal
- Leading to avoidance behaviours
- Contributing to cessation intentions for tobacco use
- To some extent contributing to cessation knowledge of tobacco use.

Many of the suggestions from the 2008 research which have been incorporated into the current GHW suite and design may have improved contributed to the overall impact, in particular:

- Addressing wear out through rotation and refreshing warnings
- Optimising images and associated text
- Increasing the size of the graphic and warning
- Introducing plain packaging/reducing brand elements
- Introducing new diseases with established links
- Consideration of the use of statistics in some explanatory texts
- Including quit messaging and Quitline
- Increasing personalisation of GHWs
- Extending and ensuring the consistency of packaging and health warnings across tobacco products.

These suggestions still stand in 2018. While integration of graphics in other media has yet to be implemented this can aid in reinforcement of new messaging and overall impact of GHWs. This is particularly relevant when introducing 'new' health harms or those that are less likely to be associated with smoking.

However, there are now signs of wear out of the existing suite and a lessening impact over time with many smokers and recent quitters claiming they 'don't take

any notice of the GHW' and that they 'paid more attention when the GHWs were first released'. Additionally, some GHWs are performing better than others; Bryan (Lung cancer), Foot (PVD/Gangrene), Teeth (Damages teeth and gums), Baby (Harms unborn), and Emphysema) while others are relatively weaker on the key criteria; Toilet (Kidney or Bladder cancer), Cynthia (Stroke), Toe-tag (Smoking kills). This is not to say the warning should be dismissed but rather that elements of the overall warning could be improved.

Based on the research findings amongst a range of cohorts, it appears that the impact of GHWs have generally lessened over time. Distal effects outlined in the Program Logic and Evaluation Framework (such as increasing prices of tobacco, on-location venue bans, decreased visibility of packaging and increased familiarity with the images) have all affected the impact of GHWs. That said, there is a general sense that there is a social shift away from smoking as a practice and among smokers there is a high level of desire to stop smoking.

The intermediate behavioural outcomes also suggest a lessening of impact in some key areas. For example, pack concealment appears to have decreased due to wear out but also there may be general concealment practices of smoking in general which is a positive outcome. Similarly, affective response also appears to have decreased overall.

Notwithstanding this general finding, the decline in the proximal outcomes of the overall suite has not impacted on all warnings equally. For example, the GHWs 'Baby', 'Tongue' and 'Bryan'; and to a lesser extent, 'Foot' and 'Emphysema' all demonstrate a higher level of impact than other options. In reviewing new imagery, the same aspects of relevance and salience apply with some new images more impactful than others—although the nature of the imagery being new and different also had a higher level of impact overall.

This report concludes that since the introduction of the current suite of GHWs, there has been lessening impact over time. It is timely to consider how future GHWs could be incepted and implemented in order to increase health knowledge of tobacco use and reduce prevalence in line with those achieved when the current suite came into effect on 1 December 2012.

Finally, while this report both analysed the existing images and explored a range of new images, we do not recommend that any of these in particular be retained or ceased. Rather, it may be timely to reconsider the range of health warning messages on tobacco products including images, warning statement and the written information.

There are specific suggestions to current GHWs within the suite:

Individual GHW	Suggestions for the future
Bryan (Lung cancer)	One of the most impactful GHWs. Could leverage story more broadly.
Foot (PVD/Gangrene)	One of the most impactful GHWs but can lack some credibility. Image salient however may need to bring message closer to perceived reality and simplify written message which has less recall.
Teeth (Damages teeth and gums)	One of the most salient and impactful GHWs. Image salient however may need to bring message closer to perceived reality
Baby (Harms unborn)	One of the most impactful and compelling GHWs.
Throat (Throat cancer)	Highly credible GHW but the image is less salient than its potential to impact. Message appropriate—graphic could be improved or refreshed.
Emphysema	Accepted but could improve cut-through and impact by extending the message and refreshing the image. Extending knowledge about emphysema would assist if this warning is to be used in future. i.e. one in four have signs of ...
Child (Others breathe)	Accepted but could improve cut-through and impact by extending the message and refreshing the image. Additional information that builds on the accepted fact should be offered along with a stronger or more disruptive image.
Heart (Heart disease)	Message appropriate—graphic could be improved or refreshed.
Tongue (Mouth cancer)	Highly credible GHW but the image is less salient than its potential to impact. Message appropriate—graphic could be improved or refreshed.
Toe-tag (Smoking kills)	Message is clear however the image is not supporting the overall message. Introducing hard hitting facts or a different angle on how smoking may impact quality of life could be considered.
Eye (Blindness)	One of the most salient GHWs however may need to bring message closer to perceived reality and relevance.
Ashtray (Quitting improves health)	One of the less impactful GHWs. This would be more effective if it included information that extends knowledge of how and why quitting will improve health and had an image that reflects this.

Cynthia (Stroke)	One of the less salient GHWs. Message appropriate—graphic could be improved or refreshed. Message may need to be supported beyond GHW to improve credibility.
Toilet (Kidney and Bladder cancer)	One of the less salient GHWs. Message appropriate—graphic could be improved or refreshed. Message may need to be supported beyond GHW to improve credibility.

Maintaining a suite of GHWs is imperative as it is evident from the research that audiences respond in varying ways with some individual GHWs having greater impact on different smoking cohorts and demographics.

APPENDICES

23 STAKEHOLDER CONSULTATION

Throughout the research process, individuals from a number of institutions working in the area of tobacco control and policy were consulted. These institutions included:

- University of Waterloo, Canada
- University of Otago, NZ
- Curtin University
- Cancer Institute
- Flinders University
- University of Sydney
- Cancer Institute NSW
- University of Adelaide
- The University of Newcastle
- The Cancer Council Victoria
- Li Ka Shing Knowledge Institute
- Centre for Behavioural Research in Cancer
- Aboriginal and Torres Strait Islander Health Epidemiology for Policy and Practice

24 QUANTITATIVE TECHNICAL REPORT

The survey launched on 6 June 2018 and closed on 19 June 2018. Respondents were recruited from online research panels as well as a student panel for 16-17 year old participants. Respondents aged 14-17 were recruited via parents sourced from the online research panels. Parental approval was sought for all participants under the age of 18 years.

The median length of the survey was 15.43 minutes and the average length was 21.59 minutes.

Data was weighted post data collection to the following population proportions sourced from the Australian Bureau of Statistics (ABS) 2016 Census of Population and Housing¹⁸.

Variable	Label	Target proportion
DIM1=GenAge	Male - 14	1%
DIM1=GenAge	Male - 15-19	4%
DIM1=GenAge	Male - 20-24	4%
DIM1=GenAge	Male - 25-29	4%
DIM1=GenAge	Male - 30-34	4%
DIM1=GenAge	Male - 35-39	4%
DIM1=GenAge	Male - 40-44	4%
DIM1=GenAge	Male - 45-49	4%
DIM1=GenAge	Male - 50-54	4%
DIM1=GenAge	Male - 55-59	4%
DIM1=GenAge	Male - 60-64	3%
DIM1=GenAge	Male - 65-69	3%
DIM1=GenAge	Male - 70-74	2%
DIM1=GenAge	Male - 75 +	4%

¹⁸ Australian Bureau of Statistics (ABS) 2016 Census of Population and Housing, Table builder data for AGE5P-Age in Five Year Groups by STATE (UR) and SEX Sex.

<https://auth.censusdata.abs.gov.au/webapi/jsf/dataCatalogueExplorer.xhtml>

DIM1=GenAge	Female - 14	1%
DIM1=GenAge	Female - 15-19	4%
DIM1=GenAge	Female - 20-24	4%
DIM1=GenAge	Female - 25-29	4%
DIM1=GenAge	Female - 30-34	4%
DIM1=GenAge	Female - 35-39	4%
DIM1=GenAge	Female - 40-44	4%
DIM1=GenAge	Female - 45-49	4%
DIM1=GenAge	Female - 50-54	4%
DIM1=GenAge	Female - 55-59	4%
DIM1=GenAge	Female - 60-64	3%
DIM1=GenAge	Female - 65-69	3%
DIM1=GenAge	Female - 70-74	2%
DIM1=GenAge	Female - 75 +	5%
DIM2=STATE	NSW	32%
DIM2=STATE	VIC	25%
DIM2=STATE	QLD	20%
DIM2=STATE	SA	7%
DIM2=STATE	TAS	2%
DIM2=STATE	WA	11%
DIM2=STATE	ACT	2%
DIM2=STATE	NT	1%
DIM3=INDG_1	No	97%
DIM3=INDG_1	Yes	3%
DIM4=SMOKE	No	86%
DIM4=SMOKE	Yes	14%

The tables below show the achieved sample sizes by demographics and location and their proportions or contribution to the sample after weighting.

Table 47: Quantitative sample profile – demographics

Demographics	Sample size (n=)	Weighted %
Total	2649	100
Male	1131	49
Female	1516	51
Other (specify)	2	0
14-15	67	3
16-17	66	3
18-24	345	11
25-34	609	17
35-44	486	16
45-54	396	16
55-69	512	20
70 plus	168	13
Indigenous	158	3
Non Indigenous	2491	97
CALD	617	21
Non CALD	2032	79

Table 48: Quantitative sample profile – location

Location	Sample size (n=)	Weighted %
Main city	1817	68
Other city (regional)	832	32
NSW - Metro	583	21
NSW - Regional	262	11
Victoria - Metro	506	20
Victoria - Regional	147	5
Queensland - Metro	276	11
Queensland - Regional	254	9
South Australia - Metro	176	5
South Australia - Regional	50	2
Tasmania - Metro	30	1
Tasmania - Regional	35	1
Western Australia - Metro	229	8
Western Australia - Regional	57	2
ACT - Metro	11	0
ACT - Regional	22	1

Northern Territory - Metro	6	1
Northern Territory - Regional	5	0

25 QUANTITATIVE SURVEY

INTRODUCTION

Essence Communications is conducting a survey on behalf of the Australian Government.

The information and opinions you provide will be treated as strictly confidential and will be used only for evaluation purposes. Your results will be grouped together with other respondents and your answers will not be traced back to you.

Depending on your answers, the survey should take around 15 minutes to complete. A time indicator will appear in the screen to show your progress through the survey. A progress bar will appear in the screen to show how far you are through the survey.

Essence Communications is an independent market research firm conducting research on behalf of the Australian Government. We adhere to the market research principles set by the Australian Market and Social Research Society and we abide by the principles of the *Privacy Act 1988*.

Thanks for your time and if you are ready to start the survey, please click on the button below.

INSTRUCTION SCREEN – SECOND SCREEN SHOWN:

Before we start, just a few simple instructions on completing this survey:

Instructions for each question will appear on screen. Most questions simply ask you to click in the appropriate box, or boxes corresponding to your answer.

After answering each question, a button at the bottom of the screen will take you to the next question.

A progress bar will appear in the screen to show how far you are through the survey.

Please consider your answers carefully; you cannot go back during the survey. Please DO NOT use the 'back' button on your internet browser.

Please stay in the survey until you are finished, do not switch between windows.

Please note that the survey closes at midnight on Monday, 25 June 2018.

SCREENER (KEY DEMOGRAPHICS AND TOBACCO USE AND ATTITUDES)

ASK ALL

S 1. What is your age?

Please type your age in years

NUMERICAL TEXT BOX

ASK ALL

S 2. Are you...?

Please select one response only

Male	1
Female	2
Other (specify)	3

ASK ALL

S 3. What is your postcode?

— — — —

DP TO MATCH TO LGA.

CREATE STATE/TERRITORY VARIABLE

CREATE MAJOR CITY, ETC REMOTE VARIABLE.

ASK ALL

S 4. Are you of Aboriginal or Torres Strait Islander origin?

Please select one response

No	1	
Yes - Aboriginal	2	INDIG
Yes - Torres Strait Islander	3	INDIG

Yes –Both Aboriginal and Torres Strait Islander	4	INDIG
---	---	-------

ASK ALL

S 5. Which of the following describe you ...?

Please select all that apply

I was born in a non-English speaking country	1	CALD
I recently migrated to Australia (5 or less years ago) from a non-English speaking country	2	CALD
I speak a language other than English at home/regularly	3	CALD
None of these	99	

ASSESS CURRENT USAGE

ASK CURRENT

S 6. Do you currently smoke or use any of the following? Please select all that apply

Cigarettes (manufactured/tailor made)	1	CURRENT
Roll your own tobacco	2	CURRENT
Cigarillos	3	CURRENT
Cigars	4	CURRENT
Pipe tobacco	5	CURRENT
Chop Chop	6	CURRENT
Bidis	7	OTHER
Shishas/Hookas/Nargillas/Waterpipe	8	OTHER
E-Cigarettes/Vaping	9	OTHER
Other sorts (specify)		
None of these		NON

IF MORE THAN ONE CURRENT:

S 7. IF CURRENT: Which of these would you consider the main type you smoke or use?

Please select one only.

SHOW LIST OF CURRENT.

[=MAIN]

ASK NON OR OTHER

S 8. In the last 10 years, have you smoked or used any of the following products?

Please select all that apply.

SHOW THOSE SELECTED IN S 6. Do you currently smoke or use any of the following?		
Cigarettes (manufactured/tailor made)	1	
Roll your own tobacco	2	
Cigarillos	3	
Cigars	4	
Pipe tobacco	5	
Chop	6	
Bidis	7	
Shishas/Hookas/Nargillas/ Waterpipe	8	
E-Cigarettes/Vaping	9	
Other sorts (specify)		
None of these		

IF EVER 1-9

ASSESS QUITTING

S 9. You mentioned you used to smoke/use tobacco products but do not currently.
When did you stop?

Please select one response only.

In the last 6 months	1	QUITX
In the last 7-12 months	2	QUITX
A year to 3 years ago	3	QUITX
4-6 years ago	4	QUITX
7-10 years ago	5	DISTANTQUITX
More than 10 years ago	6	DISTANTQUITX
Never really smoked – only occasionally (not had more than 100 cigarettes)	7	NONSMOKERX

ASK QUIT

S 10. Which of these would you consider the main type you smoked or used?

Please select one only.

SHOW LIST OF P10Y.

[=MAIN]

DP TO CLASSIFY FILTERS:

CURRENT=S6=1-6

QUIT="S8=1-6 AND QUITX"

NONSMOKE=REST OF SAMPLE

D24 NSDS.

ASK ALL

S 11. At the present time, do you consider yourself a...?

Please select one response only.

Non-smoker	1	
Ex-smoker	2	
Occasional smoker	3	
Light smoker	4	
Social smoker	5	

Medium smoker	6	
Heavy smoker	7	
Chain smoker	8	

BEHAVIOUR

ASSESS RECENCY OF TAKE UP

ASK SMOKE

Q 1. When did you start smoking/using tobacco products?

Please select one response only.

In the last 5 years	1	CAN CLASSIFY AS POST2012SMOKER
6-10 years ago	2	
More than 10 years ago	3	

ASSESS CONSUMPTION LEVEL

ASK SMOKE

Q 2.

IF CURRENT: Thinking about [MAIN], how many do you smoke or use?

IF QUIT: How many did you used to smoke/use?

Please select one response only and type in the number.

Daily (specify)	1	DAILY
Weekly (specify)	2	WEEKLY
Fortnightly (specify)	3	LESS THAN WEEKLY
Monthly (specify)	4	LESS THAN WEEKLY
Every 6 months (specify)	5	LESS THAN WEEKLY
Every year (specify)	6	LESS THAN WEEKLY

ASK ALL

Q 3. In a typical week, are you around others who smoke/use tobacco products?

Please select all that apply.

Yes, I live with smokers	1
Yes, my friends/family are smokers	2
Yes, people I work with	3
Yes, but no one I know directly (just people on the street)	4
Yes, but less often than a typical week	5
Other (specify)	
No, rarely around people smoking	9

ASSESS PACKAGING TYPE

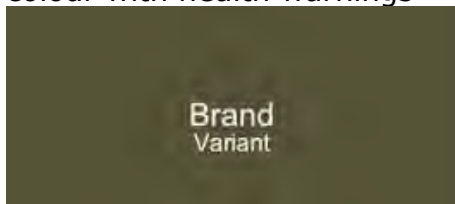
ASK CURRENT AND RECENTQUIT

Q 4.

IF CURRENT: Do the cigarettes/tobacco products you mainly smoke or use come in ...?

IF RECENTQUIT: When you last smoked, did the cigarettes/tobacco products you mainly smoke or use come in ...?

Please select one response only.

Plain packaging in one dark green/brown colour with health warnings 	
	1
Packaging in various branded colours, with logos and health warnings	2
Packaging in various branded colours and logos, without health warnings	3
Unbranded/clear packaging	4
No packaging	5
Other (specify)	
Not sure	

ASK IF WATERPIE

WP1. When using water pipe tobacco, are you...?

Buying your own tobacco for use in original packaging	1	
Buying from a cafe/shop and using on site where they provide the tobacco out of packaging	2	
Other (specify)		

ASK IF CIGAR

CG1. When buying cigars do you...?

Please select one response only.

Buy them in Australia	1	
Buy them online – imported from overseas	2	
Buy them overseas (in person)	3	
Other (specify)		

AWARENESS OF HEALTH RISKS

ASK ALL

Q 5. Off the top of your head, what do you think are health risks, harms or impacts from smoking?

Please type your response in the boxes below.

Q 6.

A. Which of these, if any, do you think are likely health risks, harms or impacts of smoking? SHOW HALF LIST RANDOM AND ROTATED

DP TO SHOW TWO COLUMNS

B. Which of these, if any, do you think are likely health risks, harms or impacts of smoking? SHOW OTHER HALF LIST RANDOM AND ROTATED

DP TO SHOW TWO COLUMNS

Lung cancer	1
Throat cancer	2
Mouth cancer	3
Teeth/gum disease	4
Heart disease	5
Emphysema	6
Asthma	7
Stroke	8
Oesophageal cancer	9
Poor outcomes after surgery	10
Peripheral vascular disease/poor circulation	11
Stomach cancer	12
Pancreatic cancers	13
Liver cancer	14
Infertility/Difficulty getting pregnant (for women)	15
Infertility/poor sperm (for men)	16
Kidney cancer	17
Peptic ulcers	18
Erectile dysfunction (in men)	19
Blindness	20
Bladder cancer	21
Diabetes	22
Issues with pregnancy	23
Harm to fetus/embryo/unborn babies	24
Gangrene	25
Blood clots/thickening	26
General poor health	27
Affects fitness	28
Harm to babies and children's health	29
Harm for others health	30
Bad breath	31
Difficulty in breathing	32
Smelling bad	33
Early signs of ageing/wrinkles	34
Death	35
Respiratory issues	36
Other (specify)	

None of these	
---------------	--

ASK ALL

Q 7. Where do you learn about the risk or harms to health from smoking?

Please select all that apply

SHOW LIST.

ROTATE.

Health warnings on tobacco packets (pictures, written warnings etc.)	1
Government advertisements on TV	2
Social media advertising	3
Press or radio advertising by pharmaceutical companies for products such as nicotine gum, patches or Bupropion (Zyban, etc.) and Varenicline (Champix)	4
Quitline	5
Talking to other people	6
Doctors /Nurses/Pharmacists/Medical professionals	7
School	8
TV shows	9
Documentaries	10
Course/Seminar	11
Information on an internet website	12
Pamphlets or brochures on how to quit	13
Quit smoking mobile device App	14
Local community advertising	15
Local community programs	16
Parents /family when growing up	17
Other (specify)	
None of these	

ASK ALL

Q 8. From which parts of the health warnings on tobacco packs, if any, have you learnt about the risks or harms to health?

Please select all that apply.

ROTATE

Graphic pictures	1
Written warning on the front of pack	2
Written warning on the side of the pack	3
Written warning on the back of the packs	4
Information about quitting on the pack	5
Not sure	
None of these	

ASK SMOKE

Q 9. Of the following, what would you be most concerned about for yourself personally?

Please select all that apply

SHOW THOSE SELECTED IN Q6.

+ OTHER SPECIFY

I'm not concerned about any of these

ASK SMOKE

Q 10. How has smoking affected your health?

Please type your response below.

ASK SMOKE

Q 11. How much would you say smoking has affected your health?

Please select one response only.

A lot (specify)	3	AFFECTED HEALTH
A fair amount	2	AFFECTED HEALTH
A little	1	AFFECTED HEALTH
Not at all	0	

ASK SMOKE

Q 12. How worried are you that smoking will affect your health in the future?

Please select one per statement.

Very worried	3
Worried	2
A little worried	1
Not worried	0

REACTIONS TO GHW

ASK NONSMOKE

Q 13. How often are you exposed to cigarette/tobacco packaging? That is, how often do you see packs of cigarettes/tobacco?

Please select one only.

(NOTE CONTROL FOR EXPOSURE VS. NON EXPOSURE)

Never	0
Rarely	1
Sometimes	2
Often	3

ASK ALL

Q 14. If you were asked to describe the packaging of cigarette/tobacco products to another person who has never seen them, how would you describe it?

What does it look like? What is on the pack?

Please write your responses in the box below. Please separate your response by commas. Please provide as much detail as possible.

PROVIDE 10 BOXES.

Have no idea

2008GHW

ASK SMOKE

essence Strategy, Research and Stakeholder Engagement

Q10. When you see health warnings or health information on a cigarette or tobacco pack, what emotions do you feel? What goes through your mind?

Please write your response in the boxes below.

PROVIDE 1 COMMENT BOX.

TEST GHW RECALL AND NOTICABILITY (SMOKING SAMPLE ONLY)

ASK SMOKE

Q 15. Thinking about the pictures on cigarette/tobacco packaging, what pictures can you recall?

Please write your response in each of the boxes below.

PROVIDE 14 BOXES.

ASK SMOKE

Q 16. Thinking about the types of written health warnings, what warnings can you recall?

PROVIDE 14 BOXES.

2008GHW

ASK ALL

Q 17. Would you say the inclusion of pictures and health information on cigarette/tobacco packs has improved your knowledge of the health effects of smoking...?

Yes, a lot	3
Yes, a little	2
No, made no difference	1
Don't know	
NOTE 2008 WORDING	

2008GHW

ASK ALL

Q 18. How effective are the pictures on packs at communicating the health effects of smoking?

Please select one response only.

Very effective	4
Somewhat effective	2
Not effective	1
Not sure	
NOTE CHANGED SCALE FROM 2008	

ASK ALL

Q 19. Overall, do you find the health warnings...?

Please select one response only.

Very believable	3
Somewhat believable	2
Not believable	1
Not sure	
NOTE CHANGED SCALE	

AVOIDANCE

2008 GHW, Wakefield

ASK SMOKE

Q 20. Thinking about packs of cigarettes/tobacco products, have you ever...?

Please select all that apply.

ROTATE	
Transferred cigarettes/ tobacco products into a different case	1
Concealed or hid a pack in some other way	2
Torn away the images/packaging	3

Asked for a pack with a different health warning/ image	4
None of these	

ASK CURRENT

Q 21. Do you currently...?

Please select all that apply.

ROTATE	
Transfer cigarettes/tobacco products into a different case	1
Conceal or hide the pack in some other way	2
Tear away the images/packaging	3
Ask for a pack with a different health warning/image	4
None of these	

2008GHW

ASK SMOKE

Q17. Thinking about your own behaviour, would you say the health warnings on cigarette/ tobacco packs have...?

Please select all that apply.

ROTATE.

2008	Raised your concerns about smoking	1
2008	Helped you smoke less	2
2008	Have helped you try to quit	3
2008	Helped you give up smoking (RECENT QUIT ONLY)	4
2008	Have made you think about quitting	5

2008	Have helped you stay smoke free/stay quit (RECENT QUIT ONLY)	6
	Led to you calling Quitline	7
	Led to you not having a cigarette/smoke	8
	Led to you not to buy or postpone buying another pack	9
	Led you to discuss/talk about one or more of the health warnings/images with others	10
	Led you to changing to a lower tar/nicotine cigarette/product	11
	Led you to reduce how much you smoke	12
	Not sure	
	None of these	

ASK ALL

Q 22. Here are some different statements about cigarette/tobacco packs, please indicate your level of agreement with each statement:

Please select one per statement.

ROTATE	ALL	CURRENT/QUIT	NON SMOKER
2008	Health warnings on cigarette/tobacco packs should be stronger /harsher		
2008		The health warnings on the packs makes/made me think about quitting	The health warnings on the packs would make people think about quitting

	I believe most people don't take any notice of the health warnings on cigarette/tobacco packs		
2008	I am more aware of the health effects of smoking because of health warnings on cigarette/tobacco packs		
2008	I think cigarette/tobacco packaging should have health warnings		
2008		I (have) worried more about the effects of smoking on my health because of the health warnings on cigarette/tobacco packs	I would worry more about the effects of smoking because of the health warnings on cigarette/tobacco packs
2018	I prefer the original/old packaging to what it is now [ASK ONLY TO PRE2012 SMOKERS]		

2018		I take more notice of the health warnings (picture, written warning) when they are new/first come out	

RESPONSE CODES

Strongly agree	5
Agree	4
Neither	3
Disagree	2
Strongly disagree	1
Don't know	99

ASK SMOKE

TEST SALIENCE (OTHERS)

Q 23. Do you ever read ...?

Please select one response only.

	The written information in the yellow box on the side of the pack	The written information on the back of the pack	The written information on the front of the pack
Never	1	1	1
Rarely	2	2	2
Sometimes	3	3	3
Often	4	4	4

TEST GHW RECOGNITION

FOR PACK IMAGES

cigar smokers: show cigar images only

ALL OTHERS – show cigarette images.

ASK ALL

Q 24. Here are some of the packs. For each one please indicate how often you see them?

SHOW PACK IMAGES.

DRAG AND DROP

DP TO SHOW OFTEN FIRST (AT TOP)

Often	4
Sometimes	3
Rarely	2
Never seen	1

ASK CURRENT

Q 25. Which of these do you consider to be likely to occur as a result of smoking/tobacco use?

ROTATE. SHOW PACK IMAGES. EXCLUDING

5. Others_child

8. Quitting_ashtray

Please select all that apply.

None of these.

ASK CURRENT

Q 26. Which of these do you consider to be unlikely to occur as result of smoking/tobacco use?

ROTATE. SHOW PACK IMAGES EXCLUDING THOSE SELECTED AS 'LIKELY'. AND

5. Others_child

8. Quitting_ashtray

Please select all that apply.

None of these.

2008 GHW

ASK ALL

Q 27. Which of these warnings on cigarette/tobacco packs do you think are the MOST effective at discouraging people from smoking?

Please select up to 5 responses.

ALL EXCEPT CIGAR: SHOW FULL SET CIGARETTE GHW

CIGAR: SHOW FULL SET CIGAR GHW

ROTATE

+ Not sure, None of these

2008GHW

ASK ALL WHO SELECTED AT LEAST ONE GHW

Q 28. Is that because of...?

Please select one.

REPEAT FOR EACH SELECTED HW IN EARLIER QUESTION. Please select one response only.

The picture	1
The written warning	2
The combination of the picture and written warning	3
Not sure	

2008GHW

ASK ALL

Q 29. Which of these warnings on cigarette/tobacco packs do you think are the LEAST effective at discouraging people from smoking?

Please select up to 5 responses.

ALL EXCEPT CIGAR: SHOW FULL SET CIGARETTE GHW

CIGAR: SHOW FULL SET CIGAR GHW

ROTATE

+ Not sure, None of these

ASK CURRENT

Q 30.

Are there any warnings where you feel the picture does not accurately depict the written health message?

SHOW ALL GHW.

Please select all that apply.

SHOW PACK IMAGES.

None of these

QUIT/RELAPSE INTENTIONS

QUIT INTENT

ASK CURRENT

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S9a. Which best describes you?

Please select one response only.

I don't think at all about quitting/stopping using tobacco products	1	COMMITTED
I have thought about quitting but not seriously and haven't cut down or tried to	2	COMMITTED
I have thought seriously about wanting to quit in the next 6 months but I haven't done anything yet	3	CONTEMPLATOR
I intend to quit in the next 6 months and am taking steps to do so	4	CONTEMPLATOR
I have tried quitting but keep starting again	5	CONTEMPLATOR
I am currently in the process of quitting/cutting down	6	CONTEMPLATOR
OTHER (specify)		ASSESS IF PLANNING TO QUIT OR COMMITTED AND ALLOCATE

CESSATION/QUIT REASONS

(D18 IN NDSHS)

ASK SMOKE

Q 31.

IF CONTEMPLATING: What are the main reasons you are thinking about quitting/stopping using tobacco products?

IF QUIT: Which of the following motivated you to try quitting or giving up smoking?

ROTATE

DP TO SHOW TWO COLUMNS.

Health warnings on tobacco packets	1
Government advertisements on TV	2
Social media advertising	3
Advertising in the community	4

Press or radio advertising by pharmaceutical companies for products such as nicotine gum, patches or Bupropion (Zyban, etc.) and Varenicline (Champix)	5
Hearing about /seeing ads for Quitline	6
Want to get fit/more fit	7
I am/was pregnant or planning to start a family	8
Affecting health or fitness	9
Doctors /Medical advice	10
Family and/or friends asked me to quit	11
Worry about it affecting the health of those around me	12
Cost-costs too much	13
Smoking restrictions in public areas (e.g. restaurants, sporting venues, public transport etc.)	14
Smoking restrictions in the car	15
Smoking restrictions in the work place/school	16
Information on an internet website	17
Pamphlets or brochures on how to quit	18
Quit smoking mobile device App	19
It is socially unacceptable people's judgement	20
Packaging is so unattractive	21
Feeling guilty	22
Seeing others around me quit	23
It's too hard to smoke nowadays	24
Attended a course/seminar	25
Hate the smell	26
Feeling socially awkward	27
Other (specify)	
None of these	

INDIGENOUS SAMPLE ONLY, SMOKE

Q 36. Are you aware of any local community initiatives that would provide you with information to assist in quitting?

Please select all that apply.

The "Don't make smokes your story" campaign	1
Health warning posters encouraging quitting displayed in medical practices	2
Posters on nicotine replacement therapy (NRT) or product information at pharmacies	3
Programs at your doctor/medical clinic encouraging you to stop	4
Other advertising/communications (specify)	5
Local community programs (specify)	6
Local Quit/cessation services (specify)	7
Other (specify)	
No, none of these	

IF AWARE OF LOCAL COMMUNITY PROGRAMS OR QUIT SERVICES

Q 37. Did you follow up/use/attend any of these services?

SHOW THOSE AWARE OF ABOVE

Please select all that apply

Did something after seeing the "Don't make smokes your story" campaign (specify)	1
Did something after seeing the health warning posters encouraging quitting displayed in medical practices/doctors (specify)	2

Did something after seeing the posters on nicotine replacement therapy (NRT) or product information at pharmacies (specify)	3
Took up advice/program at your doctor/medical clinic encouraging you to stop	4
Did something as a result of seeing the advertising/communications (specify)	5
Used/attended a local community program	6
Used/attended a quit/cessation service	7
Other (specify)	
No, didn't attend	

GENERAL ATTITUDES TO SMOKING/TOBACCO USE

ASK ALL

Q 38. Here are some different statements about smoking/tobacco products. Please indicate your level of agreement with each statement:

Please select one response per statement.

DP TO SPLIT SCREENS. ENSURE FONT SIZE IS LARGER

ROTATE	ALL	CURRENT/QUIT	NON SMOKER
2008	I don't think smoking has any real negative effect on my health at all		
2008		I think that smoking probably has/does increase the risk of a health problem occurring for me	I think that smoking probably does increase the risk of a health problem occurring

2008		If I'd known what I know now about the effects of smoking on health, I wouldn't have started smoking	Knowing what I know about the effects of smoking on health, I wouldn't smoke
2018	There is less communication or discussion around how smoking is bad for you than 5 years ago		
2018	Smoking is less acceptable than it was 10 years ago		
2018	Fewer people are smoking compared to 10 years ago		
2018	The health risks/harms from smoking are not as bad as they make out		
2018	I fully understand the risks/harms from smoking		
2018		I wish I could be a non-smoker/stop smoking	
2018		If I'd known what I know now about how addictive smoking is, I wouldn't have started smoking	Knowing what I know about how addictive smoking is, I wouldn't smoke

2018	The Government should have a role in reducing smoking/tobacco use		
2018	More people are wanting to quit/stop compared to 10 years ago		

RESPONSE CODES

Strongly agree	5
Agree	4
Neither	3
Disagree	2
Strongly disagree	1
Don't know	

ASK SMOKE

Q 38. Here are some other statements about smoking/tobacco products, please indicate your level of agreement with each statement:

Please select one per statement.

ROTATE	Strongly agree	Agree	Neither	Disagree	Strongly Disagree	Not sure
Roll your own cigarettes are less harmful than manufactured cigarettes	5	4	3	2	1	
'Light' cigarettes (those with longer filters, lighter colour variants) are less harmful	5	4	3	2	1	
Smoking even one cigarette a day can increase risks of diseases like heart attacks, stroke etc.	5	4	3	2	1	
The main harms from smoking is because of the chemicals present in cigarettes	5	4	3	2	1	
The main harms from smoking is through inhaling smoke/burning of the cigarette contents	5	4	3	2	1	
Smoking cigars are less harmful than cigarettes	5	4	3	2	1	

F1. Do you have any final comments regarding health warnings on cigarette/tobacco packaging?

Please type in your responses below.

FURTHER DEMOS

Finally a few questions to help us understand your background.

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ASK ALL

S 13. What is the highest level of education you have completed?

Primary school	1
Year 7 to Year 9	2
Year 10	3
Year 11	4
Year 12	5
Trade/apprenticeship	6
Other TAFE/Technical Certificate	7
Diploma	8
Bachelor Degree	9
Post-Graduate Degree	10
Other (Specify)	
(Prefer not to say)	

ASK ALL

S 14. Which one of these BEST describes your main occupation? Are you ...?

Please select all that apply

Working full time	1	
Working part time/casual	2	
Not working but looking for work	3	UNEMPLOYED
Not working (unable/opt not to work)	4	UNEMPLOYED
Home duties/parenting	5	
Student	6	
Retired	7	
Other		

ASK ALL

S 15. Which best describes your household living situation?

Please select one response only

Live on your own	1	
Living with parents	2	
Couple with children aged under 18 years	3	
Couple with children aged over 18 years	4	
Couple with no children	5	
Sharing with other adults	6	
Single with children aged under 18 years	7	
Single with children aged over 18 years	8	
Single with no children	9	
Other (specify)		

ASK SMOKE AND FEMALE

S 16. Are you currently pregnant or have been pregnant in the last 10 years?

Please select one response only

Yes, currently	1	PREG
Yes, previously in the last 10 years	2	PREVPREG
Yes, more than 10 years ago	3	PREVPREG
No	4	

ASK SMOKE AND FEMALE

S 17. Have the health warnings on pack had an impact on your smoking behaviour while pregnant?

Please select one response only.

Yes, (specify)	1	
No	2	

ASK ALL

S 18. What is your household income before tax (including superannuation contributions, commissions, salary sacrifice and any other automatic deductions)?

Please select one response only.

No income	1
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\$1 to \$37,000	2
\$37,001 - \$65,000	3
\$65,001- \$84,000	4
\$84,001 - \$130,000	5
\$130,001 - \$180,000	6
\$180,001 and over	7
Prefer not to say	

26 QUALITATIVE SAMPLE

Table 49: Qualitative approach and sample

Focus Group	Smoking behaviour	Cohort	SES	Market
1	Committed heavy smoker	n=1 group 16-18 year old females	White	Melbourne
2	Committed heavy smoker	n=1 group 40-65 year old males	Blue	Perth
3	Committed medium smoker	n=1 group 18-25 year old males	Blue	Geelong
4	Committed medium smoker	n=1 group Mothers with children	White	Toowoomba
5	Committed cigarillo smokers	n=1 group male/female cigarillo smokers of any age	Mixed	Sydney
6	Committed cigarillo smokers	n=1 group male/female cigarillo smokers of any age	Mixed	Melbourne
7	Light/social smoker	n=1 group 18-25 year old females	White	Sydney
8	Committed medium smoker	n=1 group 26-39 year olds no children	Mixed	Newcastle
9	Light/social smoker	n=1 group males and females 50-65	Blue	Melbourne
10	Contemplators (planning on quitting in next 1-6 months)	n=1 group 16-18 year old females	Blue	Toowoomba
11	Contemplators (planning on quitting in next 1-6 months)	n=1 group 16-18 year old males	White	Sydney
12	Contemplators (planning on quitting in next 1-6 months)	n=1 group 26-39 year old females (no children)	White	Melbourne
13	Contemplators (planning on quitting in next 1-6 months)	n=1 group 18-25 year old males	Blue	Adelaide
14	Contemplators (planning on quitting in next 1-6 months)	n=1 group mothers and fathers with children	Mixed	Perth
15	Contemplators (planning on quitting in next 1-6 months)	n=1 group 40-65 year old males and females	Blue	Traralgon
16	smokers (taken up since 2012 packaging changes)	n=1 group 16-18 year old males	Blue	Brisbane
17	smokers (taken up since 2012 packaging changes)	n=1 group 18-25 year old females	White	Bunbury

18	smokers (taken up since 2012 packaging changes)	n=1 group 18-25 year old males	Blue	Sydney
19	Recent Quitters (role of graphics in making them quit)	n=1 group 18-25 year old males and females	Blue	Western Sydney
20	Recent Quitters (role of graphics in making them quit)	n=1 group 26-39 year old males and females	White	Melbourne
21	Recent Quitters (role of graphics in making them quit)	n=1 group 40-65 year old males and females	Blue	Adelaide
22	Current non-smokers who are not rejectors of smoking and are at-risk of taking up	n=1 group 14-16 year old males	White	Brisbane
23	Current non-smokers who are not rejectors of smoking and are at-risk of taking up	n=1 group 14-16 year old females	Blue	Sydney
24	Committed heavy and medium smokers	n=1 group Indigenous males, of any age range	Blue	Alice Springs
25	Committed heavy and medium smokers	n=1 group Indigenous females, 18-35 year olds	Blue	Moree
26	Committed heavy and medium smokers	n=1 group Indigenous males, 40-60 year males	Blue	Brisbane
Depth Int. x 7	Committed premium cigar smokers	n=7 telephone interviews with premium cigar smokers	Mixed	Mixed
Depth Int. x 8	Smokers in remote areas	n=8 telephone interviews with smokers in remote areas across a range of ages and gender	Mixed	Mixed (across 4 states)

27 EYE TRACKING RESEARCH

For more information about the eye tracking see the full report see the companion document, Evaluating the Effectiveness of Graphic Health Warnings: An Eye Tracking Study, Griffith University, 2018¹⁹.

Data collection

Intercept sampling was conducted to recruit participants present at the location. Designated smoking areas, high traffic density areas, and shopping malls in greater metropolitan locations across Brisbane, Sydney and Melbourne were primary locations of recruitment. A total of 18 sites were visited for recruitment. Ten out of 18 sites were located in low SEIFA (Socio-Economic Indexes) (Australian Bureau of Statistics, 2018) areas. Griffith University ethical approval (GU Ref No: 2018/377) for this study was provided prior to commencement of data collection.

Sample

The target participants for this study were Australian smoker and non-smoking residents aged between 18 to 65 years old. A total of 419 participants completed the eye tracking experiment and post-survey and of those; 414 were used in the analysis. A total of 166 participants (40%) were smokers.

Study Measures

The experiment recorded participant's eye movements. Participants were instructed that they would have their eye movements tracked across a set of household goods; with the household goods (e.g. bread and milk) functioning as dummy information, to prevent priming study participants to the nature of the experiment. Two variables were collected: 1) Fixation count (number of times a participant looks at the designated areas of interest) and 2) Fixation duration (average length of time taken to look at an area) to calculate attention, being the sum of all duration fixations (total length of time looked at an area of interest). Areas of interest were defined around the warning labels for the software (Tobii Pro Studio) to determine where a participant looked at the GHWs. Two Tobii x2-60 eye trackers were used to collect attention data. After calibration of the tracker for participants, instructions were provided with six images – one of which was an in-market cigarette GHW. For each participant, one GHW was tested. Images were displayed individually for 20 seconds

¹⁹ Pham, Pang, Kitunen, Durl, Jeawon Rundle-Thiele, Evaluating the Effectiveness of Graphic Health Warnings An Eye Tracking Study, August 2018

before the image was changed automatically. The experiment ran for approximately two to three minutes. Fourteen treatments were developed for the experiment, reflecting the 14 current in-market GHWs. Table 50 presents a breakdown of participant allocation across the 14 GHWs tested.

Table 50. Eye-tracking participant allocation across GHWs

GHW sample sizes	Smokers	Non-smokers
1 (Baby)	10	17
2 (Eye)	10	19
3 (Bryan)	15	12
4 (Tongue)	11	15
5 (Foot)	14	17
6 (Emphysema)	13	18
7 (Ashtray)	15	17
8 (Teeth)	11	17
9 (Throat)	10	25
10 (Heart)	9	23
11 (Toilet)	11	15
12 (Death)	13	17
13 (Cynthia)	11	18
14 (Child)	13	18
Total	166	248

Upon the completion of the experiment, participants were debriefed and asked to fill out an 18-question survey about the GHWs they were shown. Participants were asked to recall any components of the GHW packaging, emotional response to the GHWs and believability of GHWs. Smokers were asked additional questions regarding tobacco products currently or previously used, message avoidance (if any), daily tobacco consumption, concern about smoking effects on health and intentions to quit (smokers only). Demographic questions of gender, age, employment status, education background and postcode were also recorded.

Eye tracking analysis

Study analysis was performed with IBM SPSS v25 statistics package. Descriptive statistics across the combined sample, as well as smoker and non-smoker participants were conducted. Where appropriate, Chi-square, T-test/ANOVA and Linear/Logistic regressions were conducted for the study to examine the relationship between GHW attention and evaluation outcome measures of interest (e.g. believability).